

Self Study Report (SSR)
For NAAC Accreditation of
AJAY KUMAR GARG ENGINEERING COLLEGE
Submitted to



**NATIONAL ASSESSMENT AND ACCREDITATION
COUNCIL**



By



AJAY KUMAR GARG ENGINEERING COLLEGE
27th Km. Stone, Delhi-Hapur Bypass Road, P.O. Adhyatmik Nagar,
Ghaziabad, U.P. -201009
(Affiliated to Uttar Pradesh Technical University, Lucknow, U.P.)

1. Profile of the Affiliated / Constituent College

2. Name and Address of the College:

Name :	Ajay Kumar Garg Engineering College		
Address :	27 th Km Stone, Delhi-Hapur Bypass Road, Adhyatmik Nagar		
City : Ghaziabad	Pin : 201009	State : Uttar Pradesh	
Website :	www.akgec.org		

2. For Communication:

Designation	Name	Telephone with STD code	Mobile	Fax	Email
Director	Dr. R.K. Agarwal	O:0120-2762841 R:	9313321455	0120-2761844	directorakg@akgec.org
Vice Principal	NA	O: R:			
Steering Committee Co-ordinator	Dr. P.K. Chopra	O: 0120-2762841 R:	9350023027	0120-2761846	akgecplacements@gmail.com

3. Status of the Institution:

Affiliated College	<input checked="" type="checkbox"/>
Constituent College	<input type="checkbox"/>
Any other (specify)	<input type="checkbox"/>

4. Type of Institution:

a. By Gender	
i. For Men	<input type="checkbox"/>
ii. For Women	<input type="checkbox"/>
iii. Co-education	<input checked="" type="checkbox"/>

b. By Shift	
i. Regular	<input checked="" type="checkbox"/>
ii. Day	<input type="checkbox"/>
iii. Evening	<input type="checkbox"/>

5. It is a recognized minority institution?

Yes
 No

If yes specify the minority status (Religious/linguistic/ any other) and provide documentary evidence.

6. Sources of funding:

Government
 Grant-in-aid
 Self-financing
 Any other

7. a. Date of establishment of the college: 16/06/1998 (dd/mm/yyyy)

b. University to which the college is affiliated /or which governs the college (If it is a constituent college)

c. Details of UGC recognition: N/A

Under Section	Date, Month & Year (dd-mm-yyyy)	Remarks(If any)
i. 2 (f)		
ii. 12 (B)		

(Enclose the Certificate of recognition u/s 2 (f) and 12 (B) of the UGC Act)

d. Details of recognition/approval by statutory/regulatory bodies other than UGC (AICTE, NCTE, MCI, DCI, PCI, RCI etc.)

Under Section/ clause	Recognition/Approval details Institution/Department Programme	Day, Month and Year (dd-mm-yyyy)	Validity	Remarks
i.	AICTE	First Approval Dated 16-06-1998 Latest Approval Dated 19-03-2013	For the academic session 2013-14	
ii.				
iii.				

(Enclose the recognition/approval letter) Will be produced during the visit

8. Does the affiliating university Act provide for conferment of autonomy (as recognized by the UGC), on its affiliated colleges?

Yes No

If yes, has the College applied for availing the autonomous status?

Yes No

9. Is the college recognized

a. by UGC as a College with Potential for Excellence (CPE)?

Yes No

If yes, date of recognition: (dd/mm/yyyy)

b. for its performance by any other governmental agency?

Yes No

If yes, Name of the agency UPTU* and

Date of recognition: 18/05/2009 & 29/07/2010 (dd/mm/yyyy)

*Recognized by UPTU as the “Best Engineering College” and awarded trophy by HE the governor of UP.

10. Location of the campus and area in sq.mts:

Location *	Rural
Campus area in sq. mts.	40 Acres (1,61,876 Sqm)
Built up area in sq. mts.	79,746 Sqm

(* Urban, Semi-urban, Rural, Tribal, Hilly Area, Any others specify)

11. Facilities available on the campus (Tick the available facility and provide numbers or other details at appropriate places) or in case the institute has an agreement with other agencies in using any of the listed facilities provide information on the facilities covered under the agreement.

- Auditorium/seminar complex with infrastructural facilities
- Sports facilities
 - * play ground
 - * swimming pool
 - * gymnasium

- Hostel
 - * Boys' hostel
 - i. Number of hostels : 03
 - ii. Number of inmates: 915
 - iii. Facilities (mention available facilities): Wi-Fi, Gym, Sport Facilities, Medical Facilities, Recreation room, Power Backup, Solar Water Heater, Library, General store, Canteen etc.
 - * Girls' hostel
 - i. Number of hostels: 03
 - ii. Number of inmates: 576
 - iii. Facilities (mention available facilities): Wi-Fi, Power Backup, Medical Facilities, Recreation room, Sport Facilities, Solar Water Heater, Library, General store and Canteen etc.
 - * Working women's hostel **N/A**
 - i. Number of inmates
 - ii. Facilities (mention available facilities)
- Residential facilities for teaching and non-teaching staff (give numbers available — cadre wise) 18 Faculty quarter are available.
- Cafeteria — 03
- Health centre – 01

First aid, Inpatient, Outpatient, Emergency care facility, Ambulance.....
 Health centre staff –

Qualified doctor	Full time	9	Part time	12
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Qualified Nurse	Full time	14	Part time	Nil
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- Facilities like banking, post office, book shops: ATM and Book Shop are available.
- Transport facilities to cater to the needs of students and staff

The college has 02 owned and 06 hired coaches for transporting staff and students. 07 light vehicles and 01 ambulance are also available in the College.

- Animal house: Nil
- Biological waste disposal: Yes
- **Generator or other facility for management/regulation of electricity and voltage**

The campus is powered with a 1445 KVA of electricity lease line from UP State Electricity Board. The independent feeder line has also been installed and commissioned. The college also has eight diesel generators with a combined capacity of nearly 2165 KVA connected to different complexes. These provide stand-by generating capacity to meet entire requirement of the campus including labs and air-conditioning load.

- Solid waste management facility: Yes
- Waste water management: Yes
- Water harvesting: Yes

12. Details of programmes offered by the college (For the year 2013-14)

Sl. No.	Programme Level	Name of the Programme/ Course	Duration	Entry Qualification	Medium of instruction	Sanctioned/ approved Student strength	No. of students admitted
	Under-Graduate	B.Tech.(CSE)	4 years	12 th Pass	English	180	186*
		B.Tech. (Civil Engg.)	--do--	--do--	--do--	60	61*
		B.Tech. (ECE)	--do--	--do--	--do--	180	185*
		B.Tech. (EN)	--do--	--do--	--do--	120	121*
		B.Tech.(E&I)	--do--	--do--	--do--	60	42*
		B.Tech. (IT)	--do--	--do--	--do--	120	111*
		B.Tech.(ME)	--do--	--do--	--do--	180	188*
	Post-Graduate						
		M.Tech. (A&R)	2 years	B.Tech./BE Pass	English	18	9
		M.Tech.(CSE)	--do--	--do--	--do--	24	22
		M.Tech.(ECE)	--do--	--do--	--do--	18	12
		M.Tech. (EP & ES)	--do--	--do--	--do--	18	10
		M.Tech.(ME)	--do--	--do--	--do--	18	Nil (To be started w.e.f. 2014-15)
		M.Tech.(VLSI Design)	--do--	--do--	--do--	18	10

* Including additional tuition fee waiver (TFW) students

13. Does the college offer self-financed Programmes?

Yes No

If yes, how many?

14. New programmes introduced in the college during the last five years if any?

Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	Number	07 (02 UG, 05 PG)
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15. List the departments: (respond if applicable only and do not list facilities like Library, Physical Education as departments, unless they are also offering academic degree awarding programmes. Similarly, do not list the departments offering common compulsory subjects for all the programmes like English, regional languages etc.) N/A

Faculty	Departments (eg. Physics, Botany, History	UG	PG	Research
Science				
Arts				
Commerce				
Any Other (Specify)				

16. Number of Programmes offered under (Programme means a degree course like BA, BSc, MA, M.Com...)

- a. annual system
- b. semester system
- c. trimester system

17. Number of Programmes with N/A

- a. Choice Based Credit System
- b. Inter/Multidisciplinary Approach
- c. Any other (Specify and provide details)

6. Does the college offer UG and/or PG programmes in Teacher Education?

Yes No

If yes,

- a. Year of Introduction of the programme(s)..... (dd/mm/yyyy)
and number of batches that completed the programme

- b. NCTE recognition details (if applicable)

Notification No.:

Date: (dd/mm/yyyy)

Validity:.....

- c. Is the institution opting for assessment and accreditation of Teacher Education Programme separately?

Yes No

19. Does the college offer UG or PG programme in Physical Education?

Yes No

If yes,

a. Year of Introduction of the programme(s)..... (dd/mm/yyyy)

and number of batches that completed the programme b.

NCTE recognition details (if applicable)

Notification No.:

Date: (dd/mm/yyyy)

Validity:.....

c. Is the institution opting for assessment and accreditation of Physical Education Programme separately?

Yes No

20. Number of teaching and non-teaching positions in the Institution

Positions	Teaching faculty						Non-teaching staff		Technical staff	
	Professor		Associate Professor		Assistant Professor		*M	*F	*M	*F
	*M	*F	*M	*F	*M	*F	*M	*F	*M	*F
Sanctioned by the UGC / University / State Government <i>Recruited</i>	24		191				As required		As required	
<i>Yet to recruit</i>	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil
Sanctioned by the Management/ society or other authorized bodies <i>Recruited</i>	25	01	06	02	101	85	42	16	51	1
<i>Yet to recruit</i>	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil

*M-Male *F-Female

21. Qualifications of the teaching staff:

Highest qualification	Professor		Associate Professor		Assistant Professor		Total
	Male	Female	Male	Female	Male	Female	
Permanent teachers							
D.Sc./D.Litt.							
Ph.D.	17	01	01	01	12	10	42
M.Phil.					02	03	05
PG	08		05	01	71	61	146
UG					17	10	27
Temporary teachers: NA							
Ph.D.							
M.Phil.							
PG							
Part-time teachers: NA							
Ph.D.							
M.Phil.							
PG							

22. Number of Visiting Faculty /Guest Faculty engaged with the College.

NIL

23. Furnish the number of the students admitted to the college during the last four academic years.

Categories	Year 1 (2013-14)		Year 2		Year 3		Year 4	
	Male	Female	Male	Female	Male	Female	Male	Female
SC	103	33	91	31	77	20	100	21
ST	4	1	5	2	3	0	7	3
OBC	183	43	149	45	124	31	127	33
General	456	137	400	152	349	135	293	127
Others	-	-	-	-	-	-	-	-

24. Details on students enrollment in the college during the current academic year (2013-14):

Type of students	UG	PG	M. Phil.	Ph.D.	Total
Students from the same state where the college is located	851	56	NA	NA	907
Students from other states of India	43	10	NA	NA	53
NRI students	NA				
Foreign students	NA				
Total	894	66			960

25. Dropout rate in UG and PG (average of the last two batches)

UG PG

26. Unit Cost of Education

(Unit cost = total annual recurring expenditure (actual) divided by total number of students enrolled)

(a) including the salary component

Rs. 83,834

(b) excluding the salary component

Rs. 32,617

27. Does the college offer any programme/s in distance education mode (DEP)?

Yes No

If yes,

a) is it a registered centre for offering distance education programmes of another University

Yes No

b) Name of the University which has granted such registration.

c) Number of programmes offered

d) Programmes carry the recognition of the Distance Education Council.

Yes No

28. Provide Teacher-student ratio for each of the programme/course offered: 1:15

29. Is the college applying for

Accreditation : Cycle 1 Cycle 2 Cycle 3 Cycle 4

Re-Assessment:

(Cycle 1 refers to first accreditation and Cycle 2, Cycle 3 and Cycle 4 refers to re- accreditation)

30. Date of accreditation* (applicable for Cycle 2, Cycle 3, Cycle 4 and re-assessment only)
N/A

Cycle 1: (dd/mm/yyyy) Accreditation Outcome/Result..... Cycle
2: (dd/mm/yyyy) Accreditation Outcome/Result..... Cycle 3:
..... (dd/mm/yyyy) Accreditation Outcome/Result.....

* **Kindly enclose copy of accreditation certificate(s) and peer team report(s) as an annexure.**

31. Number of working days during the last academic year.

275 (Approx)

32. Number of teaching days during the last academic year

(Teaching days means days on which lectures were engaged excluding the examination days)

200 (Approx)

33. Date of establishment of Internal Quality Assurance Cell (IQAC)

IQAC: (28/11/2000)

34. Details regarding submission of Annual Quality Assurance Reports (AQAR) to NAAC. N/A

AQAR (i) (dd/mm/yyyy)

AQAR (ii) (dd/mm/yyyy)

AQAR (iii) (dd/mm/yyyy)

AQAR (iv) (dd/mm/yyyy)

35. Any other relevant data (not covered above) the college would like to include.
(Do not include explanatory/descriptive information)

- Recipient of “**Academic Excellence Award**” from H.E. the Governor of U.P for two successive years for Best Engineering College (including Government Colleges) in UPTU.
- Recipient of National UP Education award for “**Best Self Financed Institution**” from the Hon’ble Technical Education Minister, U.P.
- Recipient of National UP Education award for “**Best Industry Interface**” from the Hon’ble Minister of Science & Technology, U.P.

- Consistently best results with 4 Gold, 3 Silver and 2 bronze medalists from the College in University merit list 2013-14.
- First and the only Engineering College in U.P. to get approval from Deptt. of Science & Technology, Govt of India for establishment of a Centre of Relevance & Excellence (CORE) in Industrial Automation & Robotics under mission REACH of TIFAC.
- First and the only Engineering College in India to set up an Industrial Robotics Training Centre in collaboration with KUKA Robotics of Germany. The training and certification are internationally recognized and valid.
- First Engineering College in U.P. to set up a Virtual Lab for remote experimentation in collaboration with IIT Delhi under the National Mission on Education through Information & Communication Technology (NME-ICT) of Ministry of HRD, Govt. of India.
- First Engineering College in U.P. to setup Lab VIEW Academy in collaboration with National Instruments. The Academy conducts industry relevant trainings and research in Data Acquisition & Control, Embedded systems and Mechatronics as well as undertake applied Research and Development. The Academy has to its credit 127 CLAD certificated students / faculty.
- First and only centre of competence in U.P. in Automation Technologies established in collaboration with Bosch Rexroth. The centre has state-of-art training facilities in Hydraulics, Pneumatics, Sensorics, PLC, Drive & Control and Mechatronics.
- The only institution in U.P. to establish Product Life cycle Management (PLM) Centre of Excellence in collaboration with Siemens
- Centre for integrated Automation under the Campus Connect Programme of Automation Industries Association.
- Industrial pneumatics knowledge centre in Collaboration with Janatics India Ltd. The centre is approved as Training-cum-incubation centre (TIC) by the National Small Scale Industries Corporation (NSIC).

CRITERION I: CURRICULAR ASPECTS

1.1 Curriculum Planning and Implementation

1.1.1 State the vision, mission and objectives of the institution, and describe how these are communicated to the students, teachers, staff and other stakeholders.

Institute Vision: To introduce undergraduate and post graduate courses for all Engineering Branches and award of Ph.D degree. To be one of the best Engineering Colleges in the country and to be a Deemed University.

Institute Mission: We strive to provide and maintain academic environment & systems, enabling maximum learning to produce competent professionals. We also aim at achieving this through transparent academic and administrative policies in the college. We intend to provide conducive atmosphere for research, development and consultancy services to our faculty at national and international level.

Quality Objectives: Following are the quality objectives of the institute:

- Betterment of Examination Results
- Enhancement of Participation in learning process
- Enhancing Personality of Students
- Betterment of Library Facilities
- Betterment of placement of students

The vision, mission and objectives of the institution are communicated to students, teachers, staff and other stakeholders through the following methods:-

1. Display at the Director Office
2. Display on the college website
3. Display at department office/library
4. Display at HoD Office
4. Display at the Training and Placement Office

The academic bodies conduct periodic meetings so that the same may never be lost sight of.

1.1.2 How does the institution develop and deploy action plans for effective implementation of the curriculum? Give details of the process and substantiate through specific example(s).

The institution has developed various plans for effective monitoring of the curriculum. In this direction, the institution has developed an ISO monitoring system which is implemented at the departmental level. Under this model, finite processes are followed and effectively practiced. Details of these processes are as follows:

1. Every department has defined its specific Vision and Mission in tune with the institution Vision and Mission.

2. Program Education Objectives (PEO's) are formed in consultation with management, faculty members, students, technical staff, stakeholders (alumni, parents, employers etc). These are redefined from time to time on the basis of feedback received from various entities.

3. Each program of the department is elaborated in terms of Program Outcomes which are aligned with graduate attributes. Furthermore, Course Outcomes(CO'S) for every subject taught are formed by individual faculty members.

4. A matrix representing the correlation between the Course Outcomes and Program Outcomes is established .Various degrees of matching are defined and elaborated with the aid of a colour bar diagram. Through this technique, contribution of a course/subject to a curriculum can be ascertained diagrammatically.

1.1.3 What type of support (procedural and practical) do the teachers receive (from the University and/or institution) for effectively translating the curriculum and improving teaching practices?

Following procedural and practical support is provided by the institution and university for effective translation of the curriculum and improving teaching practices:

1. Infrastructural support:

The institution provides excellent infrastructural support both in terms of classrooms, labs and other amenities like faculty cabins etc.

All Class rooms are equipped with LCD projection systems, LCD screens, USB ports for laptop connectivity, Wireless audio systems and green board. These facilities enhance lecture delivery and effective communication. Besides this each faculty member has an ISO file which contains detailed notes, previous year question papers that are distributed and discussed with students at length. To supplement this process, tutorials are conducted on weekly basis to rectify any gaps in understanding.

2. Administrative support:

The institution approves the budget projected by a particular department. All requirements related to procurement of equipment and components to enhance the quality of labs are readily approved by the administration.

Besides this all amenities such as electricity backup, water supply, cleanliness and maintenance of campus is accomplished by administration.

3. Central computing facilities:

The institution has provided an internet lab with sufficient number of terminals. Besides this there is a central library which has abundance of books and sufficient volume of journals, technical magazines etc. Apart from this every department has its own library.

4. Faculty Development Programme:

The university and institution conducts various FDP's from time to time both at institutional and departmental level for upgrading the technical knowledge of faculty members as per current trends in technology.

5. Course Delivery Modules:

The institution has procured softwares which includes a complete course package having three dimensional audio-video representations of various topics to be taught by a faculty member. This improves the overall understanding of the students.

6. University Support

Portal: The University has developed a portal which includes the course curriculum, syllabus, notices and other official details. Through this portal the university interacts with various institutes for various academic issues.

1.1.4 Specify the initiatives taken up or contribution made by the institution for effective curriculum delivery and transaction on the Curriculum provided by the affiliating University or other statutory agency.

The institution is making following special efforts for the professional development of its faculty to facilitate effective curriculum delivery:

1. Detailed lecture-wise schedule and course material (preferably hand written notes) are prepared by the faculty for the subject allotted to them.
2. Modern teaching aids such as projectors with computer connectivity and audio-systems with microphone are provided in every classroom.
3. The attendance registers are inspected closely and thoroughly by the Head of the department once in a month to check teaching schedules and number of lectures delivered.
4. Regular meetings are conducted by the HOD with the faculty members to ensure coverage of topics as per syllabus.
5. Faculty is encouraged to pursue PhD programs and/or encouraged to take up the research work individually or in collaboration for improving their professional skills.
6. All the faculty members of various departments are encouraged to participate in National/International Conferences, Seminars, Training Programs, and also to organize National/International Conferences. Furthermore, faculty members are encouraged to publish their research findings in National and International journals.
7. Study leave is extended to faculty members who wish to pursue PhD programs.

8. Self-learning mode, modules with Computer based Training and CDs are available in library which enhances the knowledge bank of the faculty members. Additional initiatives taken by the institution for effective curriculum delivery are listed below:
- Virtual lab
 - Video lectures and presentation with NPTEL
 - Department Library and Central Library
 - EDUSAT
 - Software Development Center (SDC), various centers established under TIFAC-CORE are KUKA Robotics, Lab View (NI) and Automation Technology (BOSCH-REXORTH) provides opportunities to students to get industry relevant trainings and competence building beyond curriculum.

1.1.5 How does the institution network and interact with beneficiaries such as industry, research bodies and the university in effective operationalisation of the curriculum?

- Regular feedback is obtained from the employers about the alumni of the college employed by them. The aspects of curriculum and needs of training are also covered in the feedback.
- Feedback is obtained from the parents of the graduates of the college. The aspects of curriculum and needs of training are also covered in the feedback.
- Regular feedback is obtained from the alumni of the college. The aspects of curriculum and needs of training are also covered in the feedback.
- Feedback obtained is analyzed and necessary action is taken to communicate the modifications required in the curriculum to the university.

Industry:

The college has set up a Training and Placement cell which maintains professional relations with the representatives of industry. The HR managers of various companies are invited to the college campus to interact with the students. Reputed industries are conducting in-campus recruitment programs on a wider scale.

Research Bodies:

To keep the research component alive in the campus, the faculty members of the college are motivated to take up research projects. Faculty members on their own also keep on interacting with various research bodies and participate in research projects of diverse domain. Most of the faculty members are research fellows of the professional bodies like IEEE, IETE, ISTE .They are regularly attending conferences, seminars, workshops etc offered by these bodies which in turn helps them in self growth and in turn disseminate to students.

University:

The faculty members of the college keep regularly interact with their counter parts at the affiliating university and get latest information regarding subjects taught by them. They keep on visiting the University Portal from time to time to keep themselves abreast of the latest changes in syllabus. Furthermore, Professors and speakers from industries are invited for delivering lectures of current significance. They are made to interact with the faculty and students in a question-answer session. This facilitates understanding of current technological developments and understanding of practices in the corporate sector at large.

1.1.6 What are the contributions of the institution and/or its staff members to the development of the curriculum by the University?(number of staff members/departments represented on the Board of Studies, student feedback, teacher feedback, stakeholder feedback provided, specific suggestions etc.

The institution is affiliated to Uttar Pradesh Technical University and follows the syllabus prescribed by the same. The syllabus undergoes modification from time to time in line with technological advancements .This upgradation is conducted in consultation with the members of the BOS, which includes experts from education and industry offering their expert opinion in this direction.

Certain professors of the institution form a participating member in BOS which form a vital component in designing /redesigning of course curriculum. These members from the institution act on their experience in their respective domains and feedbacks collected from students and stakeholders.

College Professors are members of BOG (Board of Governors), Chairman of BOS (Board of Studies) for Automation & Robotics and members of BOS for ECE, CSE, EN, ME (as applicable)

- (i) Dr. R.K. Agarwal, Director ----- Member of BOG
- (ii) Prof. M.P. Dave----- Member of BOS
- (iii) Prof. P.K. Chopra----- Member of BOS
- (iv) Prof. B.M. Kalra----- Member of BOS
- (v) Dr. Sunita Yadav----- Member of BOS

1.1.7 Does the institution develop curriculum for any of the courses offered (other than those under the purview of the affiliating university)by it? If ‘yes’, give details on the process (‘Needs Assessment’, design, development and planning) and the courses for which the curriculum has been developed.

The institution is affiliated to Uttar Pradesh Technical University. Any changes /upgradation in the curriculum are solely handled by the university in consultation with members of BOS and BOG and suggestions incorporated from affiliated institutions through postal communication.

1.1.8 How does institution analyze/ensure that the stated objectives of curriculum are achieved in the course of implementation?

All the academic programs although developed by the University are in line and tune with the institutional goals and objectives. The curricula, prepared by the university, are always done in consultation with the academicians and technical experts selected from industry, keeping in view the requirements of both the industry and society. This enables the graduates of AKGEC to fulfill the demands of the competitive market for employability both at national and international level.

The curriculum includes courses relating to energy, environment and ecology as a part of their syllabus as core subjects. Further, the students of the college are encouraged to participate in various programs like Go-green and plantation programs, blood donation programme. In order to have value orientation and to increase the career opportunities the students are trained in pre-placement training and soft skill programs. Institute offers PDP classes to all students and CCP (Campus Connect Program) classes to Infosys selected students. The purpose of these activities is to groom the students to stand in the competitive global market in their respective fields.

Regular feedback is taken from all the stake holders such as the employers, alumni, parents, students to assess the extent to which the Program Objectives are met. The important bodies of the institute such as governing body and academic committees take necessary corrective actions.

1.2 Academic Flexibility

1.2.1 Specifying the goals and objectives give details of the certificate/diploma/ skill development courses etc., offered by the institution.

Following objectives/goals are broadly followed by all departments across the institution:

- To conduct one National Conference in an academic year.
- To conduct a workshop / training for faculty (inside or outside) once in a year.
- To organize at least one guest lecture every month in each semester.
- To motivate the students to go for higher qualification.
- To encourage faculty to attend workshops every year.
- To organize industrial visits for III & IV year students.
- To organize technical seminars for IV year students.
- To conduct national level technical meet for students under IETE students chapter.
- To ensure that more than 70% of students are placed in reputed companies.
- To ensure that 15% of the students participate in presenting papers.

1.2.2 Does the institution offer programmes that facilitate twinning/dual degree? If 'yes', give details.

No.

1.2.3 Give details on the various institutional provisions with reference to academic flexibility and how it has been helpful to students in terms of skills development, academic mobility, progression to higher studies and improved potential for employability.

- Range of Core /Elective options offered by the University and those opted by the college
 - Choice Based Credit System and range of subject options
 - Courses offered in modular form
 - Credit transfer and accumulation facility
 - Lateral mobility within and across programmes and courses
 - Enrichment courses
-
- The syllabus and curriculum is designed by the University. However for an enhancement of curriculum, university invites proposals from various affiliating institutes. This includes review/modification of existing syllabus, introduction of new subjects of current technological significance. Our institute plays a vital role in these matters.
 - In every programme at third and fourth year level, a certain number of subjects are floated as electives and remaining are core subjects as per university curriculum. Core subjects are considered essential and basic requirement of that branch of study.
 - Subjects that are specialized and application type are offered as electives. Supportive/ancillary curriculum such as PDP (Personality Development programme) and Campus connect programmes are added to maintain a perfect balance ensuring the comfort and connectivity in learning new process.
 - Allied courses in the form of inter disciplinary subjects are offered in each of the programmes depending on the requirement.
 - Laboratory associated with these subjects are undertaken to broaden the horizon of understanding.
 - On an average in a semester each students has to undergo four labs (with credit 1 and 2 hours / week for each lab). In each semester, viva-voca for labs is conducted both at college (internal assessment) and University level (external assessment). This serves as a reference platform for an appropriate project selection at the final year level.
 - Additional Topics indicated have been identified by the concerned faculty coordinators teaching a particular subject. These additional topics have been included in the lecture wise schedule (ISO files) and syllabus monitoring files. These files are validated by the ISO team at the time of submission of ISO files of the previous semester and upcoming semester.
 - Project Work, Mini Project, Seminar & Comprehensive Viva-Voce is compulsory in the final year of the B.Tech programme so that the students would acquire skills to solve problems independently.
 - This knowledge goes a long way and helps in the job selection process. This meets our aim to confer with global requirements.

1.2.4 Does the institution offer self-financed programmes? If ‘yes’, list them and indicate how they differ from other programmes, with reference to admission, curriculum, fee structure, teacher qualification, salary etc.

Ajay Kumar Garg Engineering college is established as a self financed institution

1.2.5 Does the college provide additional skill oriented programmes, relevant to regional and global employment markets? If ‘yes’ provide details of such programme and the beneficiaries.

Following skill development initiatives are undertaken over and above the engineering curriculum:

1. Conduct of PDP classes in the campus: PDP programmes are conducted by M/S Advait on weekly basis. This grooms the personality, spoken and written skills of the students and makes them competent with the placement process.

2. Infosys campus connect programme: This is conducted for students of B.Tech 3rd Year & MCA and 4th Year Infosys selected students. Under this procedure students are taught various modules relating software practices and new technologies adopted at Infosys. The objective of conducting this programme is to enhance the competitiveness of students at corporate level. Faculty members of the institution are inducted for this program. The duration of this program is approximately 60-65 hrs.

3.AICTE sponsored Program “Employability Enhancement Training Program(EETP):This is being conducted at ALTTC BSNL premises at Ghaziabad. Under this program top-notch students across various branches are selected and training related to novel technologies and latest Telecom equipment is provided on weekly basis. Students selected and found competent for this training program are being graded as Silver certified, Gold certified and Platinum certified Engineers. The college curriculum is adjusted to facilitate smooth conduct of this programme.

4. LAB-VIEW: AKGEC jointly with National Instruments (India) has set up AKGEC-NI LabVIEW Academy for Educational Institutions at AKGEC, Ghaziabad. This Academy is an initiative of NI under their Planet NI (Nurturing Innovation) framework which strives to increase the employability of Indian engineering graduates by creating ‘Centre of Excellence’ in Engineering Colleges and Universities which will provide cost effective access to world class latest technology through classroom teaching-learning.

The LabVIEW Academy curriculum gives students an opportunity to validate their knowledge and skills at a professional level with certification. Experience and certification in LabVIEW can improve student’s career opportunities. The academy encourages and promotes industry oriented projects, R&D Activity and industry relevant training programs to bridge industry academia gap and improve employability of young engineers. The establishment of this training academy is one of the initiatives in the same direction.

5. Conduct of Guest Lectures by Industries: All Departments of the institute conduct lectures delivered by experts from various industries and research organizations. This makes the students aware in terms of novel technologies and latest developments. The frequency of such lectures is once a month.

6. Conduct of training Programmes/workshops by TIFAC CORE : TIFAC-CORE is a premier applied research, education and technology centre of India in the field of Automation & Robotics. It was established in December 2009 to promote training, education and research activities in the field of Industrial Automation & Robotics. The department of Sciences & Technology, Govt. of India and Ajay Kumar Garg Engineering College along with several Industry Partners are the prime sponsors of TIFAC-CORE. It bridges the gap between national industries and the Academia with a unique ability to harness the intellectual energy of academia to impact Indian manufacturing. Through its various training centers, it offers summer training programs and workshops. Students from diverse branches (ECE, CSE, EN, ME etc) with a higher inclination of research are shortlisted and selected for executing final year projects. These Centres offer training programs at various levels from 'basic to expert' with internationally recognized certification. Various centers running in association with TIFAC-CORE are:

- **AKGEC-KUKA** Industrial Robotic Training Centre in collaboration with KUKA Robotics, Germany.
- **AKGEC-NI LabView** Academy for Educational Institutions in collaboration with National instruments.
- **AKGEC-BOSCH** Centre of competence in Automation Technologies in collaboration with Bosch Rexroth AG, Germany.
- **AKGEC-JANATIC** Industrial pneumatic knowledge centre in collaboration with Janatics, India.
- **AKGEC-SIEMENS PLM** Centre of excellence in collaboration with Siemens, Germany.
- **AKGEC-AII** Centre for Integrated Automation in Collaboration with Automation Industries Association.

7. Microsoft- IT Academy: The courses under MSITA are designed by Microsoft and are delivered by 'Microsoft Trained Trainers' through Microsoft Delivery Partner ATS InfoTech P. Ltd. The enrolled students are exposed to the latest Microsoft Technologies which enable them to be market ready thereby increasing their placement opportunities manifold.

8. AKGEC Networking Academy:

This academy provides complete solution with theoretical and practical training backed with CCNA (Cisco certified network associate), CCIE (Cisco certified international network expert) and CCNP (Cisco certified network professional). The student is thoroughly exposed to world class and industry proven courses enabling them to become next generation networking solution providers.

1.2.6 Does the University provide for the flexibility of combining the conventional face-to-face and Distance Mode of Education for students to choose the courses/combination of their choice” If ‘yes’, how does the institution take advantage of such provision for the benefit of students?

Not applicable

1.3.1 Describe the efforts made by the institution to supplement the University’s Curriculum to ensure that the academic programmes and Institution’s goals and objectives are integrated?

The institution being an affiliated college to the Uttar Pradesh Technical University, Lucknow does not have the freedom of formulating its own curriculum. To reach out to the goals and objectives, the institution has evolved additional inputs in the syllabi to face the current trends in competitive areas. The institute supplements the University’s curriculum by conducting following academic programmes to achieve institution’s goals and objectives:

- (a) Conduct of guest lectures
- (b) Conduct of workshops, seminars and conferences
- (c) Coverage of topics beyond syllabus in theory subjects
- (d) Conduct of experiments beyond syllabus in practical subjects.
- (e) Conduct of PDP classes
- (f) Conduct of CCP classes
- (g) Conduct of Computer based Training

Apart from this, additional initiatives taken by the institution to ensure for effective curriculum delivery are listed below:

- Virtual lab
- Video lectures and presentation with NPTEL
- Department Library and Central Library
- EDUSAT
- Software Development Center (SDC), various centers established under TIFAC-CORE are KUKA Robotics, Lab View (NI) and Automation Technology (BOSCH-REXORTH) provides opportunities to students to get industry relevant trainings and competence building beyond curriculum.

1.3.2 What are the efforts made by the institution to enrich and organize the curriculum to enhance the experiences of the students so as to cope with the needs of the dynamic employment market?

The college strictly adheres to the syllabus designed by UPTU, Lucknow but while delivering this syllabus content to the students, our faculty enrich it with their own expertise and experience so that the students also gain employable qualities that enable them get jobs in this highly competitive world. The training and placement cell of the college regularly interacts with the HR managers of companies and collects first hand information about the demands and expectations of the corporate sector regarding skill set of students. Keeping these demands in mind, PDP and CCP classes are conducted to make up the deficiencies in the students to make them employable. The institution can only enrich and organize the curriculum by supplementing it with extra courses as discussed in 1.3.1 so that the students are benefited in the best possible manner.

1.3.3 Enumerate the efforts made by the institution to integrate the cross cutting issues such as Gender, Climate Change, Environmental Education, Human Rights, ICT etc., into the curriculum?

The efforts made by the institution to integrate the cross cutting issues such as Gender, Climate Change, Environmental Education, Human Rights, ICT etc., into the curriculum are as follows:

Initiative taken by the institution towards:	Activities
Gender	There are 03 boys and 02 girls hostels inside the college. No girl is denied hostel accommodation, if applied. A new girl's hostel is under construction.
Environmental Education and Climate Change	Rain water harvesting system is there in the college. Furthermore, Energy, Environment and Ecology are core subjects.
Human Rights	The college has handicapped friendly campus. It has a ragging free environment. Human Values and Professional ethics is a compulsory subject to study once in a 4-year programme.
ICT	All faculty rooms are equipped with desktop computers, furniture, pin boards etc. Besides this Wi-Fi connectivity is also available free of cost throughout the campus. All Class rooms are equipped with LCD Projection Systems, LCD Screens, USB ports for Laptop connectivity, Wireless Audio systems and Green boards. These facilities enhance lecture delivery and effective communication.

Apart from this, the Institution takes necessary efforts in the form of Quiz, Debate and Poster Competition on the issues like Gender sensitization, Climate Change, Environmental Education, Human Rights, and ICT etc. Every department has its own technical society which is responsible of conducting these types of events from time to time.

1.3.4 What are the various value-added courses/enrichment programmes offered to ensure holistic development of students?

Following are the various value-added courses/enrichment programmes offered to ensure holistic development of students:

Moral and Ethical Values

Regarding moral and ethical values, the students are being taught about the moral, ethical and behavioral values through soft skills classes and through talks by distinguished person in these fields. Further, discipline and punctuality etc are inculcated in to their minds by the faculty.

Employable and Life Skills

As communication skill is necessary for employment, the institute takes extra care for the development of communication skills of the students through personality development programs, group discussion, debate, Essay writing competition etc. Students are also allotted different responsibilities in organizing various events and activities such as cultural programmes, competitions, seminars, workshops etc. This way they improve their team building and organizational skills.

Better career options

Various multidisciplinary, advanced technologies, industry relevant training programmes are conducted by various centres of excellence established in the college in collaboration with multinational industries.

Campus connect program by Infosys
Microsoft Innovation Centre activities
Mentorship Programmes for Core subjects

Community orientation

Blood donation programs
Tree plantation

The NFCH (National Foundation for Communal Harmony) organizes various fund collections and conduct essay competition on events like “World Communal Harmony Day”

1.3.5 Citing a few examples enumerate on the extent of use of the feedback from stakeholders in enriching the curriculum?

The institution collects feedback from the stakeholders in enriching the curriculum in the following manner:

At the end of every semester feedback is collected from students

Alumni feedback is collected every year during alumni meet

From recruiters, feedback is collected when they come for campus recruitments.

Parents and Employer’s feedback are collected from time to time.

The inputs are obtained from the stake holders regularly and further used for enriching the curriculum that helps to improvise the overall competency of the students for employability.

1.3.6 How does the institution monitor and evaluate the quality of its enrichment programmes?

The institution has a very clear and transparent way to monitor and evaluate the quality of various enrichment programmes initiated by it. The feedback forms for each program are designed by the college. An IQAC and various other committees monitor and evaluate the

efficiency and success of these enrichment programs. The institution makes sure that the programmes offered in the curriculum include contribution to human values, fostering global competencies among students, promoting the use of technology and quest for excellence. The feedback process mainly concentrates on whether the stated objectives are achieved or not. Once the feedback is obtained, it is further evaluated to find the shortcomings and, or success of the program and its quality and corrections are made if necessary, for further improvements.

1.4 Feedback System

1.4.1 What are the contributions of the institution in the design and development of the curriculum prepared by the University?

The institution is affiliated to the Uttar Pradesh Technical University and follows the syllabus prescribed by the same. Therefore there is no scope for framing institution curriculum on its own. However, a systematic procedure is followed in the institution to look after the affairs of the feedback process and analysis through the examination control cell. The university experts also interact with students and the faculty on several aspects of availability of facilities and teaching-learning process. Any changes/ upgradations in the curriculum are solely handled by the university in consultation with participating members of the affiliated colleges.

1.4.2 Is there a formal mechanism to obtain feedback from students and stakeholders on Curriculum? If 'yes', how is it communicated to the University and made use internally for curriculum enrichment and introducing changes/new programmes?

Feedback is obtained from the students in a formal manner at the end of each semester in the prescribed format. The feedback is analyzed by the examination control cell and sends it to the HoD concerned department and a summary of the same is prepared. This feedback mechanism is primarily used for indentifying the weaknesses in teaching learning process. The faculty is counseled by the head of the department so as to improve the process of teaching learning.

Feedback from the stakeholders such as employers, alumni, parents is obtained at regular intervals from which the adequacy of the curriculum is ascertained. Any changes/ upgradations in the curriculum are discussed by the college academic committee and the same is conveyed to the University for Necessary Action.

1.4.3 How many new programmes/courses were introduced by the institution during last four years? What was the rationale for introducing new courses/programmes?

In order to expand the horizon of offered courses in tune with the technological advancements, following were the list of new programmes/courses introduced by the institution during last four years:

S.No	New Programmes/ Courses Introduced	Year of Introduction	Intake
1.	M.Tech. (CSE)	2010	18
2.	B.Tech (E&I)	2010	60
3.	M.Tech (VLSI Design)	2012	18
4.	B.Tech (CIVIL)	2012	60
5.	M.Tech (ME)	2013	18

Rationale for introducing new courses is elaborated in Table-3 of criteria 2.1.6

CRITERION II: TEACHING – LEARNING AND EVALUATION

2.1 Student Enrollment and Profile

2.1.1 How does the college ensure publicity and transparency in the admission process?

In order to ensure publicity in the admission process the college maintains active website www.akgec.org which contains all the information such as:

- (i) Department wise faculty hierarchy
- (ii) Centers of excellence
- (iii) Admission related details.
- (iv) Faculty names, qualifications, experience of each staff member along with photograph.
- (v) Number of laboratories in each department.
- (vi) Resources such as AKGEC international and national journals (with published papers), details of infrastructural facilities.
- (vii) Approvals of AICTE and UPTU University, mandatory disclosures of AICTE, advertisements related to staff selection.
- (viii) Student admissions under Management Quota, spot admissions.
- (ix) Details of future activities such as conduction of workshops and seminars to be conducted.
- (x) University examination time tables, schedule of campus placements etc. are available on the website.

From time to time, advertisements are given in the electronics and print media for the admission and regarding new appointments of teaching and non-teaching staff.

- In order to ensure transparency in the admission process the college adheres to the following:
 - Admissions to B.Tech Ist year as well as B-Tech II year (Lateral Entry) are made through Combined State Entrance Exam (UPSEE) conducted by the UPTU, Lucknow. Students granted admissions through this procedure are admitted in the institute through a registration procedure.
 - To facilitate admission process, various registration and counseling outlets are set up within the institute .This ensures seamless operation and timely completion of various admission related procedures.
 - Admission to management seats is granted on the basis of AIEEE /UPSEE rank and on the basis of PCM percentage of 12th standard. The college conducts an aptitude test followed by a personal interview of the candidate to ascertain the credentials of the candidate. For this purpose an admission committee is set up which is headed by a Professor under the supervision of Director.

2.1.2 Explain in detail the criteria adopted and process of admission (Ex. (i) merit (ii) common admission test conducted by state agencies and national agencies (iii) combination of merit and entrance test or merit, entrance test and interview (iv) any other) to various programmes of the Institution.

Following procedures are adopted for admission to various courses in the institution which are listed below:

1. UPSEE Counselling:

Admissions to B.Tech I year as well as B-Tech II year (Lateral Entry) are made through Combined State Entrance Exam (UPSEE) conducted by the UPTU, Lucknow. The minimum qualification for B-Tech is intermediate (10+2) or equivalent with physics, Chemistry and Mathematics. The minimum qualification for MCA is graduation (10+2+3) in any discipline from any recognized institution with Mathematics as one subject at Intermediate level or at Bachelor degree level. The minimum qualification for B-Tech II year (Lateral Entry) is three-year engineering diploma in any branch of engineering (except Agriculture Engg., Pharmacy and Architecture) with minimum 60% marks. Conditions pertaining to reservation, domicile requirements etc. are available in the UPSEE Information Brochure.

2. Management / NRI Quota:

Management / NRI quota constitutes 15% of the total sanctioned intake. Seats are allotted as per the directions of U.P. Govt. and Uttar Pradesh Technical University, Lucknow. General guidelines are available in the UPSEE Information Brochure, which can be downloaded from the website: www.uptu.ac.in.

The Registration Forms are available in the College campus or can also download from the College website: www.akgec.org.

Admissions against Management Quota are done on the basis of UPSEE/AIEEE rank and PCM percentage in 12th Std. The college also conducts a written aptitude test and personal interview to ascertain the suitability for admission.

MINIMUM CRITERIA FOR CONSIDERATION FOR NRI/MANAGEMENT QUOTA SEATS

B.Tech – I Year:

- UPSEE rank below 15,000 (Combined General Rank) OR
- AIEEE rank below 40,000 (All India Rank) OR
- XII(PCM) > 80 %

B.Tech-II Year:

- UPSEE Rank below 1000 (Combined General Rank) OR
- B.Sc. > 60 % (For B.Sc. Graduates)
- Diploma > 70 % (For Diploma Holders)

Students who fulfill the above minimum eligibility criteria can collect the registration forms free of cost from the college reception and submit it with all the necessary documents (as listed in registration form).

M.Tech. Programmes and Admission Process:

M Tech Programmes

- Automation & Robotics
- Electronics & Communication Engineering
- Electrical Power and Energy Systems

- Computer Science and Engineering
- VLSI Design
- Mechanical Engineering

Eligibility

(i) Automation & Robotics

- B.. E./B Tech in Mechanical, Electrical, Electronics & Communication and Computer Science & Engineering or equivalent with minimum 60% aggregate marks.

(ii) Electronics and Communication Engineering

- B. E. / B. Tech in Electronics & Communication Engineering or related branches with minimum 60% aggregate marks.

(iii) Electrical Power and Energy Systems

- B.E/B.Tech in Electrical, Electrical & Electronics Engineering or related branches with minimum 60% aggregate marks.

(iv) Computer Science and Engineering

- B.E / B.Tech in Computer Science & Engineering, Information Technology or related branches or MCA with minimum 60% aggregate marks.

(v) VLSI Design

- B.E./B.Tech in Electronics & Communication or related branches with minimum 60% aggregate marks.

(vi) Mechanical Engineering

- B.E./B. Tech in Mechanical Engineering or related branches with minimum 60% aggregate marks.

2.1.3 Give the minimum and maximum percentage of marks for admission at entry level for each of the programmes offered by the college and provide a comparison with other colleges of the affiliating university within the city/district.

Comparison Table -1 below highlights the admission ranks of top-notch private engineering colleges affiliated to UPTU for academic session 2013-14.

<i>Name of the College</i>	<i>ECE</i>	
	<i>Lowest</i>	<i>Highest</i>
JSS	1090	3611
AKGEC	3113	7471
KIET	6044	9796
Galgotia	4064	7563
ABES	9309	19711
IMS	11596	39175
RKGIT	10711	22365
IPEC	14820	96814
KEC	33342	117410
IIT(Ideal Institute Gzb)	39899	120381
<i>Name of the College</i>	<i>CSE</i>	
	<i>Lowest</i>	<i>Highest</i>
JSS	1434	2708
AKGEC	2004	5778
KIET	4203	8268
Galgotia	478	5525
ABES	241	13601
IMS	12713	26363
RKGIT	9177	16932
IPEC	10566	44918
KEC	9311	127821
IIT(Ideal Institute Gzb)	23942	128868

<i>Name of the College</i>	<i>EEE</i>	
	<i>Lowest</i>	<i>Highest</i>
JSS	1317	4134
AKGEC	3345	8027
KIET	6691	10300
Galgotia	4011	7465
ABES	10060	22028
IMS	16203	48723
RKGIT	9875	29370
IPEC	22469	129282
KEC	28014	38400
IIT(Ideal Institute Gzb)	22575	119319
<i>Name of the College</i>	<i>IT</i>	
	<i>Lowest</i>	<i>Highest</i>
JSS	2907	4909
AKGEC	6375	9032
KIET	7528	11717
Galgotia	5280	8357
ABES	9410	22824
IMS	20934	21516
RKGIT	11888	29055
IPEC	28349	131323
KEC	36788	115281
IIT(Ideal Institute Gzb)	64723	82927

<i>Name of the College</i>	<i>CIVIL</i>	
	<i>Lowest</i>	<i>Highest</i>
JSS	1750	4590
AKGEC	4692	7499
KIET	3779	8869
Galgotia	1811	7463
ABES	9899	15575
IMS	NA	NA
RKGIT	9825	15092
IPEC	12764	35599
KEC	14540	98173
IIT(Ideal Institute Gzb)	19077	148844
<i>Name of the College</i>	<i>EI</i>	
	<i>Lowest</i>	<i>Highest</i>
JSS	NA	NA
AKGEC	6433	10939
KIET	8106	15763
GALGOTIA	8922	11324
ABES	NA	NA
IMS	NA	NA
RKGIT	32683	72381
IPEC	NA	NA
KEC	NA	NA
IIT(Ideal Institute Gzb)	NA	NA

<i>Name of the College</i>	<i>ME</i>	
	<i>Lowest</i>	<i>Highest</i>
JSS	1606	3075
AKGEC	2147	5296
KIET	4476	7680
Galgotia	1156	6062
ABES	6584	12460
IMS	9890	15307
RKGIT	7908	13155
IPEC	13191	26543
KEC	12813	126736
IIT(Ideal Institute Gzb)	8544	129702

TABLE-1 COMPARISON TABLE OF ADMISSION RANKS OF LEADING INSTITUTES AFFILIATED TO UPTU

2.1.4 Is there a mechanism in the institution to review the admission process and student profiles annually? If ‘yes’ what is the outcome of such an effort and how has it contributed to the improvement of the process?

- The admission process is totally under the control of State Government.
- However, individual files are created and maintained for each student admitted in the college. These files include all details of the students such as Academic performance (Percentage in 10th, 12th etc), performance in each semester, issues related to counseling/discipline and overall profile of the student.
- These details serve as an input for modifying /amending admission policies with the perspective of improvement for the subsequent batches seeking admission under management category.

2.1.5 Reflecting on the strategies adopted to increase/improve access for following categories of students, enumerate on how the admission policy of the institution and its student profiles demonstrate/reflect the National commitment to diversity and inclusion.

- SC/ST
- OBC
- Women
- Differently abled
- Economically weaker sections
- Minority community
- Any other

The admission process is totally under the control of State Government. Various provisions are laid by the university for this purpose which is available on the university portal www.uptu.ac.in.

2.1.6 Provide the following details for various programmes offered by the institution during the last four years and comment on the trends. i.e. Reasons for increase / decrease and actions initiated for improvement.

Table 2 provide the details for various programmes offered by the institution during the last four years and the reason for increase intake:

Programmes	Number of applications	Number of students admitted(Currently)	Demand Ratio
UG	The entire admission process is controlled by Uttar Pradesh Technical University, Lucknow	Current Intake in UG	NA
1. B Tech-Civil		120	
2. B Tech-CSE		180	
3. B Tech-EN		120	
4. B Tech-ECE		180	
5. B Tech- E&I		60	
6. B.Tech.-IT		120	
7. B Tech-ME		180	
PG	The entire admission process is controlled by Uttar Pradesh Technical	Current Intake in PG	NA
1. M.Tech. A&R		18	
2. M Tech-CSE		24	

3. M Tech-ECE	University, Lucknow	18	NA
4. M.Tech. EP&ES		18	
5. M Tech-ME		18	NA
6. M Tech-VLSI Design		18	
M.Phil	NA	NA	NA
Ph.D.	NA	NA	NA
Integrated PG Ph.D.	NA	NA	
Value added 1 2 3	NA	NA	NA
Certificate 1 2 3	NA	NA	NA

Table 2

Table-3A given below highlights increase in intake:

S.No.	Course Branch	Initial Intake	Current Intake	Year of Increase intake	Reason
1.	B.Tech. (IT)	90	120	2011	Due to pressing demand and rapid development of Information Technology.
2.	B Tech-ME	120	180	2012	Due to pressing demand and rapid development of Technology.
3.	B Tech-ECE	120	180	2013	Due to pressing demand and rapid development of Electronics sector.
4.	B Tech-CSE	120	180	2013	Due to pressing demand and rapid development of computer Technology.
5.	M.Tech. (CSE)	18	24	2013	Due to pressing demand and rapid development of computer Technology.
6.	B Tech-CE	60	120	2014	Due to pressing demand and rapid development in Infrastructure Sector.

Table-3A

Table-3B given below highlights the details of new courses introduced (last four years):

S.No.	Course Branch	Intake	Year of Introduction	Reason
1.	B.Tech. E&I	60	2010	Due to pressing demand and rapid development of Electronics & Instrumentation sector.
2.	B Tech-CE	60	2012	There is a tremendous growth in civil sector which has posed a thrust for introducing this branch.
3.	M.Tech. CSE	24	2010	Due to pressing demand and rapid development of computer technology.
4.	M.Tech-VLSI Design	18	2012	Due to of exponential growth in Chip technology and embedded systems.
5.	M.Tech- ME	18	2013	Due to rapid development in power sector.

Table-3B

2.2 Catering to Student Diversity

2.2.1 How does the institution cater to the needs of differently-abled students and ensure adherence to government policies in this regard?

The institution caters to the needs of differently-abled students as per the requirements of the individual student. Such students are attached to faculty counselors/ class in-charges to take care of their specific requirements. The institution is fully adhering to governmental policies regarding the needs of differently-abled students. Seats are reserved at the time of admission in various programmes. The college makes sure that the classes of such students are held at ground floor to the possible extent. Moreover, tuition fee waiver scheme given by government has been applicable to all differently-abled students.

2.2.2 Does the institution assess the student's needs in terms of knowledge and skills before the commencement of the programme? If 'yes', give details on the process.

85% admissions are made through Combined State Entrance Exam (UPSEE) conducted by Uttar Pradesh Technical University, Lucknow and they assess the students on these two parameters: Rank obtained in Entrance exam (UPSEE/AIEEE) and PCM percentage in 10+2.

The minimum qualification for B-Tech is intermediate (10+2) or equivalent with physics, Chemistry and Mathematics. The minimum qualification for B-Tech II year(Lateral Entry) is three-year engineering diploma in any branch of engineering (except Agriculture Engg., Pharmacy and Architecture) with minimum 60% marks.

Management / NRI quota constitutes 15% of the total sanctioned intake. These seats are filled on the basis of written aptitude test followed by interview conducted by the college in supervision of Board of Governors.

2.2.3 What are the strategies adopted by the institution to bridge the knowledge gap of the enrolled students (Bridge/ remedial/ Add-on/ Enrichment Courses, Etc.) to enable them to cope with the programme of their choice?

Following strategies are adopted to bridge the knowledge gap of the students:

1. Conduct of Mentorship/Tutorial Classes: In this programme final year students are taking doubt clearing sessions of 2nd/3rd year students for different subjects. Generally those subjects which are found to be difficult by the students are selected under this category. Similarly these classes are conducted by faculty for first year weak students towards the end of the semester.

2. Conduct of PDP classes in the campus: Academic excellence alone is not enough and cannot guarantee a good career. Certain personality attributes and soft skills are essential not only to get a good job placement but also to be able to contribute and grow in an organization. Taking cognizance of this, the college emphasizes all round development through a range of extracurricular activities as well as organizing and conducting formal Personality Development Program.

This programme spanning over 100 hours is conducted by a professional agency on weekends and includes training in communication skills, group discussion, interpersonal skills and interviews. This is a Mandatory programme for second year B.Tech and first year MCA students of the college. This programme helps in the overall personality development of students. The whole exercise is intended to increase the employability of students. Amidst an inspiring and invigorating environment, students undergo training that turns them into top notch professionals.

3. Conduct of National Conferences: A National conference is conducted by every department of institution every year. Various topics of current technological significance are selected to be delivered in the conference. Eminent personalities from various Government and Non-Government organizations are invited to chair various sessions and deliver their lectures. Faculty members and students are encouraged to participate and contribute their research papers in the conference proceedings. This enhances the research temperament among faculty members and students.

4. Conduct of Guest Lectures by experts from Industry/Academia: All Departments of the institution conducting lectures delivered by experts from various industries, research organizations and from the field of academics. These guest lecturers improve the professional knowledge of students and faculty.

2.2.4 How does the college sensitize its staff and students on issues such as gender, inclusion, environment etc.?

The NFCH (National Foundation for Communal Harmony) organizes various fund collections and conduct essay competition on events like “World Communal Harmony Day”. The institution has set up a Women’s Grievance Cell to cater to the problems & issues related to girls. The college also organizes tree plantation event every year. Apart from this, various lectures and seminars are organized on environmental issues, gender etc.

2.2.5 How does the institution identify and respond to special educational/learning needs of advanced learners?

The students of both the categories namely slow and advance learners are identified on the basis of their passing percentage, classroom performance, regularity in submission of class works and assignments, punctuality and personal interactions. The college pays required attention to both the slow and advanced learners.

For Advanced Learners:

1. Advanced learners are facilitated with state of the art facilities in terms of well equipped library provided with latest edition of books, e-Books, online journals, CD ROMs and modern labs and other amenities.
2. They are given privilege to issue two extra books.
3. Merit students are rewarded with certificate and prize money and their name gets displayed on the department notice board.
4. They are engaged to participate in the national/international conferences and technical symposia.
5. Regular invited guest lectures by experts from prestigious institutions and industries for advanced learners .
6. Mentor-ship Programs conducted by advanced learners.
7. Access to Centres of Excellence and enrolment in training programs at subsidized fees.

2.2.6 How does the institute collect, analyze and use the data and information on the academic performance (through the programme duration) of the students at risk of drop out (students from the disadvantaged sections of society, physically challenged, slow learners, economically weaker sections etc. who may discontinue their studies if some sort of support is not provided)?

In this institute, there have been very less number of dropouts in UG and in PG in the last few years as the institute has a sound system of identifying such students, counseling and mentoring them. Academic performance of the students from the disadvantaged sections of society, physically challenged, slow learners, economically weaker sections etc. is detected by the teachers during their lectures in classroom. These students who do not seem to cope up with the pace of learning are advised and counseled by the faculty members and the Head of the department. Moreover, buddy programs, mentorship programs are also running under every department to provide special attention to these students. The training and placement cell also facilitates counseling to students. Students are counseled from time to time regarding their academic performance by class in-charges and the head of

the department. Head of the department will meet good learner and slow learners after every sessional test and even in between if required. If required, parents are also invited for counseling along with the students. The institution follows peer group learning, an innovative methodology which allows both the slow and advanced learners to take up combined learning.

2.3 Teaching-Learning Process:

2.3.1 How does the college plan and organize the teaching, learning and evaluation schedules? (Academic calendar, teaching plan, evaluation blue print, etc.)

Academic calendar is designed by the university at the beginning of each academic session which is to be followed by each affiliated colleges. Ajay Kumar Garg engineering college strictly follows the university calendar which includes:

- Starting of odd and even semester classes
- Dates for internal examination
- Sending of internal marks
- Sending of sessional marks
- Dates for semester examination
- Tentative dates for publication of results.

Before the commencement of each academic session, Director conducts a meeting with the HoDs of various departments across the institution for devising an academic planner. The Academic planner displays all the academic events scheduled for an academic session in synchronism with the examination schedule of the University. These scheduled events include class tests, Sessional tests, pre-university tests, list of holidays etc.

2.3.2 How does IQAC contribute to improve the teaching –learning process?

The IQAC for each department comprises of HOD and department MR. The contribution of IQAC in improving teaching –learning process is:

- To develop a system for conscious, consistent and catalytic improvement in the overall performance of institution.
- Prepare and collect right feedback form to be filled by students so that the teaching style of the teacher can be judged.
- Analyze the feedback and give advisory for calibration if required to enhance deliveries.
- Conduct seminar, interact with academicians and people from industry to get first hand information on the scientific trend and market need to boost the teaching quality.
- Conduct periodic auditing of faculty members in terms of lecture deliveries with respect to predefined lecture-wise schedule is carried out and reviewed by HoD and department MR (IQAC).
- Monitor the performance of the students.
- Arrange visiting faculty in thrust areas.
- Conduct periodical meetings fortnightly with faculty members for further improvement.

2.3.3 How is learning made more student-centric? Give details on the support structures and systems available for teachers to develop skills like interactive learning, collaborative learning and independent learning among the students.

Following resources and practices ensure student centric learning and independent learning:

- **Resources:**

- a) Classrooms: All Class rooms are equipped with LCD Projection Systems, LCD Screens, USB ports for Laptop connectivity, Wireless Audio systems and Green board. These facilities enhance lecture delivery and effective communication.
- b) In all departments ,all faculty rooms are equipped with desktop computers, Laptops and all necessary resources such as Wi-Fi connectivity which is available free of cost throughout the campus.
- c) Access to large number of online technical journals such as IEEE, ISTE, etc enhances the level of understanding.
- d) Availability of large number of text books, Reference books, Technical journals, Technical magazines etc.
- e) Enhanced lecture delivery support through smart class software modules procured from reputed vendors for certain subjects for enhancing the degree of understanding.
- f) Minimum 50 Hours of teaching is planned and imparted for every full unit subject per semester which is monitored by HoDs of each department.
- g) Each faculty, in consultation with HOD, prepares an ISO file before the commencement of the semester, discusses lesson plan(s) with students.
- h) Lesson notes are distributed/discussed after each module is covered in the class.
- i) Faculty's performance is closely monitored by respective HODs & IQAC through periodic feedback from students.
- j) Collaboration with various industries for establishment of Centers of excellence.
- k) Encourage faculty to develop new experiments beyond syllabus.
- l) Promotion of techno-cultural environment through various Departmental societies run by student mentors under the guidance of faculty members
- m) Students do projects in group under the guidance of a teacher.
- n) Industrial visit is organized to interact with the people in the field and know the practical utilization of their knowledge.
- o) Central computing, LAN facilities, e-Library facilities help teachers and students in teaching learning process.
- p) Innovative topics over and above the curriculum are encouraged through IQAC.
- q) Regular guest lectures by eminent experts from industry and academia are organized to address novel areas.
- r) Mentorship program for difficult subjects is conducted by top-notch students for their succeeding batches.
- s) Students across various streams are selected within the campus by a project evaluation Committee set up by TIFAC-CORE at third year level to accomplish projects sought from various industries.
- t) Selected faculty members from various departments offer real time consultancy to various industries around NCR.

2.3.4 How does the institution nurture critical thinking, creativity and scientific temper among the students to transform them into life-long learners and innovators?

Following measures are undertaken at the institutional level for generation of above parameters among student community at large:

- Continually updated curriculum, all perfectly synergized with theoretical platform to promote all round skill development and competence by providing access to all advanced facilities coupled with world class infrastructure at AKGEC for R&D activities.
- Stressing on increasing the employability of the students and putting them at ease with the employer's expectations by developing the requisite skill set.
- Creation of a collaborative environment between industry and academia by virtue of joint projects and consulting assignments.
- Establishment of TIFAC-Centre of Relevance and Excellence (CORE) in the field of Automation & Robotics. This centre is approved by DST, Govt. of India to promote research, consultancy, project development and training in the emerging technological field of Automation and Robotics.
- The college has also set up India's first Industrial Robot Training Centre in Collaboration with KUKA Robotics, Germany. AKGEC-KUKA centre is setup to produce highly skilled technical manpower in the field of Industrial Robotics.
- To further strengthen the commitment for enhanced Industry-Academia interaction, college has recently setup UP's first LabVIEW Academy in collaboration with National Instruments. This academy is an initiative of NI under their Planet NI (Nurturing Innovation) framework which strives to increase employability of engineering graduate by creating 'Centre of Excellence' in Engineering Colleges and Universities which will provide cost effective access to world class latest technology through classroom teaching-learning.
- The college is also associated with Janatics India Pvt. Ltd. (JIPL) to establish Industrial Pneumatics Knowledge Centre (IPKC) at AKGEC, Association of Janatics and AKGEC is aimed at setting up a world class Pneumatic knowledge centre in India.
- AKGEC jointly with Bosch Rexroth AG, Germany has established a Centre of Competence in Automation Technology at AKGEC. It is the first centre in North India. The centre is equipped with state of art facilities of Hydraulics, Pneumatics, Sensorics, PLCs and Mechatronics.

Research interest in the students is further promoted by:

- Encouraging the students to publish research papers in AKGEC International Journal of Technology bi-annually.
- Motivating the students to publish research papers in Departmental Journals bi-annually.
- Produce dissertation and projects of a stipulated standard set by the institute under the guidance of a faculty specialized in that domain.

- Furthermore, final year students(Undergraduate) and post graduate students are groomed in such a manner that projects undertaken by them are so chosen that they can be extended towards research work at a later stage.

2.3.5 What are the technologies and facilities available and used by the faculty for effective teaching? Eg: Virtual laboratories, e-learning - resources from National Programme on Technology Enhanced Learning (NPTEL) and National Mission on Education through Information and Communication Technology (NME-ICT), open educational resources, mobile education, etc.

Following are the technologies available and are used by the faculty of the institute to achieve effectiveness in teaching:

- **Establishment of Virtual Labs:** Virtual Lab is an initiative of Human Resource Development (MHRD) under the National mission on education through Information and Communication Technology (ICT). Objective of the virtual lab is providing remote access to labs in various disciplines of science and engineering. This has helped the students in learning advanced concepts through remote experimentation. This has provided a complete learning management system where students can avail various tools for learning including additional web resources such as video lectures, animated demonstrations and self evaluation tests. The virtual lab established in the college in Collaboration with IIT Delhi, is used to conduct experiments in the areas of :
 - **Electronics Engineering Lab -1/II**
 - **Electromagnetic Field Theory**
 - **Microwave Engineering.**
 - **Analog Electronics Lab.**
 - **Applied Science.**
 - **Electrical Engineering Lab-I**

In addition to these labs , additional labs are conducted through portals of IIT Mumbai, Madras, Kanpur , Dayalbagh College of Engineering and other reputed Institutions offering virtual experimentation resources online.

- **Video lectures available on NPTEL (Link provided on DELNET, Central Library):** A link of NPTEL (10.10.153.10:8282) has been created for accessing NPTEL resources such as video lectures, presentations, technical discussions etc.
- Availability of large number of technical magazines, journals and books in the Central and Departmental Library.
- Availability of Wi-Fi campus and internet accessibility to all students.
- Establishment of centers of excellence under the banner of TIFAC-Core (Centre of Relevance of Excellence) listed below:
 - (a) KUKA-Robotics training centre.
 - (b) NI Lab-View Academy.
 - (c) BOSCH-Rexroth Centre of competence in Automation Technologies.
 - (d) Janatics Pneumatic Knowledge Centre.
 - (e) Siemens PLM Centre of Excellence.

Centers listed above provide certification in various domains at par with international norms and ensures delivery beyond syllabus.

2.3.6 How are the students and faculty exposed to advanced level of knowledge and skills (blended learning, expert lectures, seminars, workshops etc.)?

Following measures taken by the institute ensure that students and faculty members are exposed to advanced level of knowledge and skills:

1. Conduct of Guest Lectures by experts from Industry/Academia: All Departments of the institution conduct guest lecture's delivered by experts from various industries, research organizations and from the field of academics. Lectures of current technological significance concerning various domains are delivered .These guest lecture's improve the professional knowledge of students and faculty.

2. Activities/ Events conducted by Departmental Societies: Various Departments across the institution have their departmental technical societies. Each society has been conducting various technical competitions at inter-college level. Students are encouraged to participate in various events such as fabrication of hardware/software projects in areas like robotics, instrumentation, communication engineering etc. To accomplish these projects, necessary support is provided in terms of resources and guidance from the department.

The various societies are

CONATUS	(Technical Society of CSE &IT Department)
SAMVEG	(Technical Society of ME Department)
OORJA	(Technical Society of EN Department)
PHOENIX	(Technical Society of ECE & EI Department)
HORIZON	(Technical Society of AS & H Department)

Details of various events conducted by these societies are documented at the Institutional level and departmental level.

3. Simulated Experimentation and Additional Knowledge Resources:

Following are the self learning facilities available in the institute to encourage learning beyond syllabus:

- Virtual Lab
- Video lectures available on NPTEL (Link provided on DELNET, Central Library)
- Availability of large number of technical magazines, journals and books in the Central and Departmental Library.
- Availability of Wi-Fi campus and internet accessibility to all students.

4.Establishment of centers of excellence under the banner of Department of Science & Technology:

- Establishment of centers of excellence under the banner of TIFAC-Core (Centre of Relevance of Excellence) listed below:
 - (a)KUKA-Robotics training centre.
 - (b) NI Lab-View Academy.
 - (c) BOSCH-Rexroth Centre of competence in Automation Technologies.
 - (d) Janatics Pneumatic Knowledge Centre.

(e) Siemens PLM Centre of Excellence.

Centres listed above provide certification in various domains at par with international norms and ensures delivery beyond syllabus.

5. Faculty Development programme: FDP is conducted by each Department of the institution every year. Eminent trainers from IIT's, ISRO, BSNL, MTNL, GAIL, INFOSYS etc and various organizations are invited for training faculty members within and outside the college. Over the past few years, following Faculty Development Programmes (FDP) and conferences have been held:

DETAILS OF CONFERENCES/SEMINARS ORGANIZED:

S. No.	Conference Title Name	National / International	Year in which conference was Organized
1	EOIP: The Future Deployment Scenario	National	2-3 March 2012
2	Development of Reliable Information Systems, Techniques and Related Issues, DRISTI	National	16-17 March 2012
3	Emerging Trends in Mechanical Engineering (ETME -2012)	National	27-28 July, 2012
4	3rd IEEE International Advance Computing Conference (IACC-2013)	International	22-23 February, 2013
5	Conference on "Emerging Trends in Mobile Communication"	National	15-16 March, 2013
6	Seminar on "Cyber Security and Threats"	National	16-17 September, 2013
7	An IEEE sponsored conference on "Advances in Electrical Power and Energy Systems"	National	20- 21 September, 2013
8	Advancements in Satellite Communications	National	14-15 February, 2014

DETAILS OF FDPs ORGANIZED

S.No.	Date	Subject
1	14 January, 2012	FDP By TCS
2	12-13 April, 2012	Functional Programming
3	03-06 March, 2012	Power Electronics & its Application
4	24-25 August, 2012	Mobile AD-HOC Networks
5	21-22 September, 2012	Satellite communications
6	24 & 25 August, 2012	FDP on Mobile Ad-hoc Networks
7	5 December, 2012	FDP on Economic Operation of Power Systems
8	15-16 February, 2013	FDP on Network Simulator
9	16-17 August, 2013	Strength of Materials
10	20-21st September, 2013	Future trends in Mobile Communication

2.3.7 Detail (process and the number of students benefitted) on the academic, personal and psycho-social support and guidance services (professional counseling/mentoring/academic advise) provided to students?

The institute makes enough provision for student's need on the parameters listed above. Our faculty takes initiative in addressing the academic, psycho-social & personal needs of the students. The faculty identifies the students who need counseling.

For a batch size of 60, we have faculty counselors/section in charges. These counselors help students to overcome their personal problems, academic issues, and admin related issues within the college under the supervision of the HoD.

Beside this all students are counseled by Director, HoDs and faculty members in general from time to time during regular academic interactions.

2.3.8 Provide details of innovative teaching approaches/methods adopted by the faculty during the last four years? What are the efforts made by the institution to encourage the faculty to adopt new and innovative approaches and the impact of such innovative practices on student learning?

A number of innovative teaching methods have been adapted for effective teaching. These efforts are encouraged by the college.

- Guest lectures.
- Teaching through Smart Class software enabling three-dimensional understanding of difficult topics.
- Teaching through Power-point presentations.
- Participation in National & State level seminars
- Promoting students for presenting papers in National conferences etc.
- Organizing workshop/Training programs.
- Group discussions at classroom level.
- Industrial visit and interactions with eminent personalities.
- E-journal (IEEE, ELSEVIER, SPRINGER etc.)
- NPTEL resource.
- Access to online journals throughout the campus.
- Use of language lab for enhancing language skills.
- Organizing inter college and intra college technical contests.

These efforts have been instrumental in boosting the overall confidence level and technical knowhow of the student community at large. This has also proven as a milestone and a driving impetus towards placement drive.

2.3.9 How are library resources used to augment the teaching- learning process?

The college has a Central Library which has adequate number of books, journals, e-books and e-journals. Students are provided book bank facility in each semester which comprises of a set of all the text books prescribed by the university. Besides this students can also issue reference books of any subject within the reference section. The Library is kept open throughout the week which facilitates optimum utilization of resources. Staff and students use the library for projects and research. Library resources are augmented to enhance teaching-learning process through:

- Introduction of e-journals for faculty & students.
- Every year books, magazines, journals are added as per the norms.
- E-solutions for university and college test papers are available in the e-resource section of the library.
- Students can also obtain a hard copy for the question papers.
- NPTEL link is available in the library.
- Internet facility is available in the internet lab.
- Ours is a Wi-Fi enabled campus, wherein students and faculty members can access internet (free of cost) from any location within the campus.

Besides this every department maintains a department library which contains adequate number of books etc.

2.3.10 Does the institution face any challenges in completing the curriculum within the planned time frame and calendar? If ‘yes’, elaborate on the challenges encountered and the institutional approaches to overcome these.

- Before the commencement of each semester, every faculty member prepares a standard faculty file/ ISO file of the subject allocated under the strict supervision of Departmental ISO committee. This file contains well prepared notes and various documents such as Lecture Wise Schedule (LWS). This LWS is designed in strict agreement with the academic planner of the college.
- In order to monitor the progression of lecture deliveries, a syllabus monitoring format is designed by each faculty for the respective subject taught. This format highlights the proposed and real time coverage of that subject. Deviations, if any are calibrated and supplemented accordingly.
- Periodic auditing of faculty members in terms of lecture deliveries with respect to predefined lecture-wise schedule is carried out and reviewed by HoD and department MR (Management Representative)
- If a faculty falls short of the stipulated schedule, extra lectures are allotted by the concerned department to compensate for the shortfall.
- Furthermore, fortnightly departmental meetings are conducted to ensure smooth implementation of LWS.
- These procedures ensure synchronization between the planned schedule and deliveries.

2.3.11 How does the institute monitor and evaluate the quality of teaching learning?

- The institute has established an ISO monitoring system to ensure symmetry of operations .Each department strictly follows and adheres to the procedures defined by the system. In order to evaluate the quality of teaching following procedures are adopted.
- Two-Class checks per week are conducted by HoD of every department for each faculty member. Any deviations from the expected delivery method are recorded in a predesigned format and personally discussed with the concerned faculty member.
- Feedback regarding the subject taught by a faculty is collected periodically and at the end of the course. This is reviewed by HoD. Deviations, if any are suitably communicated and rectified through calibration procedures.
- End semester results of the university are monitored in terms of the class average and overall pass percentage. In this regard, an upper and lower limit has been set up. Faculty members achieving higher results are given cash awards, while faculty members not achieving the desired results are counseled by Director and HoDs.
- ISO audits are conducted in every semester through internal and external auditing procedures.
- All faculty members are trained to follow ISO 9001- 2008 system.

2.4.1 Provide the following details and elaborate on the strategies adopted by the college in planning and management (recruitment and retention) of its human resource (qualified and competent teachers) to meet the changing requirements of the curriculum.

The Institute has a definite recruitment policy for both teaching and non-teaching staff. Well before the commencement of the semester each department sends their requirement to the Director.

In this regard, an advertisement is given in national and regional newspaper. The applications received are scrutinized and eligible candidates are called for interview. A committee comprising of Management members, Director, concerned department HOD, Experts(preferably from IIT's/NIT's), university representatives and senior faculty members is formed which conduct the interview & demo classes of the candidates, and submit the report of selected candidates based on their performance. Finally, Director in consultation with the management takes the final decision. An identical procedure is also adapted in case of non-teaching staff. Faculty and staff retention is ensured through providing a healthy working environment conducive for self growth, well defined transparent and uniform policies ,good remunerations and incentives for superlative growth.

Highest qualification	Professor		Associate Professor		Assistant Professor		Total
	Male	Female	Male	Female	Male	Female	
Permanent teachers							
D.Sc./D.Litt.							
Ph.D.	17	01	01	01	12	10	42
M.Phil.					02	03	05
PG	08		05	01	71	61	146
UG					17	10	27
Temporary teachers: NA							
Ph.D.							
M.Phil.							
PG							
Part-time teachers: NA							
Ph.D.							
M.Phil.							
PG							

2.4.2 How does the institution cope with the growing demand/ scarcity of qualified senior faculty to teach new programmes/ modern areas (emerging areas) of study being introduced (Biotechnology, IT, Bioinformatics etc.)? Provide details on the efforts made by the institution in this direction and the outcome during the last three years.

It is a well known fact that there is acute shortage of faculty in India and across the world, because no fresh engineering graduate passing out wants to choose teaching as a first choice of profession. In order to overcome this problem, the college adopts the following policy:

- The college is hiring senior faculty from mainly IIT's and NIT's .All senior professors are either ex-faculty or Alumni of IITs.
- Senior people from industries are also appointed as senior faculty members to take advantage of their vast practical technical knowledge and experience.
- Senior people from PSU are also given an opportunity to work in academics.

2.4.3 Providing details on staff development programmes during the last four years elaborate on the strategies adopted by the institution in enhancing the teacher quality.

Every department of the institute conducts one faculty development programme and one National/International conference annually.

Following are the faculty development programmes conducted over the last four years :

S.No.	Date	Subject
1	14 January, 2012	FDP By TCS
2	12-13 April, 2012	Functional Programming
3	03-06 March, 2012	Power Electronics & its Application
4	24-25 August, 2012	Mobile AD-HOC Networks
5	21-22 September, 2012	Satellite communications
6	24 & 25 August, 2012	FDP on Mobile Ad-hoc Networks
7	5 December, 2012	FDP on Economic Operation of Power Systems
8	15-16 February, 2013	FDP on Network Simulator
9	16-17 August, 2013	Strength of Materials
10	20-21 September, 2013	Future Trends in Mobile Communication

Table-4: Details of FDPs Organized at AKGEC

Table 5, enlists the various conferences / seminars / workshops & training programmes attended by the faculty members for last three years:

(Aug 2011- July 2012)

S. No.	Name of Faculty	Designation & Deptt.	Dates	Description of Seminar / Conferences / Workshop / Training Program
1	Mr. Ashiv Shah	Head, TIFAC- CORE	9th Aug. 2011	Attending a Seminar on Challenges in adoption of Industrial Automation organised by GBTU.
2	Mr. Mandeep Singh	Scientific Office	9th Aug. 2011	Attending a Seminar on Challenges in adoption of Industrial Automation organised by GBTU.
3	Prof. B.M. Kalra	HOD, CSE Deptt.	12th Aug. 2011	Attending a workshop on Cloud Computing Technology organised by Machwan Communication & Research Pvt. Ltd. at India Habibat Centre, New Delhi
4	Mr. Shashank Saho	Asso. Prof., CSE Deptt.	12th Aug. 2011	Attending a workshop on Cloud Computing Technology organised by Machwan Communication & Research Pvt. Ltd. at India Habibat Centre, New Delhi
5	Dr. I.P.S. Paul	Prof., ME Deptt.	17th Aug. 2011	Attending a National Seminar on Cable Technology organised by LPRI at Noida
6	Ms. Kirti Seth	Asstt. Prof., CSE Deptt.	2nd Sept. 2011	Attending a workshop on Software Reliability & Testing organised by School of Information & Communication Technology, at Gautam Budh University, Greater Noida.
7	Ms. Divya Gupta	Asstt. Prof., CSE Deptt.	2nd Sept. 2011	Attending a workshop on Software Reliability & Testing organised by School of Information & Communication Technology, at Gautam Budh University, Greater Noida.
8	Dr. R.K. Mehrotra	Prof., ECE Deptt.	19th Sept. 2011	Attending a workshop on Wireless Broad Band Access Technologies organised by India - Pioneering TD-LTE Deployment at Hotel Ramada Royal, Ashoka Road, New Delhi.

S. No.	Name of Faculty	Designation & Deptt.	Dates	Description of Seminar / Conferences / Workshop / Training Program
9	Dr. R.K. Mehrotra	Prof., ECE Deptt.	30th Sept. 2011	Attending a workshop on The Telecom Commercial Communications Customer Preference Regulations at India Habitat Center, new Delhi.
10	Dr. R.K. Mehrotra	Prof., ECE Deptt.	10th Oct. 2011	Attending a STs ASEAN Technology Seminars on Innovating the Future by ST Microelectronics at Delhi.
11	Dr. Sunita Yadav	Asso. Prof., CSE Deptt.	15th Oct. 2011	Attending a Workshop on Design Science Research Methods : Innovating ICT at MTU, Noida.
12	Mr. Atul Sood	Asstt. Prof., EN Deptt.	15th Oct. 2011	Attending a Workshop on Design Science Research Methods : Innovating ICT at MTU, Noida.
13	Mr. Pradeep Jain	Asstt. Prof., ME Deptt.	14th Oct. 2011	Attending a Workshop on Solid Works Innovation Day 2011 at Hilton Hotel, Janakpuri, New Delhi.
14	Mr. Navneet Sharma	Asstt. Prof., ECE Deptt.	22nd Oct. 2011	Attending a Workshop on Virtual Lab at IIT, Delhi.
15	Mr. Rajeev Kumar Mishra	Asstt. Placement Officer	1st Nov. 2011	Attending a Workshop on AICTE Approval Process 2012-13 at Kanpur.
16	Dr. R.K. Mehrotra	Prof., ECE Deptt.	2nd - 3rd Nov. 2011	Attending a Workshop on India R&D 2011 : Industry - Academia Linkages at India Habitat Centre, New Delhi.
17	Dr. R.K. Mehrotra	Prof., ECE Deptt.	4th Nov. 2011	Attending a Seminar on Next Generation Wireless : The Way Forward organised by Qualcomm at Le Meridien, New Delhi
18	Dr. R.K. Mehrotra	Prof., ECE Deptt.	18th Nov. 2011	Attending a Conference on Broadband Tech India 2011.
19	Mr. Jitendra Kumar Seth	Asstt. Prof., IT Deptt.	24th Nov. 2011	Attending a Conference on Amazon Web Services organised by AWS Cloud Tour, New Delhi.

S. No.	Name of Faculty	Designation & Deptt.	Dates	Description of Seminar / Conferences / Workshop / Training Program
20	Mr. Narendra Kumar	Asstt. Prof., IT Deptt.	25th Nov. 2011	Attending a Workshop on Angla Bharati Machine Translation, organised by MTU & JSS Academy of Technical Education, Noida
21	Ms. Shweta Sharma	Asstt. Prof., IT Deptt.	25th Nov. 2011	Attending a Workshop on Angla Bharati Machine Translation, organised by MTU & JSS Academy of Technical Education, Noida
22	Ms. Divya Gupta	Asstt. Prof., CSE Deptt.	25th Nov. 2011	Attending a Workshop on Angla Bharati Machine Translation, organised by MTU & JSS Academy of Technical Education, Noida
23	Mr. Akhilesh Saxena	Asstt. Prof., CSE Deptt.	23rd - 24th Nov. 2011	Attending a Faculty Development Programme on Natural Language Processing organised by MTU & JSS Academy of Technical Education, Noida
24	Mr. Ashiv Shah	Asso. Prof., TIFAC- CORE	5th - 8th Dec. 2011	Attending an AMS Conference at New Delhi.
25	Dr. R.K. Mehrotra	Prof., ECE Deptt.	5th Dec. 2011	Attending a Workshop on World Radio Communication Conference 2012 at Assocham House, New Delhi.
26	Mr. Dinesh Kumar Singh	Scientific Officer, TIFAC- CORE	12th - 16th Dec. 2011	Attending a Training Programme on Industrial Hydraulics organised by BOSCH Rexroth Ltd. at Ahemdabad.
27	Ms. Anjali Sharma	Asstt. Prof., AS&H Deptt.	7th - 14th Dec. 2011	Attending a Orientation Programme for Faculty : Human Values and Professional Ethics at IIT Kanpur.
28	Mr. Ravindra Kumar	Asstt. Prof., EN Deptt.	9th - 22nd Dec. 2011	Attending a Faculty Development Programme on Recent Advances in Electrical Power & Energy Systems at Jamia Milia Islamia University, New Delhi.

S. No.	Name of Faculty	Designation & Deptt.	Dates	Description of Seminar / Conferences / Workshop / Training Program
29	Prof. V.K. Parashar	HOD, EN Deptt.	9th - 10th Dec. 2011	Attending a Faculty Development Programme on Recent Advances in Electrical Power & Energy Systems at Jamia Milia Islamia University, New Delhi.
30	Prof. V.K. Parashar	HOD, EN Deptt.	15th Dec. 2011	Attending a Faculty Development Programme on Recent Advances in Electrical Power & Energy Systems at Jamia Milia Islamia University, New Delhi.
31	Prof. V.K. Parashar	HOD, EN Deptt.	19th - 20th Dec. 2011	Attending a Faculty Development Programme on Recent Advances in Electrical Power & Energy Systems at Jamia Milia Islamia University, New Delhi.
32	Mr. Pavan Khetrapal	Asstt. Prof., EN Deptt.	9th - 22nd Dec. 2011	Attending a Faculty Development Programme on Recent Advances in Electrical Power & Energy Systems at Jamia Milia Islamia University, New Delhi.
33	Dr. R.K. Mehrotra	Prof., ECE Deptt.	13th Dec. 2011	Attending a Workshop on Euro - India SPIRIT ICT Roadshow at FICCI, New Delhi.
34	Dr. R.K. Mehrotra	Prof., ECE Deptt.	19th - 22nd Dec. 2011	Attending a Workshop on Standards Intellectual Property Rights (IPR) Issues and Seventh Standardization Series Meeting at HMR Institute of Technology & Management, Delhi.
35	Mr. Kapil Tomar	Asstt. Prof., IT Deptt.	9th Jan. - 14th Jan. 2012	Attending Campus Connect Faculty Enablement Program at Infosys Limited, Chandigarh.
36	Mr. Shashank Sahu	Asso. Prof., CSE Deptt.	9th Jan. - 14th Jan. 2012	Attending Campus Connect Faculty Enablement Program at Infosys Limited, Chandigarh.

S. No.	Name of Faculty	Designation & Deptt.	Dates	Description of Seminar / Conferences / Workshop / Training Program
37	Mr. S.S. Sharma	Asstt. Prof., EN Deptt.	24th Jan. 2012	Attending a National Conference on Demand Side Management at India Habitat Centre, New Delhi organised by Central Board of Irrigation and Power, New Delhi.
38	Prof. I.P.S. Paul	Prof., ME Deptt.	24th Jan. 2012	Attending a National Conference on Demand Side Management at India Habitat Centre, New Delhi organized by Central Board of Irrigation and Power, New Delhi.
39	Mr. Dinesh Kumar Singh	Asstt. Prof., ME Deptt.	4th Feb. 2012	Attending a one day workshop on Virtual Lab for Mechanical Engineering at IIT, Kanpur.
40	Mr. Vikash Kumar	Asstt. Prof., ME Deptt.	10th & 12th Feb. 2012	Attending an Advance Level Industrial Robotics Training Program at KUKA Robotics (India), Pune
41	Mr. Dinesh Kumar Singh	Asstt. Prof., ME Deptt.	10th & 12th Feb. 2012	Attending an Advance Level Industrial Robotics Training Program at KUKA Robotics (India), Pune
42	Mr. S.S. Sharma	Asstt. Prof., EN Deptt.	9th Feb. 2012	Attending a National Seminar on Emerging Trends in Power System Operation & Control at Indraprastha Engineering College, Ghaziabad
45	Dr. R.K. Mehrotra	Prof., ECE Deptt.	10th Feb. 2012	Attending 18th Annual Conference on Connecting India through Fiber and Radio at Assochem House, New Delhi
47	Ms. Krishna Kapoor	Asstt. Prof., EN Deptt.	25th Feb. 2012	Attending a Conference on APRICOT-2012 at Hotel Ashok, New Delhi
48	Dr. R.K. Mehrotra	Prof., ECE Deptt.	13th Feb. 2012	Attending a Seminar on Green Telecom : Working Towards the Sustainable Development of an Energy Efficient & Environment - Friendly Telecommunications organised by FICCI.

S. No.	Name of Faculty	Designation & Deptt.	Dates	Description of Seminar / Conferences / Workshop / Training Program
49	Mr. Kamal Kant	Librarian	16th & 17th March 2012	Attending a Two days Workshop on Leadership, Ethics, Accountability and Professionalism in Library Services organized by Society for Library Professionals (SLP) at Institute of Economic Growth, University of Delhi Enclave, Delhi.
50	Dr. R.K. Mehrotra	Prof., ECE Deptt.	27th March 2012	Attending a Seminar on Advanced Technological Trends in Telecom organized by Bharat Sanchar Nigam Limited at ALTTC, Ghaziabad.
51	Prof. R.L. Sharma	Prof., ECE Deptt.	27th March 2012	Attending a Seminar on Advanced Technological Trends in Telecom organized by Bharat Sanchar Nigam Limited at ALTTC, Ghaziabad.
52	Mr. Ankit Goel	Asstt. Prof., ECE Deptt.	27th March 2012	Attending a Seminar on Advanced Technological Trends in Telecom organized by Bharat Sanchar Nigam Limited at ALTTC, Ghaziabad.
53	Mr. Rajender Singh Yadav	Asstt. Prof., ECE Deptt.	27th March 2012	Attending a Seminar on Advanced Technological Trends in Telecom organized by Bharat Sanchar Nigam Limited at ALTTC, Ghaziabad.
54	Prof. P.K. Chopra	HOD, ECE Deptt.	23rd March 2012	Attending a Seminar on NGN Future of Telecom organized by Bitcom India at India International Centre, New Delhi
55	Dr. R.K. Mehrotra	Prof., ECE Deptt.	23rd March 2012	Attending a Seminar on NGN Future of Telecom organized by Bitcom India at India International Centre, New Delhi
56	Prof. B.M. Kalra	HOD, CSE Deptt.	23rd March 2012	Attending a Seminar on NGN Future of Telecom organized by Bitcom India at India International Centre, New Delhi
57	Mr. Kamal Kant	Librarian	16th & 17th March 2012	Attending a Workshop on Design and Development of Digital Libraries Using DSpace organized by INMANTEC

S. No.	Name of Faculty	Designation & Deptt.	Dates	Description of Seminar / Conferences / Workshop / Training Program
				Institutions, Ghaziabad in association with Intellectuals Society for Socio-Techno Welfare (ISST) and Ranganathan Society for Social Welfare and Library Development.
58	Dr. R.K. Mehrotra	Prof., ECE Deptt.	27th April 2012	Attending a workshop Asia Competitiveness Forum 2012 on Skills Strategies for Inclusive Development & Competitiveness organised by Institute for Competitiveness in association with OECD LEED, NSDC, ILO and CII at Hilton, New Delhi.
59	Prof. V.K. Parashar	HOD, EN Deptt.	27th April 2012	Attending a National Conference on Advances in e-Learning : Tools, Technologies and Trends organised by Institution of Communication Engineers and Information Technologies (ICEIT) at India International Centre (Annexe), New Delhi.
60	Prof. Y.K. Mittal	HOD, IT Deptt.	9th - 16th May 2012	Attending a Teacher's Orientation Program on Human Values and Professional Ethics at IIT, Kanpur organised by MTU, Noida.
61	Mr. Akhilesh Verma	Asstt. Prof., CSE Deptt.	9th - 16th May 2012	Attending a Teacher's Orientation Program on Human Values and Professional Ethics at IIT, Kanpur organised by MTU, Noida.
62	Dr. Ranjit Singh	Prof., ECE Deptt.	9th - 16th May 2012	Attending a Teacher's Orientation Program on Human Values and Professional Ethics at IIT, Kanpur organised by MTU, Noida.
63	Prof. V.K. Parashar	HOD, EN Deptt.	9th - 16th May 2012	Attending a Teacher's Orientation Program on Human Values and Professional Ethics at IIT, Kanpur organised by MTU, Noida.

S. No.	Name of Faculty	Designation & Deptt.	Dates	Description of Seminar / Conferences / Workshop / Training Program
64	Ms. Anjali Sharma	Asstt. Prof., AS&H Deptt.	29th May 2012	Attending a Workshop on Authoring e-Teaching-Learning Contents at MTU, Noida.
65	Ms. Deepti Gupta	Lecturer, IT Deptt.	4th - 15th June 2012	Attending an International Workshop on Advanced Data Structures and Algorithms at Thapar University, Patiala in collaboration with Infosys.
67	Dr. Sunita Yadav	Prof., CSE Deptt.	11th - 16th June 2012	Attending a Faculty Development Programme on Recent Advancements in Software Engineering & Networking Technologies at Gautam Buddha University in collaboration with Computer Society of India (Noida Chapter)
68	Prof. R.P. Saw	Prof., CSE Deptt.	29th - 1st July 2012	Attending a workshop on ERP Mission at IIT, Kanpur.
69	Prof. V.K. Parashar	HOD, EN Deptt.	15th June 2012	Attending a Six Days Orientation Program for the Fresher's at Mahamaya Technical University, Noida
70	Ms. Gauri	Asstt. Prof., AS&H Deptt.	22nd June 2012	Attending a Orientation Program for I year students at Mahamaya Technical University, Noida
71	Ms. Divya Singh	Asstt. Prof., AS&H Deptt.	22nd June 2012	Attending a Orientation Program for I year students at Mahamaya Technical University, Noida
72	Mr. Pankaj Agarwal	Asstt. Prof., AS&H Deptt.	22nd June 2012	Attending a Orientation Program for I year students at Mahamaya Technical University, Noida
73	Ms. Anjali Sharma	Asstt. Prof., AS&H Deptt.	22nd June 2012	Attending a Orientation Program for I year students at Mahamaya Technical University, Noida
74	Prof. R.K. Mehrotra	Prof., ECE Deptt.	22nd - 23rd June 2012	Attending two days workshop on Dialogue with New Development Partners organized by RSI and World Bank at Hotel Taj Mahal, New Delhi.

S. No.	Name of Faculty	Designation & Deptt.	Dates	Description of Seminar / Conferences / Workshop / Training Program
75	Prof. Y.K. Mittal	HOD, IT Deptt.	29th - 30th June 2012	Attending Faculty Development Programme on Research Methodologies & SPSI at BIT, Noida.
76	Prof. Y.K. Mittal	HOD, IT Deptt.	2nd - 6th July 2012	Attending Deep Driven Faculty Enablement Program - Business Intelligence & Applications at Infosys, Chandigarh.
77	Prof. R.K. Mehrotra	Prof., ECE Deptt.	29th June 2012	Attending a Technical Seminar on NGN Technologies - The Road Ahead organized by NGN Forum at India International Centre, New Delhi.
78	Mr. Sachin Kumar	Project Engineer, TIFAC-CORE	1st - 30th July 2012	Attending Training Programme organized by Bosch Rexroth at VTU, Mysore.
79	Mr. Aniruddha Kr. Gautam	Asstt. Prof., EN Deptt.	1st - 30th July 2012	Attending Training Programme organized by Bosch Rexroth at VTU, Mysore.
80	Ms. Shilpa Sambhi	Asstt. Prof., EN Deptt.	1st - 30th July 2012	Attending Training Programme organized by Bosch Rexroth at VTU, Mysore.
81	Mr. Dinesh Kumar Singh	Asstt. Prof., ME Deptt.	1st - 30th July 2012	Attending Training Programme organized by Bosch Rexroth at VTU, Mysore.
82	Prof. Ashiv Shah	Head, TIFAC-CORE	1st - 30th July 2012	Attending Training Programme organized by Bosch Rexroth at VTU, Mysore.
83	Dr. Bharat Bhushan Sagar	Asso. Prof., IT Deptt.	9th - 17th July 2012	Attending a 14th eight day orientation program on Human Values & Professional Ethics organized by GBTU at IIT Kanpur.
84	Mr. Shashank Sahu	Asso. Prof., CSE Deptt.	9th - 17th July 2012	Attending a 14th eight day orientation program on Human Values & Professional Ethics organized by GBTU at IIT Kanpur.

S. No.	Name of Faculty	Designation & Deptt.	Dates	Description of Seminar / Conferences / Workshop / Training Program
85	Mr. Vivek Kumar Pansari	Asstt. Prof., CSE Deptt.	9th - 17th July 2012	Attending a 14th eight day orientation program on Human Values & Professional Ethics organized by GBTU at IIT Kanpur.
86	Mr. S.S. Sharma	Asstt. Prof., EN Deptt.	9th - 17th July 2012	Attending a 14th eight day orientation program on Human Values & Professional Ethics organized by GBTU at IIT Kanpur.
87	Mr. Kapil Tomar	Asstt. Prof., IT Deptt.	24th July 2012	Attending a Faculty Development Program on Quality Assurance and Software Estimation and Knowledge Management & IT organized by TCS at NIET, Greater Noida.
88	Ms. Kirti Seth	Asstt. Prof., CSE Deptt.	24th July 2012	Attending a Faculty Development Program on Quality Assurance and Software Estimation and Knowledge Management & IT organized by TCS at NIET, Greater Noida.
89	Mr. Shashank Sahu	Asstt. Prof., CSE Deptt.	24th July 2012	Attending a Faculty Development Program on Quality Assurance and Software Estimation and Knowledge Management & IT organized by TCS at NIET, Greater Noida.
90	Prof. R.K. Mehrotra	Prof., ECE Deptt.	27th July 2012	Attending a roundtable conference on Cross Media Ownership organized by ASSOCHAM at Oberoi Hotel, New Delhi.

(August 2012 - July 2013)

S. No.	Name of Faculty	Designation & Deptt.	Dates	Description of Seminar / Conferences / Workshop / Training Program
1	Ms. Shilpa Sambhi	Asstt. Prof., EN Deptt.	6 th Aug. to 10 th Aug. 2012	Training program of LabVIEW Core 1 & 2 organised by National Instrument Systems India Pvt. Ltd. at Saket, Delhi.
2	Mr. Aniruddha Singh Gautam	Asstt. Prof., EN Deptt.	6 th Aug. to 10 th Aug. 2012	Training program of LabVIEW Core 1 & 2 organised by National Instrument Systems India Pvt. Ltd. at Saket, Delhi.
3	Dr Nishi Bala Chauhan	Asstt. Prof., AS&H Deptt.	22 nd Aug. 2012	Workshop on Professional Communication at MTU, Noida.
4	Dr Sweety Agarwal	Asstt. Prof., AS&H Deptt.	22 nd Aug. 2012	Workshop on Professional Communication at MTU, Noida.
5	Dr R.K. Mehrotra	Prof., ECE Deptt.	31 st Aug. 2012	2 nd International Green Manufacturing Summit organised by Confederation of Indian Industry (CII) in association with Organisation for European Economic Development (OECD) and Business & Advisory Committee (BIAC) at Hotel Taj Mahal, New Delhi.
6	Prof. Ashiv Shah	Prof. & Head, TIFAC- CORE	5 th Sept. 2012	Annual Session and National Conference organised by ACMA at New Delhi.
7	Dr B.B. Sagar	Asso. Prof., IT Deptt.	7 th Sept. 2012	National Conference on Research & Development in Computational and Information Technology (NCRDCIT'12) in association with Defence Research Development Organisation, Min. of Defence, Govt. of India at SRM University, Modinagar, Ghaziabad.
8	Mr. Sumit Sharma	Asstt. Prof., IT Deptt.	7 th Sept. 2012	International Conference on Issues and Challenges in Networking, Intelligence and Computing Technologies (ICNICT-2012) organised by Krishna Institute of

S. No.	Name of Faculty	Designation & Deptt.	Dates	Description of Seminar / Conferences / Workshop / Training Program
				Engineering & Technology, Ghaziabad.
9	Mr. Ajay Pratap Singh	Asstt. Prof., ME Deptt.	21 st Sept. 2012	International Conference on Applications of Fluid Engineering at G.L. Bajaj Institute of Technology & Management, Greater Noida.
10	Ms. Mamta Bhusry	Asso. Prof., CSE Deptt.	4 th Oct. 2012	Faculty Development Program on Linux Essentials & Handling Indian Language Text at JSS Academy of Technical Education, Noida.
11	Ms. Deepti Singh	Asstt. Prof., CSE Deptt.	4 th Oct. 2012	Faculty Development Program on Linux Essentials & Handling Indian Language Text at JSS Academy of Technical Education, Noida.
12	Mr. Sumit Sharma	Asstt. Prof., IT Deptt.	4 th Oct. 2012	Faculty Development Program on Linux Essentials & Handling Indian Language Text at JSS Academy of Technical Education, Noida.
13	Ms. Yogita Chhabra	Asstt. Prof., IT Deptt.	4 th Oct. 2012	Faculty Development Program on Linux Essentials & Handling Indian Language Text at JSS Academy of Technical Education, Noida.
14	Ms. Shiva Tyagi	Asstt. Prof., CSE Deptt.	5 th Oct. 2012	Faculty Development Program on Linux Essentials & Handling Indian Language Text, Scilab Essentials and Python Essentials at JSS Academy of Technical Education, Noida.
15	Dr. Sunita Yadav	Prof., CSE Deptt.	5 th Oct. 2012	Faculty Development Program on Linux Essentials & Handling Indian Language Text, Scilab Essentials and Python Essentials at JSS Academy of Technical Education, Noida.
16	Mr. Narendra Kumar	Asstt. Prof., IT Deptt.	5 th Oct. 2012	Faculty Development Program on Python Essentials at JSS Academy of Technical Education, Noida.
17	Mr. Vipin Kumar Pandey	Asstt. Prof., IT Deptt.	5 th Oct. 2012	Faculty Development Program on Python Essentials at JSS Academy of Technical Education, Noida.
18	Prof. Ashiv Shah	Prof. & Head,	15 th to 17 th Oct.	11th Annual Educators Day 2012 organized by Nurturing Innovation and

S. No.	Name of Faculty	Designation & Deptt.	Dates	Description of Seminar / Conferences / Workshop / Training Program
		TIFAC-CORE	2012	Creativity in Education (NICE) in association with National Instruments at Chennai.
19	Ms. Shilpa Sambhi	Asstt. Prof., EN Deptt.	15 th to 17 th Oct. 2012	11th Annual Educators Day 2012 organized by Nurturing Innovation and Creativity in Education (NICE) in association with National Instruments at Chennai.
20	Prof. M.P. Dave	Prof., EN Deptt.	12 th to 20 th Oct. 2012	Research & Development (R&D) Conclave jointly organised by CPRI and CEA at New Delhi.
21	Mr. Ravinder Kumar	Asstt. Prof., EN Deptt.	19 th to 20 th Oct. 2012	Research & Development (R&D) Conclave jointly organised by CPRI and CEA at New Delhi.
22	Dr I.P.S. Paul	Prof., ME Deptt.	19 th to 20 th Oct. 2012	Research & Development (R&D) Conclave jointly organised by CPRI and CEA at New Delhi.
23	Prof. M.K. Muju	Prof., ME Deptt.	19 th to 20 th Oct. 2012	Research & Development (R&D) Conclave jointly organised by CPRI and CEA at New Delhi.
24	Prof. B.M. Kalra	Prof., CSE Deptt.	3 rd Nov. 2012	IEEE International Conference on Computational Intelligence & Communication Networks organised by GLA University, Mathura.
25	Dr Rajesh Prasad	Prof., CSE Deptt.	3 rd Nov. 2012	IEEE International Conference on Computational Intelligence & Communication Networks organised by GLA University, Mathura.
26	Prof. Ashiv Shah	Prof. & Head, TIFAC-CORE	5 th to 8 th Nov. 2012	Conference of KUKA Partner at Pune.
27	Mr. Sunil Kumar Jha	Asstt. Prof., AS&H Deptt.	10 th Nov. 2012	Workshop on Nano-scale Devices and Fabrication organized by Nanoscale Research Facility at IIT, Delhi.
28	Ms. Purvi Jain	Lect. / Intern, TIFAC-CORE	20 th Nov. 2012	Workshop on National Instruments Technical Symposium - 2012 organized by National Instruments at Delhi.

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29	Mr. Aniruddha Kr. Gautam	Asstt. Prof., EN Deptt.	20 th Nov. 2012	Workshop on National Instruments Technical Symposium - 2012 organized by National Instruments at Delhi.
30	Dr Anil Kumar Rai	Prof., EN Deptt.	23 rd Nov. 2012	IEEE Workshop on Revitalizing Power Engineering Education at IIT Delhi
31	Mr. Ankit Dixit	Asstt. Prof., EN Deptt.	23 rd Nov. 2012	IEEE Workshop on Revitalizing Power Engineering Education at IIT Delhi
32	Ms. Nupur Mittal	Asstt. Prof., EN Deptt.	23 rd Nov. 2012	IEEE Workshop on Revitalizing Power Engineering Education at IIT Delhi
33	Ms. Mamta Bhusry	Asso. Prof., CSE Deptt.	29 th to 30 th Nov. 2012	International Conference FOBE 2012 organized by Institute of Management Technology, Ghaziabad
34	Mr. Ankit Dixit	Asstt. Prof., EN Deptt.	29 th Nov. to 1 st Dec. 2012	Short Term Course on Power Electrical in Mini / Micro Hydro Power Generation (PEMHPG) organized by IIT Roorkee.
35	Prof. Ashiv Shah	Prof. & Head, TIFAC- CORE	3 rd Dec. 2012	AMS India Conference - 2012 at Pune
36	Dr Sweety Agarwal	Asstt. Prof., AS&H Deptt.	5 th to 13 th Dec. 2012	Orientation Program for Teachers on Human Values and Professional Ethics organized by GBTU, Lucknow at IIT, Kanpur
37	Dr Abhishek Pathak	Asstt. Prof., AS&H Deptt.	10 th to 13 th Dec. 2012	Faculty Development Programme on Physics organized by ABES Engineering College, Ghaziabad.
38	Dr Sachin Kumar	Asstt. Prof., AS&H Deptt.	10 th to 13 th Dec. 2012	Faculty Development Programme on Physics organized by ABES Engineering College, Ghaziabad.
39	Mr. Ravinder Kumar	Asstt. Prof., EN Deptt.	20 th to 21 st Dec. 2012	IEEE International Conference "PICONF 2012" organised by Deenbandhu Chottu Ram University of Science & Technology, Murthal (Haryana).
40	Ms. Purvi Jain	Lect. / Intern	17 th to 21 st Dec.	Training program of National Instrument Core 1 & 2 organised by National

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			2012	Instrument.
41	Prof. I.P.S. Paul	Prof., ME Deptt.	13 th to 15 th Dec. 2012	27 th Indian Engineering Congress at Vigyan Bhawan, Delhi
42	Mr. Sachin Thakur	Project Engineer, TIFAC-CORE	14 th to 25 th Jan. 2013	Training programme on Industrial Pneumatics at Janatics, Coimbatore
45	Mr. Vikash Kumar	Scientific Officer, TIFAC-CORE	15 th to 22 nd Jan. 2013	Training programme on Industrial Pneumatics at Janatics, Coimbatore
47	Mr. Dinesh Kr. Singh	Scientific Officer, TIFAC-CORE	15 th to 22 nd Jan. 2013	Training programme on Industrial Pneumatics at Janatics, Coimbatore
48	Mr. Kamlesh Singh	Project Engineer, TIFAC-CORE	14 th to 25 th Jan. 2013	Training programme on Industrial Pneumatics at Janatics, Coimbatore
49	Prof. Ashiv Shah	Head, TIFAC-CORE	15 th to 22 nd Jan. 2013	Training programme on Industrial Pneumatics at Janatics, Coimbatore
50	Mr. Ankit Dixit	Asstt. Prof., EN Deptt.	2 nd Feb. 2013	Workshop on MATLAB organized by KNIT, Sultanpur.
51	Ms. Shilpi Singh	Asstt. Prof., AS&H Deptt.	15 th to 16 th Feb. 2013	Workshop on Consumer Protection and Consumer Welfare in India organized by KIET School of Management, Ghaziabad.
52	Ms. Manisha Pratihast	Asstt. Prof., ECE Deptt.	8 th to 9 th Feb. 2013	National Conference on Wireless Communication and Emerging Trends organized by ABES Engineering College, Ghaziabad
53	Mr. Sachin Kumar Gupta	Asstt. Prof., ECE Deptt.	8 th to 9 th Feb. 2013	National Conference on Wireless Communication and Emerging Trends organized by ABES Engineering College, Ghaziabad

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54	Dr. R.K. Mehrotra	Prof., ECE Deptt.	22 nd Feb. 2013	Annual Conference on Transformation through Broadband organized by PTC India Foundation at Casuarina, India Habitat Centre, New Delhi.
55	Prof. R.P. Saw	HOD, IT Deptt.	19 th Feb. 2013	Conference on Enhancing Competitiveness of Uttar Pradesh organized by CII Western Uttar Pradesh at Hotel Radisson, Noida.
56	Mr. Rajeev Singh	Asstt. Prof., CSE Deptt.	2 nd March 2013	National Conference on E-Learning : Tool, Technology and Current Trends organized by MAIT, Ghaziabad.
57	Dr Shiwani Singhal	Asso. Prof., AS&H Deptt.	1 st to 2 nd Mar. 2013	Workshop on Nano Science & Nano Technology organized by Jamia Millia Islamia University, New Delhi
58	Dr Parul Verma	Asstt. Prof., AS&H Deptt.	1 st to 2 nd Mar. 2013	Workshop on Nano Science & Nano Technology organized by Jamia Millia Islamia University, New Delhi
59	Prof. Ashiv Shah	Head, TIFAC-CORE	14 th to 15 th Mar. 2013	Workshop on Robotics & Automation at MGMI, ISB, Mohali, Chandigarh.
60	Mr. Sachin Thakur	Project Engineer, TIFAC-CORE	14 th to 15 th Mar. 2013	Workshop on Robotics & Automation at MGMI, ISB, Mohali, Chandigarh.
61	Mr. Vikash Kumar	Scientific Officer, TIFAC-CORE	14 th to 15 th Mar. 2013	Workshop on Robotics & Automation at MGMI, ISB, Mohali, Chandigarh.
62	Mr. Dinesh Kumar Singh	Scientific Officer, TIFAC-CORE	14 th to 15 th Mar. 2013	Workshop on Robotics & Automation at MGMI, ISB, Mohali, Chandigarh.
63	Ms. Shilpa Sambhi	Scientific Officer, TIFAC-CORE	14 th to 15 th Mar. 2013	Workshop on Robotics & Automation at MGMI, ISB, Mohali, Chandigarh.

S. No.	Name of Faculty	Designation & Deptt.	Dates	Description of Seminar / Conferences / Workshop / Training Program
64	Mr. Kapil Tomar	Asstt. Prof., IT Deptt.	21 st to 23 rd Mar. 2013	Workshop on Big Data organized by Infosys at NC College of ENgineering, Israna, Haryana.
65	Dr Lakshman Hari	Prof., EN Deptt.	3 rd April 2013	International Conference and Exhibition GRIDTECH-2013 on New Technology in Transmission, Distribution, Smart Grid, Load Despatch & Communication organized by Powergrid.
67	Prof. M.P. Dave	M.Tech Co-ordinator	3 rd April 2013	International Conference and Exhibition GRIDTECH-2013 on New Technology in Transmission, Distribution, Smart Grid, Load Despatch & Communication organized by Powergrid.
68	Prof. V.K. Parashar	HOD, EN Deptt.	3 rd April 2013	International Conference and Exhibition GRIDTECH-2013 on New Technology in Transmission, Distribution, Smart Grid, Load Despatch & Communication organized by Powergrid.
69	Mr. Manish Zadoo	Asstt. Prof., ECE Deptt.	5 th April 2013	National Conference on Electronics and Communication System organized by Inderprastha Engineering College, Ghaziabad
70	Mr. Rahul Dixit	Asstt. Prof., EN Deptt.	4 th May to 14 th June 2013	Workshop on Analog Electronics, under the National Mission on Education through ICT (MHRD, Govt. of India) organised by IIT, KGP at RKGIT, Ghaziabad.
71	Mr. Ankit Dixit	Asstt. Prof., EN Deptt.	4 th May to 14 th June 2013	Workshop on Analog Electronics, under the National Mission on Education through ICT (MHRD, Govt. of India) organised by IIT, KGP at RKGIT, Ghaziabad.
72	Mr. Vikas Goel	Asstt. Prof., CSE Deptt.	8 th April 2013	International Conference on Communication System and Network Technologies (CSNT 2013) at Gwalior.
73	Mr. Pallab Biswas	Asso. Prof., ME Deptt.	8 th May 2013	Workshop on Gemba Kaizen Practice on your Work Site organised by Ghaziabad Management Association in association with The AOTS Alumni Society Delhi Chapter at Hotel Mela Plaza, Raj Nagar, Ghaziabad

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74	Ms. Sangita Rani Satapathy	Asstt. Prof., CSE Deptt.	21 st to 31 st May 2013	Workshop on Database Management System under the National Mission on Education through ICT (MHRD, Govt. of India), conducted by IIT Bombay at MGM College, Noida.
75	Ms. Prachi Maheshwari	Asstt. Prof., CSE Deptt.	21 st to 31 st May 2013	Workshop on Database Management System under the National Mission on Education through ICT (MHRD, Govt. of India), conducted by IIT Bombay at MGM College, Noida.
76	Prof. Ashiv Shah	Head, TIFAC- CORE	12 th June 2013	Techweek at Marshall Automation, Ludiana
77	Mr. Amit Kr. Gupta	Asstt. Prof., ME Deptt.	1 st - 5 th July 2013	QIP Short Term Course on Processing & Fabrication of Metal Matrix Composition
78	Dr Ranjit Singh	Prof., ECE Deptt.	9 th July 2013	Workshop on Innovation at MTU.
79	Dr R.K. Mehrotra	Prof., ECE Deptt.	20th July 2013	IETE Workshop on LTE with Surya Munda organized by IETE Delhi Chapter.
80	Ms. Nupur Mittal	Asstt. Prof., EN Deptt.	26th July 2013	FDP for Sensor & Instrumentation at MTU, Noida.
81	Mr. Deepak Narang	Asstt. Prof., EN Deptt.	26th July 2013	FDP for Sensor & Instrumentation at MTU, Noida.
82	Ms. Gauri	Asstt. Prof., AS&H Deptt.	26th - 27th July 2013	Faculty Development Programme at MTU, Noida
83	Dr Parul Verma	Asstt. Prof., AS&H Deptt.	29th - 8th Aug. 2013	Orientation Program for Course AUC-001 (Human Values and Professional Ethics) at Lucknow.

(August 2013 - July 2014)

S. No.	Name of Faculty	Designation & Deptt.	Dates	Description of Seminar / Conferences / Workshop / Training Program
1	Dr Rajesh Prasad	Prof., CSE Deptt.	3 rd to 4 th Aug. 2013	Conference ICCCLM-2013 organized by United Institute of Technology, Allahabad
2	Mr. Sachin Thakur	Project Engineer, TIFAC-CORE	5 th to 8 th Aug. 2013	Development of Project at Janatics, Coimbatore
3	Mr. Dinanath Prasad	Asstt. Prof., EN Deptt.	23 rd to 24 th Aug. 2013	National Seminar on Recent Technological Developments in the field of Electrical Engineering at JSS Academy of Technical Education, Noida.
4	Mr. Ravinder Kumar	Asstt. Prof., EN Deptt.	23 rd to 24 th Aug. 2013	National Seminar on Recent Technological Developments in the field of Electrical Engineering at JSS Academy of Technical Education, Noida.
5	Dr Sachin Kumar	Prof., CSE Deptt.	10 th Sept. 2013	Seminar on Distinguished Facilitator, Inspire Faculty Excellence Awards – 2013 organized by Infosys, Chandigarh.
6	Mr. Shashank Sahu	Asso. Prof., CSE Deptt.	10 th Sept. 2013	Seminar on Distinguished Facilitator, Inspire Faculty Excellence Awards – 2013 organized by Infosys, Chandigarh.
7	Mr. Akhilesh Verma	Asstt. Prof., CSE Deptt.	10 th Sept. 2013	Seminar on Distinguished Facilitator, Inspire Faculty Excellence Awards – 2013 organized by Infosys, Chandigarh.
8	Ms. Sangita Rani Satapathy	Asstt. Prof., CSE Deptt.	10 th Sept. 2013	Seminar on Distinguished Facilitator, Inspire Faculty Excellence Awards – 2013 organized by Infosys, Chandigarh.
9	Prof. Ashiv Shah	Head, TIFAC-CORE	1 st to 2 nd Sept. 2013	Attend the NI Educators Day at Chennai
10	Mr. Dinesh Kumar Singh	Scientific Officer, TIFAC-CORE	16 th to 17 th Sept. 2013	Workshop cum Training Program on Solid Works Software (Design, Situation - FEA, Flow Simulation - CFD and Plastic Flow Simulation) organised by MTU, Noida.

S. No.	Name of Faculty	Designation & Deptt.	Dates	Description of Seminar / Conferences / Workshop / Training Program
11	Mr. Rajeev Kumar Mishra	Manager Special Project, T&P Cell	25 th Sept. 2013	Workshop of NBA for stakeholders at JSS Academy of Technical Education, Noida
12	Dr Sachin Kumar	Prof., CSE Deptt.	27 th – 28 th Sept. 2013	National Conference on ICEIT organized by India International Centre.
13	Prof. K.K. Tripathi	Prof., ECE Deptt.	27 th to 28 th Sept. 2013	National Conference on Advances in Mobile Communications, Networking and Computing organised by Institution of Communication Engineers and Information Technologists (ICEIT), New Delhi.
14	Dr Sachin Kumar	Prof., CSE Deptt.	27 th to 28 th Sept. 2013	National Conference on Advances in Mobile Communications, Networking and Computing organised by Institution of Communication Engineers and Information Technologists (ICEIT), New Delhi.
15	Mr. Amit Kumar Gupta	Asstt. Prof., ME Deptt.	25 th to 27 th Oct. 2013	International Conference at Geeta Institute of Management and Technology, Kurukshetra.
16	Mr. Rajeev Kumar Mishra	Manager Special Project, T&P Cell	17 th to 19 th Oct. 2013	Workshop of NBA for stakeholders at JSS Academy of Technical Education, Noida
17	Mr. Manish Zadoo	Asstt. Prof., ECE Deptt.	13 th to 18 th Nov. 2013	Training Program on LabVIEW Software at BMS College, Bangalore
18	Mr. Dinesh Kumar Singh	Scientific Officer, TIFAC-CORE	24 th Nov. to 2 nd Dec. 2013	Advance Train the Trainer Program at Bosch Rexroth, Germany
19	Mr. Sachin Thakur	Project Engineer, TIFAC-CORE	24 th Nov. to 2 nd Dec. 2013	Advance Train the Trainer Program at Bosch Rexroth, Germany
20	Ms. Anjali Sharma	Asstt. Prof., AS&H	30 th Nov. 2013	Workshop on Technical Writing at ABES Engineering College, Ghaziabad

S. No.	Name of Faculty	Designation & Deptt.	Dates	Description of Seminar / Conferences / Workshop / Training Program
		Deptt.		
21	Dr Gauri	Asstt. Prof., AS&H Deptt.	30 th Nov. 2013	Workshop on Technical Writing at ABES Engineering College, Ghaziabad
22	Dr Mukesh Chandra	Asstt. Prof., AS&H Deptt.	3 rd to 5 th Dec. 2013	Faculty Development Program at ABES Engineering College, Ghaziabad
23	Mr. Pancham Singh	Asstt. Prof., IT Deptt.	16 th to 20 th Dec. 2013	Faculty Enablement Program organized by Infosys Limited at Dr J.J. Magdum College of Engineering, Kolhapur, Maharashtra
24	Mr. Arun Kumar Sharma	Asstt. Prof., EN Deptt.	9 th to 13 th Dec. 2013	Short Term Course on Signal Processing in Modern Electrical Systems at Delhi Technical University, Delhi.
25	Mr. Praveen Kumar	Asstt. Prof., EN Deptt.	9 th to 13 th Dec. 2013	Short Term Course on Signal Processing in Modern Electrical Systems at Delhi Technical University, Delhi.
26	Ms. Manisha Pratihast	Asstt. Prof., ECE Deptt.	17 th to 21 st Dec. 2013	Faculty Development Program on Advancements in Adaptive Signal Processing at Malaviya National Institute of Technology, Jaipur
27	Prof. Ashiv Shah	Head, TIFAC- CORE	9 th to 13 th Dec. 2013	Conference on Automotive Manufacturing Solution organized by KUKA at Pune
28	Prof. P.K. Chopra	HOD, ECE Deptt.	23 rd Dec. 2013	Seminar on Development of NGN in India at India International Centre, New Delhi
29	Prof. R.K. Mehrotra	Prof., ECE Deptt.	23 rd Dec. 2013	Seminar on Development of NGN in India at India International Centre, New Delhi
30	Ms. Vani Bhargava	Asstt. Prof., EN Deptt.	6 th to 10 th Jan. 2014	Workshop on Microcontroller Based Embedded System Through ICT organized by R.D. Engineering College, Ghaziabad.
31	Ms. Shimli Verma	Asstt. Prof., AS&H Deptt.	15 th to 17 th Jan. 2014	Faculty Development Programme on Modelling, Simulation and MATLAB Tools at ABES Engineering College, Ghaziabad.

S. No.	Name of Faculty	Designation & Deptt.	Dates	Description of Seminar / Conferences / Workshop / Training Program
32	Ms. Meenakshi Sinha	Asstt. Prof., AS&H Deptt.	15 th to 17 th Jan. 2014	Faculty Development Programme on Modelling, Simulation and MATLAB Tools at ABES Engineering College, Ghaziabad.
33	Dr Tarunjeet Singh	Asstt. Prof., AS&H Deptt.	15 th to 17 th Jan. 2014	Faculty Development Programme on Modelling, Simulation and MATLAB Tools at ABES Engineering College, Ghaziabad.
34	Prof. R.P. Saw	Prof. & HOD, IT Deptt.	22 nd Jan. 2014	Seminar on Cloud Technology organized by Oracle Cloud World, New Delhi at Taj Palace, New Delhi.
35	Prof. R.K. Mehrotra	Prof., ECE Deptt.	22 nd Jan. 2014	European Union-India GNSS Collaboration Seminar on Global Navigation Satellite System (GNSS) at Le Meridian, New Delhi
36	Mr. Devvrat Tyagi	Asstt. Prof., ECE Deptt.	20 th to 24 th Jan. 2014	Training Program on LabVIEW Core 1 & Core 2 organized by National Instruments India at NI Systems (India) Pvt. Ltd., Saket, New Delhi.
37	Mr. Rahul Vivek Purohit	Asstt. Prof., ECE Deptt.	24 th to 25 th Jan. 2014	National Conference on Wireless Communication & Emerging Trends (NCWCET) organized by ABES Engineering College, Ghaziabad.
38	Ms. Richa	Asstt. Prof., ECE Deptt.	24 th to 25 th Jan. 2014	National Conference on Wireless Communication & Emerging Trends (NCWCET) organized by ABES Engineering College, Ghaziabad.
39	Mr. Gaurav Srivastava	Scientific Officer, TIFAC-CORE	18 th to 25 th Jan. 2014	Training Programme on Robot Programming KRC4 Basic / Advance Level at Pune Training Centre, Pune.
40	Mr. Aniruddha Kumar Gautam	Scientific Officer, TIFAC-CORE	27 th Jan. to 1 st Feb. 2014	Training Programme on CORE-3 (Advance Level) Module organized by National Instruments India, Bangalore.
41	Dr Sunita Yadva	Prof., CSE Deptt.	7 th Feb. 2014	International Conference on Issues and Challenges in Intelligent Computing Techniques organized by Krishna Institute of Engineering and Technology,

S. No.	Name of Faculty	Designation & Deptt.	Dates	Description of Seminar / Conferences / Workshop / Training Program
				Ghaziabad
42	Mr. Rakesh Kumar Singh	Asso. Prof., ME Deptt.	20 th to 22 nd Feb. 2014	National Workshop on Renewable Energy and its Applications organized by ABES Engineering College, Ghaziabad
43	Mr. Gaurav Tripathi	Asstt. Prof., ME Deptt.	20 th to 22 nd Feb. 2014	National Workshop on Renewable Energy and its Applications organized by ABES Engineering College, Ghaziabad
44	Mr. Shiv Shankar Srivastava	Sr. Librarian	28 th Feb. to 1 st Mar. 2014	National Workshop on Library Automation through OSS organized by INMANTEC, Ghaziabad.
45	Mr. Raj Chopra	Maintenance Supervisor	3 rd to 5 th Apr. 2014	Training Programme on DWWT at Centre for Science & Environment, Delhi.
46	Mr. Vikash Kumar	Scientific Officer, TIFAC-CORE	9 th to 11 th Apr. 2014	IIW International Congress -2014 on Advance Welding organized by Indian Institute of Welding at Pragati Maidan, New Delhi
47	Prof. Ashiv Shah	Head, TIFAC-CORE	9 th to 11 th Apr. 2014	IIW International Congress -2014 on Advance Welding organized by Indian Institute of Welding at Pragati Maidan, New Delhi
48	Prof. Ashiv Shah	Head, TIFAC-CORE	13 th to 24 th Apr. 2014	Train the Trainer Programme on Youbot at KUKA College, Germany.
49	Mr. Vikash Kumar	Scientific Officer, TIFAC-CORE	13 th to 24 th Apr. 2014	Train the Trainer Programme on Youbot at KUKA College, Germany.
50	Mr. Lalitesh Kumar	Asstt. Prof., EN Deptt.	23 rd Apr. 2014	Seminar on Teaching Control System Concepts using MATLAB and Simulink organized by MathWorks India Private Ltd. At The Hans, New Delhi.
51	Mr. Santosh Kumar	Asstt. Prof., EN Deptt.	23 rd Apr. 2014	Seminar on Teaching Control System Concepts using MATLAB and Simulink organized by MathWorks India Private Ltd. At The Hans, New Delhi.
52	Dr Niti Maheshwari	Asstt. Prof., AS&H Deptt.	5 th to 6 th May 2014	Workshop on Recent Advances in Chemical and Environmental Sciences organized by ABES Engineering College,

S. No.	Name of Faculty	Designation & Deptt.	Dates	Description of Seminar / Conferences / Workshop / Training Program
				Ghaziabad
53	Dr Nitya Sharma	Asstt. Prof., AS&H Deptt.	5 th to 6 th May 2014	Workshop on Recent Advances in Chemical and Environmental Sciences organized by ABES Engineering College, Ghaziabad
54	Dr Shweta Prakash	Asstt. Prof., AS&H Deptt.	26 th May to 3 rd Jun. 2014	Workshop on Human Value and Professional Ethics organized by UPTU at PSIT College of Engineering, Kanpur.
55	Prof. Ashiv Shah	Head, TIFAC- CORE	7 th to 9 th Jun. 2014	Workshop on Robotics at IIIT, Allahabad.
56	Ms. Priyanka Gupta	Asstt. Prof., CSE Deptt.	16 th to 21 st Jun. 2014	Workshop on Computer Programming organized by IIT, Bombay at Mahatma Gandhi Mission College of Engineering & Technology, Noida
57	Ms. Deepti Singh	Asstt. Prof., CSE Deptt.	16 th to 21 st Jun. 2014	Workshop on Computer Programming organized by IIT, Bombay at Mahatma Gandhi Mission College of Engineering & Technology, Noida
58	Ms. Nishu Bansal	Asstt. Prof., CSE Deptt.	16 th to 21 st Jun. 2014	Workshop on Computer Programming organized by IIT, Bombay at Mahatma Gandhi Mission College of Engineering & Technology, Noida
59	Ms. Neeti Chadha	Asstt. Prof., CSE Deptt.	17 th to 19 th July 2014	Workshop on Agile Software Development at NIT, Kurukshetra.
60	Mr. Vikash Kumar	Scientific Officer, TIFAC- CORE	19 th to 31 st Jul. 2014	Training Programme on Welding Inspector at Institute of Welding & Testing Technology, Mumbai
61	Mr. Scihin Thakur	Project Engineer, TIFAC- CORE	19 th to 31 st Jul. 2014	Training Programme on Welding Inspector at Institute of Welding & Testing Technology, Mumbai

Table-5: Conferences / Seminars / Workshops & Training Programmes attended by Faculty Members

b) Faculty Training programmes organized by the institution to empower and enable the use of various tools and technology for improved teaching-learning:

Details of Faculty training programmes organized by the institute are illustrated in table-5 of criterion 2.4.3. In addition to this following teaching approaches are adopted for improvement of teaching learning:

- **Teaching learning methods/approaches:**

Various delivery methods implemented to deliver the courses are listed below in the following table:

S. No.	Lecture Delivery method/Tools	Description	Remarks
1.	Use of Power point presentations (Prepared by Faculty members)	It includes a power point presentation of the topic being taught. To broaden the horizon of understanding, this is coupled with additional topics beyond syllabus and delivered using Laptop and LCD projection systems.	Found to be very effective and self explanatory as expressed by students.
2.	Use Of Smart Classes	This includes lecture delivery through an Audio-visual presentation of Multimedia based licensed software's for various subjects procured from reputed vendors , giving a three dimensional understanding of instruments and technical topics of diverse domains.	Found to be very effective in visualizing three dimensional concepts of difficult subjects.
3.	Use of Virtual labs for experimentation	This supplements practical understanding of theoretical concepts in a simulated environment	A Novel way of experimentation on platforms which are otherwise inaccessible to students
4.	Use of e-resources such as EDUSAT, NPTEL and IEEE terminals.	This supplements knowledge through online resources and offers research orientation	This upgrades the knowledge content of the faculty members and students in general.

Handling new curriculum:

The College has experienced & qualified faculty members to handle the new curriculum effectively. Before the beginning of each semester, a format for allocation of subjects is floated in the department.

The faculty member has to fill choice of various subjects desired to be taught by him/her based on experience and previous result of the subject.

Finally the HOD allocates the subject in accordance with the area of specialization and previous performance of the faculty member.

Content/knowledge management:

Faculties are attending National & International seminars & workshops.

They also organize seminars.

Each faculty in all the departments is to review an international paper and present a seminar of latest development or subject matter.

Selection, development and use of enrichment materials:

The college promotes technical temperament within the campus. In this direction, college organizes seminars, workshops, Faculty Development Programmes (FDP) and disseminates all standard practices expected to be followed in the engineering curriculum. Each department of the college conducts the following events on annual basis:

National conference/Seminar

Faculty Development Programme.

Annual program by each departmental society (Both technical & cultural).

Faculties that are newly appointed are subjected to induction programmes at departmental level.

Assessment:

HOD Class check Reports, Research paper reviews by faculty, Seminar review and self-appraisal report are the major yard sticks used for the promotion of the faculty. Besides this involvement of the faculty in the overall development of the department plays a vital role in their growth within the organization .It gives a clear picture in terms of their performance & contribution to additional assignments pertaining to the department or college at large. Suggestions for improvisation of academic system are sought through faculties through a self-appraisal report. These are used as a reference by the college.

Cross cutting issues:

Several cross cutting issues such as climate, gender, environment awareness, and human rights are given ample of weightage. There are large numbers of girl students in the college.

University has introduced compulsory subjects such as Environment and Ecology and Human values in the curriculum to sensitize students on these burning issues.

Audio Visual Aids/multimedia:

All Class rooms are equipped with LCD Projection Systems, LCD Screens, USB ports for Laptop connectivity, Wireless Audio systems and Green board. These facilities enhance lecture delivery and effective communication. To supplement this process, smart classes for certain subjects are conducted. This comprises of an Audio-Visual demonstration of the hardware, construction and operation of an equipment etc. This procedure offers a three-dimensional platform for understanding concepts with the aid of simulations.

Open Educational Resources (OER's):

The college promotes a culture of Open Educational Resources (OER). Faculty members are encouraged to share an e-copy of their well prepared notes and solutions in the form of e-resources.

In this direction, the central library is instrumental in offering soft/hard copies of well prepared

solutions of question papers (Both college and University) .The E-resources are loaded in the library computers where students can access, download or take hard copies of these resources.

Teaching learning material development, selection and use:

All faculty members have well prepared notes made from various reference books. The faculties are given free access to internet which helps them to collect learning material. The college has a well-stocked library containing books and journals of various subjects. Furthermore, the college organizes seminars, conferences, guest lectures and invited talks in conferences etc which help as a learning source for the faculty etc. The use of audio visual devices and computers in classroom further empowers the faculties.

c) Percentage of faculty:

Invited as resource persons in Workshops / Seminars / Conferences organized by external professional agencies: 20% (Approximately)

Participated in external Workshops / Seminars / Conferences recognized by national/international professional bodies: 50%(Approximately)

Presented papers in Workshops / Seminars / Conferences conducted or recognized by professional agencies: 50% (Approximately)

2.4.4 What policies/systems are in place to recharge teachers? (eg: providing research grants, study leave, support for research and academic publications teaching experience in other national institutions and specialized programmes industrial engagement etc.)

Following policies are in place to recharge faculty members:

- Faculty members are encouraged to pursue higher education for upgrading their qualifications. For Pursuing M.Tech or Ph.D. ,following provisions are made such as
(a) Adjustment of classes (b) Study leave
- Financial reward is given to faculty members whose papers are published in leading National and International journals and for publishing books.
- A subsidy of 50% is offered by the institute towards procurement of books bought for research etc.

2.4.5 Give the number of faculty who received awards / recognition at the state, national and international level for excellence in teaching during the last four years. Enunciate how the institutional culture and environment contributed to such performance/achievement of the faculty.

- Faculty members are recognized at the institutional level on the basis of their results at the university level.
- Faculty members achieving reasonably good results are rewarded with cash incentives according to the criteria defined by the college policy
- Over the last ten years, large number faculty members from each department have met these criteria and have been suitably awarded.
- Furthermore, this appreciation has been instrumental in scaling heights in results. Every year, a good number of our students across various streams have secured Gold, Silver and Bronze

medals at the university level.

- Due to this, the college has earned the distinction of “Best Engineering College” in UPTU, Lucknow among all Engineering colleges.

2.4.6 Has the institution introduced evaluation of teachers by the students and external Peers? If yes, how is the evaluation used for improving the quality of the teaching-learning process?

Yes, the institute has introduced an evaluation system by the students and external peers such as Alumni, Parents, and External auditing procedures of ISO. At the end of each semester, feedback regarding the subject taught by a faculty is collected from the students. This is reviewed by HoD. The feedback is rated in terms of the various academic parameters desirous of a faculty member. It is rated on a scale of five. Any faculty member securing less than 3.5 points is counseled by the HOD of the department for future improvement.

Internal and external auditing procedures are carried out for proper alignment with respect to the predefined Vision and Mission of the college. Deviations, if any are suitably communicated and rectified through calibration procedures.

These procedures have been instrumental in raising the standards of the processes and the quality of deliverable variables.

2.5 Evaluation Process and Reforms

2.5.1 How does the institution ensure that the stakeholders of the institution especially students and faculty are aware of the evaluation processes?

In order to ensure that the stakeholders of the institute are aware of the evaluation process, following measures are taken:

- Before the commencement of each semester, the evaluation scheme for each semester is checked by an evaluation committee in terms of the internal and external exam weightage. This is further crosschecked by the corresponding faculty teaching that subject.
- In this regard a meeting is conducted fortnightly by HoDs of every department. During these the evaluation processes are explained to each faculty member.
- Students are made aware of these processes through printed syllabi copies.
- All these details are also available on the University portal.

2.5.2 What are the major evaluation reforms of the university that the institution has adopted and what are the reforms initiated by the institution on its own?

As an affiliated College, our Director/senior professors attend and participate in all the meetings conducted by the University as members of BOS. Their suggestions have contributed to the following evaluation reforms introduced by the University.

S.No.	Reforms	Improvements
1	Making evaluation compulsory for all faculty who have completed two Years of teaching.	This has ensured timely completion of evaluation process and declaration of results.
2	Prescribing a lower limit for evaluation of answer	It has reduced errors due to erratic evaluation.

	scripts to 200 and maximum of 40 per day	
3	Introduction of OMR sheets during the examination as well as the evaluation.	Leading to speedy declaration of results and error free operations.
4	Decentralization of evaluation centers	Independent operations and parallel processing.

Reforms by the college:

- Devising of systematic evaluation procedures and assessment indicators and procedures in strict agreement with university.
- Conducting a Pre-University test for three hour duration, this is an exact replica of the End semester university exam.

2.5.3 How does the institution ensure effective implementation of the evaluation reforms of the university and those initiated by the institution on its own?

By the University: University (UPTU) ensures the examination process that it is going on is strictly adhering the norms & principles laid by the university. In this regard, University appoints Nodal center in charges, Center superintendent, Flying squads which are independent of each other. These entities cross verify the procedures and audit one another. This ensures smooth operations. Further these members are assigned rotational duties within a regular interval of number of examinations from the current semester examination to ensure impartial supervision.

By the Institution:

- Conducting a HoD meeting by the Director before every semester examination regarding the smooth conduct/implementation of examination rules, where every HoD give their suggestion on various aspects of examination and evaluation based upon the previous examinations. This enables further improvement in the subsequent examination and evaluation.
- Conducting a general meeting of all faculty members by the Director/Examination Superintendent before end semester examination regarding the smooth conduct/implementation of examination rules, where every faculty members are encouraged to give their suggestion on various aspects of examination based upon inputs of previous examinations. Then the unanimous suggestions are implemented for the subsequent examinations & the evaluations in conjunction with university norms.

2.5.4 Provide details on the formative and summative evaluation approaches adapted to measure student achievement. Cite a few examples which have positively impacted the system.

Formative & Summative Approaches Measuring Students’ Achievements with Examples:

• **Formative:**

The Primary objective of formative assessment is to monitor student learning, to provide Feedback regarding the ongoing lectures that can be used by instructors to improve their teaching and simultaneously by students to improve their learning. Formative Assessment of the students is done on the following parameters:

1. Assignments
2. Presentations
3. Industrial visits
4. Class interactions
5. Group discussions/Viva-voce
6. Workshops/Seminars
7. Projects
8. Written and practical tests
11. Inter college competitions
12. Overall attendance and conduct during the session.

- **Summative Assessment:**

The goal of summative assessment is to evaluate learning developed by a student towards the end of semester. Summative assessments are often high stakes, which means that they have a high point value. Summative Assessment takes place at the end of the academic session which is conducted by the college in the form of a Pre-University test at the end of the semester. This process helps the students to gain confidence and to achieve good results.

This is how the institution uses the formative and summative evaluation approach to measure the student's performance. Finally, the university conducts a summative evaluation (End semester examination) at the end of each semester through the following.

1. Written Exams
2. Practical Exams
3. Comprehensive Viva voce
4. Project work

2.5.5 Enumerate on how the institution monitors and communicates the progress and performance of students through the duration of the course/programme? Provide an analysis of the student's results/achievements (Programme/course wise for last four years) and explain the differences if any and patterns of achievement across the programmes/courses offered.

The college has setup an academic monitoring procedure in each department in consultation with the Director. Following procedure is laid down for monitoring the academic performance of a student.

Academic monitoring system: The academic performance is monitored by observing the students performance in the classrooms through class-tests, interactions, sessional tests and assignments. Monitoring is also done by observing their performance in final semester examinations taking both theoretical and practical aspects into consideration.

Regularity – The regularity of the students is monitored by recording presence /absence in every class.

Co-curricular and extra-curricular activity monitoring – After identifying their areas of interest in co-curricular and extra-curricular activities, the students participation/non participation is recorded. They are availed conditional attendance in the class on account of their participation in such activities. The students are guided to progress in all these factors by constant encouragement. Any short comings in any one or all the above factors are adequately addressed. The students and parents are communicated about the progress through mail, letter and in teacher's parents meet. Parents and local guardians are invited to the college and discuss the necessary action to be implemented for the progress of the student. Communications of the student's performance to the parents are through the following:

- Display on the notice board

- Through periodic performance reports to the parents.
- Parents Teachers Meet.
- Online information etc.

Table 6, presents a detailed analysis of student's results/achievements:

S.No.	Year	Branch	No. of Students appeared	Passed	I Class With Distinction	I Class	II Class	% of Pass
1.	2013-14	CSE	125	119	35	77	7	95.20
		ECE	127	124	41	79	4	97.64
		E&I	53	51	11	40	0	96.23
		EN	132	127	23	98	6	96.21
		IT	80	77	23	53	1	96.25
		ME	116	108	27	78	3	93.10
2.	2012-13	CSE	120	117	21	89	7	97.50
		ECE	121	117	27	85	5	96.69
		EN	120	113	21	88	4	94.17
		IT	84	83	22	56	5	98.81
		ME	119	110	10	97	3	92.44
3.	2011-12	CSE	127	124	29	84	11	97.64
		ECE	134	126	28	92	6	94.03
		EN	113	107	13	82	12	94.69
		IT	94	92	16	70	7	97.87
		ME	129	121	24	91	6	93.80
4.	2010-11	CSE	130	126	30	90	6	96.92
		ECE	126	124	24	88	12	98.41
		EN	108	100	10	81	9	92.59
		IT	93	92	24	64	4	98.92
		ME	106	94	8	82	4	88.68

TABLE 6

2.5.6 Detail on the significant improvements made in ensuring rigor and transparency in the internal assessment during the last four years and weight ages assigned for the overall development of students (weight age for behavioral aspects, independent learning, communication skills etc.

Following are some of the significant achievements over the last four years:

- **Improvements in Internal Assessment:** Written tests, sessional test, attendance, presentations, industrial visits, assignments, independent learning and behavioural aspects.
- **Transparency in Internal Assessment:** After evaluation of the assignments/tests/projects/ etc. the outcome results are discussed in the class, results are put on the notice board, students are individually counseled, feedback taken from the students for better assessment, as well as improving the existing standards of assessment.
- **Improvements in solution of question papers:** There has been betterment in the quality of question papers and solutions devised for these papers.
- **Weightage in Internal Assessment:** While evaluating students for internal assessment, transparency is maintained and due weightage is given for their behavioural attributes, independent learning and communication skills.

2.5.7 Does the institution and individual teachers use assessment/evaluation as an indicator for evaluating student performance, achievement of learning objectives and planning? If, yes provide details on the process and cite a few examples.

Yes, the Institute uses assessment/evaluation as an indicator tool for evaluating student performance as well as faculty performance. Following table illustrates the methods of assessment used as indicators of student performance:

S.No	Assessment Criteria	Outcomes
1	Written Assessment(Internal/External Exams)	Leading to enhanced Knowledge content and depth of understanding
2	Project Assessment	Develops the practical and technical knowledge.
3	Attendance Assessment	Leads to punctuality and discipline

2.5.8 What are the mechanisms for redressal of grievances with reference to evaluation both at the college and University level?

The redressal of grievances regarding evaluation in both internal assessment and university examination is through the following process:

Internal Assessment – The subject teacher shows evaluated copies to the students in the class. Student can ask the teacher if he/she has any doubt in evaluation. The teacher clarifies doubts regarding evaluation. Discrepancies if any are treated with seriousness and adequately addressed by HoD depending on the nature of the problem.

University examinations – In the case of university examinations, there is a mechanism adopted by the University for redressal of grievances. Within stipulated days of the announcement of the results, students can apply for revaluation/rechecking by filling a form through the registrar of the college.

Faculty and the college examination in-charge under instructions from Director forwards applications for revaluation to the university and follow it up regularly for speedy redressal of grievances.

2.6. Student Performance and Learning Outcomes

2.6.1 Does the college have clearly stated learning outcomes? If ‘yes’, give details on how the students and staff are made aware of these?

- In the recent years, institutions of higher education across the country have recognized that a full commitment to teaching and learning must include assessing and documenting what and how much students are learning and using this information to improve the education.
- Our institute also follows the similar pattern and has clearly stated learning outcomes. The vision and mission of the institution clearly states and stresses on the holistic development and a passion for learning of the individual. Every department has well defined Program Education Objectives (PEO). Further, they have clearly defined program outcomes (PO) and course outcomes (CO) and cross mapping has been done in between PEO, PO and CO. Moreover, evaluation of each PO and CO is done to check whether students have achieved them, and then use the results to make our courses better.
- The students are made aware of the learning outcomes in the classrooms, departmental technical society meetings and the meetings conducted by the HoD from time to time. The faculty is made aware of the learning outcomes for each course which is clearly indicated in the curriculum provided to the students. If it is not indicated in the curriculum, faculty themselves will define learning outcomes. The faculties are made aware of these during regular department meetings.
- The learning outcomes are displayed at the department notice boards, published in the departmental journals and AKGEC international journal.

2.6.2 Enumerate on how the institution monitors and communicates the progress and performance of students through the duration of course/ achievements? (Programme/ Course wise for last four years) and explain the differences if any and patterns of achievement across the programmes/ courses offered.

The institution monitors and communicates the progress and performance of students through the duration of course/ achievements by following ways:

- Two class tests, two sessional tests and one pre-university test are conducted during the semester.
- The faculty evaluates the students through these sessional tests and assignments during the semester.
- The report is sent to the head of institution (Director) after evaluating in a fair and open manner.
- The parents are informed regarding attendance shortage through letters.
- The student’s performance is closely monitored by their respective faculty in-charges and concerned faculty members.
- The students along with faculty in-charge are made to interact with HoD to counsel weak students and suggest remedial actions such as extra classes for them.
- The answer books are shown to the students.
- The evaluation of a student is based on continuous assessment.

Project Evaluation:

- Right from the initial stages of defining the problem, the student has to submit the progress reports periodically and also present the progress in the form of presentations in addition to the regular discussion with the guide and the HOD.
- There are a total of six presentations for each project: three presentations per semester

The structure for evaluation is as follows:

S.No.	Type of Examination (Internal)	Frequency	Duration/Time	Marks
1	Class Test-1	Twice a Semester	20 Min	10
2	Sessional Test-1	Twice a Semester	1 Hour	30
3	Class Test-2	Twice a Semester	20 Min	10
4	Sessional Test-2	Twice a Semester	1 Hour	30
5	Pre-University Test	Once a Semester	3 hour	100
6	Viva-Voce	Twice a Semester	2 Hour	10-20
7	Project	Thrice a Semester	2 Hour/Week	150

Result Analysis: Pass Percentage (%)

Courses	2013-14	2012-2013	2011-2012	2010-2011
B.Tech (CSE)	95.20	94.12	97.64	96.92
B.Tech (ECE)	97.64	96.61	94.03	98.41
B.Tech.(E&I)	96.23	-	-	-
B.Tech (EN)	96.21	94.17	94.69	92.59
B.Tech (IT)	96.25	98.81	97.87	98.92
B.Tech (ME)	93.10	92.37	93.80	88.68

2.6.3. How are the teaching, learning and assessment strategies of the institution structured to facilitate the achievement of the intended learning outcomes?

The institution adopts the following strategies for both undergraduate and postgraduate students:

Teaching Strategies

- Faculty development programs are conducted by the institution from time to time.
- A course file has been prepared before the beginning of each semester which includes quality policy, quality objective, program education objective, syllabus, lesson plan, assignments, previous year question papers and hand-written notes.

- Library books are procured based on the teacher syllabus requirements from college library and departmental library.
- Class visit by HODs to assess the teaching standard of faculties and suggestions for improvement if required.

Learning Strategies:

- The institution has a conducive learning environment. Slow learners and advance learners are identified and given remedial classes and special assignment respectively. Every department has a buddy programs in which advance learners will also help slow learners.
- Library and computer lab working hours are scheduled keeping in mind the extended support these departments can extend after regular class hours.

Assessment Strategies

- Classroom interactions help teachers to assess the learning outcome of that session
- Regular tests and exams are conducted and the result analysis done.
- Every student signs student attendance before every sessional test (ST-1, ST-2 and PUT) in faculty register.
- Library issues book bank (text books prescribed in the curriculum) to every student before the commencement of each semester. Apart from these books, library books are also issued to the students for prescribed time.
- The institution also has mentoring sessions, grievance cell to cater to the diverse requirements of the students.
- The training and placement cell of the college nurtures the entrepreneurial skills of the students, and encourages student in public speaking and group discussion through Personality Development Programs (PDP) and Campus Connect Programs (CCP).
- The Applied Sciences & Humanities (AS & H) department encourages students in creative writing, vocabulary and language exercises.
- Every department has its technical society which conducts different events on enhancing creative talent of students.
- The sports committee caters to the physical development of the students by not only encouraging them to participate in various sports but also develop sportsmanship in them.
- Guest lectures, workshops, seminars and conferences are conducted by every department for graduate and postgraduate students.

2.6.4 What are the measures/ initiatives taken up by the institution to enhance the social and economic relevance (student placements, entrepreneurship, innovation and research aptitude developed among the students etc.) of the courses offered?

Every institute has social as well as economic responsibility. Following are the measures/ initiatives taken up by the institution to enhance the social and economic relevance:

- **TIFAC – CORE:** The establishment of TIFAC-Centre of Relevance and Excellence (CORE) in the field of Automation & Robotics is one initiative. This centre is approved by DST, Govt. of India to promote research, consultancy, project development and training in the emerging technological field of Automation and Robotics.
- **AKGEC-KUKA:** The College has also set up India's first Industrial Robot Training Centre in Collaboration with KUKA Robotics, Germany. This centre is setup to produce highly skilled technical manpower in the field of Industrial Robotics. The trained manpower will help Indian

Manufacturing Industry to adopt latest technologies to improve quality and work condition with high productivity.

- **AKGEC-NI Lab VIEW:** Academy curriculum gives students the opportunity to validate their knowledge and skills at a professional level with certification. Experience and certification in Lab VIEW can improve students' career opportunities.
- **IPKC:** The College is also associated with Janatics India Pvt. Ltd. (JIPL) to establish Industrial Pneumatics Knowledge Centre (IPKC) at AKGEC, Association of Janatics and AKGEC is aimed at setting up a world class Pneumatic knowledge centre in India. The centre will be designed to support the training need of the manufacturing industry, young engineers, students and concerned professionals.
- AKGEC jointly with **Bosch Rexroth** AG, Germany has established Centre of Competence in Automation Technology at AKGEC, is the first centre in North India. The centre is well equipped with state of art facilities of Hydraulics, Pneumatics, Sensorics, PLCs and Mechatronics. The centre is designed to support the training need of the manufacturing industry, young engineers, students and concerned professionals.
- **Microsoft IT Academy (MSITA):** The courses under MSITA are designed by Microsoft and are delivered by 'Microsoft Trained Trainers' through Microsoft Delivery Partner ATS InfoTech P. Ltd. The enrolled students will be exposed to the latest Microsoft Technologies that will enable them to be market ready thereby increasing their placement opportunities manifold. The course contents include C# language, visual Studio, ADO.net, SQL Server, Silverlight, Linux, ASP.Net, Ajax, WPF, WCK and other technologies. The students can subsequently appear for Microsoft Global Certifications. The value addition beyond the curriculum promises to go a long way in promoting their careers in today's competitive job scenario.
- **Networking Academy:** The academy provides industrial exposure to our students in networking domain by introducing world class and industry proven courses for producing the next generation certified networking experts. Cisco being the leader in the networking domain, the academy offers training on Cisco Certified Network Associate (CCNA), Cisco Certified Network Professional (CCNP) and Cisco Certified Inter-Networking Expert (CCIE), as huge demand of Cisco certified professional exists in networking industry. The Cisco certification attained by students will enhance their placement opportunities in the international market manifold.
- **CCP:** The College is part of the Campus Connect Program with Infosys for training students in accordance with the needs of the industry. The college also conducts specialized courses for CAD packages like PRO-E.
- **PDP:** Besides this, AKGEC strives to inculcate responsibility and accountability in its students; responsibilities towards their organizations and accountability towards the society. The college conducts Personality Development Program which enhances the soft skills of students, building up their self-confidence and motivating them to scale new unbound heights of glory.

- **T & P Cell:** The Training and Placement Cell is committed to fulfilling the dreams of all those who graduate from our institute. The main objective of the placement cell is to place the students in good companies. This is achieved through campus selections conducted in the college for which the students are trained in aptitude, technical and soft skills, much ahead of campus selections. The Cell believes in overall development of the students' personality, which will help them to achieve a rewarding career.

2.6.5 How does the institution collect and analyze data on student performance and learning outcomes and use it for planning and overcoming barriers of learning?

Institution has specified procedure to collect and analyze data on student learning outcome; the following points are adopted by the institute in this context:

- Continuous evaluation comprising of class tests, sessional tests, pre-university test, assignments.
- Mentorship classes, class tests, viva in the lab
- Projects
- Internal and External examination
- Seminar and project presentation by students

Institute has taken following steps to overcome barriers:

- By showing answer books to students to make them understand their relative strengths and weaknesses
- Minimum attendance percentage (75%) and eligible criterion is followed
- Extra classes for weak students to solve their problems
- The regular evaluation of teachers (syllabus monitoring, faculty feedback (after every semester)) helps in the improvement of learning outcomes
- If there is any issue, counseling has been done by HoD and corrective actions/ measures have been taken in that regard.

2.6.6 How does the institution monitor and ensure the achievement of learning outcomes?

The institution has a clearly defined, set mechanism to monitor and ensure the achievement of the learning outcomes:

- Attendance is compulsorily taken for every lecture.
- Theory and laboratory hours are fixed.
- The sessional tests and assignments are corrected within a short duration and the marks are entered in work register, and copies are shown to the students in the classrooms to make them understand their relative strengths and weaknesses.
- Collecting and disbursing data about the performance of the students in the previous qualifying exam before commencement of the course to assess the ability of the student (toppers and weakens are identified in the beginning of the semester)
- The college maintains a record of the marks scored by the students in the class tests, sessional tests and university exams.
- Slow learners and advance learners are made buddies to help each other and they are counseled by HoD after every sessional exam to monitor their performance.
- The library also supports with the issue of relevant books, reading material, previous years question papers, e and printed journals.

2.6.7 Does the institution and individual teachers use assessment/ evaluation outcomes as an indicator for evaluating student performance, achievement of learning objectives and planning? If 'yes', provide details on the process and cite a few examples.

Yes, the institution uses assessment and evaluation both as an indicator for evaluating student's performance. Evaluation includes: marks in internal sessional tests, assignments and attendance percentage. The students who excel in the academics, sports or extracurricular activities are given due advantage in assessment (extra marks given in General Proficiency). General classroom behavior of the students is also kept in mind when evaluation of a student is undertaken.

Students are assessed on the basis of their performance in the internal examinations and classroom/lab activity. Student's performances in PDP classes are also taken into consideration for assessing the performance. These aspects are discussed in the Class Representatives meetings conducted by the Head of the Department which includes the concerned faculty and faculty in-charges.

Criteria III: Research, Consultancy and Extension

3.1 Promotion of Research

3.1.1 Does the institution have recognized research center/s of the affiliating University or any other agency/organization?

Yes, the institution has recognized research centre/s of affiliating University (Uttar Pradesh Technical University, Lucknow) for Ph. D scholars, apart from this College collaborates with reputed industries for setting up following centers in the Campus:

S.No.	Research Centre	Year of Establishment	Description/Area of Research undertaken
1	AKGEC TIFAC-CORE	2009	This institution has the distinction of being the only Engineering College in the state of U.P. to have the establishment of TIFAC-Centre of Relevance and Excellence (CORE) in the field OfAutomation & Robotics. The main purpose of this centre is to promote research, consultancy, project development and training in the emerging technological field of Automation and Robotics.
2	AKGEC Industrial KUKA Robotic Training Centre	2010	The college has set up India's first Industrial Robot Training Centre in Collaboration with KUKA Robotics, Germany. AKGEC-KUKA centre is setup to produce highly skilled technical manpower in the field of Industrial Robotics. The trained manpower will help Indian Manufacturing Industry to adopt latest technologies to improve quality and efficiency with high productivity in manufacturing centre.
3	AKGEC- LABVIEW ACADEMY in collaboration with National Instruments	2011	To strengthen the commitment for enhanced Industry-Academia interaction, college has setup UP's first Lab VIEW Academy in collaboration with National Instruments. This academy is an initiative of NI under their Planet NI (Nurturing Innovation) framework which strives to increase employability of engineering graduate by creating 'Centers of Excellence' in Engineering Colleges and Universities which will provide cost effective access to world class latest technology through classroom teaching- learning. AKGEC-NI Lab VIEW Academy curriculum gives students the opportunity to validate their knowledge and skills at a professional level with certification. Experience and certification in Lab VIEW can improve students' career opportunities.

4	AKGEC- Centre of Competence in Automation Technology	2012	AKGEC jointly with Bosch Rexroth AG, Germany has established Centre of Competence in Automation Technology at AKGEC. It is the first centre in North India. The centre is equipped with state of art facilities of Hydraulics, Pneumatics, Sensorics, PLCs and Mechatronics. The centre is designed to support the training need of the manufacturing industry, young engineers, students and concerned professionals.
5	AKGEC- Siemens PLM Centre of Excellence	2012	AKGEC in collaboration with SIEMENS Industry Software Ltd (SISL) has setup first 'Product Lifecycle Management (PLM)-Centre of Excellence" in North India. This COE benefits of SIEMENS Academic Partnership Program to improve technical stature of academic institutions.
6	AKGEC-AIA Centre for Integrated Automation	2014	AKGEC, in its endeavor to promote Industry-Academia Partnership, has collaborated with Automation Industry Association (AIA) under the Campus Connect Program. Under this initiative “Competency Development Centre (CDC)” for training in the state of art automation technologies for proliferation and promotion of contemporary education in automation has been established at AKGEC campus as ‘AKGEC-AIA Centre for Integrated Automation’
7	AKGEC – FRONIUS Welding Technology Centre (WTC)	2014	AKGEC, jointly with Fronius International GmbH, has planned to set up India’s first Welding Technology Centre at Ghaziabad. Fronius International GmbH is an Austrian company, based in Pettenbach, Upper Austria. Fronius is active in the fields of welding technology and battery charging technology. This centre will conduct trainings at par with International Standard of Welding. The Welding Training programs will teach various methods to permanently fuse metals by applying intense heat and filler metal. Theoretical and practical study will provide learning for basic welding concepts along with metallurgy, safety, testing, fabrication, as well as inspection process
8	AKGEC – e-Yantra	2015	e-Yantra is a project to spread education in Embedded Systems and Robotics by IIT Bombay sponsored by Ministry of Human Resource Development (MHRD) through the National Mission on Education through ICT (NMEICT).

3.1.2 Does the Institution have a research committee to monitor and address the issues of research? If so, what is its composition? Mention a few recommendations made by the committee for implementation and their impact.

Yes, the institution has a research committee to plan, monitor and address issues of research. Research and Industrial Consultancy Centre (RICC) has been established in the college to promote industrial consultation and to extend consultancy & R&D services as per industry needs. The composition of the RICC is as follows:

Chairman:	<ul style="list-style-type: none"> • Dr. R.K. Agarwal, Director
Head, RICC:	<ul style="list-style-type: none"> • Mr. Pradeep Jain, ME Deptt.
Members: Nominated / Selected from each Dept. (Founder members)	<ul style="list-style-type: none"> • Mr. Akhilesh Sharma, CSE Deptt. • Dr. Rajesh Kumar, EC DEptt. • Mr. Sumit Sharma, IT Deptt.

On the basis of recommendations of the Research committee, following research projects listed below have been undertaken. Some of them have been executed successfully and remaining ones are currently under execution:

Projects completed:

S. No.	TITLE OF PROJECT / TRAINING	SPONSORING AGENCY	YEAR
1	Computer Aided Design of Grinding Machine	Kalson Hydromatic Machine Tools, Ghaziabad	2007
2	Reverse Engineering of Grinding Machine	Kalson Hydromatic Machine Tools, Ghaziabad	2007
3	Advanced Training in Pro/Engineer for Industrial Professional	CADD Centre Ghaziabad	2008
4	Fast Track Training Course in Pro/Engineer	Lord Krishna Engineering College, Ghaziabad	2008
5	Short Term Training Programme in Auto CAD for Industrial Personnel	Shiv-Vani-Oil-Gas-Exploration-Services-Ltd, Faridabad	2008
6	Training Programme in ANSYS	AKGEC , Ghaziabad	2009
7	FEM Analysis of Pressure Vessel Component	Altair Hyper Works	2009
8	Development of Rescue Robot	Creative robotics Pvt. Ltd., Ghaziabad	2010
9	AutoCAD & Pro/E Training	AKGEC, Ghaziabad	2010
10	Auto CAD Training	BIT, Meerut	2010
11	Virtual Assembly Design of Roller Fixture	VATEC ENGINEERS, Indore (M.P.)	2010
12	Automatic Visual Inspection System	VERTEX Automation, Noida	2011
13	AutoCAD and Pro/Engineer Training	AKGEC, Ghaziabad	2011

Projects Currently under execution

S.No	Title of Project/ Training	Sponsoring Agency	Year
1.	Development of Rescue Robot	Sponsored by Creative robotics Pvt. Ltd Ghaziabad	2010-11
2	Auto CAD Training	Training at BIT, Meerut for 200 students	2010-11
3	Virtual Assembly Design of Roller Fixture	Sponsored by VATEC ENGINEERS , Indore (M.P.)	2010-11
4.	Training in AutoCAD and Pro/Engineer	Training at AKGEC for 31 students	2011-12
5.	Training in AutoCAD and Pro/Engineer	Training at AKGEC for 20 students	2011-12
6.	Automatic Visual Inspection System	Sponsored by VERTEX Automation , Noida	2011-12
7.	Design of Field Leveling System	Sponsored by Apogee Precision Lasers , Ahamdabad	2012-13
8.	Training in AutoCAD and Pro/Engineer	Training at AKGEC for 28 students	2012-13
9.	Design and development of Automatic Ball Sorting Machine	Sponsored by SMC Pneumatics (India) Pvt ltd. and OMRON Automation Pvt. Ltd.	2012-13
10.	Design of Super Structure for Solar Generator	Sponsored by JAKSON Pvt Ltd.	2012-13
11.	Development of Vision System for Sheet Inspection	Sponsored by Creative Robotics , Ghaziabad	2012-13
12.	Training in AutoCAD and Pro/Engineer	Training at AKGEC for 51 students	2013-14
13.	Optimization of high precision grinding machine bed	Micromatic Grinding Technology Ltd. Ghaziabad	2013-14

14.	Design and Development of Control Circuit for low cost controller for hydraulic machines	Micromatic Grinding Technology Ltd. Ghaziabad	2013-14
15.	IT Asset Management System	Micromatic Grinding Technology Ltd. Ghaziabad	2013-14
16.	Design and Development of Low Cost Microcontroller based interface system	Micromatic Grinding Technology Ltd. Ghaziabad	2013-14
17.	Design and Development of Machine Diagnostic System for CNC operated Grinding Machine based on LABVIEW	Micromatic Grinding Technology Ltd. Ghaziabad	2013-14

Apart from this RICC committee, Computer Science Department has made its own research committee and had setup Adhoc Network Lab under recommendation of this committee:

Committee members	Dr. Sachin Kumar Dr. Sunita Yadav Ms. Charu Agarwal
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3.1.3 What are the measures taken by the institution to facilitate smooth progress and implementation of research schemes/ projects?

1. Autonomy to the principal investigator: Yes

The principal investigator has complete autonomy for conducting research schemes/ projects within and outside the institute. Infrastructural support in terms of laboratory facilities including equipment, office and lab space, internet, etc. is provided.

2. Timely availability or release of resources: Yes

The institution allocates funds centrally for research and development. Every department prepares a budget which includes budget allocation for Research activities. Same is approved and spent towards:

- a) Procurement of research equipments
 - b) Upgradations of existing labs in terms of newer technologies.
 - c) Procurement of vital components for execution of final year projects.
- In the past years a good amount of investment has been carried out across the institute.

3. Adequate infrastructure and human resources: Yes

In this direction, a Centre of Excellence has been established which includes various modern lab with sophisticated equipments, computing facilities and well trained technical resources for imparting domain specific trainings. These labs facilitate research to a higher degree. Details of these labs are provided in criteria no. 3.1.1.

4. Time-off, reduced teaching load, special leave etc. to teachers: Yes

Research is an integral part of professional responsibility of the faculty of the institute and they are permitted to carry out the research work at their convenience beyond official assignments and after the working hours. Special leaves are granted with the approval of the Director. These leaves are planned in such a manner that they don't affect the academic process. If the faculty desires to go outside on fellowships, they are given leave for the concerned period. Faculties pursuing higher qualifications have been partially relived from the teaching assignments.

5. Support in terms of technology and information needs: Yes

Every department of the institute is provided with state-of-the-art equipment which is procured through planned funds of the institute. As a policy, the Institute encourages basic, applied and multidisciplinary research by the faculty. The information needs are well met by the departmental library, both in the hard and soft versions.

6. Facilitate timely auditing and submission of utilization certificate to the funding authorities: Yes

The administration of the institute, through the employed auditor of the institute, aids in the timely auditing and submission of utilization certificate to the funding authorities as and when required.

7. Any other:

The faculty is engaged in various other activities to promote research interests. They participate as resource persons in various workshops, seminars and conferences. They are encouraged to present papers in national and international conferences/seminars. They publish scientific articles in national and international journals. The faculty is encouraged to take up Projects and work towards fulfilling the mandate of the institute.

Student research is an important component in this and the faculty guide post graduate students for their dissertation work. The abstracts of the dissertations are brought out as research papers and published by the institute biannually in AKGEC International Journal of Technology.

Besides this, faculty members are awarded by the institute for publishing research papers in reputed national and international journals.

3.1.4 What are the efforts made by the institution in developing scientific temper and research culture and aptitude among students?

The students of the institute are groomed into research right from the undergraduate programmes. They present research/ scientific papers under the guidance of faculty at national and international conferences/seminars.

Furthermore, final year students(Undergraduate) and post graduate students are groomed in such a manner that projects undertaken by them are so chosen that they can be extended towards research work at a later stage.

For this purpose, project evaluation committee has been setup by each department to assess the students for various research related parameters such as Topic Selection, Depth of knowledge, presentation/ demonstration skills, team work etc. All the final year projects are guided by the expert faculty.

Research interest in the students is promoted by:

- Encouraging the students to publish research papers in AKGEC International Journal of Technology bi-annually.
- Motivating the students to publish research papers in Departmental Journals bi-annually.
- Produce dissertation and projects of a stipulated standard set by the institute under the guidance of a faculty.
- Power Point Presentation During project viva is carried out. SCROLL (Student's Creative Oratory Learning Skills) is organized in the month of October. SCROLL is a National Level Technical paper presentation contest.

3.1.5 Give details of the faculty involvement in active research (Guiding student research, leading Research Projects, engaged in individual/collaborative research activity, etc.

Following are the details of the faculty involvement in active research: (Department Wise)

Department of Applied Science & Humanities (AS&H):

S. No.	Faculty Name	Scholar's Name	Batch (University)	M.Tech /Ph.D	Research Topic
1.	Dr. C.P.Pandey	Mr.B.N.Tripathi	From March 2011 (Uttarakhand Technical University)	Ph.D	Generalized Wavelet Transform
		Mr.Rajesh Kumar	From March 2012 (North Eastern Regional Institute of Science &	Ph.D	Wavelet Transform

			Technology)		
		Mrs. Kanchan Lata Gupta	From March 2014 (Uttar Pradesh Technical University)	Ph.D	Continuous Wavelet Transforms
2.	Dr. B.B.Verma	Mr.Vinod Kumar	From July 2011 (Mewar University)	Ph.D	Inventory Control
3.	Dr. Tarun Jeet Singh	Mr.Pankaj Aggrawal	from 31-01-2012(Mewar University)	Ph.D	Optimal Inventory Models for perishable items with partial back logging

Department of Computer Science & Engineering (CSE):

S. No.	Faculty Name	Scholar's Name	Batch / Year of Enrollment	M.Tech /Ph.D	Research Topic
1.	Prof. B.M. Kalra	Harsh Khatter	2010-12	M.Tech. (CSE)	Blog Information Searching and Curating.
		Ankita Singhal	2010-12	M.Tech. (CSE)	Developing Information Dissemination Model for Discussion forum in Informal eLearning Environment
2.	Dr. Rajesh Prasad	Anjali Goel	2011-13	M.Tech. (CSE)	Parameterized Backward DAWG Matching using Compression and Bit-Parallel techniques
		Rama Garg	2011-13	M.Tech. (CSE)	Improved Algorithm for Pattern Matching on Compressed Text
		Swati Tevatia	2011-13	M.Tech. (CSE)	Efficient Algorithms for multiple pattern matching problems
3.	Dr. Sachin Kumar	Mr. Lalit Saraswat (RKGIT, Ghaziabad)	2011	Ph. D	Resource Biased Routing Mechanism for Power Optimization & Enhancement of Network Lifetime in Wireless Sensor Networks

		Ms. Veena Bharti (RKGIT, Ghaziabad)	2012	Ph. D	Modelling & Verification of Network Protocol Using Coloured Petri Nets
		Mr. Vikas Jain (SCREC, Meerut)	2012	Ph. D	Data Mining Techniques for Improving the Efficiency of Broadcast Data
		Mr. Narendra Kumar (AKGEC, Ghaziabad)	2011	Ph. D	Study & Analysis of Agriculture Forecasting Model Based on Fuzzy Time Series
4.	Dr. Sunita Yadav	Anand Prasad Gupta	2010-12	M.Tech. (CSE)	To Design A Framework for Query Recommendation for Long Tail Queries
		Shikha Goel	2010-12	M.Tech. (CSE)	Design a Framework for Search Engine Evaluation based on Page Level Keywords
		Akanksha Gaur	2011-13	M.Tech. (CSE)	Structure Based Handwritten Hindi Characters Modifiers Recognition using SVM
		Faz Mohammad	2011-13	M.Tech. (CSE)	Multi para-metric Load Balancing in Grid Computing Environment
		Shivani Gupta	2011-13	M.Tech. (CSE)	Extraction of Link-Context using Tag Tree & LALR parsing
5.	Ms. Mamta Bhusry	Archana Bhardwaj	2011-13	M.Tech. (CSE)	Analysis of performance parameter using Data Mining Techniques
		Reena Chaudhary	2011-13	M.Tech. (CSE)	Web Link Analysis in Computation of Page Relevancy
6.	Mr. Shashank Sahu	Nidhi Pandey	2010-12	M.Tech. (CSE)	Understanding and Gathering Requirements of Learners of E-Learning System using Software Intelligent Agent
		Nidhi Kushwaha	2010-12	M.Tech. (CSE)	Automated User Requirements Gathering Using Software Intelligent Agent for Hospital Management System
		Bhupendra Singh	2011-13	M.Tech. (CSE)	A model for performance Testing for AJAX based Web Application

7.	Mr. Vikas Goel	Mani Pandey	2010-12	M.Tech. (CSE)	Energy Efficient Air Indexing Techniques for Wireless Devices on Single Channel
		Garima Panwar	2010-12	M.Tech. (CSE)	Energy Efficient Air Indexing Scheme for Multiple Broadcast Channel
		Omesh Kumar	2011-13	M.Tech. (CSE)	Design a multi channel Wireless Broadcast model for full text search
		Shalini	2011-13	M.Tech. (CSE)	Energy Efficient Hash based Air-Indexing Scheme for Multiple Channels
8.	Ms. Inderjeet Kaur	Harnit Saini	2010-12	M.Tech. (CSE)	Analysis and Enhancements using Load Balancing Algorithms in Peer to Peer (P2P) Systems
9.	Mr. Akhilesh Verma	Km Archana	2010-12	M.Tech. (CSE)	Contrast Enhancement using Genetic Algorithm with Modified Approaches based on Chromosome Mutation and Crossover
		Priya Sisodia	2011-13	M.Tech. (CSE)	Human Facial Expression Recognition Using Gabor Filter with minimum Feature Vectors
		Varshney Namit	2011-13	M.Tech. (CSE)	Fast Approach for Gray Scale Contrast Enhancement
10.	Ms. Kirti Seth	Shraddha Shukla	2010-12	M.Tech. (CSE)	Reliability Analysis for Component Based Software Systems
		Jyoti Rani	2010-12	M.Tech. (CSE)	Dependency Analysis for Cots “Component Based Systems”
		Deepak Rai	2011-13	M.Tech. (CSE)	Test case optimization using bio-inspired optimized and soft computing techniques
11.	Mr. Arun Kumar Yadav	Vidushi Vidhyarthi	2011-13	M.Tech. (CSE)	Design a search engine for Spatial Query
12.	Mr. B.N. Pandey	Madhu Shahi	2010-12	M.Tech. (CSE)	Implementation of OCR fro Hand Written Hindi Curve Script Using Soft Computing Techniques

		Vaishali Aggarwal	2010-12	M.Tech. (CSE)	Design & Analysis of Unsupervised Learning Algorithms for Clustering Applications
13.	Ms. Prachi Maheshwari	Anurag Sachan	2010-12	M.Tech. (CSE)	A Check pointing based Rollback Recovery Scheme in Mobile Computing Systems
14.	Ms. Charu Agarwal	Bhavna Goel	2011-13	M.Tech. (CSE)	Design and analysis of optimized video watermarking schemes
15.	Ms. Sangita Satapathy	Prerika Agarwal	2011-13	M.Tech. (CSE)	A novel design for New Attack Detection By Integrating Snort With Hierarchical Clustering Algorithm
		Vikas Kumar	2011-13	M.Tech. (CSE)	Mining Frequent Item Set over data stream

Department of Electrical & Electronics (EN):

S. No.	Faculty Name	Scholar's Name	Batch	M.Tech /Ph.D	Research Topic
1.	Prof. M P Dave	Avantika	2012-2014	M.Tech (EPES)	Dynamic Stability Enhancement and Power Flow Control of a Hybrid wind and PV using SMES
		Chandraveer Singh	2012-2014	M.Tech (EPES)	Stability Analysis of an Integrated Offshore Wind and Seashore Wave Farm
		Divyanshi Singh	2012-2014	M.Tech (EPES)	Stability Enhancement of DFIG – Based Offshore Wind farm Fed to a Multi-machine System using a STATCOM
		Neelu Mall	2012-2014	M.Tech (EPES)	Enhancement of PMSF-based Offshore Wind Farm to an SG based Power System using an SSSC and SVEC
		Khuda Baksh Mohd Umar Ansari	2011-2013	M.Tech (EPES)	STATCOM for Improved Dynamic Performance of Wind Farms in Power Grid

		N Suganthi	2011-2013	M.Tech (EPES)	Dynamic Modeling of Wind Turbines Participating in System Frequency Control
		Nikhil Chaudhary	2011-2013	M.Tech (EPES)	Pricing in Real Time Electricity Market
		Satendra Vishwakarma	2011-2013	M.Tech (EPES)	Development of a MATLAB/Simulink Model of a Three Phase Grid Connected Photovoltaic System
		Saurabh Khattar	2011-2013	M.Tech (EPES)	Placement of PMU to Enable Bad Data Detection in State Estimation
		Vaibhav Hudda	2011-2013	M.Tech (EPES)	Load Frequency Control of Power System using Plug in Hybrid Electric Vehicle
		Pradeep Kumar Bhardwaj	2010-2012	M.Tech (EPES)	Modeling Design and Control of Dynamic Voltage Restorer (DVR)
		Gunjan Varshney	2010-2012	M.Tech (EPES)	Modeling Simulation and Control of DSTATCOM
		Isha Jain	2010-2012	M.Tech (EPES)	Optimal Renewable Resource Mix for Distribution System
		Gaurav Srivastava	2010-2012	M.Tech (EPES)	A Variable Speed Wind Turbine Control Strategy to meet Wind
		Govind Singh Sirohi	2010-2012	M.Tech (EPES)	Transient Stability Enhancement of Two Area Power System Using UPFC

		Shubham Tiwari	2010-2012	M.Tech (EPES)	Economic Load Dispatch Using Particle Swarm Optimization
		Gunjan Varshney	2013-2016	Ph.D	Formation of Dc Grid
		Seema Garg	2012-2015	Ph.D	Fault Detection and Rehabilitation in Robotic System
		Alok Mittal	2013-2016	Ph.D	Power System Operation and Control
2.	Prof. Bhupal Singh	Km Goldi Sharma	2011-2013	M.Tech (EPES)	Maximum Power Point Tracking
		Preeti Singh	2011-2013	M.Tech (EPES)	Feasibility of HVDC Power in Vehicle
		Hemlata Singh	2010-2012	M.Tech (EPES)	A Robust Fault Detection and Isolation Method in Load Frequency Control Loops
		Vishakha Gupta	2010-2012	M.Tech (EPES)	Unit Commitment Incorporating Wind Generators
3.	Dr. A K Rai	Alka Priyadarshi	2012-2014	M.Tech (EPES)	Enhancing Electric Power Quality using UPQC
		Kopal	2012-2014	M.Tech (EPES)	Dynamic Stability Improvement of PMSG based Offshore Wind Turbine Generator fed to a Power System using a STATCOM
		Akshay Kumar	2011-2013	M.Tech (EPES)	DFIG Based Wind Power Conversion Connected to Grid
		Mahesh Sharma	2011-2013	M.Tech (EPES)	A Coordinated Control Method to Smooth Wind Power fluctuations of a PMSG – Based WECS
		Neha Agarwal	2011-2013	M.Tech (EPES)	Comparison of Photovoltaic Array Maximum Power Point Tracking Techniques
		Priyank Agarwal	2011-2013	M.Tech (EPES)	Power Quality Improvement using Unified Power Quality Conditioner

		Ankur Tyagi	2010-2012	M.Tech (EPES)	Modeling and Control of Integrated Wind/PV/Fuel Cell Distributed Generation for Standalone System
		Amit Kumar	2010-2012	M.Tech (EPES)	Modeling and Simulation of Solar PV Module
		Mohit Tyagi	2010-2012	M.Tech (EPES)	Z-Source Inverter: Simulation and Harmonic Study
		Anil Kumar Singh	2010-2012	M.Tech (EPES)	Optimal Energy Mix for a Small Scale Hybrid Wind Photovoltaic Generation System with Battery Storage

Department of Electronics & Communication (ECE):

S. No.	Faculty Name	Scholar's Name	Batch	M.Tech /Ph.D	Research Topic
1.	Prof. P.K.Chopra	Abhijeet Upadhyay	2012-2014	M.Tech (ECE)	Designing low noise amplifier for satellite mobile receiver
		Preeti Baliwan	2011-2013	M.Tech (ECE)	Performance analysis of DAB & System
		Namita Saxena	2011-2013	M.Tech (ECE)	Optimal utilization of existing BTS spectrum
2.	Prof. R.L.Sharma	Manu Yadav	2012-2014	M.Tech (ECE)	Analysis of Optical Wireless Communication System at high rate
		Shikha Gautam	2012-2014	M.Tech (ECE)	Wide Range variable gain amplifiers with Brdium doped fiber switching
		Ashish Kumar	2011-2013	M.Tech (ECE)	Design of QOS aware light planning & technical aspect in WDM network
		Juhi Narain	2011-2013	M.Tech (ECE)	Absorption of lite in silicon nano wire solra cell
		Praveen Singh	2011-2013	M.Tech (ECE)	Data effect of in-band cross talk for data path routing in WDM/ DWDM networks
3.	Prof. K.K.Tripathi	Priyanka	2012-2014	M.Tech (VLSI)	FPGA implementation for speed estimation in a two mass system
		Pronnati	2012-2014	M.Tech (VLSI)	FPGA implementation of Digital Modulator

		Sonika Sindhiya	2011-2013	M.Tech (ECE)	Design and analysis of multiband microstrip antenna array
		Stuti Bhardwaj	2011-2013	M.Tech (ECE)	Designing & Analysis of millimeter (60 GHz) antenna for OFDM applications
4.	Prof. R.K Mehrotra	Mansi Singh	2011-2013	M.Tech (ECE)	Analysis and modeling of Machine to machine communication network
		Swati Agariya	2011-2013	M.Tech (ECE)	Performance analysis of broadcast based routing protocol in wireless network
5.	Prof. Rajesh Kumar	Roma Agarwal	2012-2014	M.Tech (ECE)	Spectrum sensing using different entropies
		Shilpi Sharma	2012-2014	M.Tech (ECE)	Performance Evaluation of Optical Wireless Link for sensor network
		Sunil Kumar	2011-2013	M.Tech (ECE)	Equalization technique in MIMO system
		Uma Sharma	2011-2013	M.Tech (ECE)	Smart capacitive humidity sensor on application within flexible RFID labels
6.	Asstt. Prof. Amit Chaudhary	Ajit Singh	2012-2014	M.Tech (VLSI)	Design and analysis of digitally programmable OTAC filter for biomedical signal detection
		Divya Garg	2012-2014	M.Tech (VLSI)	Simulation and analysis of current differentiating transconductance amplifier
		Nisha	2012-2014	M.Tech (VLSI)	Noise reduction in MTCMOS circuits
7.	Asstt. Prof. Devrat Tyagi	Deepa	2012-2014	M.Tech (VLSI)	An approach for the safety of VLS circuits from hardware trozen
		Loknath Kumar Patel	2012-2014	M.Tech (VLSI)	Analysis of different SRAMs of improved performance
8.	Asstt. Prof. Preeti Verma	Rangoli Mittal	2012-2014	M.Tech (VLSI)	Analysis and design of low power comparator
		Shweta Garg	2012-2014	M.Tech (VLSI)	Leakage reduction using LECTOR and DOMINO logic
9.	Asstt. Prof. Devesh Singh	Sumit Kumar	2012-2014	M.Tech (VLSI)	A highly linear CMOS transconductance amplifier
10.	Asstt. Amit Garg	Payal Gupta	2012-2014	M.Tech (ECE)	Speckle Noise reduction in medical ultrasound image using wavelet

Department of Information Technology (IT):

S. No.	Faculty Name	Scholar's Name	Batch	M.Tech /Ph.D	Research Topic
1.	Dr.Anu Chaudhary	Payal Jain	2012-13	Ph. D	A Study on enhancing the performance and evaluation of wireless sensor networks [From: Mewar University Gangrar, Chittorgarh (Rajasthan)]
		Sumit Goyal	2013-14	Ph. D	An Analysis for Shelf Life Prediction of Modified Atmosphere Packed Paneer Using ANN Computing Model [From: Mewar University Gangrar, Chittorgarh (Rajasthan)]
		YUGSHAKTI	2013-14	Ph. D Mewar University Gangrar, Chittorgarh (Rajasthan)	A Study on Wireless Sensor Networks

Department of Mechanical Engineering:

S. No.	Faculty Name	Scholar's Name	Batch	M.Tech /Ph.D	Research Topic
1.	Prof. M. K. Muju	Neha Agarwal	2010-2012	M.Tech (A&R)	Application of Pro-E & GA including AHP for optimization of 3-DOF Robotic System
		Pallab Biswas	2008-2010	M.Tech (A&R)	Conflict free routing Algorithm for FMS
2.	Prof. J.P. Malhotra	Ajay Kant Dubey	2009-2011	M.Tech (A&R)	Design, Fabrication of 3D Load Cell
		Rajesh Kumar Maurya	2010-2012	M.Tech (A&R)	Automation of Cooling System in Machine Tool
3.	Prof. Pardeep Jain	Virendra Chaudhary	2011-2013	M.Tech (A&R)	Dual Control Equipped Automated Ball Sorting Machine Cum Trouble Shooter
		Dharna Arora	2010-2012	M.Tech (A&R)	Automatic Visual Inspection System
		Sheetal Nagar	2010-2012	M.Tech (A&R)	Distance Estimation using Stereo Vision

	Neha Aggarwal	2010-2012	M.Tech (A&R)	Application of Pro-E & GA including AHP for optimization of 3-DOF Robotic System
	Rachna Varshney	2011-2013	M.Tech (A&R)	Automatic Temperature Measurement and Control system based on Real Time Clock & Fuzzy Logic
	Tanvi Sharma	2011-2013	M.Tech (A&R)	Development of Machine Vision System for Measuring Length of an Object
	Shivani Godha	2010-2012	M.Tech (A&R)	Real-time obstacle detection vehicle using vision system.

3.1.6 Give details of workshops/ training programmes/ sensitization programmes conducted/organized by the institution with focus on capacity building in terms of research and imbining research culture among the staff and students.

Following list provides details of Conferences/Seminars, FDPs and other activities conducted/ organized by the institution with focus on capacity building in terms of research and imbining research culture among the staff and students:

➤ **Details of Conferences/ Seminars organized:**

S. No.	Conference Title Name	National / International	Year in which conference was Organized
1	Information Technology for Business Transformation	National	4-5 November 2011
2	EOIP: The Future Deployment Scenario	National	2-3 March 2012
3	Development of Reliable Information Systems, Techniques and Related Issues, DRISTI	National	16-17 March 2012
4	Emerging Trends in Mechanical Engineering (ETME -2012)	National	27-28 July, 2012
5	3 rd IEEE International Advance Computing Conference (IACC-2013)	International	22-23 February, 2013
6	Conference on “Emerging Trends in Mobile Communication“	National	15-16 March 2013
7	Seminar on “Cyber Security and Threats”	National	16-17 September 2013
8	An IEEE sponsored conference on “Advances in Electrical Power and Energy Systems”	National	20 & 21 September 2013
9	Advancements in Satellite Communications	National	14-15 February, 2014

➤ **Details of the FDPs/Workshops organized (During last two years):**

S.No.	Date	Subject
1	14 January, 2012	FDP By TCS
2	12-13 April, 2012	Functional Programming
3	03-06 March, 2012	Power Electronics & its Application
4	24-25 August, 2012	MOBILE AD-HOC NETWORKS
5	21-22 September, 2012	Satellite communications
6	24 & 25 August, 2012	FDP on Mobile Ad-hoc Networks
7	5 December, 2012	FDP on Economic Operation of Power Systems
8	15-16 February, 2013	FDP on Network Simulator
9	16-17 August, 2013	Strength of Materials
10	20-21 September, 2013	Future Trends in Mobile Communication

Apart from these conferences/ seminars and FDPs, following are the other activities conducted by the institute:

S. No.	Name of the Programme	Description
1.	Activities/ Events conducted by Departmental Society	All departments have established departmental technical societies which have been conducting various technical competitions at intercollegiate level. Students are encouraged to participate in various events such as fabrication of hardware projects in areas like robotics, instrumentation, communication engineering etc. To accomplish this, necessary support is provided in terms of components and guidance from the department.
2.	Conduct of Guest Lectures by experts from Industry/Academia	All Departments conduct lectures delivered by experts from various industries, research organizations and from the field of academics. These guest lectures improve the professional knowledge of students and faculty.
3.	LAB-VIEW	AKGEC jointly with National Instruments (India) has set up AKGEC-NI LabVIEW Academy for Educational Institutions at AKGEC, Ghaziabad. This Academy is an initiative of NI under their Planet NI (Nurturing Innovation) framework which strives to increase the employability of Indian engineering graduates by creating 'Centre of Excellence' in Engineering Colleges and Universities which will provide cost effective access to world class latest technology through classroom teaching-learning. The LabVIEW Academy curriculum gives students the opportunity to validate their knowledge and skills

		at a professional level with certification. Experience and certification in LabVIEW can improve student's career opportunities. The academy encourages and promotes industry oriented projects; R&D Activity and industry relevant training programs to bridge industry academia gap and improve employability of young engineers. The establishment of this training academy is one of the initiatives in the same direction. LabVIEW based experiments have been added in the existing lab curriculum.
4.	AICTE sponsored Program “Employability Enhancement Training Program(EETP) with BSNL	Employability Enhancement Training Program (EETP) for 3 rd Year B.Tech. (ECE) students are being conducted under AICTE – BSNL MoU. The objective of this program is to provide competency based employability enhancement skills and hands-on skill training through BSNL Training Centers. Nineteen students of 3 rd year B.Tech. (ECE) are presently undergoing this program. The program started on 15 th July'13 and will be completed by Dec'14. It is being conducted on every Monday by Bharat Sanchar Nigam Ltd. At Advance Level Telecom Training Center (ALTTC), Ghaziabad. This programme commenced w.e.f 15 th July, 2013 for duration of 18 months.
5.	MATLAB training by IIT Kanpur	A program on MATLAB is conducted by ECE department at AKGEC along with ORANE LAB, SIIC, IIT Kanpur and a division of Orane Info system Pvt. Ltd. The course covers the whole theoretical and practical aspects of advanced MATLAB and Simulink and is useful for the students of B.Tech (3 rd and 4 th year) and M.Tech (ECE). Total number of students registered for this program is 83. The course commenced on 19 th October, 2013. Total duration of the course will be 60 hours (approx.). This includes 25hrs of classroom program and 35hrs of hands on sessions. Orane labs will give regular feedback on the performance of the students during the period of course.
6.	IETE students' Forum	Student's forum was established at Department of ECE in collaboration with IETE in the month of September, 2013. Under this MoU, 77 memberships have been acquired for students of the department. These students will be entitled to receive copies of IETE publications, newsletter and technical review. Additionally, a good number of professors, assistant professors are fellow members of IETE, New Delhi.

7.	Infosys Campus Connect Programme (CCP)	As a step towards grooming students into perfect professionals and to make them compatible with the IT industry, campus connect programme is run by our T&P department which is conducted by Infosys. Under this programme, Infosys has designed and provided 70 hours teaching module, for which the faculty at AKGEC has been especially trained by the firm. This module is taught to top 120 students of third year as an extra course on weekends. In addition to this, Infosys has also provided a range of projects that the students take up as a part of their final year projects. These steps not only help Infosys to reduce their in house training time but also help the students in acquiring technical skills which make them more suitable for IT industry.
8.	Conduct of PDP classes in the campus	Academic excellence alone is not enough and cannot guarantee a good career. Certain personality attributes and soft skills are essential not only to get a good job placement but also to be able to contribute and grow in an organization. Taking cognizance of this, the college emphasizes all round development through a range of extracurricular activities as well as organizing and conducting formal Personality Development Program. This programme spanning over 100 hours is conducted by a professional agency on weekends and includes training in communication skills, group discussion, interpersonal skills and interviews. This is a mandatory programme for second year B.Tech and first year MCA and MBA students of the college. This programme helps in the overall personality development of students. The whole exercise is intended to increase the employability of students. Amidst an inspiring and invigorating environment, students undergo training that turns them into top notch professionals.
9.	Establishment of Virtual Labs	Virtual Lab is an initiative of Human Resource Development (MHRD) under the National mission on education through Information and Communication Technology (ICT). Objective of the virtual lab is providing remote access to labs in various disciplines of science and engineering. This would help the students in learning advanced concepts through remote experimentation. This will provide a complete learning management system where students can avail various tools for learning including additional web resources such as video lectures, animated demonstrations and self evaluation tests. For conducting the above listed programmes, various committees comprising of members from faculty and students are assigned

		as per the Department duty chart.
10.	Microsoft IT Academy	AKGEC is making constant efforts towards the growth and development of students as future technocrats, by providing ample opportunities for industry interactions to bridge the gap between academics and industry requirements. In persistence with this pursuit, AKGEC signed an agreement with Microsoft to set up the “Microsoft IT Academy (MSITA)” at its campus in November 2012. The courses under MSITA are designed by Microsoft and are delivered by ‘Microsoft Trained Trainers’ through Microsoft Delivery Partner ATS InfoTech P. Ltd. The enrolled students will be exposed to the latest Microsoft Technologies that will enable them to be market ready thereby increasing their placement opportunities manifold.
11.	Networking Academy	IT industry is booming and with it the growth opportunities as well. Ranging from database administrators, software engineers, programmers, web designers and Network administrators, the opportunities are unlimited. Keeping this in view, AKGEC has set up a Networking Academy on 18 th January 2013. The academy provides industrial exposure to its students in networking domain by introducing world class and industry proven courses for producing the next generation certified networking experts.
12.	Presentation & Review of journals by Faculty members	Every Department holds a weekly faculty seminar during which a faculty presents a technical talk on relevant topic and also reviews e-journal and gives presentation to the faculty of the concerned department. Also each faculty member reviews one e-journal paper of recent area of research derived from reputed international journals/ transactions every month.

3.1.7 Provide details of prioritized research areas and the expertise available with the institution.

Following are the details (Department Wise) of prioritized research areas and the expertise available with the institution.

AS&H DEPARTMENT

S.No.	Name of Faculty	Area of Research	Area of Interest
1	Prof. P. K. Sharda	Microwave and Radar Communication	Microwave Communication
2	Dr. B B Verma	Inventory Control	Inventory Control
3	Dr. Shiwani Singhal	Organic Chemistry	Physical Chemistry
4	Dr. Manoj Kr Goyal	Graph Theory	Operation Research
5	Dr. Sandeep Gupta	-	Municipal Solid Waste Management
6	Ms. Bandana Sharma	Spectroscopy	Spectroscopy
7	Ms. Meenakshi Sinha	Transformation	Fluid Mechanics
8	Dr. Nitya Sharma	Organic Metallic Chemistry	Organic Metallic Chemistry
9	Dr. Niti Maheshwari	Analytical Chemistry	Analytical Chemistry
10	Mr. Pankaj Aggrawal	Inventory Management	Inventory Management
11	Dr. Tarun Jeet Singh	Inventory Management	Inventory Management
12	Dr. Ruchira Goel	Topological Spaces & Graph Theory	Graph Theory
13	Ms. Ritu Gupta	Measurement of Effectiveness and reliability models.	Operation Research
14	Ms. Shimli Verma	Approximation of some problems by Linear positive operators	Approximation of some problems by Linear positive operators
15	Mr. Vikas Rathi	-	HOLOGRAPHY
16	Dr. Aniruddh Singh	Nuclear Physics	Nuclear Physics
17	Mr. Akash Kumar	Indian Banking	International Economics, Indian Finance
18	Ms. Shilpi Singh	HRM & Marketing Mgmt	HRM & Marketing Mgmt
19	Mr. Vishal Gupta	-	Marketing, Economics
20	Dr. Gauri	Literature	British Literature
21	Dr. C.P. Pandey	Wavelet Analysis	Wavelet Analysis
22	Dr. Sachin Kumar	Plasma Physics	Plasma Physics

23	Ms. Anjali Sharma	-	Indian Women Writers Writing In English
24	Dr. Shweta Prakash	-	Nuclear Physics
25	Dr. Parul Verma	Organic Chemistry	Transition Metal Complexes
26	Dr. Abhishek Pathak	Solid State Physics	Material Science
27	Dr. Sweety Agarwal	English Literature	Drama
28	Mr. Vikas Roshan	-	HRM & Marketing Mgmt
29	Dr. Mukesh Chandra	Condensed Matter Physics	Material Science
30	Dr. Vimlesh Mishra	Photonics	Photonics
31	Dr. Sonali Patle	Microbial Biotechnology	Microbial Biotechnology
32	Dr. Kriti Bhandari	Bio-Chemical Engineering	Bio-technology & Bio-Chemical
33	Dr. Neehar Singhal	English Literature	Indian Literature

CSE DEPARTMENT

S. No.	Research Centers / Lab	Prioritized Research Area	Resource Persons
1	Computer Network Lab	Computer Networks & Wireless Communication	Dr. Sachin Kumar
2	M.Tech. (CSE) Lab	Information Retrieval & Artificial Intelligence	Dr. Sunita Yadav
3	Algorithm Lab	Algorithms	Dr. Rajesh Prasad
4	M.Tech. (CSE) Lab	Data Mining	Ms. Mamta Bhusry
5	Web Technology Lab	Software Engineering	Mr. Shashank Sahu
6	Web Technology Lab	Software Engineering	Ms. Kirti Seth
7	Computer Network Lab	Mobile Computing	Mr. Vikas Goel
8	Computer Network Lab	Wireless Network	Ms. Inderjeet Kaur
9	Digital Image Processing Lab	Image Processing	Mr. Akhilesh Verma

EN DEPARTMENT

S. No.	Research Centers / Lab	Prioritized Research Area	Resource Persons
1	TIFAC Core	Automation and Robotics	Prof. M P Dave
2	AKGEC-KUKA	Robotics	Prof. M P Dave Asstt. Prof. Gaurav Srivastava

3	AKGEC LABVIEW	Automation, Data Acquisition Systems and Communication	Prof. Bhupal Singh Asstt. Prof. Aniruddha Gautam
4	Sensorics and Bosch Rexroth	Sensors	Prof Bhupal Singh Asstt. Prof. Ms. Shilpa Sambhi

ECE DEPARTMENT

S.No.	Research Centers / Lab	Prioritized Research Area	Resource Persons
1	TIFAC Core	Automation and Robotics	Asst. Prof. Devvrat Tyagi
2	AKGEC-KUKA	Robotics	Asst. Prof. Seema Garg
3	AKGEC LABVIEW	Automation, Data Acquisition Systems and Communication	Prof. K. K. Tripathi Asst. Prof. Devvrat Tyagi
4	Multisim Lab	Electronics & Communication and VLSI	Asst. Prof. Amit Choudhary
5	Digital Signal Processing Lab	Image Processing	Asst. Prof. Amit Garg

ME DEPARTMENT

S. No.	Research Centers / Lab	Prioritized Research Area	Resource Person
1	AKGEC-Bosch Rexroth Centre Of Competence In Automation Technology.	Industrial Hydraulics	Mr. Dinesh Singh
2	AKGEC-Kuka Industrial Robotic Training Centre	Robotics	Mr. Vikash Kumar
3	AKGEC-Janatics Industrial Pneumatics Knowledge Centre	Industrial Pneumatics	Mr. Ajay Pratap Singh
4	Automation And Robotics Lab	Automation	Mr. Dinesh Singh

5	AKGEC-Siemens PLM Centre Of Excellence	High End CAD software's	Mr. Pradeep Jain
6	Manufacturing Science Lab	MAG (Metal Active Gas) Welding in the category of Gas Metal Arc Welding (GMAW), TIG (Tungsten Inert Gas) Welding in the category of Gas Tungsten Arc Welding (GTAW)	Mr. Narendra Mittal

3.1.8 Enumerate the efforts of the institution in attracting researchers of eminence to visit the campus and interact with teachers and students?

Following are the efforts of the institution in attracting researchers of eminence to visit the campus and interact with teachers and students:

- Through Guest Lectures
- Through Organizing Faculty Development Programme
- Through Conferences
- Through workshops
- Through Inaugural Ceremonies of various centre of excellence within the institute.

3.1.9 What percentage of the faculty has utilized Sabbatical Leave for research activities? How has the provision contributed to improve the quality of research and imbibe research culture on the campus?

Faculty members are encouraged to take leave for their various research activities and details are tabulated below (Department wise):

CSE Department

Faculty name	Research Area	Status of Work (Ph.D)	Contribution
Ms. Mamta Bhusry	Knowledge Management	Ongoing	Actively guiding the UG and PG projects / dissertations work in the area of expertise
Ms. Inderjeet Kaur	Wireless Communication	Completed	Actively guiding the UG and PG projects / dissertations work in the area of expertise

EN Department

Faculty Name	Research Area	Status of Work (Ph.D)	Contribution
Ms. Nidhi Mauraya	Bio-medical	Ongoing	Guiding Projects in the area of bio-medical.

ECE Department

Faculty Name	Research Area	Status of Work (Ph.D)	Contribution
Prof. Rajesh Kumar	Sensor Technology	Completed	Successfully guided UG and PG projects /Dissertation work in the area of expertise.
Prof. R.L .Sharma	Optical Communication	Completed	Instrumental in guiding dissertation work in optical and broadband communication.
Asst. Prof. Manish Zadoo	Microwave Filter Design	Pursuing	Instrumental in guiding dissertation work in EM fields.
Asst. Prof. Devesh Singh	Analog Signal Processing	Pursuing	Instrumental in guiding projects in Analog Design.
Asst. Prof. Richa Singh	Analog Signal Processing	Pursuing	Instrumental in guiding projects in Analog Design.
Asst. Prof. Amit Garg	Image Processing	Pursuing	Instrumental in guiding dissertation work in Image processing.
Asst. Prof. R. V. Purohit	Sensor Technology	Pursuing	Instrumental in guiding domain specific dissertation work
Asst. Prof. Akanksha	Communication	Pursuing	Instrumental in guiding

Agarwal			projects and dissertation work in robotics.
Asst. Prof. Seema Garg	Automation and Robotics	Pursuing	Instrumental in guiding projects and dissertation work in robotics.

IT Department

Faculty Name	Research Area	Status of Work (Ph.D)	Contribution
Prof. J.K. Seth	Cloud Computing	Ongoing	Successfully guided UG Projects/Dissertation work in the area of expertise.
Prof. Anupama Sharma	MANET	Ongoing	Successfully guided UG Projects/Dissertation work in the area of expertise.

ME Department

Faculty Name	Research Area	Status of Work (Ph.D)	Contribution
Mr. Kamal Mittal	Manufacturing Systems	Ongoing at IIT, Roorkee	Successfully guided UG projects in the area of expertise.

3.1.10 Provide details of the initiatives taken up by the institution in creating awareness/advocating/transfer of relative findings of research of the institution and elsewhere to students and community (lab to land)

Following initiatives are taken up by the institution for creating awareness and propagation of research temperament to students' community:

1. Conduct of final year projects using novel technologies
2. Briefing to students by Heads of Departments in classrooms and seminar halls
3. Conduct of guest lectures

4. Access to NPTEL resource through DELNET
5. Library having IEEE resource (multiuser) and Springer journals etc.
6. Wi-Fi Campus
7. National and International level technical magazines are available in Central Library
8. Industry visits
9. Industrial training as a part of course curriculum
10. Participation in inter and intra college technical presentations

3.2 Resource Mobilization for Research

3.2.1 What percentage of the total budget is earmarked for research? Give details of major heads of expenditure, financial allocation and actual utilization.

Following table depicts the amount spent on Research and Development Activities:

Financial Year	Finance Allocated for R & D	Actual Utilization for R & D	Total Budget Utilized	% age of Total Budget
2013-14	1,00,00,000	67,96,811	37,53,88,210	1.81%
2012-13	2,00,00,000	1,86,06,888	36,57,05,255	5.09%
2011-12	50,00,000	13,72,133	30,34,46,088	0.45%

3.2.2 Is there a provision in the institution to provide seed money to the faculty for research? If so, specify the amount disbursed and the percentage of the faculty that has availed the facility in the last four years?

- Faculty members are given publication awards for research work.
- Paper publication should be in any international journal with good impact factor.

List of faculty members along with cash award for publishing books and papers in journal & conference:

S.N.	NAME	DESG	DEPTT	AMOUNT (RS.)
2009-10				
1	RAJESH KUMAR	PROF	ECE	5000
2	SANJEEV KUMAR	PROF	ME	10000
3	RAHUL VIVEK PUROHIT	AP	ECE	5000
4	RAJESH KUMAR	PROF	ECE	5000
5	INDERJEET KAUR	AP	CSE	8000

6	PRIYANKA GUPTA	AP	CSE	5000
7	SANJEEV KUMAR	PROF	ME	10000
8	ABDUL WAHID	PROF	MCA	8000
9	ANURAG SHARMA	AP	ECE	8000
10	PRADEEP KUMAR CHOPRA	PROF	ECE	6000
11	RAJESH KUMAR	PROF	ECE	8000
12	PUSHPENDAR KUMAR DHAMA	AP	AS	6000
13	SANJEEV KUMAR PRASAD	AP	MCA	7000
14	SOMENDU JANA	AP	AS	10000
15	RANJIT SINGH	PROF	ECE	5000
2010-11				
16	SANJEEV KUMAR	PROF	ME	7000
17	INDERJEET KAUR	AP	CSE	6000
18	RAJESH KUMAR	PROF	ECE	6000
19	INDERJEET KAUR	AP	CSE	6000
20	RAHUL VIVEK PUROHIT	AP	ECE	5000
21	LALIT KISHORE ARORA	AP	MCA	5000
22	ANIRUDHH SINGH	AP	AS	10000
23	POOJA ARORA	AP	MCA	6000
24	PRIYANKA SHARMA	AP	AS	7000
25	PUSHPENDRA DHAMA	AP	AS	5000
26	SANJEEV KUMAR	PROF	ME	8000
27	RAJESH KUMAR	PROF	ECE	5000
28	LALIT KISHORE ARORA	AP	MCA	5000
29	SNEHLATA KAUL	AP	MCA	5000
30	ANIL KUMAR	PROF	CSE	7000
31	PRADEEP KUMAR CHOPRA	PROF	ECE	7000
32	KIRTI SETH	AP	CSE	5000
33	RAHUL VIVEK PUROHIT	AP	ECE	5000
34	JITENDRA KUMAR SETH	AP	IT	5000
35	YOGESH KUMAR MITTAL	PROF	IT	6000
36	MAMTA BHURSY	ASP	CSE	5000
37	ANIL KUMAR	PROF	CSE	7000
38	PRADEEP KUMAR CHOPRA	PROF	ECE	7000
2011-12				
39	SACHIN KUMAR	AP	AS	7000
40	KAILASH PANDEY	AP	AS	5000
41	SANJEEV KUMAR	PROF	ME	5000
42	THANGALAKSHMI S. KUMAR	AP	ECE	5000
43	BIRENDRA KUMAR SHARMA	AP	MCA	7000
44	SANJEEV KUMAR	PROF	ME	6000
45	ANU CHAUDHARY	PROF	IT	6000
46	ANIL KUMAR RAI	PROF	EN	8000
47	SHWETA ROY	AP	CSE	5000
48	PRADEEP KUMAR CHOPRA	PROF	ECE	5000

49	SACHIN KUMAR	AP	AS	6000
50	RUCHIN KUMAR GUPTA	AP	IT	5000
51	NAMRATA GUPTA	AP	ME	5000
52	PRADEEP KUMAR CHOPRA	PROF	ECE	6000
53	SHIWANI SINGHAL	AP	AS	6000
54	RATAN LAL SHARMA	PROF	ECE	5000
55	RAJESH KUMAR	PROF	ECE	5000
56	IPS PAUL	PROF	ME	7000
57	KIRTI SETH	AP	CSE	5000
2012-13				
58	POOJA ARORA	AP	MCA	5000
59	KIRTI SETH	AP	CSE	5000
60	RUCHI GUPTA	AP	MCA	5000
2013-14				
61	RAHUL VIVEK PUROHIT	AP	ECE	5000
62	PRADEEP KUMAR CHOPRA	PROF	ECE	5000
63	JITENDRA KUMAR SETH	AP	IT	5000
64	ABHISHEK KUMAR PATHAK	AP	AS	5000
65	PRADEEP KUMAR CHOPRA	PROF	ECE	5000
66	DEVESH SINGH	AP	ECE	5000
67	ANU CHAUDHARY	PROF	IT	5000
68	KIRTI SETH	AP	CSE	5000
	TOTAL			410000

3.2.3 What are the financial provisions made available to support student research projects by students?

Each department allocates a finite proportion of their budget towards research projects of students: Following Table shows the financial provisions to support different research activities by students:

Events	2012-13	2013-14
ROBOCON	-	196758
TECH-TRISHNA	142583	266687
SCROLLS	112499	148562
Total	255082	612007

- To support student research activities critical components, software's etc are procured from time to time.
- Students are encouraged for seeking funding from the agencies such as DST and UGC. However smaller project with better prospect and utility are financed by the college as well.

3.2.4 How does the various departments/units/staff of the institute interact in undertaking inter-disciplinary research? Cite examples of successful endeavors and challenges faced in organizing interdisciplinary research.

For inter-disciplinary research activity:

- Every department of the college has its own final year project assessment committee. This project committee includes one faculty member of any other department within the institute.
- Students can carry out the research work/projects in consultation with TIFAC core.
- There is an Interdisciplinary M Tech in Automation & Robotics which admits the students from almost all engineering disciplines. Various M Tech projects were successfully carried out.
- B.Tech and M.Tech students can carry out their research work with students of other department at TIFAC CORE.

A list of B.Tech and M.Tech projects at TIFAC CORE is as follows:

List of Project at CORE

Course: B. Tech

Session: 2011-12

S. No.	Project Title
1	Design & development of LABVIEW based motion control system
2	Design & development of supervisory control system for MAPS
3	Design & development of pneumatic system for scrap crushing machine
4	Design & development of welding fixture for automobile industry
5	Engine Health Assessment System
6	RFID integrated handling system using KR-16 KUKA robot
7	Surface defect detection system using machine vision with LabVIEW
8	Smart bin picking system using Stereo Vision with KUKA KR-16 Robot

List of Project at CORE

Course: B. Tech

Session: 2012-13

S. No.	Project Title
1	Design & development of pneumatically operated automated door opening & closing system for commercial vehicles
2	Design & development of PLC based motion control system
3	Engine health assessment system
4	Design & development of number plate recognition system
5	RFID integrated handling system using KR-16 KUKA robot
6	Mobile agent based automated manufacturing system
7	Design & development of Supervisory control system for MAPS
8	Design & development Of PLC based Automated Guided Vehicles

List of Project at CORE

Course: B. Tech

Session: 2013-14

S. No.	Project Title
1	Magnetic & Non-Magnetic Material Sorting System
2	Automatic Feeding And Stamping System Using Industrial Pneumatics
3	Palletizing System Using Electro-Pneumatics
4	Diesel engine parameter monitoring system
5	Operation of DC motor through voice recognition system using Lab VIEW
6	Design & development of face recognition system using NI Vision & Lab-VIEW
7	Mobile agent based automated manufacturing system
8	Design & development of PLC based Automated Guided Vehicles.
9	Bin picking robotics using 3D object recognition
10	Fixture Design for cylindrical product and process parameter optimization for robotic MIG welding

List of Project at CORE

Course: M. Tech

S. No.	Title of Projects
1	Design & development of virtual controller for 6-axis Industrial Robot
2	RFID integrated handling system using KR- 1 6 KUKA robot
3	Development of FPGA based Virtual Instrumentation system for real time measurement of mechanical vibrations
4	FPGA implementation for speed estimation in a two-mass system

Also the college has created various world class laboratories of interdisciplinary nature equipped with state of art technology as a part of TIFAC CORE viz.

1. AKGEC - Bosch Rexroth, Centre of Competence in Automation Technology.
2. AKGEC - Janatics, Industrial Pneumatics Knowledge Centre.
3. AKGEC - Kuka, Industrial Robotic Training Centre.
4. AKGEC - Siemens, PLM Centre of Excellence.
5. AKGEC - NI, LabVIEW Academy.
6. AKGEC - AIA, Centre of Integrated Automation (AIA).
7. AKGEC - Fronius, Advance Welding Technology Centre.

These centers are managed by professionals from all branches of engineering to facilitate interdisciplinary research. Numerous interdisciplinary student projects were undertaken and successfully completed under this initiative.

3.2.5 How does the institution ensure optimal use of various equipment and research facilities of the institution by its staff and students?

Equipment in every department is used for a number of purposes listed below:

- Majority of the equipment is used to conduct experiments based on research by faculty, staff and students.
- Faculty members across the institute are offered training through workshops conducted centrally.
- A log book which keeps record of equipment utilization and issue of components is maintained for various labs.
- Final year students can use the college laboratories for their project work.

- In addition, Software Development Centre at AKG Engineering College has been established in 2009 to provide truly professional environment for the college students. The centre is equipped with the state of the art infrastructure & hardware/software tools and provides a highly conducive & stimulating environment for the young brains to explore & come out with innovative solutions using emerging technologies. The centre also facilitates the students to let them interact with external clients, understand their real-life problems & deliver solutions that optimally meet the end-user needs. In addition the Centre has the expertise of hosting web servers, administering database servers, mail servers, firewalls and engaged in supporting live servers for the college as well as external clients.

3.2.6 Has the institution received any special grants or finances from the industry or other beneficiary agency for developing research facility? If 'yes' give details.

Details of the Research and Consultancy projects undertaken under Research and Industrial Consultancy Centre (RICC) are given in the following table.

S. No.	Nature of the Project	Name of the Project	Company	Session	Cost
1.	Industry Sponsored	Development of Rescue Robot	Creative robotics Pvt. Ltd. (Sponsored)	2010-11	20,000/-
2.	Consultancy	Auto CAD Training	BIT, Meerut (Consultancy)	2010-11	90,000
3.	Consultancy	Virtual Assembly Design of Roller Fixture	VATEC ENGINEERS , Indore (M.P.) (Consultancy)	2010-11	25,000/-
4.	Industry Sponsored	Automatic Visual Inspection System	VERTEX Automation , Noida (Sponsored)	2011-12	25,000/-
5.	Consultancy	Design of Field Leveling System	Apogee Precision Lasers (Consultancy)	2012-13	50,000/-
6.	Industry Sponsored	Automation System	SMC Pneumatics (India) Pvt ltd. and OMRON Automation Pvt.	2012-13	1,00,000/-

			Ltd (Sponsored)		
7.	Consultancy	Design of Super Structure for Solar Generator	JAKSON (Consultancy)	2012-13	Research Project
8.	Consultancy	Vision System for Sheet Inspection	Creative Robotics(In Progress) (Consultancy)	2012-13	50,000/-

3.2.7 Enumerate the support provided to the faculty in securing research funds from various funding agencies, industry and other organizations. Provide details of ongoing and completed projects and grants received during the last four years.

1. Fund received from National Internet Exchange of India (NIXI), Institution Electronics & Telecommunication Engineer (IETE)

- 2012: Rs.3 Lac. NIXI + Rs. 20,000/- from IETE.
- 2013: Rs.2 Lac. NIXI + Rs. 30,000/- from IETE.

2. Students forum was established at Department of ECE in collaboration with IETE in the month of September, 2013. Under this MoU, 77 memberships have been acquired for students of the department. These students will be entitled to receive copies of IETE publications, newsletter and technical review. Additionally, a good number of professors, assistant professors are fellow members of IETE, New Delhi.

3. Institute has following industry academia collaborations:

- Kuka Robotics
- National Instruments
- Bosch Rexroth
- Janatics
- Siemens
- Pepperl + Fuchs
- Mitsubishi Electric India
- Schmaltz

3.3 Research Facilities

3.3.1 What are the research facilities available to the students and research scholars within the campus?

S. No.	Facilities available (Software/Hardware/Tools Available)	Application /Number of Users
1.	DSP and Microcontroller Computing systems	Real Time Computation
2.	MATLAB	General Computation/10 users
3.	Digi Silent	Power System Design and Simulation
4.	TIG & MAG welding and CAD Lab with various CAD software	simulation, testing and modeling
5.	LPC with visualization	-
6.	Computer numeric control (CNC) MTX	-
7.	Cadence Virtuoso	10 users
8.	NI Multisim v12	15 users
9.	Spartan FPGA Kit	-
10.	NI Ultiboard B12	1
11.	XILINX ISE 10.1i	Multiuser
12.	Spectrum Analyzer	RF Analysis
13.	Digital Storage Oscilloscope	Signal Analysis
14.	Sprint PCB Layout Design Software	5 users

Research facilities also includes e-journals, Wi-Fi campus, central and departmental libraries etc.

Also, details of TIFAC-CORE are given in 3.1.1.

3.3.2 What are the institutional strategies for planning, upgrading and creating infrastructural facilities to meet the needs of researchers especially in the new and emerging areas of research?

Research and Industrial Consultancy Centre has been established in the college to promote industrial consultation and extend consultancy & R&D services as per industry needs. Individuals or Departments may also initiate and take up consultancy work after taking approval of the (RICC) through the Head of the concerned Department. The report of Department and the report of the individual Consultancy projects will be signed by the Individual Faculty. Required funds are sanctioned to faculty members for developing research infrastructure. Faculty members are to submit a research proposal on a format prescribed by the Office of RICC and submit it through the respective Head of Department. The funds are utilized for the purpose of

laboratory equipment, consumables and software etc.

3.3.3 Has the institution received any special grants or finances from the industry or other beneficiary agency for developing research facilities?? If ‘yes’, what are the instruments / facilities created during the last four years.

A number of multinational industries have supported establishment of state of the art training, research & development facilities in the college. The support has been provided in the form of making available equipment and training setups at no cost or at heavily subsidized affordable cost to the college. In addition these industries have been conducting train-the-trainer programs for the college faculty at no cost to facilitate competence building and application oriented research activities. The facilities created with support from industries are -

Facility	Cost to College	Actual Cost	In Kind Support	Remarks
AKGEC-KUKA Industrial Robotics Training Centre	6676878	15940000	9263122	A joint research and training facility created under MoU with respective Industry partner for the benefit of Engineering students and SME's of the region
AKGEC-NI LabVIEW Academy	1857550	4400000	2542450	
AKGEC-Bosch Centre of Competance	15400000	30800000	15400000	
AKGEC-SIEMENS PLM	3002000	40000000	36998000	
AKGEC-Janatics Industrial Pneumatic Knowledge Centre	395886	1900000	1504114	
AKGEC-P+F Sensorics Centre	194724	2216360	2021636	
Total	27527038	95256360	67729322	

3.3.4 What are the research facilities made available to the students and research scholars outside the campus / other research laboratories?

S. No.	Name of the research lab visited	Nature Of course/training conducted	Session	Details
1.	ALTTC BSNL, Ghaziabad	Advance course of Employability Enhancement Training	2013-14	Employability Enhancement Training Program (EETP) for 3rd Year B.Tech. (ECE) students are being conducted under AICTE - BSNL MoU. The objective of this program is to provide competency based employability enhancement skills and hands-on skill training through BSNL Training Centers. Nineteen students of 3rd year B.Tech. (ECE) are presently undergoing this program. The program started on 15th July'13 and will be completed by Dec'14. It is being conducted on every Monday by Bharat Sanchar Nigam Ltd. at Advance Level Telecom Training Center (ALTTC), Ghaziabad. This programme commenced w.e.f 15th July, 2013 for duration of 18 months.
2.	National Power Training Institute	Industrial Visit	2010-11	Power System Simulator
3.	Central Power Research Institute	Industrial Visit	2010-11	High Voltage Test Lab

3.3.5 Provide details on the library/ information resource center or any other facilities available specifically for the researchers?

Following facilities are available for research:

- Departmental library for every branch.
- WIFI Network in the campus
- LAN Internet
- Subscription BCL, DELNET, IEEE, ASME, Springer,
- Science Direct, J-Gate, ASTM, McGraw-Hill

S. No.	Journal	Number	
1	Print	5 (B.Tech)	18 (M.Tech)
2	Online	2279	

3.3.6 What are the collaborative research facilities developed/ created by the research institutes in the college? For ex. Laboratories, library, instruments, computers, new technology etc.

1. Collaborative research facilities:

(i) MATLAB training by IIT Kanpur: A program on MATLAB is conducted by ECE department at AKGEC along with ORANE LAB, SIIC, IIT Kanpur and a division of Orane Info-system Pvt. Ltd. The course covers the whole theoretical and practical aspects of advanced MATLAB and Simulink and is useful for the students of B.Tech (3rd and 4th year) and M.Tech (ECE). Total number of students registered for this program is 83. The course commenced on 19th October, 2013. Total duration of the course will be 60 hours (approx.). This includes 25hrs of classroom program and 35hrs of hands on sessions. Orane labs will give regular feedback on the performance of the students during the period of course.

(ii) IETE students' Forum: Students forum was established at Department of ECE in collaboration with IETE in the month of September, 2013. Under this MoU, 77 memberships have been acquired for students of the department. These students will be entitled to receive copies of IETE publications, newsletter and technical review. Additionally, a good number of professors, assistant professors are fellow members of IETE, New Delhi.

2. AKGEC is making constant efforts towards the growth and development of students as future technocrats, by providing ample opportunities for industry interactions to bridge the gap between academics and industry requirements. In persistence with this pursuit, AKGEC signed an agreement with Microsoft to set up the "Microsoft IT Academy (MSITA)" at its campus in November 2012.

The courses under MSITA are designed by Microsoft and are delivered by ‘Microsoft Trained Trainers’ through Microsoft Delivery Partner ATS InfoTech P. Ltd. The enrolled students will be exposed to the latest Microsoft Technologies that will enable them to be market ready thereby increasing their placement opportunities manifold.

The courses consisting of two levels of 50 hours each are focused on training the students on Microsoft leading technologies. Besides theory and lab sessions, each level comprises of project work based on Microsoft technologies. The course contents include C# language, visual Studio, ADO.net, SQL Server, Silver light, Linq, ASP.Net, Ajax, WPF, WCK and other technologies. On completion of the level(s), the students are awarded participation certificates. The students can subsequently appear for Microsoft Global Certifications. The value addition beyond the curriculum promises to go a long way in promoting their careers in today’s competitive job scenario. Meritorious students are given 25% fee concession for the program, free certification voucher and discounts in certification fee.

3. Virtual Lab in collaboration with IIT Delhi: Virtual Lab is an initiative of Human Resource Development (MHRD) under the National mission on education through Information and Communication Technology (ICT). Objective of the virtual lab is providing remote access to labs in various disciplines of science and engineering. This would help the students in learning advanced concepts through remote experimentation.

4. Network IT Academy: IT industry is booming and with it the growth opportunities as well. Ranging from database administrators, software engineers, programmers, web designers and Network administrators, the opportunities are unlimited. Keeping this in view, AKGEC has set up a Networking Academy on 18th January 2013. The academy provides industrial exposure to its students in networking domain by introducing world class and industry proven courses for producing the next generation certified networking experts.

5. Java Academy: An agreement has been signed with a known training provider “DUCAT” on 01 Oct 2013 to run 80 Hrs course on Java Programming Language in the College. The number of the participants in the ongoing Java Course is 44. The course contents includes an advanced concepts of AWT tool kit, swing, multi-threaded programming, networking, J2EE, JDBC, Servlet, JSP, Struts, Hibernate, Spring, Eclipse IDE etc.

6. Institute has various industry academia collaborations with Kuka Robotics, National Instruments, Bosch Rexroth, Janatics, Siemens, Pepperl+ Fuchs and Mitsubishi Electric India. Details of these have been provided under other subsections.

3.4 Research Publications and Awards

3.4.1 Highlight the major research achievements of the staff and students in terms of

- * Patents obtained and filed (process and product): **NIL**
- * Original research contributing to product improvement: **Details are given in 3.2.6**
- * Research studies or surveys benefiting the community or improving the services:

Details are given in 3.1.9.

* Research inputs contributing to new initiatives and social development: **Details are given in 3.1.1.**

3.4.2 Does the Institute publish or partner in publication of research journal(s)? If ‘yes’, indicate the composition of the editorial board, publication policies and whether such publication is listed in any international database?

Yes, the institute has an international Journal entitled “**AKGEC International Journal of technology**”.

Editorial Advisory Board:

1.Prof. Kripa Shanker Vice Chancellor Gautam Buddha Technical University Lucknow	2.Prof. H.M. Gupta Department of Electrical Engineering Indian Institute of Technology New Delhi
3.Prof. Suneet Tuli Centre of Applied Research in Electronics Indian Institute of Technology, New Delhi	4. Prof. M. L. Kothari Department of Electrical Engineering Indian Institute of Technology New Delhi
5. Prof. Bhim Singh Department of Electrical Engineering Indian Institute of Technology New Delhi	6.Prof. S.P. Singh Department of Mechanical Engineering Indian Institute of Technology New Delhi
7.Prof. Vinod Kumar Department of Electrical Engineering Indian Institute of Technology Roorkee	8. Prof. Durg Singh Chauhan Vice Chancellor Uttarakhand Technical University Dehradun (Uttarakhand)
9. Shri N. Murugesan Director General Central Power Research Institute Bangalore	10.Shri V.K. Gupta Director National Power Training Institute New Delhi
11. Dr. P.V. Balasubramaniam Additional Director & Head Centre for Collaboration & Advanced Research Central Power Research Institute Bangalore	12.Prof. N.N. Kishore Department of Mechanical Engineering Indian Institute of Technology Kanpur
13.Prof. N.S. Vyas Department of Mechanical Engineering Indian Institute of Technology Kanpur	

Patron-in-Chief

Dr R. K. Agarwal

Director

Ajay Kumar Garg Engineering College, Ghaziabad

Editor-in-Chief: Prof Ranjit Singh**Departmental journal**

S. No.	Department	Name of the departmental journal	Frequency of publishing	Members of editorial board
1.	Applied Science & Humanities	Quest The Search	Biannual	Patron in Chief- Dr. R.K.Agarwal Editorial Director- Prof. P.K.Sharda Chief Editor- Prof. Ranjit Singh
1.	Computer Science & Engineering	GLIMPSE	Bi-annual	Executive editor- Prof. B. M. Kalra Editor in chief- Dr. Sunita Yadav
2.	Electrical & Electronics	E - Flux	Biannual	Executive editor-Prof. V. K Parashar Editor in chief- Prof. Bhupal Singh
3.	Electronics & Communication	Xplore	Bi-annual	Patron in Chief- Dr. R.K.Agarwal Editorial Director-Prof. P.K. Chopra Chief Editor- Asst. Prof. Amit Garg
4.	Information Technology	“Infobytes”	Bi-Annual	Patron: Dr. R.K Agarwal (Director, AKGEC Ghaziabad) Editorial Director: Prof. R.P Saw (HoD IT Dept. AKGEC

				Ghaziabad) Chief Editor: Dr Anu Chaudhary (Professor IT Dept.)
5.	Mechanical Engineering	EXCEL - Journal of Mechanical Engineering	EVERY SEMESTER (MARCH AND SEPTEMBER)	Executive Editor: Prof. G.P. Dubey Editor in Chief: Mr. Pallab Biswas

3.4.3 Give details of publications by the faculty and students:

- Publications per faculty
- Number of papers published in peer reviewed journals (national/international) by faculty and students:
- Number of publications listed in International Database (For Eg: Web of Science, Scopus, Humanities International Complete, Dare Database - International Social Sciences Directory, EBSCO host, etc.) :
 - Monographs:
 - Chapter in Books:
 - Books Edited:
- Books with ISBN/ISSN numbers with details of publishers, Citation Index, SNIP,SJR, Impact Factor, h-index

Details are given in **Annexure 3A- Research Publications.**

3.4.4 Provide details (if any) of

- research awards received by the faculty
- recognition received by the faculty from reputed professional bodies and agencies, nationally and internationally
- Incentives given to faculty for receiving state, national and international recognitions for research contributions.
- On an average 25% to 30% faculty members of the department got cash awards from the institution for best results for their respective subjects.
- Various faculty members got cash awards for publishing their papers in a reputed journal. Cash award details are given in 3.2.2.
- Faculty members are given various awards for their research contributions :

S. No.	Name of the faculty	Institute/ Society Committee which conferred	Title of Honour/Award/Fellowship
1	Dr.Soumendu	Science & Engg Research	BOYSCAST Fellowship

	Jana	Board (SERB) 19-07-2010 TO 14-06-2011 University of STRATHCLYDE, GLASGOW U.K.	No.SR/BY/P-07/09
2	Dr. Sunil Kumar Jha	01-12-2012 TO 01-12-2014 (FOR TWO YEARS) KYUSHU UNIVERSITY, TOKYO, JAPAN	JAPAN SOCIETY FOR THE PROMOTION OF SCIENCE (JSPS) JSPS/FF1/184

CRITERIA 3.5

Consultancy

3.5.1 Give details of the systems and strategies for establishing institute-industry interface?

Details are given in 3.1.1.

3.5.2 What is the stated policy of the institution to promote consultancy? How is the available expertise advocated and publicized? Advertised by registering PhD in university/ Industrial visits which includes liaison with industry

NA

3.5.3 How does the institution encourage the staff to utilize their expertise and available facilities for consultancy services?

Research and Industrial Consultancy Centre has been established in the college to promote industrial consultation and extend consultancy & R&D services as per industry needs. This is aimed to encourage the faculty to undertake consultancy work and act as a liaison between the institute and industry / Government Bodies to undertake consultancy projects.

- For the requirement originating from the concerned industry, the Centre will assess the feasibility, time and cost required to accomplish the task and nominate a faculty as principal investigator.
- Individuals or Departments may also initiate and take up consultancy work after taking approval of the (RICC) through the Head of the concerned Department. The report of Department and the report of the individual Consultancy projects will be signed by the Individual Faculty.
- Faculty involved in such consultancy would be permitted to use college resources and students
- The fund received from sponsoring industry / agency will be distributed amongst the Investigator and other staff involved in the project with a nominal amount retained for college facilities.

- Required funds are sanctioned to faculty members for developing research infrastructure. Faculty members are to submit a research proposal on a format prescribed by the Office of RICC and submit it through the respective Head of Department. The funds are utilized for the purpose of laboratory equipment, consumables and software etc.

However certain projects are running with joint collaboration of AKGEC and partner industries. The primary objective of these ventures is to offer real time technical consultancy and solutions towards strengthening Industry-Academia linkages.

3.5.4 List the broad areas and major consultancy services provided by the institution and the revenue generated during the last four years.

S. No.	Nature of the project	Name/Nature of the project	Company	Department	Session	Status of Completion (Yes/No)
1	Consultancy	IT Assets Management System	Micromatic Grinding Technology	CSE	2013-14	Ongoing
2	Consultancy	Drive System for a mobile bridge inspection	CRRI	EN	2010-11, 11-12, 12-13	Completed
3	Engineering	Design & Development of a low cost microcontroller based interface system	Micromatic Grinding Technologies Pvt. Ltd.	ECE	Start date: 13/11/13	No, Ongoing
4	Engineering	Provide IT Solutions to make system administration more efficient and economical	Micromatic Grinding Technologies Pvt. Ltd.	IT	13/11/13	Ongoing
5	Consultancy	Auto CAD Training	BIT, Meerut (Consultancy)	Mechanical Engineering	2010-11	YES
6	Consultancy	Virtual Assembly Design of Roller Fixture	VATEC ENGINEERS , Indore (M.P.)	Mechanical Engineering	2010-11	YES

			(Consultancy)			
7	Consultancy	Design of Field Leveling System	Apogee Precision Lasers (Consultancy)	Mechanical Engineering	2012-13	YES
8	Consultancy	Design of Super Structure for Solar Generator	JAKSON (Consultancy)	Mechanical Engineering	2012-13	YES
9	Consultancy	Vision System for Sheet Inspection	Creative Robotics(In Progress) (Consultancy)	Mechanical Engineering	2012-13	YES

More details are given in **3.2.6**.

3.5.5 What is the policy of the institution in sharing the income generated through consultancy (staff involved: Institution) and its use for institutional development?

Research and Industrial Consultancy Centre (RICC) has been established in the college to promote industrial consultation and extend consultancy & R&D services as per industry needs.

The RICC policy is as follows:

- (a) Individuals or Departments may also initiate and take up consultancy work after taking approval of the (RICC) through the Head of the concerned Departments. The report of Department and the report of the individual Consultancy projects will be signed by the Individual Faculty.
- (b) Faculty and students involved in such consultancy would be permitted to use college resources.
- (c) The fund received from sponsoring industry/agency will be distributed amongst the Investigator and other staff involved in the project with a nominal amount retained for college facilities.
- (d) Grant may also be sanctioned to faculty members for developing research infrastructure. Faculty members may submit a research proposal on a format prescribed by the Office of RICC and submit it through the respective Head of Department. The grant will be utilized for the purpose of laboratory equipment, consumables and software etc.

CRITERIA 3.6

Extension Activities and Institutional Social Responsibility (ISR)

3.6.1 How does the institution promote institution- neighbourhood- community network and student engagement, contributing to good citizenship, service orientation and holistic development of students?

The institution promotes institution-neighbourhood-community network and student engagement, contributing to good citizenship, service orientation and holistic development of students regularly by arranging different social activities within and outside the campus through the following activities. Some of these are listed below:

- **Adarsh Vikas Kendra for providing primary education of children of labour:** The college is running a primary school named “Adarsh Vikas Kendra” to provide free primary education to children of economically weaker sections of society. These children are provided free uniforms, books, bags and are regularly attending classes conducted in the campus. These children are also being provided free meal (lunch) during the day by the college.
- **Adoption of corporation of school in Kazipura:** Infrastructural support has been provided to the school which includes facilities such as boundary wall, slides, swings, fans, painting etc. College has been instrumental in organizing college visits and instructional tours to science museums for the students of Kazipura school. Also lectures on ethics and moral values are conducted by the college.
- **Donation of computers to schools:** The college has been regularly donating computers to various organizations to spread computer literacy among the underprivileged ones. Over 235 computers have been donated to various schools, colleges and organizations.
- **Donation for natural calamities:** The college has been generously contributing for the benefit of people suffering from natural calamities as well as for other noble causes. The details of donations made this year are as follows:
 - (a) Relief fund for Psumani in Japan: (Rs. 5.00 Lakh)
 - (b) Donation to Shri Krishan Gaushala, Ghaziabad: (Rs. 2.00 Lakh)
 - (c) Donation to Bhartiya Shiksha Samiti, Jammu: (Rs. 2.00 Lakh)
- **Tuition Fee Subsidy to Class IV Employees’ Children :** The college provides tuition fee subsidy to class IV employees to encourage them to provide proper education and schooling to their children. Under this scheme, subsidy up to Rs. 200/- per month per child is being given to class IV employees for their school going children. To encourage better performance by children, higher subsidy upto Rs. 500/- per month per child is also being given to children who secure first positions in their class. At present 77 children of 46 class IV employees are benefiting from this scheme.
- **Blood donation camp:** The College organizes a blood donation camp every year in collaboration with Rotary Club Ghaziabad (RCG). In the last blood donation camp, the college contributed a record of 635 units. This created a sense of social awareness among students.

- **Fund Collections through NFCH:** The NFCH organizes various fund collections for various social causes such as helping underprivileged societies. It also conducts essay competitions during events such as “World Communal Harmony Day”.
- **Conduct of intercollegiate competitions:** All departments within the institution have formed student societies both in technical and cultural domains .These societies are regularly conducting events on a massive scale with participation across various institutions across of Delhi and NCR. Competitions based on certain extension activities are conducted and the winners are suitably awarded with certificates, cash and trophies. This provides a platform for students to compete with their counterparts.
- **Conducting anti-ragging drives:** In order to curb the menace of ragging, an Anti-ragging committee comprising of senior professors under the leadership of Director has been set up which has declared the institute as a ragging free campus. In order to further propagate anti ragging drives, a kite flying competition is organized annually.
- **Mentorship classes for weak students:** In order to promote student linkages and involvement, a mentorship programme is conducted for difficult subjects. Under this programme, top notch students of the institute conduct lectures for weak students. This builds up a sentiment of selfless service and leadership skills within the student community at large. As an incentive, the college gives suitable cash reimbursements to such students. Also, general proficiency marks are enhanced in proportion to degree of participation.
- **Awareness of social evils through college drama group:** A college skit group “Nukkad” enacts several skits highlighting several evils such as social injustice, gender bias, inequality, corruption etc. This sensitizes the student community in general with respect to these issues.
- **Distribution of Amenities to underprivileged societies:** Students are also encouraged to take up assignments such as distribution of used clothes, medicines etc to poor sections of the society and teaching poor students etc free of cost. This develops a sense of sharing and enhances task management skills .

3.6.2 What is the Institutional mechanism to track students’ involvement in various social movements / activities which promote citizenship roles?

The institutional mechanism to track student involvement in various social movements activities which promote citizenship are as follows:

- The institute has setup various student societies. Each society has a convener selected among the students and a structured responsibility chart. These students are reporting to the Dean Students welfare (DSW), a senior professor of the institute.
- All events proposed to be conducted are centrally planned, controlled and executed by students under the tight supervision of the DSW .Further judgment and monitoring of events is done by the faculty members of various departments.
- Furthermore, a student profile file is maintained for all the students at the central level which includes all necessary details of the students, including their performance in technical and cultural events. This ensures a proper tracking mechanism of student.

3.6.3 How does the institution solicit stakeholder perception on the overall performance and quality of the institution?

Stakeholders such as Students, Parents, faculty members, college, University and the society at large are critical elements of the education system that decide the overall performance and quality of the institution. For smooth functioning of the institute and to cater to the competitive environment, it is mandatory that certain processes be laid down in order to establish effective linkages between these elements, thereby contributing to the overall improvement in the existing system. In order to address these issues, following steps are undertaken at the institute level:

- Certain forms and formats have been designed to collect feedbacks from the stakeholders. This includes Alumni feedback form, Graduate exit form, Parents feedback form, Employers feedback form etc.
- Every year, an Alumni meet is conducted during which Alumni feedback forms are being filled up. Any suggestions given by the Alumni are analyzed and suitably implemented.
- Similarly during interactions with the parents, parent feedback forms are being filled up.
- The feedback is also collected from the companies (who recruit the students through campus placements) is being discussed in the meetings of Training and Placement (T & P) department and shortcomings are addressed.
- A convocation ceremony to facilitate pass out students and faculty members is held every year. During this ceremony feedback forms are being filled up by the pass out students. These forms are thoroughly analysed and suggestions if any are thoroughly implemented for improving the existing system.
- All other forms are also being filled up in an identical manner.
- Additional, Other assessment mechanisms such as Placement survey, Project assessment survey, Technical survey, Result survey, PDP survey are also carried out simultaneously.
- In order to improve quality, each department of the institute conducts one guest lecture per month by an expert from industry or academia.
- Furthermore, one National/International conference and one Faculty Development Programme (FDP) are being organized by every department on annual basis.

3.6.4 How does the institution plan and organize its extension and outreach programmes? Providing the budgetary details for last four years, list the major extension and outreach programmes and their impact on the overall development of students.

- Every academic year the list of extension and outreach programmes are planned and executed.
- We organize health awareness, tree plantation, blood donations, yoga meditation etc.
- These programs help our students to enrich their body and mind, inculcate the spirit of service towards society. For this purpose ample of funds are spent and specific budget allocation is carried out.
- Some of the outreach and extension activities and their impact on the overall development of students have been elaborated in **section 3.6.1**.
- Expenses are listed below for few social programs:

Particulars	2012-13	2013-14
Blood Donation	35250	45166
Adarsh Shiksha	145834	220938
Total	181084	266104

3.6.5 How does the institution promote the participation of students and faculty in extension activities including participation in NSS, NCC, YRC and other National/ International agencies?

In addition to the technical sports and cultural activities, the college encourages participation of students in extension and outreach activities .In this direction, the college has been hosting various events. This includes events organized by NFCH (National Foundation for Communal Harmony) rotary club Ghaziabad central. Following initiatives have been taken in the previous three years in this direction.

- **Events hosted by NFCH (National Foundation for Communal Harmony):-** The NFCH organizes various fund collections and conduct essay competition on events like “World Communal Harmony Day”.
- **Events hosted by Rotary Club Ghaziabad (RCG):** The College organizes one blood donation camp every year in collaboration with RCG In the last blood donation camp the college contribute a record of 635 units .In these camps blood units are contributed both by student community and faculty members.
- **Inclusion of Human Values as a Subject:** Human values have been introduced as a compulsory subject across all streams in 1st year B.Tech. to expose and feel the need to follow social responsibility.
- **Conduct of NSS training camps:** NSS training camps are conducted for students. This imbibes self discipline, self initiative and a strengthens the sentiment of nationhood.

Additional events and their promotion by the college have been emphasized in **section 3.6.1 and 3.6.5.**

3.6.6 Give details on social surveys, research or extension work (if any) undertaken by the college to ensure social justice and empower students from under-privileged and vulnerable sections of society?

The extension work carried out by our college is elaborated in **section 3.6.1** above. Additionally, following extension activities are undertaken by the institute.

- Assistance to Kazipura School in the neighborhood of the institute.
- In campus school for labour workers’ children in the campus.
- Donation of computers to needy schools and organizations.
- Distributions of books and donated clothes to under-privileged sections of the society.

3.6.7 Reflecting on objectives and expected outcomes of the extension activities organized by the institution, comment on how they complement students' academic learning experience and specify the values and skills inculcated.

- Engineers are the backbone of the country. They must know the weaknesses and strengths of our society. Furthermore, they should know as to what reforms should be made to evolve a better society.
- The extension activities organized by the institution sensitizes students with respect to critical issues concerning the society and environment such as poverty, social injustice, gender bias, pollution evils and the corrective measures to counter them. This makes them aware of their roles to be played in the society. Hence, all these extension activities groom their personality and enable them to take part in nation building process.
- Each engineering department has a technical society. These societies conduct regular technical symposia/festivals at departmental level. In addition, the college has a dramatic and wall magazine society.
- These extension activities boost the overall confidence of students and inculcate values at large. These activities also instill a sense of independent leadership and develop team building skills.
- In order to encourage participation and volunteer ship in these extension activities, students are awarded with certificates and cash incentives.
- A list of such extension activities and their impact on the overall development of student community has been elaborated in section 3.6.1

3.6.8 How does the institution ensure the involvement of the community in its reach out activities and contribute to the community development? Detail on the initiatives of the institution that encourage community participation in its activities?

1. Minority fund collections
2. Communal harmony event once a year
3. Anti-ragging drives, races, and kite flinging to generate social awareness with respect to menace of ragging.
4. Teaching poor students etc.
5. Assistance to Kazipura School in the neighborhood
6. In campus school for labor workers' children in the campus.

3.6.9 Give details on the constructive relationships forged (if any) with other institutions of the locality for working on various outreach and extension activities.

Constructive relationship forged with other institution of the locality on various outreach and extension activities has been developed through following measures:

- During blood donation camps hosted by Rotary Club Ghaziabad (RCG), other institutes are also invited.
- During cultural programmes held within the campus, students from a large number of institutes across Delhi and NCR are participating. This helps in developing constructive relationships with other institutions.

- The institute has been declared as a Centre of Excellence by the University in imparting sophisticated domain specific training through its State of Art TIFAC CORE labs (Mentioned in earlier sections) and other training labs. Students from various colleges are perusing certification courses on full time and part time basis in the college campus. This provides an opportunity to develop ties with the peer institutions.
- During MOU signing reputed companies and groups, tree plantation ceremonies are carried out. This also provides a platform of relationship building.

3.6.10 Give details of awards received by the institution for extension activities and/contributions to the social/community development during the last four years.

The college is awarded with following environmental and social awards:

- Paryavaran mitra samman by Paryavaran sachetak samiti in 2010.
- Best technical institution garden trophy during annual flower show- 2010 organized by Ghaziabad development authority.
- Best garden award in garden tourism festival 2010 by Delhi tourism.
- Best institutional garden award during annual flower show Ghaziabad-2014.

CRITERIA 3.7

Collaboration

3.7.1 How does the institution collaborate and interact with research laboratories, institutes and industry for research activities. Cite examples and benefits accrued of the initiatives - collaborative research, staff exchange, sharing facilities and equipment, research scholarships etc.

Institute has the following industry academia collaborations:

1. Kuka Robotics
2. National Instruments
3. Bosch Rexroth
4. Janatics
5. Siemens
6. Pepperl + Fuchs
7. Mitsubishi Electric India
8. Virtual Lab in collaboration with IIT, Delhi

Details are given in **3.1.1**

3.7.2 Provide details on the MoUs /collaborative arrangements (if any) with institutions of national importance/other universities/ industries/Corporate (Corporate entities) etc. and how they have contributed to the development of the institution.

Details on the MoUs with industries are as follows:

S. No.	Type of Lab	Year of Establishment	Sponsored Company	Capacity/Infrastructure
1	AKGEC KUKA INDUSTRIAL ROBOTICS TRAINING	2011	Joint Center established by Kuka Robotics India (P) ltd and Ajay Kumar Garg Engineering College.	The centre is equipped with standard training cell comprising of KUKA KR-16 Industrial Robot with required auxiliary equipments. This training cell is capable of performing multitude of operations used for welding, painting, gluing and other essential industrial operations used by the automobile, food & beverages, packaging and other manufacturing / Production industries. In addition to this, a robotics computer simulation lab is also established with latest industrial robotics simulation Software like SimPro & SimLayout, used to design, develop and simulate robotic operations for different manufacturing establishments.
2	AKGEC-NI LABVIEW ACADEMY	2012	Joint Center established by National Instruments Systems (India) Pvt. Ltd. and Ajay Kumar Garg Engineering College.	<ul style="list-style-type: none"> • NI data Acquisition Lab introduces students to state-of-art Data Acquisition techniques & the concept of virtual instrumentation – the powerful combination of flexible software & modular hardware which helps to integrate theoretical concepts with real-world applications. • Mechatronics-Sensors Lab introduces the student to a wide variety of sensors that are commonly used today. It teaches how to use these sensors and demonstrates their advantages and limitations. • Measurement & Instrumentation Lab provides

				<p>students and faculty with industry-standard, flexible instrumentation hardware and software for measurement and automation.</p> <ul style="list-style-type: none"> • Image Processing Lab comprising of NI LabVIEW graphical Programming software and Gig-E board for image acquisition, provides mathematical algorithms for 2D Image processing and helps student understand the concepts of image processing to develop smart applications. • DC Motor Lab illustrates the fundamentals of DC motor control using the NI ELVIS platform and LabVIEW graphical programming. • Microcontroller/ Embedded System Design Lab offers a comprehensive collection of ad-on tools that teaches embedded systems using FPGAs, DSPs, microprocessor units (MPUs). The lab empowers engineering students from all disciplines to build embedded systems, whether it is next generation solar car or for autonomous vehicles.
3	AKGEC-Janatics :Industrial Pneumatics Knowledge Centre (IPKC)	2012	Joint Center established by Janatics India Pvt. Ltd and Ajay Kumar Garg Engineering College.	AKGEC is aimed at setting up a world class Pneumatic knowledge centre in India. The centre will be designed to support the training need of the manufacturing industry, young engineers, students and concerned professionals.
4	AKGEC- Bosch Rexroth: Centre of Competence in Automation Technology	2012	Joint Center established by Bosch Rexroth AG, Germany and Ajay Kumar Garg	It will be the first centre in North India. The centre will be equipped with state of art facilities of Hydraulics, Pneumatics, Sensorics, PLCs and Mechatronics. The centre will be designed to support the training need of the manufacturing

			Engineering College.	industry, young engineers, students and concerned professionals.
5	AKGEC-SIEMENS	2013	Joint Center established by Pepperl & Fuchs and Ajay Kumar Garg Engineering College.	Siemens PLM Software works collaboratively with clients to create open enterprise solutions that enable them to transform their process of innovation and maximize value throughout all phases of the product lifecycle. PLM is an increasingly important and visible enterprise business strategy that lets organizations digitally manage product information from ideation to retirement, netting more business value from every product.
6	AKGEC-Pepperl & Fuchs	2014	Training setups will be part of Integrated Automation Laboratory	The main objective of this centre is to demonstrate integration across the different technologies & platforms to deliver industrial solutions based on the requirements and foster applied research in the field of Manufacturing Automation.
7	AKGEC-MITSUBISHI ELECTRIC INDIA	2014 (MOU Signed)	Training setups will be part of Integrated Automation Laboratory	This collaboration/cooperation will help to fill the gap related to high levels of youth unemployment and a shortage of job seekers with critical skills related to multidisciplinary field of Automation in India. It will facilitate young engineers to get chance to learn industry oriented skills and have hands on experience with state of art tool kits comprising of latest software/hardware provided by MEI to CORE.

3.7.3 Give details if any) on the industry-institution-community interactions that have contributed to the establishment / creation/up-gradation of academic facilities, student and staff support, infrastructure facilities of the institution viz. laboratories / library/ new technology /placement services etc.

The institute often interacts with industry people through industrial visits, seminars/Guest Lectures, workshops, conferences and placement.

Though our institute cannot change the syllabus on its own , the college takes the value edit courses like personality development, Java, C# language, Visual Studio, ADO.net, SQL Server, Silver light, Linux, ASP.Net, Ajax, WPF, WCK, MATLAB, AutoCAD etc. keeping in mind the need of the industry . Apart from this the institute has TIFAC-Centre of Relevance and Excellence (CORE) conducts various training programmes on regular basis.

Details are given in **3.1.1**.

3.7.4 Highlighting the names of eminent scientists/participants who contributed to the events, provide details of national and international conferences organized by the college during the last four years.

Following table highlights the names of eminent scientists who contributed to the various events (Guest Lectures, Seminars, Workshops, and Conferences etc.)

S.No	Date of Visit	Topic	Name, Designation of the Senior Faculty /Scientist	Department visited
1	22 /02/ 2013	What is: Pedagogy, Education, Intelligence, Knowledge, Learning, Teaching	Dr. Rob Reilly Visiting Scientist, Center for Educational Computing Initiatives, Massachusetts Institute of Technology, Cambridge, Massachusetts USA	CSE
2	22 /02/2013	Recent Advances in Parallel and Distributed Discrete Event Simulation	Professor Stephen John Turner School of Computer Engineering Nanyang Technological University, Singapore	CSE
3	22/02/ 2013	Cloud Computing and Distributed Systems (Privacy and Security)	Prof. Bharat Bhargava Professor of the Department of Computer Science, School of Electrical & Computer Engineering Purdue University, USA	CSE

4	22/02/ 2013	Generating Power law behavior in Broadband Communication Networks	Prof. Karmeshu Professor, School of Computer and Systems Sciences, Jawaharlal Nehru University, Delhi, India	CSE
5	23/02/2013	Automated Human Activity Recognition from video clips	Prof. K. K. Biswas Professor, Computer Science Engineering Department IIT, Delhi, India	CSE
6	23/02/2013	A short Tour of Randomized Techniques in Algorithm Design	Prof. Sandeep Sen Professor, Computer Science and Engineering IIT Delhi, India	CSE
7	23/02/2013	Advance Computing	Dr. Satish Chand Professor, Deptt. of Computer Engineering, Netaji Subhas Institute of Technology, New Delhi, India	CSE
8	23/02/2013	Biometrics and its Threats	Dr. Suneeta Agarwal Professor and Head, Computer Science and Engineering Department, Motilal Nehru National Institute of Technology, Allahabad, India	CSE
9	23/02/2013	Adhoc Networks	Dr.D.K.Lobiyal Associate Professor, Jawaharlal Nehru University, Delhi	CSE
10	8/10/13	Automation technologies	Mr. T.S Bharath, Bosh Rexroth	EN
11	22/10/13	Health monitoring through information and communication technology (with special emphasis on solution to India's healthcare problems)	Prof. David Hewson, UTT, France	EN
12	22/03/2013	Smart Grids for India's Prosperity	Sh. Reji Kumar Pillai President, India Smart Grid Forum	EN

13	08/03/2013	Power Scenario in India & Future Challenges	Sh. V K Gupta Principal Director, NPTI (NR), Badarpur, New Delhi	EN
14	21/11/2012	Emerging Trends in Maintenance of Transmission Lines and Towers	Sh. P P Wahi Director (Energy) CBPI, New Delhi	EN
15	18/10/2012	High Power Short Circuit Test Facilities	Dr. Lakshman Hari CEO, National High Power Test Laboratory, Bina (MP)	EN
16	01/10/2011	Transmission and Distribution System Planning and Design concept	Sh. Arbind Gupta Electrical Domain Consultant, Tata Consultancy Services	EN
17	22/04/2011	Grid Operation in Northern India	Er. V K Agarwal GM, Northern Regional Load Dispatch Centre (NRLDC), New Delhi	EN
18	04/02/2011	Career Prospectus in Power Sector	Sh. S K Chaudhary Director, NPTI Dr. Rohit Verma Dy. Director, NPTI	EN
19	01/10/2010	Testing & Evaluation of High Voltage Equipment	Sh. M K Jaiswal Head, High Voltage Lab, Noida	EN
20	09/04/2010*	Electrical Power Quality	Dr. Bhim Singh Prof. Electrical Engineering Department, IIT Delhi	EN
21	30/01/2013	Opto Electronics Devices and Applications	Dr. S.C. Gupta, Director, Northern India Engineering College	ECE
22	28/02/2013	Planning, Operations & Maintenance of Mobile Networks	Prof. (Dr.) H.S. Sharma, Director - General, JMS Group of Institutions	ECE
23	15/03/2013	National Conference on Emerging Trends in	Prof. S.K. Kak, Vice Chancellor, MTU Noida	ECE
24	16/03/2013	Mobile Communication	Mr. Vimal Wakhlu, Chairman, TCIL	ECE
			Prof. (Dr.) V.K. Jain, Prof. IIT New Delhi	ECE

25	16/04/2013	Cryptography & Security in GSM	Mr. V.K. Arya, Ex-DDG, DoT and Former Sr. GM, ALTTC, Ghaziabad	ECE
26	30/07/2013	3 G and Beyond	Mr. Vikas Nigam, Divisional Engineer, ALTTC, Ghaziabad	ECE
27	30/08/2013	New Trends in Optical Broadband Communication	Dr. S.C. Gupta, Director, (Acad) RKGIT, Ghaziabad	ECE
28	11/10/2013	Infrastructure for IP Networks	Mr. Manjeet Singh, Telecom Consultant & Former President HFCL	ECE
29	18/08/2012	Image Registration : techniques and Challenges	Dr. K.V. Arya, Associate Professor ABV-IIITM, Gwalior	ECE
30	7/9/2012	Mobile Security Aspect : SIM Cloning, Hacking, Handset Tempering & Other Security Issues	Mr. Prakash Pancholi, SDE, (GSM) ALTTC, Ghaziabad	ECE
31	16/10/2012	The Intelligent Optimization of GSM Networks and Best Practices	Mr. Prakash Pancholi, SDE, (GSM) ALTTC, Ghaziabad	ECE
32	26/10/2012	Electronic Environment in Military Preparedness and Operations	Mr. Narinder K. Chhiber, Secretary General, PTC India Foundation, New Delhi	ECE
33	19/11/2012	Line Coding in Digital Communications	Prof. V.K. Jain, EE Deptt. IIT New Delhi	ECE
34	20/01/2012	Use of Social Media for Advancement of Professional Competence	Mr. Sachin Gaur, Scholar in field of social media, (Cofounder MixOrg)	ECE
35	21/02/2012	Broadband Deployment in India	Mr. Manjeet Singh, Telecom Consultant & Former President HFCL	ECE
36	29/03/2012	Mobile Technology Trends	Mr. Vikash Nigam, SDE, ALTTC, Ghaziabad	ECE
37	13/04/2012	Indian Telecom Regulatory Infrastructure	Wg. Cdr. (Retd.) Arif Khan, Director Ericsson India Pvt. Ltd	ECE
38	3/09/13	Overview of Java Technology	Amit Kumar, Ducat Noida	IT
39	7/03/13	Cloud Computing	Mr. Sheetal Sharma JETKING Infotrain Private LTD, Delhi.	IT
40	25/01/13	Oracle Database 10G: Administration	Mr. Gaurav Joshi NIIT Noida.	IT

41	22/11/12	Network Security Issues and Solutions	Dr. Naveen Kumar Reader, IGNOU, new Delhi.	IT
42	26/10/12	New era of Development with Microsoft Technologies	Mr. B.P. Sharma MD Wizard Infosolutions Pvt.Ltd, Ghaziabad.	IT
43	1/02/12	Entrepreneurship in IT Arena	Mr. Sachin Gaur & Mr. Gaurav Dhir Founders MixORG Delhi	IT
44	13/01/12	Research Methodology	Dr. Ramesh Bansal Professor, University of Queensland, St. Lucia Australia.	IT
45	16/07/2011	Advance Networking Issues	Mr. Santanoo Pattnaik	IT
46	28/03/2011	Computer Game Programming Techniques	Mr. Micheal Bor	IT
47	13/10/2010	Next Generation Networks	Mr. S.N. Gupta, DGM, BSNL	IT
48	25/02/2010	Animation Production Process	Mr. Ali Hilal Zaidi, Animation Professional	IT
49	30/09/13	Steam Turbine	Dr. Lajpat Rai Taneja, Ex. Prof., Deptt. Of Me, IIT Delhi	ME
50	8/4/2013	Super Critical Steam Turbine & Power Plants	Dr. Lajpat Rai Taneja, Ex. Prof., Deptt. Of Me, IIT Delhi	ME
51	21/3/2013	Forecasting Of Electricity Demand Of India	Shri. Major Singh, Chief Engineer, Energy Planning Central Electricity Authority, New Delhi	ME
52	04/02/13	Global & Indian Power Sector Overview And Career Prospects In Power Sector	Shri S.K. Choudhary, Principal Director, Npti And Dr. Rohit Verma, Deputy Director, Npti, Faridabad	ME
53	24/08/12	Heat Transfer Through Extended Surfaces	Dr. Praveen Pandey, Professor, Mmmec, Gorakhpur	ME
54	01/5/10	Energy Analysis Of Co-Generation Cycle For Combined Power Production And Refrigeration	Dr. Rajesh Kumar Agrawal (Expert)	ME
55	23/04/10	Overview Of Asme Activities	Mohd. Riyaz, Professional Member Of Asme	ME
56	12/3/10	Embedded Systems & Mech. Drives	Mr. Vinay Chaddha (Expert)	ME

57	19/11/09	Heating Refrigeration, Air Conditioning Equipments	Mr. Sushil Kr. Choudhary, Managing Director, Blowtech Air Devices Pvt. Ltd., Noida	ME
58	13/11/09	Auto Cad & Inventor Mechanical Software	Ms. Gayatri Raghu, Cad Studio, New Delhi	ME
59	24/9/09	Role Of Sensors For Advance Automation Projects	Mr. Ravi Agarwal, Director-India, Pepperl+Fuchs	ME
60	27/10/09	Engineering In The Cosmos – A Scientific And Spiritual Perspective	Shri Varun Agarwal, Secretary, Bi	ME
61	24/9/09	Power Transmission Trends	Dr. N.S. Saxena, Director Gen., Npti, Faridabad	ME
62	26/8/09	Energy Economy	Sh. G. Pandian, Energy Economist, Ministry Of Power	ME
63	11/8/09	Importance Of Holistic Education	Shri Girisha Nand Ji Maharaj	ME

Also the details of National/ International Conferences, Faculty Development Programme and other events are given in **3.1.6**.

3.7.5 How many of the linkages/collaborations have actually resulted in formal MoUs and agreements? List out the activities and beneficiaries and cite examples (if any) of the established linkages that enhanced and/or facilitated.

Details are given in **3.7.2**.

- a) **Curriculum development/enrichment:** Designing of M.Tech Syllabus (Automation and Robotics)
- b) **Internship/ On-the-job training:** Yes, One Year Internship programme is being conducted providing salaries and stipend to the trainees.
- c) **Summer placement:** Yes, students got placements in KUKA, PIONEER MACHINES etc.
- d) **Faculty exchange and professional development:** NA
- e) **Research:** Yes
- f) **Consultancy:** Yes
- g) **Extension:** No
- h) **Publication:** Yes

i) **Student Placement:** Yes

j) **Twinning programmes:** NIL

k) **Introduction of new courses:** Yes, students are free to join the training programmes

l) **Student exchange:** No

3.7.6 Detail on the systemic efforts of the institution in planning, establishing and implementing the initiatives of the linkages/ collaborations.

Towards implementing the collaborations lots of efforts have been made by the institute. Initially the collaboration was made with KUKA ROBOTICS. Different other collaborations were successfully implemented like National Instruments, Bosch Rexroth, Janatics and Mitsubishi Electric India etc. Details are given in **3.7.2**.

Also, the Uttar Pradesh Technical University has selected the Mechanical Engineering Department of AKGEC as research centre with Prof. (Emeritus) M. K. Muju, Prof. J P Malhotra as resource persons.

CRITERION IV: INFRASTRUCTURE AND LEARNING RESOURCES

4.1 Physical Facilities

4.1.1 What is the policy of the Institution for creation and enhancement of infrastructure that facilitate effective teaching and learning?

For better teaching learning process there is requirement of good and modern infrastructure. The institute focuses on developing good infrastructure like modern classrooms, well equipped laboratories, Canteen, Transport facility, Wi-Fi campus, Library with reading rooms, Play grounds, Power Backup, Boys & Girls hostels in campus etc.

In order to meet the needs of the stakeholders, the Management Committee meets twice a year to plan the academic and administrative activities of the college. Besides, as and when the need arises, budget for the enhancement of infrastructure is proposed and passed through resolutions in the Governing Body Meeting. The policy of Institution focuses on:

- Development of State-of-the-art infrastructure facilities.
- Providing quality education and facilities to students and faculty at national and International level.
- Technology mediated classrooms / seminar halls, conference rooms etc.
- Providing conducive atmosphere for research, development and consultancy services to our faculty at national & international level. By establishing infrastructure for Software Incubator, TIFAC-Centre of Relevance and Excellence (CORE) in the field of Automation & Robotics.
- Establishing infrastructure for enhancing the Industry-Academia interaction by developing first LabVIEW Academy in collaboration with National Instruments, Industrial Pneumatics Knowledge Centre (IPKC) in collaboration with Janatics India Pvt. Ltd. (JIPL), Centre of Competence in Automation Technology in collaboration with Bosch Rexroth AG, Germany.

This has created an effective environment for teaching and learning. Specific funds under plan-capital grants are also allocated for creation and enhancement of infrastructure that facilitate effective teaching and learning.

4.1.2 Detail the facilities available for

- a) Curricular and co-curricular activities – classrooms, technology enabled learning spaces, seminar halls, tutorial spaces, laboratories, botanical garden, Animal house, specialized facilities and equipment for teaching, learning and research etc.**

College regularly conducts a number of technical events. Each engineering department has its own technical society. In addition, the college also has a dramatic society and also a wall magazine society. The technical societies conduct regular technical symposia. An Inter college Annual Technical Festival, Tech Trishna, is organized in the college every year. The Technical event includes activities such as technical quizzes, debates on technical subjects, robotics competition etc. The students are encouraged to participate in technical events. The students participating in such events are given financial support by the college in terms of

registration fees, travel and staying expenses. In the recent past, the college students have won many prizes in such technical festivals.

- i) **Class rooms:** Our College has spacious class rooms with LCD projector with sound system, proper light arrangement and ventilation.
- ii) **Technology Enabled learning facility:** The College has ICT Classrooms where the provision of OHPs, Multimedia learning, Wi-Fi connectivity and internet access is given. All Departments are situated in a separate independent floor/block where the Post graduates and UG level classes are run.
- iii) **Seminar Hall:** The College has various seminar halls. These halls are regularly used for conducting seminars at the college, state and national level. The students are regularly promoted for active involvement in paper presentations, group discussions etc.
- iv) **Tutorial rooms:** Tutorial rooms are there in college campus for special remedial classes for weak and needy students.
- v) **Laboratories/Workshops:** The College has well equipped laboratories, each of them are equipped with state of the art laboratory equipment. These labs are also utilized for students to do their practicals and projects.
- vii) **Specialized Facilities and equipments available for teaching, learning and research:**

To promote teaching and learning College has facilities like LCD projectors, OHP's and also audio visual equipment through which the remote workshops can be conducted. The college is having a digital library with internet which is being effectively used by the students for their research activity.

- b) **Extra –curricular activities – sports, outdoor and indoor games, gymnasium, auditorium, NSS, NCC, cultural activities, Public speaking, communication skillsdevelopment, yoga, health and hygiene etc.**

The College is encouraging and providing facilities for students to participate in games. Dean student Welfare supported by a team of faculty members and sports officer, look after all cultural, sports and extra curricular activities of the college. The college is also having NSS team which is actively under taking social welfare activities like blood donation.

Sports: The college has always created a niche for itself in the field of sports. The college has since long times, been participating in various inter institution, state level tournaments. In sports, our college provides facilities for both indoor and outdoor games to the students.

Outdoor Games: A spacious play ground is available for outdoor games like Cricket, Football, Volleyball, Basketball, Badminton etc.

Indoor Games: Facilities for the indoor games like Badminton, Table Tennis, Chess, Carrom etc, are provided to students in the college campus.

A large number of sports activities are organized in the college aiding the students to display their talent in sports activities. One of the major sports event is the “Ajay Kumar Garg Memorial Table Tennis Tournament”. It is a state level tournament organized by Ghaziabad District Table Tennis Association on annual basis at College. Participations in this tournament are all the way from Delhi, Haryana, Punjab and Uttar Pradesh being the major contributor.

Seminar Hall: The college is having a modern, well equipped acoustic seminar hall for conference and seminars. The seating capacity of the hall is about 300.

NSS: College has an NSS unit of 200 students. Various socially relevant services are provided by NSS students like providing guidance to students in nearby rural area schools. Apart from above College run one school called “Adarsh Vikas” for children of workers.

Cultural Activities: The College has carved out a special niche for itself in the field of cultural activities. The students are organizing & participating in many cultural activities. Every year college organize an Annual cultural Function called “ Vibrations” where the students participate with zeal in many cultural activities. It is an event which reeks out the hidden talents of students but not in technical aspect rather the arty part comes to the fore. Some of the events at vibrations include face painting, mehendi, singing, dancing, collage making, t-shirt painting, pot painting, rangoli making.

Public speaking communication skills development: Personality development programs are run by the college which involves various activities like public speaking and communication skills development etc. Besides this the college faculty also keeps enriching the students with the art of communicative skills.

4.1.3 How does the institution plan and ensure that the available infrastructure is in line with its academic growth and is optimally utilized? Give specific examples of the facilities developed/augmented and the amount spent during the last four years (Enclose the Master Plan of the Institution / campus and indicate the existing physical infrastructure and the future planned expansions if any).

The institution has initiated many activities to promote cooperative ventures with industry to promote R & D activities and training programmes which would improve the employability of students. The college is the first institution in U.P. to have received approval from Deptt. Of Science and Technology (DST), Govt. of India, for establishment of Centre of Relevance and Excellence (CORE) in the field of Industrial Automation and Robotics under the mission reach of TIFAC. The CORE has been established at our institution with the support of TIFAC and industry partners that include reputed firms like Bosch Rexroth, KUKA Robotics, Siemens PLM

Software, Altair Engineering, National Instruments, Rockwell Automation and Jackson Engineering. Under the Scheme, the industry partners will be providing state-of-art equipments for establishment of a World class centre for training, research and product development in the field of Industrial Automation and Robotics.

The institution has also become the first institution in India to establish an Industrial Robotic Training Centre in collaboration with KUKA Robotics of Germany. The centre provides world-class training upto advanced and expert level to students who receive internationally accepted joint certification from KUKA and AKGEC.

The college has established a Software Incubator, which is being extensively used by students to work on software development sponsored by outside agencies. With creation of high technology facilities such incubators would be expanded in other fields. This activity, in addition to supporting budding and prospective entrepreneurs, is expected to generate revenue that will be used to support other activities.

The College has the distinction of establishing the first Virtual Lab in U.P. in collaboration with IIT, Delhi under the National Mission on Education through ICT sponsored by Ministry of HRD. The Virtual Lab is being used for remote experimentation in labs at IITs and other institutions by our students, thereby improving their learning outcome.

These measures will further contribute towards academic excellence and improved employability, thereby not only maintaining the top ranking of the college in U.P. but creating a position for it at all India level.

Research and development activities are integral part of progressive educational institutions which help faculty and students to realize their potential, thereby improving the overall quality and standard of education. Enhancement of in-house R & D activities and industry sponsored consultancy work is proposed to improve the quality of Post graduate faculty and programmes. The basic requirements for supporting research and consultancy activities are the requisite laboratory infrastructure, availability of high caliber faculty and an environment that encourages these activities. Under this objective, it is proposed to encourage and facilitate R & D and consultancy work through upgradation of laboratories and other resources required for R & D and through appropriate compensation and/or incentive schemes for faculty participating in these programmes. Consultancy assignments from industry would bring in real life problem solving competence as well as be a source for internal revenue generation.

4.1.4 How does the institution ensure that the infrastructure facilities meet the requirements of students with physical disabilities?

The institute ensures that infrastructure facilities are made available for students with physical disabilities. For physical disable students, it is ensured that they don't have any physical obstruction. The institution is committed to accommodate them on the ground-floor, especially front-seating arrangement, comfortable furniture, attendant facility. They are provided classes with ramp facility. The needs of the physically challenged students are fulfilled by the supporting staff. The students are given extra attention during the college terminal examinations as well as the final examinations. They are helped by providing the seats on the ground floor. Elevators are provided in the new hostel and new academic block.

They are allowed to get their transport in the campus. College has strong sense of responsibility inculcated both in faculty and staff to support & provide disabled-friendly environment.

4.1.5 Give details on the residential facility and various provisions available within them:

- **Hostel Facility – Accommodation available**
- **Recreational facilities, gymnasium, yoga center, etc.**
- **Computer facility including access to internet in hostel**
- **Facilities for medical emergencies**
- **Library facility in the hostels**
- **Internet and Wi-Fi facility**
- **Recreational facility-common room with audio-visual equipments**
- **Available residential facility for the staff and occupancy**
Constant supply of safe drinking water
- **Security**

Hostel Facility – Accommodation available

The college provides well furnished hostel accommodation to its students. The five campus hostels are spread over three complexes namely, the Girls Hostel Complex, the Junior Boys Hostel Complex and the Senior Boys Hostel Complex. The two girls hostel have triple seater rooms and accommodate about 315 students. The Junior Boys Hostel having double occupancy rooms and can accommodate about 298 students and is reserved for Ist year students. The Senior Boys Hostel Complex has two hostels with single and triple type accommodation and houses about 618 students. In addition, one out-of-campus hostel having double occupancy rooms accommodates about 149 Ist year girl students. College bus service is available from these hostels.

Recreational facilities, gymnasium, yoga center, etc

Each girl hostel and boy hostels have gymnasium as well as indoor and outdoor sports facilities. The gymnasium include various equipments like Rods (Shoulder rods, carting rod, dumbbell rods) plates (steel & rubber) of different weights, power lifting bullet, Abs King machine, body twister trade mill etc., The gym instructor is appointed to guide the students how to use equipments and share healthy tips. The hostels have facilities for outdoor sports like volleyball, cricket, basketball and badminton and indoor games like carom, chess, T.T. Pool table and music system. Hostels also have canteens and provision stores for minor item of daily requirement. The hostels thus provide reasonable levels of comfort, hygienic food, recreation facilities and an environment conducive for pursuit of academic and all round development.

Computer facility including access to internet in hostel

Computer facility, including access to internet in hostel, is available round the clock. There are 17 computers available in both girl and boy hostel for students and staff having internet speed of 100 Mbps.

Facilities for medical emergencies

A first aid boxes are available at various locations and in each hostel in case of any incident. A 24 hour Ambulance Service is available in boys and girl hostels. The college also has Dr. Ram Saran Garg (Indo-German) hospital which is a 60 bedded multispecialty hospital located at Kazipura - Dasna road, Ghaziabad (just behind AKGEC boy Hostels). This hospital provides free OPD services to the students of AKGEC. As students of AKGEC are covered by medical insurance the hospital also provides cashless treatment as and when a student needs to be admitted. The hospital does a complete medical check-up to all the students of AKGEC during their 1st year in college within 02 months of their admission to the college.

Library facility in the hostels

Each boys and girls hostel has its own library having fiction/ non- fiction books, magazines, novels and competitive exam books. Total number of books in boy's hostels is 784 and 563 in girl hostels.

Internet and Wi-Fi facility

There is 24 hours Internet and wi-fi facility in the hostels having speed of 100 Mbps.

Recreational facility-common room with audio-visual equipments

The hostlers have a TV room where they can watch movies and DVD, work on the computer or have parties on special days and occasions like birthdays etc. There is a very spacious and well-furnished multi-activity room for the students where they can relax in their free periods.

Available residential facility for the staff and occupancy

There is residential accommodation for warden in the hostel. There are two warden quarters in each girls and boys hostels. There are two guest houses in the college. The Girl Hostel complex houses 18 residences for faculty members.

Constant supply of safe drinking water

The facility of RO water coolers is available in all the buildings of the college. Around 14 aquaguards in boys hostel and 8 aquaguards in girls hostels are installed with water coolers. Provisions have been made for Borewell & Chlorination plant to provide safe and healthy drinking water. Hostels are also equipped with eco-friendly solar water heating systems. Provisions have been made for rain water harvesting and waste water treatment / recycling as well.

Security and Fire

In order to provide security to students, faculty and staff, two security agencies GDX and WINGS are employed. One security guard (24X7) is available in each hostel and Lady guard in girls hostel during day time. Electronic Sirens are installed in campus which will give alert before earthquake, during fire etc. For safety against fire accidents adequate number of water points and fire extinguisher are available in the hostel. For safety against lightening proper lightening conductors are available and earthing of complete building has been done. The college also has a dedicated fire officer to check serviceability of all fire fighting equipment and to conduct regular training sessions for fire fighting. A first aid box is available in case of any incident.

4.1.6 What are the provisions made available to students and staff in terms of health care on the campus and off the campus?

A first aid box is available in case of any incident. The college has collaboration with Dr. Ram Saran Garg (Indo-German) hospital which is a 60 bedded multispecialty hospital located at Kazipura - Dasna road, Ghaziabad (just behind AKGEC). The hospital has all basic specialties including Internal Medicine, General Surgery, Gynaecology, Pediatrics, Radiology (with X-Ray & Ultrasound facilities), Orthopedics, a well equipped Pathology Laboratory, in house Chemist etc. The hospital has an Operation Theatre, a 03 bedded ICU, Private, Semi private and General Wards. It has 24 hrs emergency facilities. The hospital is empanelled with a number of TPAs to provide cashless treatment to individuals covered by medical insurance.

This hospital provides free OPD services to the students of AKGEC. As students of AKGEC are covered by medical insurance the hospital also provides cashless treatment as and when a student needs to be admitted. The hospital does a complete medical check-up to all the students of AKGEC during their 1st year in college within 02 months of their admission to the college.

College is having linkage with other hospitals in Ghaziabad. Ambulance is available in the college for 24 hours to meet the medical emergencies of personnel on the campus.

4.1.7 Give details of the Common Facilities available on the campus –spaces for special units like IQAC, Grievance Redressal unit, Women’s Cell, Counseling and Career Guidance, Placement Unit, Health Centre, Canteen, recreational spaces for staff and students, safe drinking water facility, auditorium, etc.

The College has clearly marked space for the common facilities available on the campus. These facilities include IQAC (Internal Quality Assurance Cell), Grievance Redressal unit, Women’s Cell, Counseling and Career Guidance cell, Placement Unit, Health Centre, Canteen, recreational space for staff and students, safe drinking water facility, and provision of auditorium etc. The details of such facilities are here as under:

Sl. NO	UNIT	Place of Location
1	IQAC(Internal Quality Assurance Cell)	Main Block
2	Grievance Redressal Unit	Main Block
3	Women’s Cell	Main Block
4	Counseling and Career Guidance cell	Main Block
5	Placement Cell	Main Block
6	Health Centre	Nearby Hospital, 24 hours Ambulance, First aid box available at different place in college
7	Canteen	College Campus
8	Seminar Halls	Main Block
9	Recreation Room	Boys and Girls Hostels
10	Safe Drinking Water Facility	College Campus

4.2 Library as a Learning Resource

4.2.1 Does the library have an Advisory Committee? Specify the composition of such a committee. What significant initiatives have been implemented by the committee to render the library, student/user friendly?

Yes, the library has an advisory committee which advises it on the betterment of its facilities & functions. The composition is as given below:

Chairman : Dean Library Resource
Convener : Sr. Librarian
Members : 1. Faculty In-charge of each departmental Library or representative of the department
2. Student In-charge of each hostel Library.

Initiatives: The following significant initiatives have been implemented.

Biometric Issue System,
Departmental Library extension
Hostel Library extension
Increase of seating capacity.
True reader award for top three users of library after working hours
Extra books for meritorious students
Circulation notification to library users
Provision Xerox facility up to 7 PM
Coffee vending machine in the library premises
Provision Mobile / Laptop charging points
Faculty reading room

4.2.2 Provide details of the following:

- **Total area of the library (in Sq. Mts.)**
1465 Sq. M
- **Total seating capacity**
330
- **Working hours (on working days, on holidays, before examination days, during examination days, during vacation)**

on working days	8:15 AM to 9:00 PM
on holidays	Normal holidays – Closed, During Examination Period : 8.15 – 5.00 PM
before examination days	8:15 AM – 12:00 Mid-Night
during examination days	8:15 AM – 12:00 Mid-Night
during vacation	8:15 AM – 4:15 PM

- **Layout of the library (individual reading carrels, lounge area for browsing and relaxed reading, IT zone for accessing e-resources)**

individual reading carrels	Available 120 Sq. M. Total = 42 reading carrels
lounge area for browsing and relaxed reading	Available
IT zone for accessing e-resources	Available Digital Lib. -14 Systems

4.2.3 How does the library ensure purchase and use of current titles, print and e-journals and other reading materials? Specify the amount spent on procuring new books, journals and e-resources during the last four years.

Ensure purchase: Suggestions of Library Advisory Committee, Faculty, Student, Hostel Lib. Coordinators, AICTE/UGC requirement, University Syllabus

Use: Student Issue, review of research paper & submission of summary by faculty & M. Tech Student, Preparing Research paper by faculty pursuing Ph. D.

Library holdings	Year-1 (2013-14)		Year-2 (2012-13)		Year-3 (2011-12)		Year-4 (2010-11)	
	Number	Total Cost	Number	Total Cost	Number	Total Cost	Number	Total Cost
Text books (BB)	1944	9,40,495.00	12019	46,79,853.00	2399	9,14,575.00	6815	27,73,737.00
Reference Books (General Books)	464	1,24,977.00	1931	8,95,779.00	2274	17,72,086.00	2155	9,54,684.00
Journals/ Periodicals	147	4,42,650	118	3,44,950.00	123	3,25,994.00	101	1,50,555.00
e-resources	07	12,35,964	07	10,81,920	03	8,24,570	03	8,45,180
Any other (specify)								

4.2.4 Provide details on the ICT and other tools deployed to provide maximum access to the library collection?

- ❖ **OPAC**
Yes

- ❖ **Electronic Resource Management package for e-journals**
J-Gate
- ❖ **Federated searching tools to search articles in multiple databases**
J-Gate
- ❖ **Library Website**
Yes
- ❖ **In-house/remote access to e-publications**
In-house & Remote access through EZ proxy
- ❖ **Library automation**
Yes – Alice for Window automation library software using Bar-coded / Biometrics - Issue /return system, upgrading to KOHA - Open Source ILS - Integrated Library System
- ❖ **Total number of computers for public access**
15 (14 for Digital Lib., One for OPAC)
- ❖ **Total numbers of printers for public access**
One
- ❖ **Internet band width/speed** 2mbps 10 mbps 1 gb (GB)
100 Mbps
- ❖ **Institutional Repository**
Yes – (Greenstone Digital Library software)
- ❖ **Content management system for e-learning**
Moodle
- ❖ **Participation in Resource sharing networks/consortia (like INFLIBNET)**
Yes, Through DELNET, British Council Library

4.2.5 Provide details on the following items:

- ❖ **Average number of walk-ins**
300 per day
- ❖ **Average number of books issued/returned**
350 per day
- ❖ **Ratio of library books to students enrolled**
 $73629/3674 = 20.05$
- ❖ **Average number of books added during last three years**
8515 (25546-From Jan2011 to Dec2013)

- ❖ **Average number of login to opac (OPAC)**
No login required
- ❖ **Average number of login to e-resources**
36 Per working day
- ❖ **Average number of e-resources downloaded/printed**
8299 (33197-From Jan2010 to Dec2013)
- ❖ **Number of information literacy trainings organized**
Eight (Two in 2010-11, Two in 2011-12, Two in 2012-13, Two in 2013-14)
- ❖ **Details of “weeding out” of books and other materials**
Yes

4.2.6 Give details of the specialized services provided by the library

- ❖ **Manuscripts**
N/A
- ❖ **Reference**
Yes
- ❖ **Reprography**
Yes
- ❖ **ILL (Inter Library Loan Service)**
Yes (Through DELNET & British Council Library)
- ❖ **Information deployment and notification (Information Deployment and Notification)**
Yes, (Through Orientation program, New Arrivals Board, email, notice board, Reference service, Website)
- ❖ **Download**
Yes
- ❖ **Printing**
Yes
- ❖ **Reading list/ Bibliography compilation**
Available (OPAC)
- ❖ **In-house/remote access to e-resources**
In-house & Remote access through EZ proxy
- ❖ **User Orientation and awareness**
Yes
- ❖ **Assistance in searching Databases**
Yes

❖ **INFLIBNET/IUC facilities**

No (Using DELNET, British Council Library Facilities)

4.2.7 Enumerate on the support provided by the Library staff to the students and teachers of the college.

Faculty: Provide ILL Support, Getting teaching resource from Publisher, Paper downloading etc.

Student: Searching of books, Documents, Previous years University Semester Question Paper & Model Answers.

4.2.8 What are the special facilities offered by the library to the visually/physically challenged persons? Give details.

Lift

4.2.9 Does the library get the feedback from its users? If yes, how is it analyzed and used for improving the library services. (What strategies are deployed by the Library to collect feedback from users? How is the feedback analyzed and used for further improvement of the library services?)

Yes,

Feedback from users is analysed to improve the services and facilitates provided by central library. Users provide the feedback on prescribed feedback form and the advisory committee decides the action to be taken on both positive and negative feedback.

4.3 IT Infrastructure

4.3.1. Give details on the computing facility available (hardware and software) at the institution.

- ❖ **Number of computers with Configuration (provide actual number with exact configuration of each available system):**1700 (including server & laptops)
- ❖ **Computer-student ratio:** B.Tech – 1:3 & M.Tech – 1:1.8
- ❖ **Stand alone facility:**60 Computers
- ❖ **LAN facility:** Exists in the college for faculty, staff and students.
- ❖ **Wifi facility:** Available in Campus and in hostels
- ❖ **Licensed software:**

System Software	-	17
Application Software	-	34
Subscription	-	5
- ❖ **Number of nodes/ computers with internet facility:** All computers except stand alone
- ❖ **Any other:** Following exists in the college.

- ✓ An effective Fortigate Unified Threat Management (UTM) system with integrated firewall and Anti Spam/Virus control.
- ✓ A well laid out fibre based LAN network.
- ✓ Wi-Fi system for campus.
- ✓ 140 MBPS (1:1) symmetric Internet Bandwidth on fibre optic which is supported and backed by Radio.
- ✓ 100% APC based UPS backup for systems.
- ✓ Microsoft Academic Alliance.
- ✓ Large numbers (650) of Quick Heal based Anti Virus licenses.
- ✓ IP based Camera Network.

4.3.2 Detail on the computer and internet facility made available to the faculty and students on the campus and off-campus?

- All faculties/students are provided sufficient number of computers.
- Internet facilities have been provided to all through LAN, Wi-Fi and through established internet labs.
- Students staying in off campus hostel have been provided internet facility through pooled networked computer through data cards.

4.3.3 What are the institutional plans and strategies for deploying and upgrading the IT infrastructure and associated facilities?

- Computer systems are regularly upgraded/replaced by state of art systems
- Enhancement in internet bandwidth.
- New acquisition for Servers, Switches and UPS are being procured regularly to meet requirement.

4.3.4 Provide details on the provision made in the annual budget for procurement, upgradation, deployment and maintenance of the computers and their accessories in the institution (Year wise for last four years)

Years	Hiring of Internet	Procurement /Up gradation	Maintenance
2010-11	Rs. 23,95,147/-	Rs. 48,11,314/-	Rs. 37,15,821/-
2011-12	Rs. 12,83,349/-	Rs. 65,97,185/-	Rs. 41,47,761/-
2012-13	Rs. 15,31,729/-	Rs. 10,15,031/-	Rs. 28,65,832/-
2013-14	Rs. 18,56,590/-	Rs. 17,53,984/-	Rs. 43,941,75/-

4.3.5 How does the institution facilitate extensive use of ICT resources including development and use of computer-aided teaching/ learning materials by its staff and students?

- Dedicated LCD projectors and laptops provided to each class room.
- NPTL based as well as smart class room software contents for applicable subjects are procured and loaded on dedicated mini laptop issued to faculty of concerned department.
- NPTL lectures, solutions of old question paper and faculty notes are placed on a server in the library for students.

4.3.6 Elaborate giving suitable examples on how the learning activities and technologies deployed (access to on-line teaching- learning resources, independent learning, ICT enabled classrooms/learning spaces etc.) by the institution place the student at the centre of teaching-learning process and render the role of a facilitator for the teacher.

- Students are taught in the class room using LCD, animation models.
- Students are provided hands on experience for developing softwares and web application in software incubator especially designed, dedicated and run by students.
- Students are provided regular training on Robotics and Automation through various Industrial learning centres specially established in collaboration with various reputed Industries.
- Students carryout IIT (Bombay) and IIT (Delhi) practicals through established remote virtual lab.

4.3.7 Does the Institution avail of the National Knowledge Network connectivity directly or through the affiliating university? If so, what are the services availed of?

- College is connected to the National Knowledge Network through UP Technical University.
- College is a Nodal Centre for promoting concept of virtual technical education in the region. A dedicated class room with all associated equipment has been established.

4.4 Maintenance of Campus Facilities

4.4.1 How does the institution ensure optimal allocation and utilization of the available financial resources for maintenance and upkeep of the following facilities (substantiate your statements by providing details of budget allocated during last four years)?

Budget allocated for facilities such as Building & Furniture, Equipments, Computers, Vehicles and others are shown below for the last four years:

Session	S.No.	Infrastructure	Budget Allocated
2013-14	a.	Building & Furniture	Rs. 11,40,00,000
	b.	Equipment	Rs. 30,00,00,000
	c.	Computers	Rs. 100,00,000
	d.	Vehicles	Rs. 15,00,000
	e.	Any other	Rs. 3514,60,000
		Total	Rs. 3514,60,000
2012-13	a.	Building & Furniture	Rs. 10,40,00,000
	b.	Equipment	Rs. 3,50,00,000
	c.	Computers	Rs. 1,00,00,000
	d.	Vehicles	Rs. 10,00,000
	e.	Any other	Rs. 32,73,55,000
		Total	Rs. 47,73,55,000
2011-12	a.	Building & Furniture	Rs. 11,30,00,000
	b.	Equipment	Rs. 1,75,00,000
	c.	Computers	Rs. 75,00,000
	d.	Vehicles	Rs. 15,00,000
	e.	Any other	Rs. 2,76,25,00,00
		Total	Rs. 41,57,50,000
2010-11	a.	Building & Furniture	Rs. 10,15,00,000
	b.	Equipment	Rs. 1,00,00,000
	c.	Computers	Rs. 50,00,000
	d.	Vehicles	Rs. 12,00,000
	e.	Any other	Rs. 20,54,75,000
		Total	Rs. 32,31,75,000

The institute ensures that full utilization of allocated budget for the facilities listed above.

4.4.2 What are the institutional mechanisms for maintenance and upkeep of the infrastructure, facilities and equipment of the college?

In addition to maintenance of academic area which is on as required basis, the identification of areas is done which are to be planned for annual maintenance. These areas are:-

- (a) Girls Hostel
- (b) Boys Hostel
- (c) Mess of Hostels

White wash & painting of door /grill of above all building is done on annual basis. Apart from white wash and painting work list of other maintenance jobs is prepared by hostel wardens which has to be carried out during the annual maintenance. Quotations are obtained from vendors and then they are negotiated for the labor cost and their work order is raised for the same to complete the job within the stipulated time. The quality of work carried out is inspected by the project engineers of the college and certified prior to clearance of the firm's bill.

A dedicated gardener has been designated for each area, who is responsible for Daily Inspection, cleaning; watering, de-weeding, maintenance of hedges, lawns and horticulture equipment and record keeping. The horticulture supervisor ensures timely servicing of the equipment (as per OEM manual on the basis of hours of use). The hours of usage, fuel consumption (where applicable) servicing and maintenance for all the equipment is as per schedule and recorded.

The operators / electricians ensure timely servicing of the DG sets as per OEM manual on the basis of 300 Hours / 6 months of periodicity from authorized service centre only. The daily checks and steps for all DG sets ensure the engine care while in operation.

Dedicated electrician / operators in each shift a day as well as a reliever have been designated for the power house duty, who is responsible for daily Inspection, cleaning and maintenance of DG sets and panels and record keeping in log books of UPPCL power and DG sets.

A detailed Maintenance Directive specifying all aspects of cleaning and maintenance of college vehicles, dedicated driver (as well as a standby driver) and notice are in place for Daily Inspection, cleaning; maintenance and record keeping. The drivers ensure timely servicing of the vehicles as per OEM manual on the basis of 5000 / 10000 KMs mileage and / or periodicity from authorized service station only. The PUC, Insurance, RC and Fitness Certification for all vehicles, as applicable; are obtained as per schedule.

Valid Driving License is a pre-requisite for drivers. Washing of vehicles is negligible / discouraged to avoid over maintenance / rusting of the vehicles and wastage of water. Prior sanction of the Approving authority is a pre-requisite for all such commitments irrespective of the extent of expenditure including free servicing. To further ensure compliance of instructions pertaining to maintenance, monthly check of all vehicles and drivers, a program is drawn and carried out.

To ensure quality (to avoid pollution and proper maintenance of vehicle) and quantity, petrol / Diesel is drawn from only one agency. All drivers / vehicles are issued with a booklet of 10 requisition slips (serially numbered) each with three foils. The driver draws fuel from the agency on producing a slip pre-signed by authorized signatory of the college and records the off-take in vehicle log book, which is once again signed after the refueling. The agency prefers bills on a fortnightly basis for settlement. The drawing of fuel is clubbed with any other commitment to avoid separate trip for the purpose.

Each hostel has designated full time warden to monitor functioning and reporting through chief warden to Dean Hostels. Monthly inspection of the hostels' premises, cleanliness, maintenance, water coolers, light points, coolers, fans, switches, aqua guards and the surroundings by the

Administration team ensures a constant tight leash to maintain highest standards and avoid any untoward incident

4.4.3 How and with what frequency does the institute take up calibration and other precision measures for the equipment/ instruments?

The horticulture supervisor ensures timely servicing of the equipment (as per OEM manual on the basis of hours of use). The hours of usage, fuel consumption (where applicable) servicing and maintenance for all the equipment is as per schedule and recorded.

The servicing of DG sets from authorized service centers is undertaken as per OEM manual on the basis of 300 Hours / 6 months of periodicity. Timely servicing of the vehicles from authorized service station only is ensured as per OEM manual on the basis of 5000 / 10000 KMs mileage and

/or periodicity. The facilities which are outsourced viz., housekeeping, messing, healthcare, pest control, security are renewed annually based on their performance which is constantly monitored and reviewed.

4.4.4 What are the major steps taken for location, upkeep and maintenance of sensitive equipment (voltage fluctuations, constant supply of water etc.)?

Any other relevant information regarding Infrastructure and Learning Resources which the college would like to include.

Maintenance of campus facilities

The buildings in college campus which are need be maintained are: -

1. Educational Buildings

- (a) ME Building
- (b) LTs Building
- (c) Back Block & Main Bldg
- (d) AKGIM
- (e) MCA Building
- (f) TIFAC Building
- (g) New Academic Building

2. Residential Buildings

- (a) Senior Boys Hostel
- (b) Junior Boys Hostel
- (c) New Boys Hostel
- (d) Junior Girls Hostel
- (e) Senior Girls Hostel
- (f) Faculty Quarters

3. Parking & Storages Building

- (a) College store (2 No.s)
- (b) College Parking

4. Infrastructure Buildings

- (a) Civil Project area and workshop
- (b) Sub station

5. Other Buildings

- (a) Faith Centre
- (b) Sewage Treatment Plant
- (c) Water Storage tank

Cafeteria

The major activities which are involved in repair & maintenance of a building are:-

1. Masonry
2. Carpentry
3. Fabrication
4. Paint & Polish
5. Glass & Hardware

6. Plumbing & Electrical

The college has 2 HT / LT power transformers (1000 KVA each) of standard make with automatic OLTC installed for UPPCL power supply and distribution to get optimal power quality availability in the campus. The college has bore well water pumping station with automatic level monitoring / controlling facility for feeding the constant supply of water through over head tank for meeting the requirement of the campus. The college has 2 HT / LT power transformers (1000 KVA each) of standard make with automatic OLTC installed for UPPCL power supply and distribution to get optimal power quality availability in the campus.

CRITERION V: STUDENT SUPPORT AND PROGRESSION

5.1 Student Mentoring and Support

5.1.1 Does the institution publish its updated prospectus/handbook annually? If ‘yes’, what is the information provided to students through these documents and how does the institution ensure its commitment and accountability?

All the information pertaining to students and other stakeholders are available on college website “www.akgec.in”. The information is updated and a cell called SDC is responsible for uploading the information and maintenance of college website.

5.1.2 Specify the type, number and amount of institutional scholarships / freeships given to the students during the last four years and whether the financial aid was available and disbursed on time?

Details / Session	2012-13	2012-13	2011-12	2010-11
scholarships / freeships	Directly given to students by U.P. Govt. on the basis of parental annual Income less than Rs. 2 Lacs per annum	Directly given to students by U.P. Govt. on the basis of parental annual Income less than Rs. 2 Lacs per annum	Directly given to students by U.P. Govt. on the basis of parental annual Income less than Rs. 2 Lacs annum	Rs. 22,502,168*
Awards given by College on Merit Basis	Rs. 849,500	Rs. 11,50,099	Rs. 6,57,350	Rs. 9,96,400

* Scholarships / freeships are given by UP government on the basis of parental annual income. Apart from above GATE Scholarships are provided by AICTE to PG students.

5.1.3 What percentage of students receives financial assistance from state government, central government and other national agencies?

As students are getting admitted through State University common entrance exam (UPSEE). The college caters to the academic needs of the students belonging to the rural areas. There are lots of students who belong to the non creamy layer of the society or who are from economically weaker sections of the society. Students belong to economically weaker sections of the society receive financial assistance given by State Govt. Nearly 15-20% students of the college get benefit from these scholarships.

5.1.4 What are the specific support services/facilities available for:

✓ Students from SC/ST, OBC and economically weaker sections

The students who belong to SC/ST, OBC and the economic weaker sections are identified during the process of the admission only. The college maintains a detailed record of the same. These students are provided every possible help during their stay in the college.

✓ Students with physical disabilities

The college ensures that infrastructure facilities meet the requirement of the students with physical disabilities. It is ensured that they don't have any physical obstruction. The institution is committed to accommodate them on the ground-floor for their classes. They are provided front-seat in the class, comfortable furniture and attendant facility. They are provided classes with ramp facility. The need of the help from the supporting staff, if required, is fulfilled on the request of physically challenged students.

✓ Overseas students

The institution does not believe in boundaries. It extends its services to overseas aspirants. Admission is given to them as per the university guidelines and security clearance. College is approved by AICTE to admit NRI students in UG courses. A total of 5% of seats within sanctioned intake can get admission in UG courses. Presently there are no NRI student in the college.

✓ Students to participate in various competitions/National and International

Students are encouraged to participate in extra curricular and co-curricular activities such as technical fests, cultural events, sports events etc. which are organised by reputed institutions across Delhi/NCR and IITs. These events are of national significance. For this purpose, all necessary support is provided by the institute. Faculty members are deputed to assist and guide the students in niche area. Furthermore, students who secured medals and trophies in these competition events are given due recognition and appreciation in terms of GP marks.

✓ Medical assistance to students: health centre, health insurance etc.

College is having linkage with other hospitals in Ghaziabad. Ambulance is available in the college for 24 hours to meet the medical emergencies of personnel on the campus.

Dr. Ram Saran Garg (Indo-German) Hospital is a 60 bedded multispecialty hospital with ICU and Operation Theatre facilities and is co-located with the college. The hospital is staffed with qualified doctors and paramedical staff 24x7 and students get professional medical cover almost immediately for any illness. Complete medical cover is provided to all students of AKGEC. On admission to the college, all 1st year students undergo a thorough medical check-up at Dr. Ram Saran Garg (Indo-German) Hospital. This check-up includes Physical examination by qualified doctors and basic investigations like Blood Hemoglobin, Blood Sugar and Blood Group. Dr. Ram Saran Garg (Indo-German) Hospital also provides free OPD consultation to all the students round the year. All investigations done for students for OPD treatment are provided at 50% discount. The students are also medically insured with Star Health through which students get cashless in-patient treatment. The insurance cover is for Rs. 50,000/- with an accident cover of Rs 1,00,000/-.

✓ **Organizing coaching classes for competitive exams**

The college regularly conducts Personality Development Programme which enhances the IQ level and communication skills of the participants. The college also invites Guest speakers from the industry which provides regional and global employment opportunities for the students. College also organized classes for GATE/CAT preparation in college campus.

AKGEC has recently signed an agreement with Microsoft to set up the “Microsoft IT Academy (MSITA)” at its campus. The courses under MSITA are designed by Microsoft and are delivered by ‘Microsoft Trained Trainers’ through Microsoft Delivery Partner ATS InfoTech P. Ltd. The enrolled students will be exposed to the latest Microsoft Technologies that will enable them to be market ready thereby increasing their placement opportunities manifolds.

AKGEC has set up a Networking Academy. The academy provides industrial exposure to its students in networking domain by introducing world class and industry proven courses for producing the next generation certified networking experts. The academy offers training on Cisco Certified Network Associate (CCNA), Cisco Certified Network Professional (CCNP) and Cisco Certified Inter–Networking Expert (CCIE), as huge demand of Cisco certified professional exists in networking industry. The Cisco certification attained by students will enhance their placement opportunities in the international market manifold.

Research and Industrial Consultancy Centre (RICC) has been established in the college to promote and extend industrial consultancy & R&D services as per their needs. RICC also provide a platform for exposure on recent trends in engineering to the students. RICC conducts the various training and short term courses in the field of Computer Aided Design and Computer Aided Engineering Software’s like AutoCAD, Pro/Engineer and ANSYS for the students of AKGEC, other institutes and Industrial professionals under the RICC Education Program. More than three hundred students have been benefited from the different programs run by RICC.

✓ **Skill development (spoken English, computer literacy, etc.,)**

The institute understands that the college has to serve the basic educational needs of one and all. Many students are from various U.P villages enrolled to get better higher education. The students who are slow in their learning or if their grasping power is not up to the mark, the faculty members identify such students at the beginning of the session. For them the institution conducts remedial classes in different subjects to enhance their skill and competence. Enrichment courses like Personality Development Programmes are also conducted to improve students’ personality and motivate them for an innovative and creative mindset.

✓ **Support for “slow learners”**

Weak students are identified by the class teacher, the department appoints a mentor to help him/her with counseling and intense coaching. Personalized counseling and parental care is made possible by Mentor mentee scheme where 20 students are assigned to each faculty member.

✓ **Exposures of students to other institution of higher learning/ corporate/business house etc.**

Students regularly visit IITs and other nearby colleges for participating in extra and co- curricular activities. College also has student chapters with various reputed institution like IETE, IEEE, ISTE etc.

✓ **Publication of student magazines**

Each department has its own departmental journal published bi annually. Students enthusiastically contribute with their articles in the magazine. The college magazine is printed in the supervision of the college editorial board. All the major sections of the magazine are having their staff editors as well as the students' editors. The staff is always there to help the students chisel their artistic and creative skills. Apart from above College also publishes its journal AKGEC Journal of Technology.

5.1.5 Describe the efforts made by the institution to facilitate entrepreneurial skills, among the students and the impact of the efforts.

College has a software incubator cell established for developing software engineering skills among students. The incubator is totally managed by the students and they have already developed and hosted the new college website as well as helped the Accounts Department and Registrar's Office in developing / modifying the requisite software. The incubator has also developed website and software's for RSG Indo German hospital, Ghaziabad Management Association and a Canadian School The cell is also running regular evening classes for imparting practical training on web development to the junior students.

SDC has conducted a number of training programmes on emerging technologies for the benefit of students of AKGEC & other colleges. Some of these training programmes are listed below:

Training Programmes 2010-11

S. No.	Date	Name
1.	Aug 2010	Dot net Course
2.	Feb 2011	Java Course
3.	Feb 2011	Workshop on Web Designing & Animation
4.	Mar 2011	Workshop on Android

Training Programmes 2011-12

S. No.	Date	Name
1.	May 2011	Workshop on Linux
2.	Jun 2011	Dot net Summer Training

Training Programmes 2012-13

S. No.	Date	Name
1.	Oct 2012	Seminar on Android
2.	Mar 2013	Dot net Course

Training Programmes 2013-14

S. No.	Date	Name
1.	Apr 2013	Workshop on Joomla
2.	Aug 2013	Latest Trend in web development
3.	Nov 2013	Workshop on Ethical Hacking

Besides this, AKGEC strives to inculcate responsibility and accountability in its students; responsibilities towards their organizations and accountability towards the society. The college conducts Personality Development Program which enhances the soft skills of students, building up their self-confidence and motivating them to scale new unbound heights of glory.

5.1.6 Enumerate the policies and strategies of the institution which promote participation of students in extracurricular and co- curricular activities such as sports, games, Quiz competitions, debate and discussions, cultural activities etc.

- ❖ **additional academic support, flexibility in examinations**
- ❖ **special dietary requirements, sports uniform and materials**
- ❖ **any other**

The institution is committed to attract students for participating in various extracurricular activities by ensuring consistent encouragement and motivation. The necessary facilities are provided and adequate funds are allotted. The sports and cultural committees supervise the extracurricular activities. The students who participate in the sports activities or other extracurricular activities are provided with extra classes so that the time they have given in for the various activities can be compensated for.

5.1.7 Enumerating on the support and guidance provided to the students in preparing for the competitive exams, give details on the number of students appeared and qualified in various competitive exams such as UGC-CSIR- NET, UGC-NET, SLET, ATE / CAT / GRE / TOFEL / GMAT/ Central/State services, Defense, Civil Services, etc.

The Institute has a separate support system for the students appearing and qualifying in various competitive examinations. Students who are interested and willing to appear in various competitive examinations are helped by the teachers in matters of study materials and counseling for the right strategies. Students are allowed to have access to library and to refer the books related to entrance test. Students can appear in online examinations using internet facilities at our institution. UGC sponsored free competitive classes for SC/BC/OBC are held in the campus. In the recent past many students have appeared and qualified in various competitive exams and the detail is as follows:

Session	S.No.	Exam	Appeared	Qualified
2013-14	1.	GATE	189	96
	2.	CAT	18	12
2012-13	1.	GATE	235	120
	2.	CAT	16	09
2011-12	1.	GATE	146	104
	2.	CAT	-	-
2010-11	1.	GATE	68	44
	2.	CAT	-	-

5.1.8 What type of counseling services are made available to the students (academic, personal, career, psycho-social etc.)

The College has a career counseling and guidance cell. The teacher in charge is available round the clock to the students. The counseling cell makes adequate arrangement for the guidance of the students during the time of the admission. The choice of the career and the doubts of the students are listened very carefully and the solutions of the problems are provided. The students who need psychological counseling or any type of social counseling are also attended to very carefully. Personalized counseling and parental care is made possible by Mentor mentee scheme where 20 students are assigned to each faculty member.

ACADEMIC & CAREER COUNSELING:

First year students are informed about the scope and nature of the various subjects that form the syllabus. The students are not pressurized in choosing the elective subjects. They are given right kind of counseling which helps them shape their career. Students are guided and counseled by class in-charge and HoD on academic and career prospects.

PERSONAL & PSYCHO-SOCIAL COUNSELING:

The students during the course of their studies in the college come across various issues. They are, at times, too immature to handle the problems. The college provides them personal counseling. They can share their problems with the teachers. The teacher concerned is very supportive in guiding them to solve their problems. The candidates at times come face to face with certain social issues or problems which tend to bring the inferiority complex in them. The teachers make it sure that no such deterioration happens with the psychosocial understanding of the students. They are counseled to become better human beings and advised to stand tall for the social cause.

5.1.9 Does the institution have a structured mechanism for career guidance and placement of its students? If 'yes', detail on the services provided to help students identify job opportunities and prepare themselves for interview and the percentage of students selected during campus interviews by different employers (list the employers and the programmes).

Placement and career counseling centre renders efficacious service to the students. The placement cell extends its service to the students in career guidance, organizes lectures concerning career planning and invites companies for campus recruitment. The following services are provided in the career guidance and placement service.

Information of Job Opportunities:

The students are informed regarding the vacancies offered by govt. and other agencies. The notice of the advertisement is put up on the notice board available at placement cell as well at every department and updated information is also available in college website. The students are informed regarding the last date and other important information regarding the vacancies.

Discussion of Exam Module & Preparation of the Exam:

The centre organizes lectures on career opportunities. A thorough discussion takes place on the exam module. The students are informed regarding the syllabus, the pattern and the ways of attempting the paper. Mock tests are held to facilitate them in this pursuit. Their performance is analyzed after every test and then a brain storming session is organized to assess their strengths and weaknesses.

Follow up:

The placement cell keeps track of the post examination developments. As and when the result is declared, the cell informs the students regarding the result. The results are analyzed and then the next process of helping the successful candidates starts.

G.Ds/Interviews:

The college organizes sessions of Group Discussions and mock interviews for the candidates who have succeeded in the written test. The drilling exercise takes place till the candidate is totally confident regarding his performance for the final interview.

Campus Placement:

The placement cell of the college invites many reputed companies for campus recruitment. The students of the institute are sent to off campus interviews also. The details of the placement for the last three sessions are as under:

BRANCH	NUMBER OF STUDENTS PLACED IN 2014 PASSOUT	NUMBER OF STUDENTS PLACED IN 2013 PASSOUT	NUMBER OF STUDENTS PLACED IN 2012 PASSOUT
CS	145	143	149
ECE	123	95	134
E&I	31	-	-
IT	83	91	75
EN	62	114	108
ME	85	68	68
TOTAL	529	511	534

5.1.10 Does the institution have a student grievance redressal cell? If yes, list (if any) the grievances reported and redressed during the last four years.

Yes, the college has the student grievance redressal cell. Grievance Redressal Cell actively interacts with the students to help them sort out their grievances. It attends to both registered and unregistered grievances of the students. The institution has a grievance redressal cell consisting of 06 members headed by Prof. M.P. Dave. The students drop their grievances in the suggestion box. Students are also free to share their grievances with the class teachers. The necessary action is taken after issues are discussed in the concerned cell. In addition, the student liaison officers establish linkage between the university and students to address the anomalies related to exams and results.

5.1.11 What are the institutional provisions for resolving issues pertaining to sexual harassment?

College has a sexual harassment complaints committee cell in view of combat violence against women employees and students. Cell takes necessary steps if the incidents pertaining to sexual harassment require the intervention of the law. Cell is head by a senior lady faculty. Till date no such case of sexual harassment has been reported in the institute. Continuous vigilance of college authority and strict punishment provisions prevent sexual harassment of students.

5.1.12 Is there an anti-ragging committee? How many instances (if any) have been reported during the last four years and what action has been taken on these?

Yes, the college has Anti Ragging Committee, Anti Ragging Squad as well other Student Counseling Committee as provisioned in UGC/AICTE regulation 2009. Constitution of the committee and the progress report sent to the University.

No of ragging case in last four year – Nil

5.1.13 Enumerate the welfare schemes made available to students by the institution.

SCHOLARSHIPS & FREESHIPS:

Details about the scholarships, various free-ships are displayed on the notice board of the institution. The class teacher guides the students to be the beneficiaries of the various welfare schemes. The student welfare officer (a faculty member) addresses and responds to all the academic and non-academic challenges of the students. The college provides them free ship on the basis of their performance in the academics, sports or extracurricular activities. Similarly scholarships received from various central, state and other agencies are made available to the students.

BANK SERVICES:

In collaboration with Bank of Baroda, the institution assists all the students in opening an account with a zero deposit. It empowers students to transact through the bank in the globalized world. It is helpful in availing educational loans. It also serves as an identity card. A Bank of Baorda ATM is available in College Premises.

COUNSELING & PLACEMENT SERVICE:

The students counseling centre comprises of more than 10 counselors from the faculty. The counselors reach out to the students formally and informally. The placement cell extends its service to the students in career guidance, organizes lectures concerning career planning and invites companies for campus recruitment.

HEALTH SERVICES:

A health centre in the institution takes care of the basic health problems of the students. The college has made arrangements of a full time doctor and a nurse. They are available in the college. The college has also having the nearby hospital in need of any emergency.

SUBSIDIZED CANTEEN:

The college canteen provides wholesome food to the students at subsidized rates. The college has a canteen committee which keeps an eye on the working of the canteen. As and when any change or reform is required, the committee immediately comes into action.

GRIEVANCE REDRESSAL CELL:

Grievance Redressal Cell actively interacts with the students to help them to sort out their grievances. It attends both registered and unregistered grievances of the students.

5.1.14 Does the institution have a registered Alumni Association? If ‘yes’, what are its activities and major contributions for institutional, academic and infrastructure development?

AKGEC has registered alumni association since 2005. One of the strengths of AKGEC College is, and has always been, its alumni. To establish, maintain and nurture a sustained, lifelong, and mutually beneficial relationship with its alumni, AKGEC formed an Alumni Association in 2005. Since its formation, the college has been actively involved in facilitating networking amongst alumni for social and professional synergy. AKGEC organized its first annual alumni meet on 02 April, 2005.

Keeping with the tradition, last year too, the alumni association had successfully organized the 9th Alumni Meet on 04 May, 2013. This year, the alumni meet was based on retro theme and was conducted in the Vedanta farms, adjoining the college campus. The meet was marked by the presence of around 150 alumni from 2002 to 2012 batches.

Alumni Meet at Bangalore and Chandigarh was also arranged and attended by large number of alumni.

5.2 Student Progression

5.2.1 Providing the percentage of students progressing to higher education or employment (for the last four batches) highlights the trends observed.

The data for last four years of student's placement, higher studies (MBA / M.Tech) etc. is as given below:

Year	Student Progression % Session	No. of Students
2013-14	UG to PG	108
	Employed	
	- Campus Selection	421
	- Other than Campus Selection	-
2012-13	UG to PG	129
	Employed	
	- Campus Selection	405
	- Other than Campus Selection	-
2011-12	UG to PG	104
	Employed	
	- Campus Selection	513
	- Other than Campus Selection	-
2010-11	UG to PG	44
	Employed	
	- Campus Selection	535
	- Other than Campus Selection	-

5.2.2 Provide details of the programme wise pass percentage and completion rate for the last four years (cohort wise/batch wise as stipulated by the university)? Furnish programme-wise details in comparison with that of the previous performance of the same institution and that of the Colleges of the affiliating university within the city/district.

S.No.	Year	Branch	No. of Students appeared	Passed	I Class With Distinction	I Class	II Class	% of Pass
1.	2013-14	CSE	125	119	35	77	7	95.20
		ECE	127	124	41	79	4	97.64
		E&I	53	51	11	40	0	96.23
		EN	132	127	23	98	6	96.21
		IT	80	77	23	53	1	96.25
		ME	116	108	27	78	3	93.10
2.	2012-13	CSE	120	117	21	89	7	97.50
		ECE	121	117	27	85	5	96.69
		EN	120	113	21	88	4	94.17
		IT	84	83	22	56	5	98.81
		ME	119	110	10	97	3	92.44
3.	2011-12	CSE	127	124	29	84	11	97.64
		ECE	134	126	28	92	6	94.03
		EN	113	107	13	82	12	94.69
		IT	94	92	16	70	7	97.87
		ME	129	121	24	91	6	93.80
4.	2010-11	CSE	130	126	30	90	6	96.92
		ECE	126	124	24	88	12	98.41
		EN	108	100	10	81	9	92.59
		IT	93	92	24	64	4	98.92
		ME	106	94	8	82	4	88.68

5.2.3 How does the institution facilitate student progression to higher level of education and/or towards employment?

The institution facilitates the modern teaching learning academic programmes according to the present competitive job employment market by arranging campus interviews every year for the final year students. The personality development programs and campus connect programmes are also conducted for the student progression to higher level of education or employment. To

enhance the students chances of placement in the companies, training & placement cell of the college takes all out efforts to help the students in their campus interview selection process.

5.2.4 Enumerate the special support provided to students who are at risk of failure and drop out?

The institution has adopted certain practices over the years to minimize the student dropout rate. These include individual attention, extended library hours, hand-written subject notes, and extra classes. The college also arranges mentorship classes for the weak students. Continuous counseling, attendance shortage monitoring and communication of the same to parents/guardian to ensure that the students enrolled complete the course successfully. In regard to this, Letter regarding: short attendance and debarred from sessional tests are being sent to parents on regular basis.

5.3 Student Participation and Activities

5.3.1 List the range of sports, games, cultural and other extracurricular activities available to students. Provide details of participation and program calendar.

The active participation by a large number of students (Boys & Girls) in both sports and cultural activities has always resulted in generating a vibrant atmosphere in the campus. The inter-departmental annual sports meet of the college, “**SAKSHAM**” is held every year in the month of September-October. This sports meet comprises of following events:

- **Team Events:** (a) Football, Cricket & Tug-of-War (**Boys only**)
(b) Basketball, Volleyball, Badminton, Table-Tennis, Carom & Chess (**Boys & Girls**).
- **Individual Events:** Martial Arts, Power Lifting (**Boys only**)
- **Athletics:** Short, Medium & Long distance races (100M, 200m, 400m, 1500m, 4x100m relay), High Jump, Long Jump, Shot- put, Discuss & Javelin Throws (**Boys & Girls**).

College also organizes Annual cultural festival “**VIBRATIONS**”, an intra-college activity, held every year in the month of March-April. This two-day fun-filled bonanza, each year had as many as 30 competitive events with major attractions like sketching, face-painting, T-shirt painting, singing, dancing, miming, Tattoo making etc carrying attractive prize money.

Following table depicts range of sports/games (Outdoor/Indoor) facilities available within campus and number of students participated during

YEAR 2013-14:

S.No.	Outdoor/ Indoor Sports facilities	Description/ Usage
1	Football	175 students
2	Basket ball	140 students

3	Volleyball	130 students
4	Cricket	170 students
5	Badminton	145 students
6	Tug of War	175 students
7	Athletics 100 m 200 m 800 m 4x100 relay High Jump Long Jump Discus Throw Short Put Javelin Throw	135 students
8	Martial Arts (Outdoor)	80 students
9	Carrom (indoor)	95 students
10	Chess (indoor)	95 students
11	Table Tennis (indoor)	145 students
12	Power Lifting (indoor)	135 students
13	Pool Table (indoor)	75 students
14	Gymnasium	285 students

YEAR 2012-13:

S.No.	Outdoor/ Indoor Sports facilities	Description/ Usage
1	Football	170 students
2	Basket ball	130 students
3	Volleyball	120 students

4	Cricket	160 students
5	Badminton	140 students
6	Tug of War	170 students
7	Athletics 100 m 200 m 800 m 4x100 relay High Jump Long Jump Discus Throw Short Put Javelin Throw	120 students
8	Martial Arts (Outdoor)	70 students
9	Carrom (indoor)	90 students
10	Chess (indoor)	90 students
11	Table Tennis (indoor)	140 students
12	Power Lifting (indoor)	130 students
13	Pool Table (indoor)	60 students
14	Gymnasium	280 students

5.3.2 Furnish the details of major student achievements in co- curricular, extracurricular and cultural activities at different levels: University / State / Zonal / National / International, etc. for the previous four years.

Following table shows participation of students in sport events at different levels in the last four years:

YEAR 2013-14:

S. No.	Event Name	Period of Activity	Organized by	Description
1	SPORTS FEST 2013	07.09.2013 to 09.09.2013	GBU, Gr. Noida	Postponed till further notice
2	NBA, JAM `13 (Special skill Basketball)	20.09.2013	RAMJAS COLLEGE DELHI UNIVERSITY , NEW DELHI	Played 5 games. Won 4 games and lost 5th one in the finals.
3	CHAKRAYUH `13	07.10.2013 - 11.10.2013	IMS GHAZIABAD	<ul style="list-style-type: none"> • Won Gold in Table Tennis • Third position in Basketball boys • Second position in Basketball (girls) • Gold & Bronze in Power Lifting • Bronze in Shortput (girls)
4	SPARDHA' 13	25.10.2013	BHU, VARANASI	Postponed till further Notice
5	AAMOD-2014	21.02.2014 To 23.02.2014	SRMS College of Engg. & Tech., BAREILLY	<ul style="list-style-type: none"> ▪ Won the overall tournament Championship Trophy (sports & athletics) by winning 13 Gold medals, 6 Silver medals and 2 Bronze medals. ▪ Yasharth Shukla B. Tech I (EC) was adjudged the Best Athlete of the tournament. <p>1. Athletics</p> <ol style="list-style-type: none"> a) 100m (Boys) : Gold bagged by Yasharth b) 100m (Boys) : Bronze bagged by Avanish Kumar Singh c) 200m (Boys) : Gold bagged by Yasharth d) 200m (Boys) : Silver bagged by Ankit Singh e) 400m (Boys) : Silver bagged by Ankit Singh f) 800m (Boys) : Silver bagged by

				<p>Ankit Singh</p> <p>g) 4x100m relay (Boys) : Gold bagged by Ankit Singh, Avanish Kumar Singh, Yasharth and SaurabhHaldwani</p> <p>h) 4x400m relay (Boys) : Silver bagged by Avanish Kumar Singh, Ankit Singh, Yasharth and AkashdeepTyagi</p> <p>i) Long Jump (Boys) : Gold bagged by Avanish Kumar Singh</p> <p>j) Long Jump (Boys) : Silver bagged by Yasharth</p> <p>k) High Jump (Boys) : Gold bagged by Avanish Kumar Singh</p> <p>l) 4x100m relay (Girls) : Silver bagged by AyushiTomar, Jyotsana Singh, Ritu Bharti and Pooja Singh</p> <p>m) Shotput (Girls) : Gold bagged by Pratiksha Singh</p> <p>n) Javelin Throw (Girls) : Gold bagged by Ritu Bharti</p> <p>o) Javelin Throw (Girls) : Bronze bagged by Madhvi</p> <p>2. Badminton (Girls-Singles) : Gold bagged by Vastvikta Singh</p> <p>3. Chess (Boys) : Gold bagged by Harshit Srivastava</p> <p>4. Table Tennis (Boys-Team) : Gold bagged by AkshayVarshney, Rohan Bhardwaj, Rahul Chaudhary</p> <p>5. Table Tennis(Boys-Doubles): Gold bagged by Rohan Bhardwaj and Rahul Chaudhary</p> <p>6. Table Tennis(Girls-Singles) : Gold bagged by Surbhi Jain</p> <p>7. Table Tennis(Girls-Doubles) : Gold bagged by Surbhi Jain and Madhvi</p> <p>8. Football : Lost in the 2nd round</p> <p>9. Basketball (Boys) : Lost in the 2nd round</p> <p>10. Basketball (Girls) : Lost in the 2nd round</p> <p>11. Volleyball (Girls) : Lost in the Semi-Finals</p>
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6	MAITREE-14	08.03.2014 to 10.03.2014	GLA Institute of Tech. & Mgmt, MATHURA	Won 6 Golds & 2 Silver medals. Athletics Long Jump, Tripple Jump 4x100 relay 1 Silver 2 Gold Athletics 200mtr 400mtr, 1500 mtr, 4x100 relay 1 Silver, 3 Gold Athletics 100 mtr, 200 mtr 4x100 relay 3 Gold, Athletics 4x100 relay 1 Gold
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YEAR 2012-2013:

S. No.	Event Name	Organized By	Period of Activity	Description
1.	SPORTS MEET (Chakravyuh)	IMS Engg. College, Ghaziabad	10 & 11 Oct 12	Participated in Football & Table Tennis (Boys). Won two league matches in Football. Lost in Quarter Finals. Won Gold in Singles Table Tennis (Arjun Kansal IYr EC)
2.	Sports Fest (TANGELO SPORTS LEAGUE)	Jamila Milia Ismalia, N. Delhi	17.01.2013	Participated in Basket Ball. Performed well. Lost to JMI team with students from sports quota.
3.	VARCHAS-13 (SPORTS Festival)	IIT Jodhpur	07.02.2013 to 09.02.2013	Participated in Badminton. Performed well.
4.	Sports Meet (AMOD 12-13)	SRMS College of Engg. & Tech, Bareilly	3 & 4 Mar 13	'56' students (14 girls & 42 boys) participated in the following events. (a) Basket Ball (Won 'Gold' by girls & 'Gold' by boys.) (b) Football (Boys only) (c) Bad Minton (d) Kho-Kho (e) Chess

				<p>(f) Volleyball (won 'Silver' by girls)</p> <p>(g) Carrom (won 'Silver' by girls)</p> <p>(h) Table Tennis (Won 'Silver' in team event by girls, won 'Gold' in team event and 'Silver' in singles by boys).</p> <p>(i) Athletics (Won 2 Golds, 4 Silvers by girls. Won 3 Golds, 2 Silvers, 1 Bronze by boys).</p>
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Year 2011-2012:

S. No.	Event Name	Organized By	Period of Activity	Description
1.	Dr. V.D. Gautam Cricket tournament & Inter College Volley Ball Tournament	SIMS, Ghaziabad	23-24 Feb 2011	1. Silver in Cricket 2. Participation on Volley ball
2.	Karizma ZMR cricket championship	NOIDA, Stadium	15-16 Feb 2011	Bronze
3.	Sports Meet (AMOD 11-12)	SRMS College of Engg. & Tech, Bareilly	5 & 6 March 2011	'60' students (22 girls & 38 boys) participated in the following events. (a) Basket Ball (Won 'Gold' by girls) (b) Football (Won 'Gold' by Boys only) (c) Shot-put (Won 'Gold' by Boys only) (d) Athletics event 200 mtrs. (Won 'Bronze' by Boys only) (e) Athletics event 4x100

				<p>mtr. Relay (Won 'Silver' by Boys only)</p> <p>, High-Jump (Won 'Gold' by Boys only)</p> <p>(f) Javelin Throw (Won 'Silver' by Boys only)</p> <p>(g) Basket Ball (Won 'Gold' by Girls only)</p> <p>(h) Shot-put (Won 'Silver' by girls)</p> <p>(i) Athletics 100mtr. (Won 'Gold' by girls). (i) Athletics Relay 100x4 (Won Bronze).</p> <p>(k) Javelin Throw (Won Gold by Girls)</p>
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Year 2010-2011:

S. No.	Event Name	Organized By	Period of Activity	Description
1.	Sports Festival	Sunder deep Group of Institutions	29 Oct to 1 Nov 2010	Football team won 3 of their matches and basketball team won 2 of their matches
2.	Sports Festival Karizma ZMR Cricket Championship	Hero Honda Group	15 & 16 Feb 2011	Cricket Team win 2 Matches
3.	Sports Fest Dr. V.D. Gautam Memorial Cricket Tournament and Volleyball Tournament	Shiva Institute of Management Ghaziabad	25 & 26 Feb 2011	Cricket Team won 1 match

Apart from this, following table shows participation in various cultural events:

S.No.	Name of Society	Activity Name /Description	Period of Activity	Organized by	Name of Participants	Branch	Prize Won
1	TAAL	Cultural Fest	19.10.2011	IIT Delhi	Vidit Kanaujiya Amit Kumar Pranjul Shukla Shubham Jain Saurabh Paul Abhishek Sethi Abhishek Singh Sameer narang Aman Sharma Kriti Varshney Shagun Pandey Shirin Garg Anushruti Kishore Prachi Shrma Prachi Shruti Garg Arvind Aksha	ME EN IT ME EC EC EI EI ME CS EC EC IT ME ME EC CS	Participated
2	EUPHONY	Antaragni-11	16.10.2011	IIT Kanpur	Nakul Tiwari Abhishek Verma Astha Srivastava Mukesh Chaturvedi Tanu Saxena Tanvi Saxena Sankalp Bansal Anurag Chandra Shantanu Agarwal	IT CS ME EC CS CS IT IT IT	Nakul Tiwari 3 rd position
3	GOONJ	Cultural Events	21 & 22.10.2011	IIT Delhi	Rajvinder Singh Ritesh Pandey Tarangini Abhishek Kumar Singh Aditya Saxena Prashant katyayan Ajit Jain Abhishek Goyal Saurabh Bhat Kaushlendra Kumar Harsh Sethi Saurav Kanpjiya Aquil Husain Kunwar Abhikeerrn Saurabh Tweari Lovish Anand Prashant Tyagi Siddharth Saxena Nikhil Bhatt Jazib Mahmud Ujjwal Mittal Saurabh Gupta Aman Das Srivastava Arvind Aksha Nitika	EN EN EC EN EN ME EN EN ME EN EN EN EC ME ME CS ME ME ME CS IT EI ME CS IT	Participated

4		Workshop (Automation & Engineering Design)	17 & 18.10.2011	College of Engineering Roorkee	Arpit Srivastava Abhishek Seth Anurag Saini	ME ME M5E	Participated
5		Avishkar' 11 Annual Tech Fest	23 – 25.09.2011	MNNIT Allahabad	Aman Maheshwari Aman Srivastava Ajay Singh Hitesh Kumar Garg	IT IT IT IT	Participated and reached the final round of 6 teams out of 25 teams that competed.
6	TECHNICAL FEST	GOONJ'12 ROBOWARS	4 & 5.02.2012	UIET, PUNJAB	Nishant Agarwal Nikhil Bhatt Vaibhav Vats Prashant Tyagi Sidharth Saxena	ME ME ME ME ME	2 nd Position
7.	EUPHONY	RUBAROO' 12		SRM University Modinagar	Mukesh Chaturvedi Shailendra Singh Rajput Nakul Tiwari Sankalp Bansal Anurag Chandra	EC IT IT IT IT	1 st Position
8.		Techenich- 2013	IIT GUWAHATI	29-8-13 to 1-9-13	Hitesh Kumar Ravi Kumar Gupta Mridul Goel Shreya Jain Bhavya Singh	EC EI EI EI EI	Participated in Robocalypse & Prison Break. Entered semi-finals.
9.		MANZAR'13	JAMIA HAMDARD UNIVERSITY, NEW DELHI	25-9-13	Sakshi Singhal Jatin Bhatia Mayank Mayank Agarwal Shikhar Garg Arjun V Kansal Saurabh Kataria Samyak Shukla Raghav Kathuria Abhishek Singh Mukund Khandelwal Nalini Singh Devina Kumar Abhishek Verma Tushangni Nagrath Rahul Singh Amit Tiwari	CS CS CS CS EC EC EC EC EC EI EN EN EN EN IT MCA ME	TAAL team of the college won 1st Prize defeating 6 teams from DU
10.		INNOVATES '13	SRMS College of Engg. & Tech,	3-10-13 to	Nishant Nikhil Chiranjeev	CS CS CS	Won first prize in "code-O logic" & "code jack

					Tushangni Nagrath Priya Rai Tanu Shiwangi Singh Roshni Baranwal Amit Tiwari Aman Sharma	IT ME ME ME ME ME	
13.		GENERO'13 FEST	ABES ENGG. COLLEGE , GHAZIAB AD	19-10-13	Anurag Chandra Monica Verma and party	IT IT	Participated in Battle of Bands
14.		KSHITIJ '14	IIT KHARAGP UR	31-01-14 TO 3-2-14	Mujahid Ali	CS	First prize in event NIGHT SHIFT & Best Design award in DELTA SURGE
15.		NDIM CULTURAL FEST'14	NDIM NEW DELHI	13-02-14	Abhishek singh Arvind aksha Mukund khandelwal Tushangni Nagrath Sakshi Singhal Arjun Kansal Nalini Singh Sarika Bajpayee Samyak Shukkla Raghav Kathuria Jatin Bhatia Amit Tiwari	EI CS EN IT CS EC EN EI EC EC CS ME	Taal society. Adjudged as the best 4 th teams.
16.		Chorus'14	SHARDA UNIVERSI TY , GR. NOIDA	22-2-14 to 23-2-14	Abhishek Singh Prachi Sharma Nirali Singh Prachi Gupta Vaishali Saraswat Mukund khandelwal Shikhar Garg Amit Tiwari Sourabh Kataria Tushangni Nagrath Sakhi Singhal Abhishek verma Raghav khaturia Samyak Shukla Nalini Singh Sarika Bajpayee Devina Kumar Mayank Lehri Mayank Agarwal Jatin Bhatia	EI CS EC EN CS EN EC ME EC IT CS EN EC EN EI EN CS CS CS	Goonj Society stage Nukkad Natak and won 1 st prize adjudged by celebrity Om Puri. Taal society were selected in 6 finalists

17.		FEIERN'14	RKGIT-W, GHAZIAB AD	8-3-14	Anurag Chandra Monica Verma and Party	IT IT	Won cash prize of Rs.2000 as one among the best 4 best teams.
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5.3.3 How does the college seek and use data and feedback from its graduates and employers, to improve the performance and quality of the institutional provisions?

The institute has a clearly set and defined mechanism of obtaining the feedback from the students to improve the performance and quality of the institutional provisions. The HoD's of each department collects the exit level feedback from the graduates regarding learning processes. T&P cell collects feedback from the students who are employed in various organizations. Also T&P cell takes the feedback from the industry people at the time of their visit to the campus on our students already employed there. Based on these data the institute takes necessary steps for improvement.

5.3.4 How does the college involve and encourage students to publish materials like catalogues, wall magazines, college magazine, and other material? List the publications/materials brought out by the students during the previous four academic sessions.

The College encourages its students to publish materials like college magazine, wall magazines. The students are motivated to express their talent through articles and paintings. Their creativity is given a free flight. The college magazine provides them with a platform to express them. The teachers motivate the students to bring out the creative genius in them. The institution also encourages the faculty members to attend conferences and to publish papers in national and international levels.

5.3.5 Does the college have a Student Council or any similar body? Give details on its selection, constitution, activities and funding.

There are two class representatives (one boy and one girl) from each section. They are selected unanimously. If unanimous selection is not possible then HoD nominates the class representatives. These class representatives take lead role from students side on different occasion.

5.3.6 Give details of various academic and administrative bodies that have student representatives on them.

Following table shows details of various academic and administrative bodies that have student representatives on them:

S.No	Academic/ Administrative Bodies	Student Representatives
1.	GOONJ (Society at institutional level)	Mr. Pratyush
2.	FOOTPRINTS (Society Operated at institutional level)	Mr. Ashwani Ashish
3.	CONATUS (Technical Society of CSE & IT Department)	Mr. Sanchit Tandon
4.	SAMVEG (Technical Society of ME Department)	Mr. Ashwin Dubey & Niripendra Singh
5.	OORJA (Technical Society of EN Department)	Mr. Ahmad Rameez & Shivam Awasthi
6.	PHOENIX (Technical Society of ECE Department)	Mr. Sunil Saini
7.	HORIZON (Technical Society of ASH Department)	Mr. Sarthak Arora
8.	EUPHONY (Music Band at institutional level)	Mr. Chirinjiv
9.	TAAL (Dance Society at institutional level)	Mr. Shikhar Garg
10.	RENAISSANCE (Society at institutional level)	Mr. Pushpjeet Singh
11.	Placement Coordinators	Mr. Saurabh Das & Aiman Khan
12.	PDP Coordinators	Mr. Harshit Agarwal, Madhvi Shukla, Shubham Agarwal, Twinkle Singh

5.3.7 How does the institution network and collaborate with the Alumni and former faculty of the Institution. Any other relevant information regarding Student Support and Progression which the college would like to include.

- Head of the Departments, Faculty and Staff maintains rapport with the Alumni.
- AKGEC has developed a portal for its alumni to stay in touch with each other as well as the college.
- College organizes Annual Alumni Meet since 2005.
- The former faculty of the institution is invited for annual day, conferences/seminars, and workshops of the relevant departments.

CRITERION VI: GOVERNANCE, LEADERSHIP AND MANAGEMENT

6.1 Institutional Vision and Leadership

6.1.1 State the vision and mission of the Institution and enumerate on how the mission statement defines the institution's distinctive characteristics in terms of addressing the needs of the society, the students it seeks to serve, institution's traditions and value orientations, vision for the future, etc.?

Institute Vision: To introduce undergraduate and post graduate courses for all Engineering Branches and award of Ph.D degree. To be one of the best Engineering Colleges in the country and to be a Deemed University.

Institute Mission: We strive to provide and maintain academic environment & systems enabling maximum learning, to produce competent professionals. We also aim at achieving this through transparent academic and administrative policies in the college. We intend to provide conducive atmosphere for research, development and consultancy services to our faculty at national and international level.

The College ensures that its vision and mission statement clearly defines the institution's distinctive characteristics in the following manner:

- AKGEC was set up with a mission to impart such knowledge as may be necessary for the all-round development of the character of students thereby making them capable of being better employed and at par with the highly competitive job markets.
- The institution follows a three-fold system with academic, co-curricular and extra-curricular programs. The academic design is based on enhancing and empowering the knowledge base of the students. The focus is on the recent trends in technology.
- The college visualizes at facilitating young adult learners with opportunities to kindle their ethics and leadership potential thereby sensitizing learners towards inclusive social concerns, human rights, gender and environmental issues.
- The College has drawn a clear perspective plan for future development and to maintain competitive edge in quality and system.

6.1.2 What is the role of top management, Principal and Faculty in design and implementation of its quality policy and plans?

The Management, Director, HoDs and the faculty are always stepping in together for designing and proper applications of the quality policy and plans. The faculty members are actively involved in decision-making process at their levels. A few Faculty members are in the committees like Anti-ragging Committee, Research and Development Cell, Training and Placement Cell, Department Technical Societies, Publication Committee, Examinations Committee, Sports day Committee, Cultural festival Committee, and many other committees that are constituted for the smooth conduction of various events. All the new and revised policies to improve academic activities, methodology of conducting examinations are reviewed and discussed in HODs meeting before implementation. Importantly, the Director provides academic leadership and in association with the various faculties, evolves strategies for academic growth of the institution.

6.1.3 What is the involvement of the leadership in ensuring:

- **The policy statements and action plans for fulfillment of the stated mission**
- **formulation of action plans for all operations and incorporation of the same into the institutional strategic plan**
- **Interaction with stakeholders**
- **Proper support for policy and planning through need analysis, research inputs and consultations with the stakeholders**
- **Reinforcing the culture of excellence**
- **Champion organizational change**

The authorities gather information about the various aspects of college functioning through a number of ways. The college has constituted different committees which play an important role in the planning and implementation of activities in different spheres of institutional functioning. The personal interaction of the Director with various stakeholders, the faculty, the non teaching staff, the students, the guardians play an important role in this. This apart, information available in student feedback forms and information available in self-appraisal forms of faculty help the authorities plan proper support for the policies. The participatory role of the management encourages and sustains the involvement of the college staff, which is necessary for the efficient and effective running of the College.

The Director holds the ultimate responsibility for the smooth running of the College. As the Head of the Institution, the Director is responsible for both the academic and administrative functioning of the College. He prepares the agenda for Governing Body meetings. He places before the Body, academic and administrative matters requiring the Body's approval and he is responsible for executing its decisions.

The innovative and dynamic approach of the Director, with a philosophy of experimentation and change, in the relentless pursuit of excellence has been an inspiration to all, providing the impetus needed to propel the college to the zenith of excellence with an all round development in all spheres of activities.

6.1.4 What are the procedures adopted by the institution to monitor and evaluate policies and plans of the institution for effective implementation and improvement from time to time?

Following are the procedures adopted by the institution to monitor and evaluate policies and plans of the institution for effective implementation and improvement from time to time:

1. The management supports the active participation of the faculty and staff in the process of decision-making.
2. Feedback from stakeholders.
3. Student Feedback forms and Faculty Self-Appraisal forms.
4. In statutory bodies such as Governing body, experts from various fields are members and they contribute towards the development of the institution.

Moreover, the effective improvement of students in terms of academics is measured through percentage of marks obtained with reference to earlier situation. Result analysis has been done and is reviewed by the Director and concerned HoDs for further improvements.

6.1.5 Give details of the academic leadership provided to the faculty by the top management?

Under the chairman BOG, Mr. Ashok Pal the college has formulated a Vision and policies to encourage every student to develop respect for established norms and values. This has led to the development of the college in a manner that it produces not just competent professionals but also good citizens. The Chairman has followed a policy of support without intervention, resulting in AKGEC being one of the few professionally managed institutions, with the Director having all executive powers in respect of academic, administrative and financial functioning. The policy decisions related to major expenditure, expansion of courses/infrastructure etc. are taken at the level of Board of Governors that meets once in six months and in the Governing Council that meets once in a month. With this professional approach, delegation of authority and support to all initiatives aimed at quality improvement and excellence, the Chairman has been a catalyst to the fast paced growth of the college to its present levels of being one of the best engineering institutions in the state. He has always encouraged faculty development initiatives and has always emphasized quality over quantity. He has been instrumental in the high standard of construction and other infrastructural development in the college and has never permitted finance to be any constraint.

With his clear vision, detached but deeply involved support and autonomy for the professional management of the college by the Director, the Chairman has paved the way for the college to constantly charter new dimensions on the path of academic excellence.

6.1.6 How does the college groom leadership at various levels?

The College grooms the leadership at all levels of administration, among faculty, staff and the students. Regular training programmes are provided to enhance leadership qualities and capabilities of personnel who are assigned or selected for coordinating roles. The management is always encouraging and supporting the involvement of the staff in the improvement of the effectiveness and efficiency of the institutional process. Through the Director of the college, the management involves the faculty and staff members in various activities related to the development of the colleges. Every department further has various committees to facilitate involvement and grooming of faculty to take on leadership positions. Apart from that the college organizes Anti-Drugs Seminars, Blood Donation Camp, technical Competitions, Awareness on Morals and Virtues, Career Guidance Programmes, etc. by focusing on the constant improvement of the leadership qualities of the students.

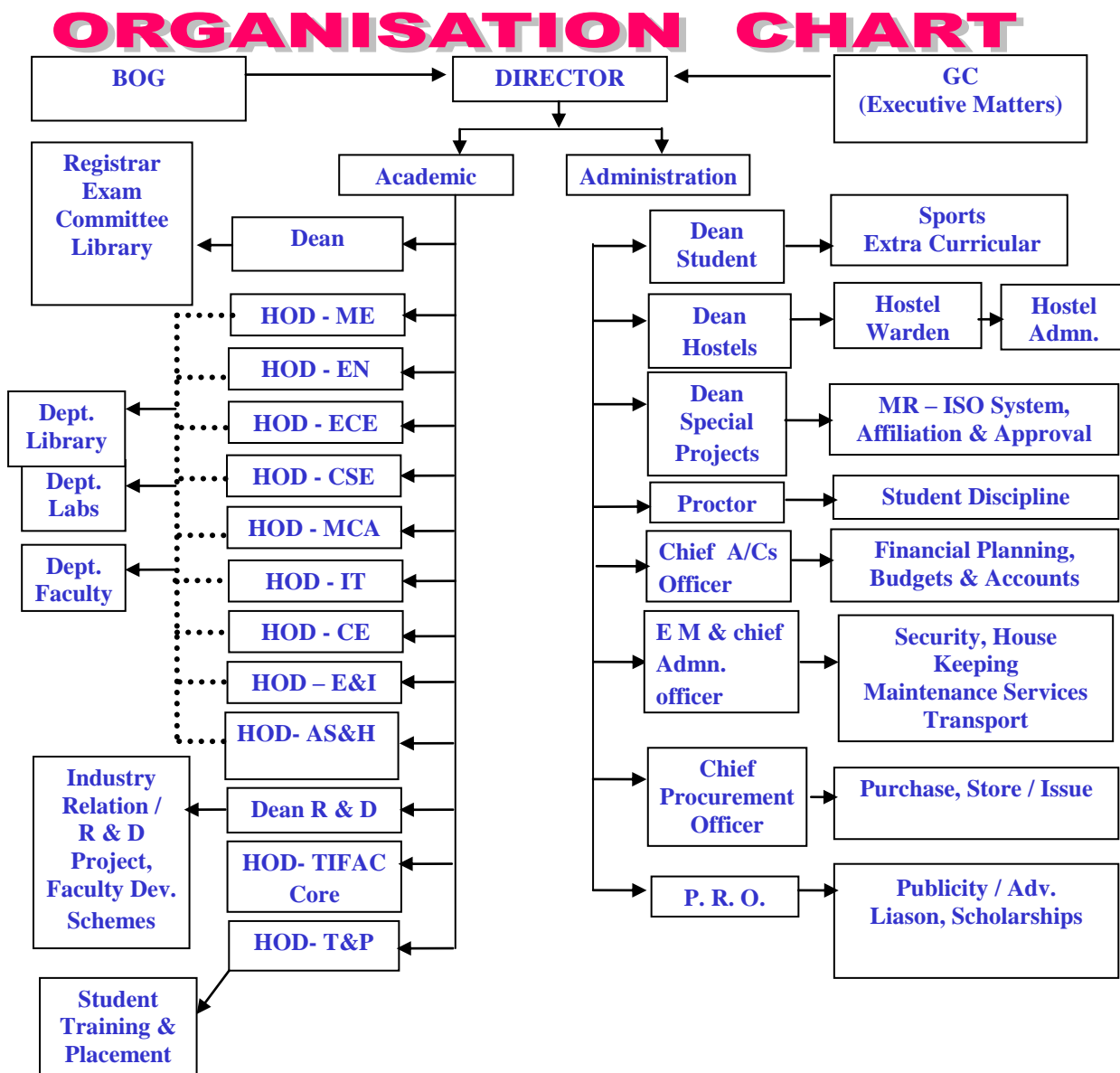
The management always encourages and supports the involvement of the faculty and staff through their representation on the various committees and bodies for the improvement of the effectiveness, efficiency of the institutional processes. As regards faculty / staff development, the constant improvement in the working conditions and remuneration package coupled with well defined and transparent policies have led to a high degree of self esteem, involvement and contribution by all. A spirit of healthy competition and zeal for excellence has been infused through performance based annual increments for all staff members. Improvement in remunerations brought about in the recent past include introduction of gratuity for all staff and medical insurance / ESI scheme for class IV employees. Stability and academic excellence amongst faculty has been improved through innovative measures like awards based on pass percentage and class averages and special pay for higher qualifications. Faculty development

has been promoted through introduction of department libraries, subscription to e-journals, conduct of weekly departmental seminars, awards for presentation/publication of paper in conferences / seminars / journals, subsidized membership of professional societies etc.

6.1.7 How does the college delegate authority and provide operational autonomy to the departments / units of the institution and work towards decentralized governance system?

The Director is the administrative head of the College. However certain administrative functions are delegated to the Heads of Departments and various functionary committees to ensure a decentralized governance system. The Governing body has also approved of the constitution of Committees involving Staff members, which perform an advisory role in matters within their designated sphere of activity and also help in the execution of administrative decisions.

Organizational chart of the college are as follows:



6.1.8 Does the college promote a culture of participative management? If 'yes', indicate the levels of participative management.

Yes, the college promotes a culture of participative management. The management of the college rests with its Governing Body, whose member, is appointed in accordance with the guidelines provided by Uttar Pradesh Technical University, Lucknow and AICTE. The Director is the academic and administrative head of the Institution and also the member secretary of the governing body. The Heads of Departments are responsible for the day-to-day administration of the departments and report directly to the Director. Additionally, every department has distributed various duties among faculty members which play an important role in various institutional functions. These duties have been discussed in departmental meetings conducted and the minutes of these meetings are recorded.

6.2 Strategy Development and Deployment

6.2.1 Does the Institution have a formally stated quality policy? How is it developed, driven, deployed and reviewed?

Quality Policy:

To provide and maintain academic environment and systems which enable students to develop their full potential and mature into competent professionals and responsible members of society.

College is certified for Quality Management System ISO 9001:2008. The college was certified in the year 2000 by BSI certification body. College has documented Quality policy which is approved by Director, and issued to all departments. Quality policy is displayed at various locations and notice boards. Quality policy is the driving force of our Quality Management System. Quality policy includes the quality objectives that are created in measurable form. Internal audit is conducted twice a year by trained internal quality auditors who check up the status of understanding of quality policy and also check the status of achievements of quality objectives. Quality management system is reviewed by Team comprising of Director and all HoDs. Quality policy is developed for aim of achieving Academic Excellence, and for building efficiency and effectiveness of all processes.

6.2.2 Does the Institute have a perspective plan for development? If so, give the aspects considered for inclusion in the plan.

Yes, a perspective plan is chalked out annually. It is based on the instructions from Director of institution after meeting all concerned heads of various departments being considered for an agenda point for discussion at annual governing body meeting. The same is reviewed periodically throughout academic year in measuring efficiency. The aspects to be included in the plan will be drawn from the following committee recommendations with priority.

6.2.3 Describe the internal organizational structure and decision making processes.

The college has a constituted Board of Governors having 18 members including the members of management committee, eminent educationists, industrialists and bureaucrats. The Director of the college is the Member Secretary of the board. The board meets once in 6 months and reviews the progress on all fronts. All policy matters relating to additional courses, investment in additional infrastructure and other major resources, major systemic / organizational changes,

perspective plan etc. are discussed and decided by the Board of Governors. The board also reviews and passes the annual budget.

The Governing Council of the college is composed of the Chairman, Secretary, Treasurer, one/two other members of the management committee and the Director who acts as the Convener. The council meets once / twice in a month or as necessary to regularly review and decide on various functional issues of importance.

6.2.4 Give a broad description of the quality improvement strategies of the institution for each of the following

- **Teaching & Learning**
- **Research & Development**
- **Community engagement**
- **Human resource management**
- **Industry interaction**

Teaching & Learning:

Quality improvement in teaching and learning is designed, deployed for aim of preparing the students for becoming competent and professional engineers in their respective branches. Syllabus issued by university is reviewed and such contents added that would enable the students in getting recognition and placements in leading organization of India and abroad. We have tied up with leading professional organizations for providing future oriented know how to our students.

Research & Development:

The college has the distinction of being the only Engineering College in the state of U.P. to have received approval from Department of Science and Technology (DST), Government of India, for establishment of Centre of Relevance and Excellence (CORE) in the field of Automation & Robotics. The program envisages a unique partnership between AKGEC and seven international industries to promote research, consultancy, project development and training in the emerging technological field of Automation and Robotics.

The College has also set up India's first Industrial Robotic Training Centre in Collaboration with KUKA Robotics of Germany. The centre is equipped with standard training cell comprising of KUKA KR-16 Industrial Robot with required auxiliary equipment and KUKA KR-5 Arc Welding Robot with MIG welding equipment and torch. The centre also has a Robotics Computer Simulation Lab with software like Sim Pro and Sim Layout used to design, develop and simulate robotic operations for different industrial applications. The centre provides internationally recognized certification for its Basic, Advanced and Expert level training programmes in this emerging technological area.

The college has established the first "NI LabVIEW Academy" in the state of UP in collaboration with National Instruments. The Academy is equipped with Laboratory Virtual Instrumentation Engineering Work band (LabVIEW) with built in functionality for simulation, data acquisition, instrument control, measurement analysis, data presentation and state-of-art Education

Laboratory Virtual Instrumentation Suite (ELVIS) for training on concepts of Sensorics, Mechatronics and controls.

The college has also set up the first Centre of Competence in Automation Technologies in North India in collaboration with BOSCH Rexroth AG, Germany. The center aims to train young engineering graduates of all disciplines to meet industry expectations and foster research in the multidisciplinary field of Automation Technologies. This centre is equipped with state of art equipment to teach and train students and professionals in Industrial Hydraulics, Pneumatics, Sensorics, Drives & Control, CNC, PLC and Mechatronics.

The college has established a Microsoft IT Academy preparing students for global Microsoft certification. The college also has a Network Academy which offers CISCO Certified network Associate (CCNA), CISCO certified Network Professional (CCNP) and CISCO certified Inter Networking Expert (CCIE) level Training Programs. In addition, the college has also set up School of Software Technology which runs courses such as Java Technology etc.

Community Engagement:

The college believes in inclusive growth and is conscious of its social responsibilities. The college undertakes a number of activities to meet these objectives as well as to make its students good citizens and responsible members of the society. Some of the activities undertaken by the college are:

The college is running a primary school named “Adarsh Vikas Kendra” to provide free primary education to children of economically weaker sections of society. These children are provided free uniforms, books, bags and are regularly attending classes conducted in the campus. These children are also being provided free meal (lunch) during the day by the college. The college has also made arrangements to provide them basic knowledge of computers. A TV set with TATA sky connection has also been provided to the school by the college.

The primary school has completed 5 years in its mission of education for children of labour. It has now been extended to include the children of interested class IV employees of the college. There are about 30 students presently enrolled in the school. The school is being managed by wives of faculty members on a voluntary basis.

Human Resource Management:

The college has documented procedure for recruitment, training and development, motivation and appraisal for the faculty and staff. Our policy is to obtain the high quality human resources for academic and non academic activities.

Industries Interaction:

The college has interface with the industry at many levels including the following:

Industrial/Summer Training of students.

Student projects sponsored by the industry.

Introduction of extra teaching modules proposed by the industry in the college.

Industrial visits.

Campus placements.

For summer training of all B.Tech. Students after III year, the college has linkages with a large number of PSUs and Private sector industry in concerned disciplines. The exposure and association with the industry after the pre-final year provides the students with the requisite orientation for the specialized course and project work which are part of the final year curriculum. A number of students are involved in doing projects with the industry and the college encourages students to undertake industry relevant project work.

With the varied needs of each type of industry, it will never be possible for any curriculum to meet the exact requirement of all industry. There will inevitably be a gap between the training imparted at any academic institution and the job requirements. This gap is filled by providing in-house training to the fresh entrants by the industry. The college has collaborated with industry and introduced modules designed by them in the curriculum.

The college is part of INFOSYS campus connect programme. Under this programme, INFOSYS has designed and provided a 100 hrs module for which the faculty has been especially trained by the firm.

College is committed to fulfilling the dreams of all those who graduate from College. Objective of the placement cell is to place the students in good companies. This is achieved through campus selections conducted in the college for which the students are trained in aptitude, technical and soft skills, much ahead of campus selections. The Cell believes in overall development of the students' personality, which will help them to achieve a rewarding career.

6.2.5 How does the Head of the institution ensure that adequate information (from feedback and personal contacts etc.) is available for the top management and the stakeholders, to review the activities of the institution?

Director ensures that adequate information (from feedback and personal contacts etc.) to review the activities of the institution through:

- Meeting with HoDs monthly
- Collecting Feedback from students periodically.
- Taking feedback and suggestions from Parents on periodical basis.
- Continuous process of counseling and mentoring mechanism by faculty coordinators.
- Periodical meetings with Faculty and Staff members.
- Alumni association recommendations to enhance the academic excellence.

6.2.6 How does the management encourage and support involvement of the staff in improving the effectiveness and efficiency of the institutional processes?

College plays a very vital role in bringing up the faculty forward to initiate and gain competitive edge through their personal involvement in many activities like:

- Heading various committees at college level.
- Great level of flexibility in academic administration to make decisions.
- In designing the required training programs and updates its needs

- Freedom of pursuing Higher studies
- Freedom of thought and expression

6.2.7 Enumerate the resolutions made by the Management Council in the last year and the status of implementation of such resolutions.

Following table below shows resolutions & implementation status of major decisions taken during BOG / GC meetings:

S.No.	Resolution	Implementation Status
1	Improved participation in Faculty Development Programs	Efforts were made to ensure that a large number of faculty members from other colleges participated in FDPs conducted by various departments during the year. The college is also planning an AICTE sponsored one week residential FDP during summer vacation.
2	Conduct of International Conference	The CSE department organized and hosted an IEEE sponsored international conference during the year. The conference had a very large participation from India and abroad.
3	Efforts to be made to get a broad based participation and circulation for its journal	AKGEC Technical Journal has now been upgraded to AKGEC International Journal. Papers are being received from institutions all over India and abroad. The journal is circulated to 820 institutions in India and 53 institutions in countries like Singapore, China, Australia, New Zealand, Germany, Israel, Bangladesh, Canada, UK, USA, Sweden and Switzerland
4	Increased intake in B.Tech CSE and ECE branches to 180	College applied for increase and same has been implemented
5	New M.Tech Programme in Mechanical Engg.	New M.Tech Course in Mechanical Engg. has been approved and will be started from 2014-15
6	Increased intake in M.Tech, CSE program	Increase in seats in M.Tech (CSE) has been granted and present intake is 24
7	Revision in Hostel Fee	Hostel Fee was revised from academic session 2013-14
8	Emergent Civil work like girls hostel, new academic block, Siemens Centre etc	New Academic Block has been constructed and occupied. New Girls Hostel is under construction and would be ready for occupancy during next academic session

	to be given priority	
9	Commencement of Skill Development Programs	It was proposed to collaborate with various National / International Bodies to get recognition and valid certification for these training programs. The process has been initiated and is under progress
10	Collaboration with Mitsubishi Electric, India (MEI)	MOU was signed between Managing Director, MEI and Director, AKGEC on 8 January, 2014.
11	Donation for Uttarakhand Flood Relief	Rs. 5 Lac were sent to “Upekshit Shetra Utthan Niyas”, an organization committed to and involved in resurrecting schools in Uttarakhand

6.2.8 Does the affiliating university make a provision for according the status of autonomy to an affiliated institution? If ‘yes’, what are the efforts made by the institution in obtaining autonomy?

Yes, provision is made by UPTU (affiliating university) to accord the status of autonomy to its affiliated institutions. College is in the process of applying for autonomous status to UGC.

6.2.9 How does the Institution ensure that grievances / complaints are promptly attended to and resolved effectively? Is there a mechanism to analyze the nature of grievances for promoting better stakeholder relationship?

For promoting better stakeholder relationship the institution has set up a grievance redressal cell to attend to each and every complaint. The Institution immediately addresses the problems and solves them effectively. The member of the cell includes HoDs, senior faculties and staff members, under the leadership of the Director.

6.2.10 During the last four years, had there been any instances of court cases filed by and against the institute? Provide details on the issues and decisions of the courts on these?

Following are the details of court cases which are filed against the institute:

Cases of Fee Refund on withdrawal of Admission:

- Parimal Trivedi Vs Ajay Kumar Garg Engg. College, Ghaziabad
 - Case No. 05/07 was filed at District Consumer Forum, Kanpur. The decision was in favour of the college.
 - An appeal was filed (case no. 425 of 2009) in State Consumer Disputes Redressal Commission, U.P, Lucknow by the student. The decision was in favour of the college.
- Rajesh Kumar Singh (Petitioner was father of our student Mr. Durgesh Dixit) Vs State of U.P. & others. Case No. MISC. Single No. 1731 of 2009. The case was decided in favour of the college.

Case of debaring from exam due to short Attendance

Miss Kirti Sahai Vs State of U.P and others Civil Miscellaneous writ petition no. 64916 of 2013. The case was decided in favour of the college and the writ petition of the student was dismissed. A special appeal was filed by the petitioner with the Chief Justice and the case was once again decided in favour of the college.

6.2.11 Does the Institution have a mechanism for analyzing student feedback on institutional performance? If 'yes', what was the outcome and response of the institution to such an effort?

Yes, the institution has a mechanism for analyzing student feedback on institutional performance. A continuous assessment/ feedback system is incorporated by covering following aspects linking various levels.

Student-Faculty Level:

- Coverage of the Subject Material Specified in the syllabus.
- Preparation & Organization of the Lecture.
- Presentation and Communication Skills.
- Planning of Tutorials and Quality of Tutorial Assignments.
- Uniformity in Pace of Teaching during the Semester.

Apart from above Alumni feedback and exit survey from the students are collected. Accordingly action plan initiated to rectify the areas where the institution seems to be weak.

6.3 Faculty Empowerment Strategies

6.3.1 What are the efforts made by the institution to enhance the professional development of its teaching and non teaching staff?

The institution is making its efforts for the professional development of the teaching and non-teaching staff through:

- Creating a mechanism for developing capabilities and upgrading skills for achieving higher quality and excellence.
- Enabling staff to make use of the latest equipment through awareness programmes.
- Providing access to the Internet, audio-visual aids, software packages etc., as required.
- Facilitating institutional infrastructure, learning resources for effective curricular transaction.
- Enabling the faculty and staff to attend workshops, conferences and seminars to enrich the learning ambience.

6.3.2 What are the strategies adopted by the institution for faculty empowerment through training, retraining and motivating the employees for the roles and responsibility they perform?

Director is the sole authority to motivate and empower the faculty to create a sense of direction and positive awareness to the departments on the teaching learning processes by

- Making creative reforms in the system to reach excellence.
- Promoting use of modern technology.
- Creating sense of belongingness among the faculty and students.
- Using modern tools.
- Creating intellectual and ethical values.
- Imparting purposeful and well directed workshops and training to faculty and staff to create a healthy and positive environment.

6.3.3 Provide details on the performance appraisal system of the staff to evaluate and ensure that information on multiple activities is appropriately captured and considered for better appraisal.

The information on multiple activities is appropriately captured and considered for better appraisal through:

- Periodical reviews on classroom teaching by HoD.
- Feedback from all the stakeholders of the college.
- Self-appraisal by Faculty and Staff.

6.3.4 What is the outcome of the review of the performance appraisal reports by the management and the major decisions taken? How are they communicated to the appropriate stakeholders?

Soon after completion of taking the feedback, the outcome of the feedback is communicated to all the stakeholders for necessary information and further action. The increments of all staff members are based on their annual assessment.

6.3.5 What are the welfare schemes available for teaching and non teaching staff? What percentage of staff have availed the benefit of such schemes in the last four years?

The College Management provides the following welfare activities to the staff:

- Transport facility for Faculty, Staff and Students
- Health insurance of Students and Class IV employees
- Provident Fund & Gratuity
- Canteen, ATM & Reprographic facility
- Dress & shoes for class IV employees is given free of cost
- Reimbursement of fees for two children to class IV employees

Moreover, almost all eligible staff members have taken advantage of these schemes.

6.3.6 What are the measures taken by the Institution for attracting and retaining eminent faculty?

- College is providing all the facilities like sixth pay commission salary as per the AICTE norms, better reward system and timely promotions to retain the eminent faculty.
- A very transparent system and conducive work culture for all to contribute and have satisfaction of achievement.
- College ensures that the faculty academic growth is given high priority by motivating and encouraging faculty to do research and Ph.D in the field of their specialization.

- The personal problems and issues of faculties are given utmost attention by HoDs and Director.
- College has well paid out leave policy for the faculties which includes a summer break.
- The working environment in the department is made comfortable for each faculty to ensure that they are able to contribute whole heartedly to the department and the college.

6.4 Financial Management and Resource Mobilization

6.4.1 What is the institutional mechanism to monitor effective and efficient use of available financial resources?

The institution always monitors the effective and efficient use of available financial resources for the infrastructural development and teaching learning process. Annual budget is made, funds allocated accordingly, expenditure monitored for deviation and reviewed periodically. Accounts are properly auditable by the chartered accountant.

6.4.2 What are the institutional mechanisms for internal and external audit? When was the last audit done and what are the major audit objections? Provide the details on compliance.

The College has a governing body consisting of university & AICTE nominee, management representatives and other industry and Academic members. Every financial year budget proposals including Income & Expenditure details being submitted by the college to the governing body for their consideration and approval. The proposals are made on different heads such as laboratory equipment, library expenses, salary payments, building infrastructure and other maintenance expenses.

The college has appointed an internal audit team for frequency visiting and auditing the accounts and utilization of various resources periodically. These audit reports are submitted to the Director on a monthly basis and action taken to improve the system.

External:

The annual balance sheet of the college is audited by an authorized audit team.

6.4.3 What are the major sources of institutional receipts/funding and how is the deficit managed? Provide audited income and expenditure statement of academic and administrative activities of the previous four years and the reserve fund/corpus available with Institutions, if any.

As College is self financing institution, affiliated to UPTU, we get the income mainly from tuition fee receipts, as fixed by State Government of Uttar Pradesh. The college is also receives amount through bank loans to meet the capital expenditures of the institutions. The expenditure mainly consists of salary payments, laboratory equipments, Library, infrastructure & building infrastructures and maintenance. For meeting the expenses if there is any deficit of funds, the same is met by the funding from the Society which runs our College.

6.4.4 Give details on the efforts made by the institution in securing additional funding and the utilization of the same (if any).

The institution is securing additional funding and the utilization of the same through:

- Providing Industrial Robotic trainings in collaboration with KUKA Robotics of Germany for conduct of basic, advance and expert level industrial training of international standard with joint certification by KUKA Robotics and AKGEC.
- Joint Research and Consultancy projects.
- TCS Nodal Centre for conducting online exams.
- Collaboration with institution of Engineers (IEI), Kolkata for conducting practical for AMIE students.

6.5 Internal Quality Assurance System (IQAS)

6.5.1 Internal Quality Assurance Cell (IQAC)

a. Has the institution established an Internal Quality Assurance Cell (IQAC)? .6 If 'yes', what is the institutional policy with regard to quality assurance and how has it contributed in institutionalizing the quality assurance processes?

AKGEC has well established IQAC. The IQAC cell is headed by Dean (Special projects). The IQAC cell prepares a detailed audit check list for each process and it is utilized by internal auditors for finding deviation from laid down system. The system is designed on requirements provided by AICTE, NBA and university and the vision and mission of the college.

b. How many decisions of the IQAC have been approved by the management / authorities for implementation and how many of them were actually implemented?

All the above decision are approved by the management and all are being implement in the institution.

c. Does the IQAC have external members on its committee? If so, mention any significant contribution made by them.

Our quality management system is audited by BSI on yearly basis. All points raised are reviewed and implemented. We have also engaged a consultant for review of Quality management System. All point of improvements given by him is also implemented.

d. How do students and alumni contribute to the effective functioning of the IQAC?

Alumni and students are continuously in touch with IQAC and share the requirements of the students which will be addressed properly.

e. How does the IQAC communicate and engage staff from different constituents of the institution?

IQAC Communicates with faculty and students through Heads of the Departments. All the Heads are members of IQAC.

6.5.2 Does the institution have an integrated framework for Quality assurance of the academic and administrative activities? If ‘yes’, give details on its operationalisation.

Quality Assurance activities for Academics and Administration are assigned to Dean (Academics) and Dean (Administration). Quality assurance of Purchased materials is looked after by Dean (Quality and Materials). Quality Assurance of Students activities are looked after by Dean (Students Affairs).

6.5.3 Does the institution provide training to its staff for effective implementation of the Quality assurance procedures? If ‘yes’, give details enumerating its impact.

All persons are trained on Quality Management System for aim of realizing Vision, Mission and Quality Policy, as well as achieving compliances to all requirements that are well defined and documented. Our Quality Management System is documented and issued through Quality Manual and procedure for each process and operations.

6.5.4 Does the institution undertake Academic Audit or other external review of the academic provisions? If ‘yes’, how are the outcomes used to improve the institutional activities?

Academic audit is a regular feature in the College for continuous monitoring of the students. Over and above the college, the affiliating university regularly monitors the performance regularly through:

- Monthly students attendance
- Internal Exam Marks

As measure of our good academic practices, the institution is accredited by NBA, New Delhi and Certified by ISO 9001:2008.

6.5.5 How is the internal quality assurance mechanisms aligned with the requirements of the relevant external quality assurance agencies/regulatory authorities?

Institution has assigned the role of assessing status of compliance to all requirements of external agencies to internal teams deputed in each department. Each team prepares the status of compliance report and submits to Dean Special Projects.

6.5.6 What institutional mechanisms are in place to continuously review the teaching learning process? Give details of its structure, methodologies of operations and outcome?

The institution regularly collects student’s feedback and evaluates the teaching ability of faculty and advices as their shortcomings.

- Head of the department separately evaluates the performance of the faculty.
- Performance of the students is continuously evaluated by the dept.
- Individual students counseling by class in-charges and HoD if required.

- Detailed subject-wise lecture notes are required to be prepared by each faculty members.
- Lab manuals are prepared by the faculty members and made available to the student.

6.5.7 How does the institution communicate its quality assurance policies, mechanisms and outcomes to the various internal and external stakeholders?

Any other relevant information regarding Governance Leadership and Management which the college would like to include.

The institution has always sincerely and seriously ensured to communicate its quality assurance policies, mechanisms and outcomes to the various internal stakeholders at regular intervals. The institution is committed to provide state of the art facilities and cutting edge technologies to its students. The dedicated services rendered by the management, faculty, staff and students will make this institution a strong learning and resource centre.

CRITERIA VII: INNOVATIONS AND BEST PRACTICES

7.1 Environment Consciousness

7.1.1 Does the Institute conduct a Green Audit of its campus and facilities?

Yes, the basic philosophy of AKGEC, coupled with processes and activities is oriented towards environmental sustenance and eco friendliness. The architecture, design and construction of college building is such that bricks and stones are used maximum and cement plastering is minimal which makes it maintenance free. The architecture of buildings ensures maximum sunlight on all floors. This allows high circulation of natural air and green plantations to flourish on all floors. The buildings are thermally insulated which keeps the temperature lower in summers and higher in winters, thereby reducing the need of power consumption. A network of rain harvesting systems ensures continuous recharging of ground water table. The sewage treatment plant recycles the water filtered through its beds for horticulture needs of green lawns, hedges and plantations of college. Each block and building is surrounded by large open areas on which green lawns, hedges and plants maintain a healthy balance with environment.

There is high focus on conservation of natural resources. A committee on energy conservation ensures usage of electricity only where and when needed with minimum wastage. The committee also promotes procurement and installation of efficient electrical systems to save electricity. Installation of solar heaters provides hot water in the hostels without usage of electricity. Automatic water dispensers are used in toilets to avoid continuous running of water. Special efforts are made to co-ordinate trips of various vehicles to optimize their usage.

The waste management area is given high priority. The recyclable garbage waste and non recyclable wastes are dumped in specified containers / dustbins. A separate agency with specialized expertise and dealing in waste collection and disposal has been hired to collect the wastes on daily basis. This company processes the bio-degradable waste to make manure and disposes off cyclable & non-cyclable wastes as per established norms of Government.

7.1.2 What are the initiatives taken by the college to make the campus eco-friendly?

Energy conservation

Following measures have been undertaken to make the campus eco-friendly:

- The architecture of buildings ensures maximum sunlight on all floors, thereby minimizing requirement / usage of heat and light.
- A committee on energy conservation ensures usage of electricity only where and when required with minimum wastage. The college has gradually moved on from normal light bulbs (least required wattage) to tube lights, slim lights, CFLs and LEDs thus conserving energy to the extent required. This committee also promotes procurement and installation of efficient electrical systems to save electricity. Automatic water dispensers are used in toilets to avoid continuous running of water.
- High capacity air conditioners are kept off at all the times unless these areas are fully occupied. The thermostats of all air conditioners are set at 25 degrees or above so as to avoid wastage as well as ensuring well being of individuals which could be due to sudden increase / decrease of temperature.

Regular interaction / advice / actions by faculty and staff help in inculcating the habit of switching off the lights / fans, etc, when not required. Surprise checks and regular notices reinforce this aspect. Feedback and suggestions aimed towards conserving energy are encouraged.

All water coolers have been connected through aqua guard water filtration machine. To avoid wastage of water / electricity through overflow, automatic cut-off mechanism has been installed. However, to ensure clean and healthy water supply at all times, all aqua guard machines are constantly monitored and inspected on monthly basis by a team which reports for immediate rectification, if required; under an agreement with the firm. The culture of cook / serve only what is required is impressed upon. The dining strength is arrived at through roll call of hostellers in the evening and to ensure no wastage of food, respective warden daily reports the quantum-whether left in individual's plate or at the serving counter thus bringing awareness across the board.

Use of renewable energy

Use of renewable energy is accorded due importance and priority. Solar heaters have been installed in all the six hostels (three for boys and three for girls) and their serviceability is ensured at all times through servicing from the firm annually.

Water harvesting

A network of rain water harvesting system ensures continuous recharging of ground water table. A monthly internal audit system of this Water harvesting system is carried out and is accorded due importance.

Efforts for Carbon neutrality

The bricks and stones used in construction of structures within campus minimize cement plastering which makes it maintenance free. The architecture of buildings ensures maximum sunlight on all floors. This allows high circulation of natural air and green plantations to flourish on all floors. Monthly inspection of college vehicles, timely PUC check and restricted entry of vehicles inside the campus ensures lowest possible emission and pollution free environment thereby neutralizing the carbon effect.

Plantation

Each block and building is surrounded by large open areas on which green lawns, hedges and plants maintain a healthy balance with environment. Monthly inspection is carried out of entire campus is carried out (in letter and spirit) to review the patches for de-weeding, plantation and reorientation according to weather.

Hazardous waste management

Waste management is given high priority. The recyclable garbage waste and non- recyclable wastes are dumped in separate and specified containers / dustbins. A separate agency with specialized expertise in waste collection and disposal has been hired for waste collection on

daily basis. The agency also processes bio-degradable waste to make manure and disposes off cycle able and non-cyclable wastes as per established norms. In addition to the above, due importance is given at the time of procurement itself wherein quality product is only purchased with buy-back clause invariably included and later exercised to avoid items viz. batteries, etc falling in scrupulous hands / usage.

E-waste management

The institution practices effective e-waste management techniques by disposing off the e-junk in the prescribed manner.

Awards:

The college is awarded with following environmental and social awards:

- Paryavaran mitra samman by Paryavaran sachetak samiti in 2010.
- Best technical institution garden trophy during annual flower show- 2010 organized by Ghaziabad development authority.
- Best garden award in garden tourism festival 2010 by Delhi tourism.
- Best institutional garden award during annual flower show Ghaziabad-2014

7.2 Innovations

7.2.1 Give details of innovations introduced during the last four years which have created a positive impact on the functioning of the college.

➤ Our college has introduced many systemic innovations during the last four years in the following areas which have created a positive impact on the functioning of the college.

1. HoD Class check: HoDs check two classes of their respective department per week to assess firsthand the quality of lectures delivered by the faculty. Regular guidance and corrective action through these checks have significantly improved the teaching methodology and standard.

2. Faculty Seminars and Journal Review: A system has been introduced whereby every faculty member reads and reviews a paper published in a reputed national/international journal. Also, weekly faculty seminars are conducted in each department. These have promoted a culture of faculty members keeping abreast with the latest technological developments in their field of interest as well as sharing and cross fertilization of ideas.

3. Incentive to faculty for Paper Publication etc.: Faculty members publishing their research papers in reputed journals and conferences are given cash awards ranging from Rs. 5000 to Rs. 10000 per paper. These have proved a source of encouragement and motivation to faculty for taking up research.

4. Encouragement for higher studies: Faculty members are encouraged to pursue higher studies during their service tenure. Study Leave is also granted to faculty members selected in fellowship programs. Incentives of Rs. 1000 per month for each year of service for M.Tech and Rs 10000 per month for Ph.D have been introduced to encourage faculty members to upgrade their qualifications.

5. Buddy and Mentorship Program: Special attention is required to be paid to weak students in a class to enable them to improve. The college has introduced a structured system whereby weak students are identified and paired with an academically bright buddy who helps him with his difficulties, assignments etc. Also good students of IV year conduct doubt clearing classes for selected difficult subjects for the junior students of II and III years. These programs have helped in improving the pass percentage and bringing up weak students.

6. Pre-University Test (PUT): As per the university norms of UPTU, colleges are required to conduct two internal exams every semester. To improve the performance of students, our college has introduced an additional full syllabus pre- university exam at the end of each semester. The question papers of the pre-university exams are on the lines of university exams. With the introduction of this exam there has been a marked improvement in the university exam results.

7. Model Solutions: Faculty members make model solutions for the question papers of all the three internal exams as well as the end semester university exams. These solutions are made available to students in the central library. Students are allowed to take copies of the solutions. This has curtailed the tendency of students referring to non standard books and has significantly improved the performance of students in exams.

7.3 Best Practices

7.3.1 Elaborate on any two best practices in the given format at page no. 98, which have contributed to the achievement of the Institutional Objectives and/or contributed to the Quality improvement of the core activities of the college.

Best Practices (A)

1. **Title of Practice** : Industrial collaboration for improving student employability.
2. **Goal** : To provide industry relevant training, and other skill sets to students to make them globally competitive and employable in eminent high technology multinational industries.
3. **The context** : The biggest challenge facing engineering education and institutions today is the poor level of employability of graduating students. The primary reason for this, other than the poor quality of education, is the complete disconnect between industry and academic institutions, both of which have been operating in separate isolated domains. This has lead to the academic curriculum and teaching being inadequate in meeting the industry requirement.

There is a definite and urgent need for close collaboration between academic institutions and industries so that the graduating students have the potential to be gainfully employed and can positively contribute to industrial production and growth. This collaboration needs to be at many levels ranging from updation of curriculum, establishment of state-

of-art laboratories for skill upgradation of students, backward integration for reducing training resources of industries, to joint application oriented research and development.

4. **The Practice** : The college has taken cognizance of this urgent need for improving employability of students through close collaboration with industries. Providing industry relevant training and skills have been made a KRA in the college and concerted efforts have been made to improve the employability of graduating students. Some of the efforts made in this direction are briefly described here.

(a) **Establishment of Industrial Centres of Excellence**: The college has collaborated with a number of eminent multinational industries to establish various centres of excellence. These centres include Industrial Robotic Training Centre in Collaboration with Kuka Robotics of Germany, NI-LabView Academy in collaboration with National Instruments, Centre of Competence in Automation Technologies in collaboration with Bosch Rexroth, Industrial Pneumatic knowledge Centre in collaboration with Janatics, PLM Centre of Excellence in collaboration with Siemens and an Integrated Automation Centre in collaboration with Pepprl & Fuchs. These centres provide industry relevant trainings in various multidisciplinary technologies at various levels from basic to expert with internationally recognized certifications. The centres also promote industry sponsored project and development activities.

(b) **Co-curricular Industry Relevant Programs**: With a view to bridge the gap between industry requirement and academic curriculum, the college has started many curricular training programmes conducted by competent authorized organizations. These programs are conducted after working hours or on week ends and train the students to be suitable for industry requirement. The college has a Microsoft Academy preparing students for Microsoft Certification, Networks Academy to train students for CCNA & CCNP certification and a Java Academy. The college also conducts training in various Computer Aided Design (CAD) packages like Pro-E and Catia .

(c) **Infosys Campus Connect Program** : The college conducts this program in collaboration with Infosys to prepare its students for absorption in a range of Software and IT industries. The training is conducted by faculty members trained by Infosys and arranged for selected students on week ends.

(d) **Personality Development Program** : Communication and other soft skills are an integral part of holistic education required for all round development of students. Soft skills also play an important role in improving the employability of students. In consideration of these factors, the college has introduced well structured 100 hours Personality Development Programme conducted by a professional agency.

This program is conducted on week ends and is compulsory for all II year students of the college.

5. **Evidence of Success** : The above initiatives and measures taken by the college to bridge the gap between industry requirements and academic curriculum have paid very rich dividends in improving the employability of students. The college placements have been steadily improving in terms of number of companies coming to campus, number of students employed as well as quality of placements. It is noteworthy that the college placements did not decline even during the total recessionary phase the country's economy and industry passed through.

6. **Problem Encountered & Resources Required** : The curriculum being fixed for four years by the university has posed a constraint in dynamically modifying and updating it to suit the changing industry needs. However, the college has effectively overcome this constraint by introducing industry relevant training programs as co-curricular courses conducted for students after working hours, on week ends and during summer / winter holidays. The establishment of so many state-of-art centers of Excellence equipped with the training set-ups and facilities being presently used in industry required huge funds. Since the college could not afford such expenditure from its resources generated through tuition fees, long term collaborations have been established with industries. Under these collaborations the facilities have been set up by these industries as partners of the college at very nominal subsidized costs. The centres are being operated with the support and in co-ordination with these industries in a manner that they prove to be mutually beneficial to both in the long run.

Best Practices (B)

1. Title of Practice :

Improving Teaching Learning Process for better Academic Standards

2. Goal :

To create a student -centric learning environment and systems to enable students to realize their full potential and graduate with adequate professional competence required by the present day technologically advanced multinational industry.

3. The Context :

With the swift growth in engineering education, the quality and academic standards have suffered. The poor quality and professional competence of engineering graduates has lead to increasing unemployment. The quality of graduating students is related to the intake spectrum or entry level competence, as well as the quality of physical and human resources deployed by the institution. The college has persistently focused on these factors and tried to create student centric learning systems and processes to improve the professional competence of students across the entire spectrum starting from weakest to the brightest student.

4. The Practice :

The college has focused and attempted to address all factors and facets of academic activity that have an impact on quality and standard. As regards physical resources, the college has provided well equipped and adequate class rooms, laboratories, library and other resources required for excellence. Towards human resource, the merit based admission policy has ensured a good spectrum of students in college. The recruitment policy of the college has lead to selection and retention of highly qualified, experienced and devoted faculty providing maximum value addition to students. A number of innovative academic systems have been introduced to improve the academic learning and performance of students. These include introduction of Quizzes / class tests to improve continuous learning; introduction of additional Pre-University Test to give a real-time practice for final University exam; a series of incentives and awards for attendance, sessional performance etc. to keep students motivated. Efforts have been made to identify and pay special attention to weak students by way of engaging them with bright students though buddy program and providing extra doubt clearing sessions through the mentorship program.

5. Evidence of Success :

The above mention concerted, focused and persistent efforts have resulted in significant improvement in quality and academic standard of students. At the lower level of weak students, the failure rates have reduced significantly and the college has been having the best results in terms of pass percentages. The overall quality improvement is evident from the high class averages and a large number of students of the college featuring in University merit lists. The college has consistently maintained itself in the highest category of $\alpha+3\sigma$ of the University Comparative Gross Average Intellectual Attainment Chart.

6. Problems Encountered & Resources Required

The improvement in physical infrastructure as well as retention of highly qualified and experienced faculty has necessitated additional funding. With the limitation of its income though academic fees being fixed by the State Govt., the college had to resort to borrowing from bank to meet the requirement. At the working level the usual problems of resistance to change and absorption of new systems have been overcome through regular briefings and discussions to ensure that these are implemented wholeheartedly with conviction.

7. Contact Details

Name of the Director: Dr. R.K. Agarwal

Name of the Institution: Ajay Kumar Garg Engineering College, Ghaziabad, U.P.

Pin Code: 201009

Phone (O): 0120-2762841 to 51 Fax: 0120-2761844, 45

Website: www.akgec.in

E-mail: directorakg@akgec.org

3. Evaluative Report of the Departments

- Name of the department: **Applied Sciences & Humanities (AS & Hum.)**
- Year of Establishment: **2005**
- Names of Programmes/Courses offered: **B.TECH/UG**
- Names of Interdisciplinary courses and the departments/units involved: **NIL**
- Annual/ semester/choice based credit system (programme wise): **Semester**
- Participation of the department in the courses offered by other departments
The department faculty members teach in all other departments.
- Courses in collaboration with other universities, industries, foreign institutions, etc.
NIL
- Details of courses/programmes discontinued (if any) with reasons **NIL**
- Number of teaching posts

Designation	Sanctioned	Filled
Professors	60	1
Associate Professors		02
Assistant Professors		42
Other Department Faculty teaching I st year		15

- Faculty profile with name, qualification, designation, specialization, (D.Sc./D.Litt. /Ph.D. / M. Phil. etc.,)

S.No.	Name of Faculty	Qualification	Designation	Specialization	Experience	No. of Ph.D students guided for the four years
1.	Prof. P. K. Sharda	B.Tech. M.Tech	Prof.	Microwave & Radar communication	32.5 yrs	N.A.
2.	Dr. B B Verma	B.Sc., M.Sc., Ph.D.	Associate Prof.	Inventory control	15.5 Years	1
3.	Dr. Shiwani Singhal	B.Sc., M.Sc., M.Phil, Ph.D.	Associate Prof.	Organic chemistry	14.5 Yrs	Nil
4.	Dr Manoj Kr Goyal	B.Sc., M.Sc., M.Phil, Ph.D.	Asst. Prof.	Graph theory	17 Years	Nil

5.	Dr Sandeep gupta	B.Sc., M.Sc., Ph.D.	Asst. Prof.	Municipal solid waste management	9 years	Nil
6.	Bandana Sharma	B.Sc., M. Sc., B.Ed, Ph.D(Submitted)	Asst. Prof.	Spectroscopy	8.5 years	N.A.
7.	Ms. Meenakshi Sinha	B.Sc., M.Sc., Ph.D.(Pursuing)	Asst. Prof.	Transformation	13 Years	N.A.
8.	Dr. Nitya Sharma	B.Sc., M.Sc., M.Phil, Ph.D.	Asst. Prof.	Organic metallic chemistry	15.5 years	Nil
9.	Dr. Niti Maheshwari	B.Sc, MSc, PhD, GATE	Asst. Prof.	Analytical chemistry	11 yrs	Nil
10.	Mr.Pankaj Aggrawal	B.Sc., M.Sc., M.Phil., Ph.D.(pursuing)	Asst. Prof.	Inventory management	10 Yrs	N.A.
11.	Dr. Tarun Jeet Singh	B.Sc., M.Sc., NET(JRF), Ph.D.	Asst. Prof.	Inventory management	9 Years	1
12.	Dr. Ruchira Goel	B.Sc.(H), M.Sc., Ph.D.	Asst. Prof.	Topological spaces & graph theory	19 years	Nil
13.	Ms. Ritu Gupta	B.Sc., M.Sc., M.Phil, Ph.D. (pursuing)	Asst. Prof.	Measurement of Effectiveness and reliability models.	6Yrs	N.A.
14.	Ms. Shimli Verma	B.Sc., M.Sc., Ph.D. (pursuing)	Asst. Prof.	Approximation of some problems by Linear positive operators	12 Yrs	N.A.
15.	Mr. Vikas Rathi	B.Sc., M.Sc., M.Tech., NET, Ph.D.(Pursuing)	Asst. Prof.	Holography	11 Yrs	N.A.
16.	Dr. Aniruddh Singh	B.Sc, M.Sc, Ph.D, NET	Asst. Prof.	Nuclear physics	13.5 Yrs	Nil
17.	Mr. Akash Kumar	B.Com., M.A.,MBA.,U.P- SLET., Ph.D (Pursuing)	Asst. Prof.	Indian banking	11 years	Nil
18.	Shilpi Singh	B.Sc. MA, MBA, Ph.D(Pursuing)	Asst. Prof.	HRM & marketing mgmt	11 yrs	N.A.
19.	Mr. Vishal Gupta	B.Sc, MBA, M.A. (Economics), NET-JRF	Asst. Prof.	Marketing, economics	5 years	N.A.
20.	Dr. Gauri	B.A., M.A., M.Phil., Ph.D.	Asst. Prof.	Literature	6.5	Nil
21.	Dr.C.P.Pandey	B.Sc., M.Sc., Ph.D.	Asst. Prof.	Wavelet analysis	12Years	3

22.	Dr Sachin Kumar	B.Sc., M.Sc., Ph.D	Asst. Prof.	Plasma physics	3.8years	1
23.	Ms. Anjali Sharma	MA., M.Phil., B.Ed	Asst. Prof.	Indian women writers writing in English	7 years	N.A.
24.	Dr.Shweta Prakash	B.Sc., M.Sc., Ph.D.	Asst. Prof.	Nuclear physics	12Years	Nil
25.	Dr. Parul Verma	B.Sc., M.Sc., M.B.A,Ph.D.	Asst. Prof.	Wavelet analysis	11 Yrs	Nil
26.	Dr. Abhishek Pathak	B.Sc, M.Sc, Ph.D, NET-JRF	Asst. Prof.	Plasma physics	4 Yrs	Nil
27.	Dr.Sweety Agarwal	B.A.,M.A.,Ph.D.	Asst. Prof.	Drama	10.9 Years	Nil
28.	Mr. Vikas Roshan	B.Sc., MBA, M. Phil, UGC-NET	Asst. Prof.	HRM & marketing mgmt	7 Years	N.A.
29.	Dr. Mukesh Chandra	B.Sc, M.Sc, M.Tech., PhD, NET-JRF	Asst. Prof.	Condensed matter physics	12 years	Nil
30.	Dr. Vimlesh Mishra	B.Sc. M.Sc. NET(JRF) Ph.D.	Asst. Prof.	Photonics	2.7 Years	Nil
31.	Dr Sonali Patle	B.Sc., M.Sc., Ph.D.	Asst. Prof.	Microbial biotechnology	13 Years	Nil
32.	Dr. Kriti Bhandari	B.Sc., M.Sc., Ph.D.	Asst. Prof.	Bio-chemical engineering	6 years	Nil
33.	Dr. Neehar Singhal	B.A., M.A., B.Ed., Ph.D.	Asst. Prof.	English literature	15 years	Nil
34.	Dr Sunil Kumar Jha	B.Sc, M.Sc, B.Ed, Ph.D	Asst. Prof.	Nuclear Physics	1 Year	Nil
35.	Ms.Neha Jain	BBA,MIB,PGDM M,UGC(NET), Ph.D Pursuing	Asst. Prof.	HRM & Marketing Management	5.5	Nil
36.	Ms.Himanshi Rajora	B.Sc , MBA, Ph.D Pursuing	Asst. Prof.	Management	3.5	Nil
37.	Ms.Surabhi Aggarwal	B.Sc, M.Sc.	Asst. Prof.	Mathematics	12	Nil
38.	Ms.Manjeet Kalra	B.Sc, MPM	Asst. Prof.	Management	13	Nil
39.	Dr Nishi Bala Chauhan	B.A.,M.A., Ph.D	Asst. Prof.	Professional Communication	12	Nil
40.	Dr Sanjay Kr Tiwari	B.Sc., M.Sc., Ph.D.	Asst. Prof.	Differential geometry	9.7 Years	1

41.	Dr Vineet Srivastav	B.Sc., M.Sc., Ph.D.	Asst. Prof.	Mathematical modeling & fractional calculus	9.11 Years	Nil
42.	Mr. Rajeev Mishra	B.Sc., MBA	Asst. Prof.	Management	8	Nil
43.	Mr. Pradeep Bhardwaj	B.Com, M.Com, PGDBM	Asst. Prof.	Management	4	Nil
44.	Ms. Neelam Chibber	B.A, MBA	Asst. Prof.	Management	8	Nil
45.	Ms. Soniya	B.Sc.,M.Sc., MPhil	Asst. Prof.	Mathematics	3	Nil

11. List of senior visiting faculty: **No visiting faculty**
12. Percentage of lectures delivered and practical classes handled (programme wise) by temporary faculty: **No temporary faculty**
13. Teacher-Student Ratio (programme wise): **1:15**
14. Number of academic support staff (technical) and administrative staff; sanctioned and filled:

S. No.	Name of Staff	Designation
1.	Mr. Y A. Khan	Lab Assistant
2.	Mr. Rajesh Kumar	Lab Assistant
3.	Mr. Manoj Kumar Sharma	Lab Assistant
4.	Ms. Sheeja Krishna Kumar	Office Assistant
5.	Mr. Praveen Kumar	Office Attendant
6.	Mr. Hemraj	Office Attendant

15. Qualifications of teaching faculty with DSc/ D.Litt/ Ph.D/ MPhil / PG.

No. of Faculties with Ph.D: **24**

No. of faculties with M.Phil/MBA/M.Sc.: **21**

16. Number of faculty with ongoing projects from:

Name of the Faculty	Title of Honour/Award/Fellowship	Institute / Society Committee which conferred
Dr. Sunil Kumar Jha	JAPAN SOCIETY FOR THE PROMOTION OF SCIENCE (JSPS) JSPS/FF1/184	01-12-2012 TO 01-12-2014 (FOR TWO YEARS) KYUSHU UNIVERSITY, TOKYO, JAPAN

17. Departmental projects funded by DST - FIST; UGC, DBT, ICSSR, etc. and total grants received: **NIL**

18. Research Centre /facility recognized by the University: **NIL**

19. Publications: **See Annexure 3A- Research Publications**

20. Areas of consultancy and income generated: **NIL**

21. Faculty as members in

a) **National Committees:**

- Computer Science Teacher Association
- Indian Institute Of Chemical Engineers
- Indian Chemistry Association
- Journal Of Applied And Natural Sciences

b) **International Committees:**

- International Association of Engineering
- International Association of Computer Science & Technology

c) **Editorial Boards:**

- Editor of Intellectual Society For Socio Techno Welfare, Delhi

22. Student projects: **NIL**

23. Awards / Recognitions received by faculty and students:

- On an average 25 to 30 % faculty members of the department got cash awards from the institute for best results for their respective subjects.
- Various faculty members got cash awards for publishing their papers in a reputed journals.
- Dr. Sonali Patle got award for best paper entitled” Bio-Ethanol-The clean fuel in ISFL-2004”

24. List of eminent academicians and scientists/visitors to the department: **NIL**

25. Seminars/ Conferences/Workshops organized & the source of funding

a) National: **NIL**

b) International: **NIL**

26. Student profile programme/course wise: **NIL**

27. Diversity of Students: **Shown Department wise**

28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defense services, etc.? : **NIL**

29. Student progression: **NIL**

30. Details of Infrastructural facilities

(a) Library

S.No.	Parameter	Details
1	Carpet area of Library	1465 Sq.m
2	Reading Space	150 Sq.m
3	No. of Seats in reading space	304
4	No. of Users (issue book)	300 per day
	Number of Users (Reading space)	300 per day
6	No. of Lib. Staff with Degree in Lib.	04
7	Computerization for search, indexing, issue/return records?	Yes
8	Records Bar-coding used?	Yes
9	Timings	Academic Working day 08:30 AM to 09:00 PM (Upto 12 mid night during Weeks preceding exams etc.)
10	INDEST or other similar membership?	BCL,DELNET, IEEE, ASME, Springer, Science Direct, J-Gate, ASTM, McGrawHill

11	Number of titles	6088
12	Number of Volumes	73798
13	Number of New Titles added in 2012-13	506
14	Number of New volumes added in 2012-13	12968

Departmental Library:

Number of Books available	122
Proceedings of National Conferences	Available

(b) Internet facilities for Staff & Students

S.No.	Parameter	Details
1	Internet Provider	C J-Online
2	Available BW	100 Mbps
3	Access Speed	Good
4	Availability in an exclusive lab	Yes
5	Availability in most computing labs	Yes
6	Availability in departments and other units	Yes
7	Availability in faculty rooms	Yes
8	Institute's own e-mail facility to faculty/students	Yes
9	Security/privacy to e-mail/internet users	Yes

(c) Class rooms with ICT facility

All Class rooms are equipped with LCD Projection Systems, LCD Screens, USB ports for Laptop connectivity, Wireless Audio systems and Green board. These facilities enhance lecture delivery and effective communication. To supplement this process, Internet is available across the campus for online access to lectures of NPTEL and IEEE research papers. 15 classrooms with above features are exclusively available to Department of AS& H.

(d) Laboratories

Level	Name of Lab	Equipments
UG	Physics Lab 1	Newton's ring Experiment
		Half shade polarimeter
		Plane transmission grating
		Carey foster's bridge
		Variation of magnetic field along axis of circular coil
		Stefan's law
		Calibration of voltmeter and ammeter
		ECE of copper using Tangent Galvanometer method
UG	Physics Lab 2	Hall's Effect set up
		Magnetic Susceptibility using Quink's Method
		Four Probe method to find energy band gap
		Hysteresis's Loop for ferromagnetic material
		p-n junction diode
		Fly Wheel
		Ballistic Galvanometer
		Nodal Slide arrangement
UG	Chemistry Lab	Electronic Balance,
		Electric Balance
		pH Meter
		Spectrophotometer
		Distillation Assembly
		Hot Plate
		Oven
UG	Professional Communication Lab	35 Computer Systems (HCL, Dual Core)
		Software-Clarity
		Infinity Digital Language Lab licensed for 31 systems with server
		31 Head phones with speakers

31. Number of students receiving financial assistance from college, university, government or other agencies

B.Tech: Students of SC/ST category gets scholarships as per norms

32. Details on student enrichment programmes (special lectures / workshops / Seminar) with external experts: **NIL**
33. Teaching methods adopted to improve student learning

The teaching methodologies adopted in the college help the students understand Engineering concepts and go beyond the knowledge to higher level of thinking. The teaching methods are strategized to help the students to apply, synthesize to create new knowledge and solve problems. Practical examples are used in the class room to connect theory with application. Laboratory classes give experiential training to the students. Interactive classes include brain storming, question and answer sessions, quizzes etc. encourage creativity amongst students. Special classes are held every semester for weak students.

34. Participation in Institutional Social Responsibility (ISR) and Extension activities

In addition to the technical, sports and cultural activities, the college hosts events in social front as well. This includes events organized by NFCH and rotary club Ghaziabad. Following initiatives have been taken in the previous three years in this direction.

S.No.	Event	Organized By	Details
1	Fund collections	National Foundation for Communal Harmony(NFCH)	The NFCH organizes various fund collections and conduct essay competition on events like “World Communal Harmony Day”.
2	Essay competition	National Foundation Communal Harmony(NFCH)	
3	Blood donation camp	Rotary Club Ghaziabad (RCG)	The College organizes one blood donation camp every year in collaboration with RCG in the last blood donation camp the college contribute a record of 635 units.

35. SWOC analysis of the department and Future plans

The department has highly qualified faculty and very well skilled staff to undertake the theory and practical classes of the students. The department is also well equipped with various Lab facilities, training aids and other infrastructure to disseminate the required knowledge according to the syllabus and beyond syllabus to the students. However on

analysis certain deficiencies were felt by the faculty and adequate measures have been taken to improve these areas. The details of the above are as follows.

Strength	1). The department of AS &H is a multidisciplinary department that covers a wide spectrum of subjects.
	2). It contributes towards building a base of students and bridges the gap between school education and undergraduate (professional) courses.
	3) 40% of subjects in II year and almost 20% in III year(all branches) are taught by the department of AS & H.
Weakness	Sometimes diversity can also act as a challenge in co-ordination of Activities
Opportunities	Professional education requires the holistic development of the students. The department has an edge because it contributes not only in strengthening the foundation of a student in basic sciences but also plays a crucial role in providing value based education through subjects like Management and professional communication. This can be diversified by including subjects viz. project management and risk management to make the students more job-ready.
Causes	Diversification can also lead to lack of co-ordination.
Future Plans	1). To make use of highly qualified faculty in research work.
	2). To orient the students towards ethical professional conduct and good moral values right from the beginning of their college education
	3). To collaborate basic sciences with technology and open a new window of opportunities
	4). To make use of labs like Physics lab in research related projects and Language lab for enhancing communication skills of students

3. Evaluative Report of the Departments

1. Name of the department: **Civil Engineering Department**
2. Year of Establishment: **2012**
3. Names of Programmes / Courses offered: **B.TECH/UG**
4. Names of Interdisciplinary courses and the departments/units involved: **NIL**
5. Annual/ semester/choice based credit system (programme wise): **Semester**
6. Participation of the department in the courses offered by other departments
The department faculty teaches all Civil Engineering subjects in B.Tech 1st year.
7. Courses in collaboration with other universities, industries, foreign institutions, etc.
NIL
8. Details of courses/programmes discontinued (if any) with reasons **NIL**
9. Number of teaching posts

Designation	Sanctioned	Filled
Professors	1	1
Associate Professors	1	0
Asst. Professors	6	6

10. Faculty profile with name, qualification, designation, specialization, (D.Sc./D.Litt. /Ph.D. / M. Phil. etc.,)

S. No.	Faculty Name	Qualification			Designation	Specialization	No. of Years of Experience	No. of Ph.D. Students guided in last 4 years
1	Prof. Bharat Bhushan Prasad	Ph.D	M.Tech	B.Tech	Professor	Civil Engineering	33	1
2	Mr. Vijay Lokesh Singh	-	M.Tech	B.Tech	Assistant Professor	Surveying	1	NIL
3	Ms. Meenakshi Singh	-	M.Tech	B.Tech	Assistant Professor	Structural Analysis - I	1	NIL
4	Mr. Ashish Kumar Kashyap	-		B.Tech	Assistant Professor	Hydraulics and Hydraulic Machines	Fresher	NIL
5	Mr. Abhinav Singh	-		B.Tech	Assistant Professor	Geo informatics	Fresher	NIL
6	Mr. Waqar Ahmad	-		B.Tech	Assistant Professor	Building Material Construction	Fresher	NIL
7	Mr. Prateek Jhanji			B.Tech	Assistant Professor	Building Material Construction	Fresher	NIL

11. List of senior visiting faculty **No visiting faculty**
12. Percentage of lectures delivered and practical classes handled(programme wise) by temporary faculty **No temporary faculty**
13. Student -Teacher Ratio (program me wise) **1:15**
14. Number of academic support staff (technical) and administrative staff; sanctioned and filled :

Sl. No.	Name of Staff	Designation
1	Mr. Mirdul Sharma	Lab. Assistant
2	Mr. Pramod Yadav	Lab. Assistant
2	Ms. Seema Shishodia	Office Assistant

15. Qualifications of teaching faculty with DSc/ D.Litt/ **Ph.D**/ MPhil / PG.

No. of Faculties with Ph.D : 1

No. of Faculties with M.Tech : 2

No. of Faculties with B.Tech : 4

16. Number of faculty with ongoing projects from: **NIL**

a) National agencies and grants received : **NIL**

b) International funding : **NIL**

17. Departmental projects funded by DST - FIST; UGC, DBT, ICSSR, etc. and total grants received: **NIL**

18. Research Centre /facility recognized by the University: **NIL**

19. Publications:

CIVIL ENGINEERING DEPARTMENT

Sl. No.	Name of author	Title of paper	Month and year of publication	Publication detail
2012-13				
1.	Dr. B.B.Prasad	A case Study of Different Strain Level of Buried Pipeline system for Dehradun City.	May 2013	Journal of Structures & Civil Research, Vol.2, No.2,
2.	Dr. B.B.Prasad	A comparative Study of Lateral Pipe with fixed supporting Conditions for different Soils in India	June 2013.	Electronic Journal of Geotechnical Engineering (EJGE), Vol.18,2013, pp.1279-1291.
3.	Dr. B.B.Prasad	Reliability Based Design of Machine Foundations	June 2013	National Conference on Emerging Trends in Mechanical Engineering
2013-14				
1.	Dr. B.B.Prasad and Shubham Singhal	Nanotechnology for Construction Industry	June 2014	Colossal Journal of Civil Engineering. AKGEC Vol .1, No.1.March 2014
2.	Dr. B.B.Prasad and Shubham Srivastava	Application of Remote Sensing	June 2014	Colossal Journal of Civil Engineering. AKGEC Vol .1
3.	Dr. B.B.Prasad	Dynamics of Vibration Measurement	June 2014	Colossal Journal of Civil Engineering. AKGEC Vol .1
4.	Mrs. Meenakshi Singh	Compressive Strength Of Concrete Using Fuzzy Logic	June 2014	Colossal Journal of Civil Engineering. AKGEC Vol .1
5.	Dr. B.B.Prasad	Vibration Isolation and control in Civil Engineering.	June 2014	AKGEC International Journal of Technology Vol.5, No.1

20. Areas of consultancy and income generated: **NIL**

21. Faculty as members in

- a) National committees : **NIL**
- b) International Committees : **NIL**
- c) Editorial Boards : **NIL**

22. Student projects: **NIL**

23. Awards / Recognitions received by faculty and students :

S. No.	Name	Session	Year	Award for Amount
1.	Dr.B.B.PRASAD	2012-13 2013-14	I Year	5000 10000

24. List of eminent academicians and scientists / visitors to the department: **NIL**

25. Seminars/ Conferences/Workshops organized & the source of funding

a) National : **Recent Advances in Mechanical and Civil Engineering (RAMACE-2014) 4-5 , April 2014.**

b) International: **NIL**

26. Student profile programme/course wise: **NIL**

27. Diversity of Students

Name of the Course	Session	% of students from the same state	% of students from other States	% of students from abroad
B.Tech (CE)	2012-2013	98 %	02	NIL
B.Tech (CE)	2013-2014	98 %	02	NIL

28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defense services, etc.? : **Not Applicable**

29. Student progression: **Not Applicable**

30. Details of Infrastructural facilities

a) Library

There is a central resource library center in the Department

S.No.	Parameter	Details
1	Carpet area of Library	1465 Sq.m
2	Reading Space	150 Sq.m
3	No. of Seats in reading space	304
4	No. of Users (issue book)	300 per day
	Number of Users (Reading space)	300 per day
6	No. of Lib. Staff with Degree in Lib.	04
7	Computerization for search, indexing, issue/return records?	Yes
8	Records Bar-coding used?	Yes
9	Timings	Academic Working day 08:30 AM to 09:00 PM (Upto 12 mid night during Weeks preceding exams etc.)
10	INDEST or other similar membership?	BCL,DELNET, IEEE, ASME, Springer, Science Direct, J-Gate, ASTM, McGrawHill
11	Number of titles	6088
12	Number of Volumes	73798
13	Number of New Titles added in 2012-13	506
14	Number of New volumes added in 2012-13	12968

- Internet facilities for Staff & Students.

Internet facility available for all faculty and staff with the help of Wi fi in central library.

- Class rooms with ICT facility

10 Classrooms with a capacity of 75 each are exclusively available with LCD projector and Screens for civil Engineering Students.

- Laboratories.

Curriculum Lab Description	Exclusive Use/Shared ?	Space (sq.m)/No . of Students	No. of experiments	Quality of Instruments	Lab Manuals
Fluid Mechanics (NCE-NCE-351P)	Shared	162/30	10 Experiments	Good	Available
Building Material Construction (NCE-352P)	Exclusive	93.5/30	09 Experiments	Good	Available
Surveying Lab	Exclusive	93.5/30	10 Experiments	Good	Available
Geoinformatics Lab (NCE-452)	Exclusive	93.5/30	09 Experiments	Good	Available
Structural Analysis - I Lab (NCE-451P)	Exclusive	93.5/30	10 Experiments	Good	Available
Hydraulics and Hydraulic Machines(NCE-453P)	Shared	155/30	09 Experiments	Good	Available
Geotechnical Lab . (ECE-551P)	Exclusive	93.5/30	10 Experiments	Good	Available
Transportation Lab. (ECE-552P)	Exclusive	93.5/30	11 Experiments	Good	Available
CAD LAB-1 (ECE-553P)	Exclusive	98.54/30	10 Experiments	Good	Available

31. Number of students receiving financial assistance from college, university, government or other agencies

➤ **B.Tech : Students of SC/ST category gets scholarships as per norms**

32. Details on student enrichment programmes (special lectures / workshops /

seminar) with external experts: **NIL**

33. Teaching methods adopted to improve student learning

➤ **Use of SMART CLASS notes methodology has been adopted in the subjects :**

➤ **LCD projectors are being used in all the classes as teaching aid.**

➤ **Active Learning philosophy is being efficiently used to improve teaching process**

34. Participation in Institutional Social Responsibility (ISR) and Extension activities

The College runs a society for social cause to create awareness about social responsibility among the students. The society is named as National Social Service (NSS) and National Foundation for Communal Harmony (NFCH). The students of Civil Engineering Department actively participate in such activities.

S.No	Event	Organized By	Details
1	Fund collections	National Foundation for Communal Harmony(NFCH)	The NFCH organizes various fund collections and conduct essay competition on events like “World Communal Harmony Day”.
2	Essay competition	National Foundation for Communal Harmony(NFCH)	
3	Blood donation camp	Rotary Club Ghaziabad (RCG)	The College organizes one blood donation camp every year in collaboration with RCG in the last blood donation camp the college contribute a record of 635 units.

35. SWOC analysis of the department and Future plans

The department has highly qualified faculty and very well skilled staff to undertake the theory and practical classes of the students. The department is also well equipped with various Lab facilities, training aids and other infrastructures to disseminate the required knowledge according to the syllabus and beyond syllabus to the students. However on analysis certain deficiencies were felt by the faculty and adequate measures have been taken to improve this

areas. The details of the above are as follows.

Weaknesses	Improvements
Hostel space are inadequate	New First Year boys hostel has been constructed and is operational.
Qualification of faculty at lecturer level need up-gradation	The department consists of Seven Faculty members including one Professors with Ph.D, Six Assistant Professors with M.Tech. The minimum qualification of faculties is M.Tech and one of them is pursuing Ph.D from premier Jamia Millia Islamia, New Delhi.
More effort for skill upgradation of technical supporting staff needed	Technical Staffs are qualified with bachelor degree and relevant experience. They were motivated to pursue training sessions on skill upgradation from time to time.
Habit of self learning amongst student to be strengthened	Self learning processes are initiated through mentorship progammes. Special classes are conducted by bright students in order to teach their juniors and give them right direction and approach in understanding complex problems.
More budget for in house R & D needed	Fund allocation for recurring and nonrecurring budget have been segregated and enhanced. Efforts are on to improve the consultancy and R&D activities in the department.
Lack of sponsored projects and consultancy	In this direction, R & D Activities under Research and Industrial Consultancy Centre (RICC) have been initiated. As the department has been established in 2012, such activities will be taken up subsequently. specially in the area of soil Investigation and Building Material Testing.
Publication of students and faculty to be enhanced	Students have been encouraged to write and publish technical papers in departmental journal Effect are being made to publish the Department journal (Colossal). Faculty members have also contributed papers to the journal with student as co-authors.

3. Evaluative Report of the Departments

1. Name of the department: **Computer Science & Engineering**
2. Year of Establishment: **1998**
3. Names of Programmes / Courses offered (UG, PG, M.Phil., Ph.D., and Integrated Masters; Integrated Ph.D., etc.): **UG B.Tech CSE**
PG M.Tech CSE
4. Names of Interdisciplinary courses and the departments/units involved: **Nil**
5. Annual/ semester/choice based credit system (programme wise): **Semester**
6. Participation of the department in the courses offered by other departments: **Yes**
7. Courses in collaboration with other universities, industries, foreign institutions, etc.:

S. No.	Course Name	Collaborating Industry	Starting Date	No. of batches with no. of students successfully completed
1.	Microsoft Technology Associate Certification	ATS Infotech Pvt. Ltd. (Microsoft Delivery Partner)	November 2012	<ul style="list-style-type: none"> • Two batches with 63 and 83 completed • One batch with 62 students in progress
2.	CISCO Certified Network Associate Certification	Networxx Infotech Pvt. Ltd. (CISCO Certification Training Provider)	January 2013	Two batches of 32 and 34 completed.
3.	Infosys Campus Connect Foundation Program 3.1	Infosys Pvt. Ltd.	June 2006	<ul style="list-style-type: none"> • 2014-15 one batch with 65 students • 2013-14 one batch with 62 students • 2012-13 two batches with 84 students • 2011-12 two batches with 125 students
4.	Oracle Workforce Development Program	Oracle India Private Limited	August 2014	One batch of 13 students in progress.

8. Details of courses/programmes discontinued (if any) with reasons: **Nil**
9. Number of teaching posts

Designation	Sanctioned	Filled
Professors	2+1*=3	4
Associate Professors	5+1*=6	2
Asst. Professors	17+1*=18	23

* For M.Tech Programmes

10. Faculty profile with name, qualification, designation, specialization, (D.Sc./D.Litt./Ph.D. / M. Phil. etc.)

S.No.	Name	Qualification	Designation	Specialization	No. of Years of Experience	No. of Ph.D. Students guided for the last 4 years
1	Prof. B.M. Kalra	M. Tech	Professor	Computer Science	36	Nil
2	Dr. Sachin Kumar	Ph. D	Professor	Computer Networks	12	1
3	Dr. Rajesh Prasad	Ph. D	Professor	Computer Networks	11.5	Nil
4	Dr. Sunita Yadav	Ph. D	Professor	Information Retrieval	11	Nil
5	Ms.Mamta Bhusry	M.Tech Ph.D. (Pursuing)	Associate Professor	Information Technology	23	Nil
6	Mr.Shashank Sahu	M.Tech Ph.D. (Pursuing)	Associate Professor	Computer Science & Engineering	15	Nil
7	Mr. Vikas Goel	M.Tech, Ph.D. (Pursuing)	Asst Professor	Mobile Computing	11	Nil
8	Ms. Inderjeet Kaur	Ph.D.	Asst Professor	Computer Science & Engineering	10	Nil
9	Mr.Akhilesh Verma	M.Tech	Asst Professor	Computer Science	9	Nil
10	Mr. Ajay Kumar	M. E.	Asst Professor	Computer Science & Engineering	9	Nil
11	Ms. Kirti Seth	M.Tech Ph.D. (Pursuing)	Asst Professor	Software Engineering	8	Nil
12	Ms. Deepti Singh	B.E. M.E. (Pursuing)	Asst Professor	Computer Science	9	Nil
13	Mr. Arun Kumar Yadav	M.Tech Ph.D. (Pursuing)	Asst Professor	Computer Engineering	7	Nil
14	Ms. Priyanka Gupta	M.Tech	Asst Professor	Computer Science & Engineering	7	Nil

15	Ms. Nishu Bansal	M.Tech	Asst Professor	IT	7	Nil
16	Mr. Dharmendra Kumar	M.Tech	Asst Professor	Computer Engineering	6	Nil
17	Ms. Shiva Tyagi	M.Tech	Asst Professor	Software Engineering	6	Nil
18	Mr. B. N. Pandey	M.Tech	Asst Professor	CSE	6	Nil
19	Ms. Prachi Maheshwari	M.Tech	Asst Professor	Computer Science & Engineering	5	Nil
20	Mr. Rajeev Singh	M.Tech	Asst Professor	Algorithm , DataStructures	6	Nil
21	Ms. Divya Gupta	M.Tech	Asst Professor	IT(HCI)	5	Nil
22	Ms. Bhawana Malhotra	M.Tech	Asst Professor	Computer Science	4	Nil
23	Ms. Charu Agarwal	M.Tech	Asst Professor	Computer Science	4	Nil
24	Ms. Sangita Rani Satapathy	M.Tech	Asst Professor	Computer Science	4	Nil
25	Ms. Sonam Gupta	M.Tech Ph.D. (Pursuing)	Asst Professor	Computer Networking &	3	Nil
26	Ms. Neeti Chadha	M.Tech	Asst Professor	Cloud Computing	1	Nil
27	Ms. Priyanka Tyagi	M.Tech	Asst Professor	Computer Science	3.7	Nil
28	Ms. Monika Srivastava	B.Tech	Asst Professor	Computer Science	5.5	Nil
29	Mr. Vijay Bhadur	B.Tech	Asst Professor	Computer Science	1	Nil

11. List of senior visiting faculty: **Nil**
12. Percentage of lectures delivered and practical classes handled (programme wise) by temporary faculty: **Nil**
13. Teacher-Student Ratio (programme wise)
UG Ratio: 1:15
PG Ratio: 1:12
14. Number of academic support staff (technical) and administrative staff; sanctioned and filled: **Technical 05 and Administrative Staff 01**
15. Qualifications of teaching faculty with DSc/ D.Litt/ Ph.D/ MPhil / PG.
Ph.D: 04
PG: 22
UG: 03

16. Number of faculty with ongoing projects from a) National b) International funding agencies and grants received: **Nil**

17. Departmental projects funded by DST - FIST; UGC, DBT, ICSSR, etc. and total grants received: **Nil**

Some Projects done in collaboration with industry to offer technical consultancy

S.No.	Name of Company	Project Name	Status
1	Micromatic Grinding Technologies Pvt. Ltd	consultancy projects on IT assests management system	Completed
2	Creative Robotics Pvt. Ltd. Ghaziabad	Development of Vision System for Sheet Inspection	Completed

18. Research Centre /facility recognized by the University: **No**

19. Publications:

a) Publication per faculty: **On an average 2**

b) Number of papers published in peer reviewed journals (national /international) by faculty and students: **See Annexure 3A- Research Publications**

c) Number of publications listed in International Database (For Eg: Web of Science, Scopus, Humanities International Complete, Dare Database - International Social Sciences Directory, EBSCO host, etc.): **30**

d) Monographs: **Nil**

e) Chapter in Books: **2**

f) Books Edited: **3**

g) Books with ISBN/ISSN numbers with details of publishers: **5**

g) Books with ISBN/ISSN numbers with details of publishers: **5**

S.NO.	Name of the Book	Authors	Publisher	Year
1	E-Commerce (ISBN: 81-7008-119-X)	Ms. Mamta Bhusry	Firewall Media	2005-06
2	Data Mining and Data Warehousing (ISBN: 9789380027111)	Dr. Sachin Kumar	Katsons	2010-11

3	Artificial Intelligence(ISBN: 9788192299228)	Mr. Ajay Kumar Ms. Prachi Maheshwari	JLH Publication	2012-13
4	Data Mining in Decision Making (A Multi Rule Algorithm(ISBN: 978-3-8473-0894-2)	Ms. Kirti Seth	Lambert Publication	2012-13
5	Network Technology (ISBN: 978- 93-5014-190-8)	Dr. Sachin Kumar	Katsons	2011-12
6	Network Programming (ISBN: 978-93-5014-123-6	Dr. Sachin Kumar	Katsons	2011-12

h) Citation Index: **1**

i) SNIP: **Nil**

j) SJR: **Nil**

k) Impact factor: 0.37-2.379

l) h-index: **Nil**

20. Areas of consultancy and income generated: **NA**

21. Faculty as members in

a) National committees: CSI, ISCA, IETE

b) International Committees: IEEE, IJCTE,

c) Editorial Board: 1 Proceeding, 2 Journals

22. Student projects

a) Percentage of students who have done in-house projects including inter departmental/programme: **100%**

b) Percentage of students placed for projects in organizations outside the institution i.e.in Research laboratories/Industry/ other agencies: **Nil**

23. Awards / Recognitions received by faculty and students:

- Faculty members got cash awards from the institution for best results and publishing papers in reputed journals. **4 faculty members**
- Students got cash awards from the institution for holding top 10 ranks at University Level and top 3 positions at College Level. **54 Students**

24. List of eminent academicians and scientists / visitors to the department:

Following are the list of eminent academicians and scientists/ visitors to the department in last 3 years:

S. No	Date of Visit	Topic	Name/Designation of the Senior Faculty /Scientist	Department visited
1.	22/02/2013	What is: Pedagogy, Education, Intelligence, Knowledge, Learning, Teaching	Dr. Rob Reilly Visiting Scientist, Center for Educational Computing Initiatives, Massachusetts Institute of Technology, Cambridge, Massachusetts USA	CSE
2.	22/02/2013	Recent Advances in Parallel and Distributed Discrete Event Simulation	Professor Stephen John Turner School of Computer Engineering Nanyang Technological University, Singapore	CSE
3.	22/02/2013	Cloud Computing and Distributed Systems (Privacy and Security)	Prof. Bharat Bhargava Professor of the Department of Computer Science, School of Electrical & Computer Engineering Purdue University, USA	CSE
4.	22/02/2013	Generating Power law behavior in Broadband Communication Networks	Prof. Karmeshu Professor, School of Computer and Systems Sciences, Jawaharlal Nehru University, Delhi, India	CSE
5.	23/02/2013	Automated Human Activity Recognition from video clips	Prof. K. K. Biswas Professor, Computer Science Engineering Department IIT, Delhi, India	CSE
6.	23/02/2013	A short Tour of Randomized Techniques in Algorithm Design	Prof. Sandeep Sen Professor, Computer Science and Engineering IIT Delhi, India	CSE
7.	23/02/2013	Advance Computing	Dr. Satish Chand Professor, Deptt. of Computer Engineering, Netaji Subhas Institute of Technology, New Delhi, India	CSE
8.	23/02/2013	Biometrics and its Threats	Dr. Suneeta Agarwal Professor and Head, Computer Science and Engineering Department, Motilal Nehru National Institute of Technology, Allahabad, India	CSE

9.	23/02/2013	Adhoc Networks	Dr. D.K.Lobiya Associate Professor, Jawaharlal Nehru University, Delhi	CSE
10.	12-13/04/ 2013	Functional Programming	Prof. Arun Kumar, Department of Computer Science Engineering, Indian Institute of Technology, Delhi	CSE
11.	23/04/2014	“Oracle Database”	Ms. Shanti Raju, Key Account Manager, Oracle, Gurgaon	CSE
12.	12/03/2014	“Microsoft Silverlight”	Mr. Anil Kumar Singh Director, CETPA Infotech Pvt Ltd., Noida	CSE
13.	26/02/2014	ITIL Foundation and Project Management	Mr. Anurag Shankar, PMP and ITIL certified, Ahana Global Ventures Pvt. Ltd.	CSE
14.	27/01/2014	“Android – Mobile Industry Transformation”	Mr. Pradeep Kumar, Senior Software Engineer, Inoday Consultancy Pvt. Ltd., Noida	CSE
15.	21/11/2013	Fear Factors of IT students	Dr. B.P. Sharma, Impeccable IT Academy, SE-387A, Shastri Nagar, Ghaziabad, NCR-Region	CSE
16.	22/10/2013	Health Monitoring through Information & Communication Technology(with special emphasis on solution to India’s health care problems)	Prof. David Hewson, University of Technology of Troyes, France	CSE
17.	23/09/2013	Server Load Balancing and clustering	Mr. Deepak Kumar Singh, Sr. J2EE Developer/Trainer	CSE
18.	22/08/2013	JAVA-An Object Oriented Approach	Mr. Najmul Hasan, Sr. J2EE Developer/Trainer	CSE
19.	16/04/2013	ORACLE-All in one Database	Er. Rajat Som, Oracle Trainer/Developer	CSE
20.	19/03/2013	JAVA-An Object Oriented Approach	Mr. Amit Srivastava, System Analyst	CSE
21.	13/02/2013	Software Development	Mr. Rajesh Khedekar, Project Manager	CSE
22.	29/01/13	PHP Technology-An Industrial perspective	Mr. Sudhanshu Kumar, Senior PHP Consultant(Techmento, Noida)	CSE
23.	23/11/12	Research Opportunities in Sensor Network	Dr. Vidushi Sharma, Asst. Professor, GBU, Greater Noida	CSE

24.	17/10/12	SAP: Marking A New Era of Enterprise Resource planning	Mr. Kamal Singh, ERP+SAP Corporate Trainer, Ducat, Noida	CSE
25.	21/09/12	Career Opportunities in Technical writing	Mr. Vijay Malik, Director, Information Development Tech Solutions Pvt Ltd	CSE
26.	21/08/12	“Software Development & Testing”	Mr. Mohit Chhabra Software Developer SOPRA Group Pvt Limited, Noida	CSE
27.	17/04/12	“Overview of ERP Product-Oracle Applications”	Mr. Vijay Kumar Sharma Functional Consultant, Oracle Applications, Bangalore	CSE
28.	27/03/12	“Multiprotocol Label Switching (MPLS)-A Solution for Seamless Network Connection”	Mr. S.H. Abbas Mehdi Assistant Director, Software Technology Parks of India, Ministry of Communication & Information Technology, Govt. of India, Noida	CSE
29.	24/02/12	“Mobile Computing Evolution”	Mr. Ashish Dixit Software Engineer Samsung India Electronics Pvt. Ltd., Noida	CSE
30.	27/01/12	“Virtualization-The Art of Virtual Version of Computing”	Mr. Saurabh Singh Senior Associate, Head Strong, Noida	CSE
31.	03/11/11	“Routing Protocols”	Mr. Vishal Kumar Sr. Software Engineer, Samsung India	CSE
32.	21/10/11	“Android - Software stack for mobile devices”	Mr. Amod Kumar Trainer, CETPA , Noida	CSE
33.	23/09/11	“Welcome to cloud computing- A paradigm shift”	Mr. Deepak Talwar Associate Manager, Symantec Software Solution Ltd., Noida.	CSE
34.	20/04/11	Internet Security and Ethical Hacking	Mr. Santu Purkait, Director, Nettech Private Limited	CSE
35.	09/02/11	Security Threat Landscape – A Paradigm Shift	Mr. Deepak Talwar, Associate Manager Special Programs, South Asia, Symantec Software Solutions Ltd., Noida	CSE
36.	13/09/10	Present Corporate Requirements	Mr. Sumit Pandey, Technical Consultant, Smart Chip Ltd., Noida	CSE
37.	25/08/10	Oracle & Concept of Data Warehouse	Mr. Deep Dinesh, Senior Software Engineer, NIIT Technologies, Noida	CSE
38.	21/04/10	Technical Writing : A Great Career Option	Mr. Vijay Malik, Lead Technical Writer, Samin TekMindz, Ghaziabad	CSE

39.	19/03/10	Hibernate	Mr. Prakash Rastogi, Director, Sarvodaya Institute of Software,Ghaziabad	CSE
40.	19/02/10	Advanced Embedded Technologies	Mr. Pravjot Singh, Project Lead, Real Time & Embedded Systems, Miracle Technologies, Noida	CSE
41.	13/11/09	Web Development using Net Framework	Mr. Sujoy Dutta, Project Management Consultant, Sarvodaya Institute of Software,Ghaziabad	CSE
42.	23/10/09	Effect of Recession in IT Industry: Current Scenario & Surviving Skills	Mr. Abhishek Verma, Technical Head, Indusroot Technologies, Delhi Mr. Nishant Jain, Manager, Punj Lyod, Noida Mr. Amit Jain, Head Business Development, Indusroot Technologies, Delhi	CSE
43.	19/09/09	.Net Present Scenario and Its Future Outcome	Mr. Dharamvir Singh	CSE
44.	28/08/09	Next Generation Networks for Multimedia	Chief Guest Lt. Gen A. K. Agarwal, President IETE	CSE
45.	10/04/09	Information Technology in Business Transformation	Prof. A. K. Sharma, CITMFaridabad	CSE
46.	24/03/09	Career Progression	Mr. Baba Varanasi, Operation Lead, CSC Noida	CSE
47.	21/03/09	Information Security	Mr. Bharat Bhushan, Safenet India, Noida	CSE
48.	06/02/09	A Pathology of Contemporary EnterpriseNetwork & Security	Dr. Krishan Anand, CEO B&M Computers Intl. Australia	CSE
49.	31/01/09	Training on Use and Updation of Anti Virus Packages	Mr. Sandeep Pandey, Microword	CSE
50.	17/11/08	JAVA Technology with Sun Microsystems	Mr. Abhishek Mahanty, NIIT	CSE
51.	06/06/08	HTTP on Network Security and Ethical Hacking	Mr. Atul Agarwal, Innobuzz Corporation Ltd, Delhi	CSE

25. Seminars/ Conferences/Workshops organized & the source of funding

a) **National:**

- FDP on functional Programming was conducted on 12-13 April 2012.
- FDP on “Role of Life Sciences in significance to IT, Software Quality Assurance Software Estimation, Cloud Computing and security in Cloud Computing was organized by TCS on 14 January 2012.
- Faculty Development Programme on “Routing and Switching” conducted by Mr. Asfaq Dar was organized successfully on 15-19, July, 2013.
- FDP on Microsoft Technologies .Net, C# and SQL Server was conducted on 14-19 July 2014.

c) **International:**

- International Conference IACC-2013 organized on 22-23 February 2013(Source of funds: IEEE, College funds, stakeholders: NIXI, Jackson)

26. Student profile programme/course wise:

Name of the Course/programme	Applications received	Selected	Enrolled		Pass percentage
			*M	*F	
B.Tech CSE	Through UPSEE Counseling	186	138	48	95.20%
M.Tech CSE	Through Counseling	23	6	17	-

*M = Male *F = Female

27. Diversity of Students

Name of the Course	% of students from the same state	% of students from other States	% of students from abroad
B. Tech 2012-13	96.80	3.20	0
B. Tech 2013-14	95.16	4.84	0
M. Tech 2012-13	93.75	6.25	0
M. Tech 2013-14	100.00	0.00	0

28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defense services, etc.?

GATE INFORMATION

Year	2014		2013		2012		2011	
	No. of students appeared	No. of students qualified	No. of students appeared	No. of students qualified	No. of students appeared	No. of students qualified	No. of students appeared	No. of students qualified
	27	14	54	17	16	15	11	7

CAT INFORMATION

Year	2014		2013	
	No. of students appeared	No. of students qualified	No. of students appeared	No. of students qualified
	5	5	2	2

INDIAN NAVY

Year	2014		2013		2012		2011	
	No. of students appeared	No. of students qualified	No. of students appeared	No. of students qualified	No. of students appeared	No. of students qualified	No. of students appeared	No. of students qualified
	61	Nil	45	NIL	56	NIL	81	3

29. Student progression

Student progression	2014 Passout Batch (No. of Students)	2013 Passout Batch (No. of Students)	2012 Passout Batch (No. of Students)	2011 Passout Batch (No. of Students)
UG to PG	19	19	15	7
PG to M.Phil.	Not available			
PG to Ph.D.				
Ph.D to Post-Doctoral				
Employed	126	124	144	144
• Campus selection	-	-	-	-
• Other than campus recruitment				
Entrepreneurship/Self-employed	Not available			

30. Details of Infrastructural facilities

a) **Central Library**

S.No.	Parameter	Details
1	Carpet area of Library	1465 Sqm
2	Reading Space	150 Sqm
3	No. of Seats in reading space	304
4	No. of Users (issue book)	300 per day
5	Number of Users (Reading space)	300 per day
6	No. of Lib. Staff with Degree in Lib.	04
7	Computerization for search, indexing, issue/return records?	Yes
8	Records Bar-coding used?	Yes
9	Timings	Academic Working day 08:30 AM to 09:00 PM (Upto 12 mid night during Weeks preceding exams etc.)
10	INDEST or other similar membership?	BCL, DELNET, IEEE, ASME, Springer, Science Direct, J-Gate, ASTM, McGrawHill
11	Number of titles	6088
12	Number of Volumes	73798
13	Number of New Titles added in 2012-13	506
14	Number of New volumes added in 2012-13	12968

Departmental Library:

Number of Books available	308
Proceedings of National Conferences	Available

b) Internet facilities for Staff & Students: Yes

S.No.	Parameter	Details
1	Internet Provider	C J-Online
2	Available BW	150 Mbps
3	Access Speed	Good
4	Availability in an exclusive lab	Yes
5	Availability in most computing labs	Yes
6	Availability in departments and other units	Yes
7	Availability in faculty rooms	Yes
8	Institute's own e-mail facility to faculty/students	Yes
9	Security/privacy to e-mail/internet users	Yes

c) Class rooms with ICT facility: Yes

(i) All Class rooms are equipped with LCD Projection Systems, LCD Screens, USB ports for Laptop connectivity, Wireless Audio systems and Green board. These facilities enhance lecture delivery and effective communication. To supplement this process, Internet is available across the campus for online access to lectures of NPTEL and IEEE research papers. 9 classrooms with above features are exclusively available to Department of CSE.

(ii) In order to supplement the process of understanding in certain subjects, audio visual aids in the form of "Smart Classes " have been implemented. These classes are conducted using softwares which are procured from reputed vendors. These classes are conducted along with regular classes and cover the technical aspects of the subjects through an audio-visual representation of various topics. For delivering smart classes, faculty members are provided with mini laptops which are connected with high resolution projection and audio systems already installed in the classrooms. Such software's enhance the level of understanding through a three dimensional representation of the subject taught. This also facilitates the delivery of certain topics beyond syllabus (Certain Novel technologies).

(ii) Laboratories:

S.N.	Name of the laboratory	Area in Sq.M.	Lab / Major Equipments
1	Data Structure Lab	90.3	<u>32 Computers</u> Intel 3.2 GHz Dual core, 1 GB RAM, 160 GB HDD, 17" Monitor, Laser Printer
2	DBMS Lab		
3	Operating System Lab	90.3	<u>32 Computers</u> Intel 3.2 GHz Dual core, 1 GB RAM, 160 GB HDD, 17" Monitor, Laser Printer, LAN Trainer Kit
4	Computer Network Lab		
5	Algorithm Lab	90.3	<u>(34 Computers)</u> Dual core(2.99 GHz, 2.93 Ghz,2.0 GHz), Core 2 Duo (2.0 GHz), P-IV (3.06) GHz, 1 GB RAM, HDD 160 GB, 320 GB, 80 GB, 17 " Monitor, 15.6" TFT, Laser Printer
6	Web Technology		
7	Basic Application Lab	90.3	<u>32 Computers</u> 2.0 GHz Dual core (AMD),1 GB RAM, 160 GB HDD, 17" Monitor , Laser Printer
8	Computer Programming Lab		
9	Project Lab	90.3	<u>22 Computers</u> Intel 3.2 GHz Dual core, 1 GB RAM, 160 GB HDD, 17" Monitor
10	Distriuted system Lab	90.3	<u>37 Systems</u> Intel 3.2 GHz Dual core, 1 GB RAM, 160 GB HDD, 17" Monitor
11	Artificial Intelligence Lab		
12	Digital Image Processing Lab	90.3	<u>37 Systems</u> Intel 3.2 GHz Dual core, 1 GB RAM, 160 GB HDD, 17" Monitor
13	Compiler Lab		
14	Computer Organization Lab	90.3	15 Digital Trainer Kit
15	Digital Logic Design Lab		

M.TECH LAB DETAILS

S.N.	Name of the Laboratory	Area Sq. M.	Lab/Major Equipments	Investments till Date
1	M.Tech. (CSE) Lab	90.3	<u>37 Computer</u> core I3, 2GB RAM, 500 GB HDD, 18.5" LCD Monitor	1183777/-
2	Research & Development Lab	90.3	<u>36 Computer</u> core I3, 2GB RAM, 500 GB HDD, 18.5" LCD Monitor,Laser Printer	1032527/-

31. Number of students receiving financial assistance from college, university, government or other agencies:

B. Tech	2010-11	64
	2011-12	80
	2012-13	74
	2013-14	92
M. Tech	2010-11	2
	2011-12	0
	2012-13	1
	2013-14	2
M. Tech (GATE Scholarship)	2010-11	1
	2011-12	3
	2012-13	14
	2013-14	3
	2014-15	1

5% students are benefitted under fee waivers category on merit basis. Cash award is also given to top three students of every branch.

32. Details on student enrichment programmes (special lectures / workshops /seminar) with external experts:

Special Lectures (Guest Lecture) : 23
 Workshop/FDP : 4
 Seminar : Nil

33. Teaching methods adopted to improve student learning

To improve student learning we focus equally on participatory teaching methods like buddy program, (Teaching others), mentoring program, quality assignments etc. as on Passive teaching methods like lecture, audio-visual and demonstrations.

S. No.	Teaching Method	Description	Remarks
Passive Teaching Methods			
1.	Power Point Presentations/ Animations	Apart from Chalkboard method of lecture delivery, Power Point Presentation of the topics, specially containing very large figures/Drawing, are coupled with verbal explanation by the faculty	It provides structured teaching/learning. Helps students with better learning, content organization and note taking
2.	Toolkits/ Simulators	Various Simulators as well as Toolkits are available in Labs Like Cisco Packet Tracer for Networking Experiments, DIP Toolkit for Digital Image	Provide opportunities for students to explore environments that mirror real-world situations or complex ideas. Provide students with a

		Processing Experiments	realistic experience, enhance learning and increase a student's interest and awareness in the topic,
3.	Virtual Labs	Virtual lab is used for experimentation in various subjects like Computer Programming , Data Structure, Computer Graphics, DBMS etc.	Helps Students in learning advanced concepts through remote experimentation
Participatory Teaching Methods			
4.	Buddy Program(Teaching Other Students)	Top 10 Academically good students are associated with bottom 10 academically poor students to teach them.	This improves the retention rate of good as well as poor students.
5.	Mentoring Program(Peer- to- Peer Teaching)	Senior class students take classes of juniors for doubt clearing	Students who hesitate in asking faculty for their doubts interact well with their Peers.
6.	Quality Assignments	Assignments/case studies are given to students.	Helps in practicing the concepts learn in classes.
7.	Presentations	Students Present their industrial training reports as well as seminars in front of faculty members and peers.	Enhance the understanding and presentation skills of students.

34. Participation in Institutional Social Responsibility (ISR) and Extension activities

In addition to the technical, sports and cultural activities, the college hosts events in social front as well. This includes events organized by NFCH and rotary club Ghaziabad. Following initiatives have been taken in the previous three years in this direction.

S.No.	Event	Organized By	Details
1	Fund collections	National Foundation for Communal Harmony(NFCH)	The NFCH organizes various fund collections and conduct essay competition on events like "World Communal Harmony Day".
2	Essay competition	National Foundation for Communal Harmony(NFCH)	
3	Blood donation camp	Rotary Club Ghaziabad (RCG)	The College organizes one blood donation camp every year in collaboration with RCG in the last blood donation camp the college contribute a record of 635 units.

35. SWOC analysis of the department and Future plans

Strengths:

- The department has highly qualified and experienced faculty with vast teaching and research expertise in various field of computer science. Most of the faculty members are active members of reputed national and international societies like IEEE, CSI, and ISCE. They are deeply involved in research publications and paper reviewing for many leading journals.
- The department attracts talented students from all over India.
- The department has collaboration with INFOSYS, Oracle, Microsoft IT Academy and Network IT Academy for nurturing the students with latest technology and making them industry ready.
- The department has state-of-the-art computer labs. All labs are equipped with latest machines having all requisite software. All machines are connected on college LAN. The department has a Computer Center exclusively for Internet access for students. The college boasts of 150 Mbps Internet bandwidth and Wi-Fi accessibility is available all around the college and hostels.
- The department has its own library with a collection of essential text, reference books and computer magazines. Video CDs of various subjects are also available. The department has access to reputed online journals like IEEE, Springer, Science Direct, ASTM Digital Library, ACME, J-Gate, McGraw-Hill e-books and others which helps faculty to keep pace with the latest advancements and research.
- Various student societies like IEEE student Branch and CONATUS are actively involved throughout the year to explore the scope and excitement of Computer Science and related fields. CONATUS brings to the students the illumination of the knowledge glow in IT sphere with its marvelous events, workshops and seminars. CONATUS publishes a bi-monthly e-magazine 'CONOSCENZA'.
- The department also publishes its bi-annual technical journal “GLIMPSE” to have a comprehensive and concise account of recent trends and technological developments in computer science field.
- The department organizes International Conference, Guest lectures, Seminars, Workshops, and FDPs regularly to keep the faculty and students updated with the latest in the field.
- All graduates of the department find excellent placements in research-oriented industries and top ranking global companies. Alumni of the department are occupying senior positions in PSUs, R&D organizations and eminent national / multinational companies including Infosys, NIIT Technologies, Maq Software, Tech Mahindra, Samsung, HPL, Patni Computers, Nucleus Software, Syntel, IBM, Birla soft etc.

Weaknesses:

- The curriculum is bounded by University Syllabus.
- Somewhat limited diversity/depth of course offerings/research areas. The department lacks in developing interdisciplinary programs because of University affiliation.

Opportunities:

- Responding to pressures for outcomes assessment and for public accountability push us to develop a culture of continuous improvement and apply to ourselves rigorous standards for performance and achievement.
- Being situated in NCR, students are getting good opportunities for training and placements in good multinational companies.

Constraints:

- Due to large number of graduates every year in the country and less job opportunities, students are facing tough competitions in placement drive.
- Some students prefer low-cost, low-quality graduate programs, which is promoting some institutions with low academic standards putting up a challenge for maintaining good standards for other colleges.

3. Evaluative Report of the Department

1. **Name of the department :** Electrical and Electronics Engineering Department
2. **Year of Establishment :** 1998
3. **Names of Programmes / Courses offered (UG, PG, M.Phil, Ph.D., Integrated Masters; Integrated Ph.D., etc.)**
 - B.Tech. in Electrical and Electronics Engineering
Accrediated Since year 2009. Re-accrediation visit held from 07-09th Nov,2014
 - PG – M.Tech in Electrical Power and Energy Systems (started in 2009 with an intake of 18).
4. **Names of Interdisciplinary courses and the departments/units involved**
 - M.Tech in Automation and Robotics, (EN & ME Department)
5. **Annual/ semester/choice based credit system (programme wise)**
 - semester
6. **Participation of the department in the courses offered by other departments**
 - EC, ME, CS
7. **Courses in collaboration with other universities, industries, foreign institutions, etc**
 - Nil
8. **Details of courses/programmes discontinued (if any) with reasons**
 - No
9. **Number of teaching posts**

DESIGNATION	Sanctioned	Filled
Professors	2+1*=3	5
Associate Professors	5+1*=6	NIL
Asst. Professors	17+1*=18	26

* For M.Tech Programmes

10. Faculty profile with name, qualification, designation, specialization, (D.Sc./D.Litt. /Ph.D. / M. Phil. etc.,)

S. No.	Name of Faculty	Highest Qualification	Designation	Specialization	No. of Years of Experience	No. of Ph.D. Students guided for the last 4 years
1	Prof. V. K. Parashar	M.Tech	Prof.	Control Systems	42	-
2	Prof. M. P. Dave	Ph.D Dr-ing	Prof.	Power System	48	3
3	Dr. Bhupal Singh	Ph.D.	Prof.	Control & Instrumentation	20	-
4	Dr. A. K. Rai	Ph.D.	Prof.	Electrical Power & Energy System	18.5	-
5	Dr. Laxman Hari	Ph.D.	Prof.	Power System	36	-
6	Mr. S.S. Sharma	B.Tech	Astt. Prof.	Electrical Engineering	40	-
7	Mr. Ravinder Kumar	M.Tech	Associate. Prof.	Power System	16.5	-
8	Mr. Atul Sood	M.Tech	Associate. Prof.	Control & Instrumentation	12	-
9	Mr. Ritesh Sharma	M.Tech	Associate. Prof.	Power System	10	-
10	Ms. Navjyoti	M.Tech	Astt. Prof.	Electrical Equipments	9.5	-
11	Ms. Vani Bhargava	M.Tech	Astt. Prof.	Electrical Machine and Drives	7	-
12	Ms. Shilpa Shambi	M.Tech	Astt. Prof.	Automation & Robotics	14	-

13	Mr. Gaurav Srivastava	M.Tech	Astt. Prof.	Power System	4	-
14	Mr. Dinanath Parsad	M.Tech	Astt. Prof.	Power System	3.8	-
15	Mr. Anirudha Gautam	M.Tech	Astt. Prof.	Power Electronics and Drive	4	-
16	Mr. Parveen Dhull	M.Tech	Astt. Prof.	Signal Processing	4	-
17	Mr. Deepak Narang	M.Tech	Astt. Prof.	Instrumentation & Control	2	-
18	Mr. Ankit Dixit	M.Tech	Astt. Prof.	Power Electronics and Drive	1	-
19	Mr. Rahul Dixit	M.Tech	Astt. Prof.	Power Electronics and Drive	1	-
20	Ms. Nupur Mittal	M.Tech	Astt. Prof.	Power Electronics and Drive	1	-
21	Mr. Lalitesh Kumar	M.E.	Astt. Prof.	Control Systems	2.9	-
22	Mr. Harikrishna Mudda	M.Tech	Astt. Prof.	Power System	3	-
23	Swapnil Aggarwal	M.Tech	Astt. Prof.	Electrical Power System and Management	3.5	-
24	Ms. Nidhi Maurya	M.Tech	Astt. Prof.	Instrumentation & Control	3.5	-
25	Ms. Isha Jain	B.Tech	Astt. Prof.	Electrical Power & Energy System	4	-
26	Mr. Arun Kumar Sharma	M.Tech	Astt. Prof.	Instrumentation & Control	3	-

27	Ms. Geetanjali Mehta	M.Tech	Astt. Prof.	Instrumentation & Control	3	-
28	Mr. Krishna Kapoor	M.Tech	Astt. Prof.	Instrumentation & Control	3.6	-
29	Ms. Pooja Tomer	M.Tech	Astt. Prof.	Instrumentation & Control	7	-
30	Mr. Santosh Kumar	M.Tech (pur)	Astt. Prof.	Instrumentation & Control	2.5	-
31	Mr. Mahesh Sharma	M.Tech (pur)	Astt. Prof.	Instrumentation & Control	1	-

11. List of senior visiting faculty

- Nil

12. Percentage of lectures delivered and practical classes handled (programme wise) by temporary faculty

- Nil

13. Teacher -Student Ratio (programme wise):

Programme- B.Tech. (EN): 1:15

Programme- M.Tech. (EPES): 1:6

14. Number of academic support staff (technical) and administrative staff; sanctioned and filled

Years	2013-14	2012-13	2011-12	2010-11
Academic support staff	5	7	5	4
Administrative support staff	3	3	3	3

15. Qualifications of teaching faculty with DSc/ D.Litt/ Ph.D/ MPhil / PG.

No. Of Faculties with Ph.D : 04

No. Of Faculties with M.Tech : 24

No. of Faculties with B.Tech : 03

16. Number of faculty with ongoing projects from a) National b) International funding agencies and grants received: Nil

17. **Departmental projects funded by DST - FIST; UGC, DBT, ICSSR, etc. and total grants received:** Nil
18. **Research Centre /facility recognized by the University:** Electrical and Electronics Engineering, AKGEC
19. **Publications:** See **Annexure 3A- Research Publications**
20. **Areas of consultancy and income generated:** Prof M.P.Dave gave consultancy for Drive System for a Mobile Bridge Inspection Unit of CRRRI (Central Road Research Institute). The project was funded by DST (Department of Science & Technology).No income was generated from that consultancy
21. **Faculty as members in**
- a) National committees : **Prof M P Dave was invited to Academic council of Mahamaya Technical University , Noida, GB Nagar.**
- b) International Committees: Nil
- c) Editorial Board: **Dr. Bhupal Singh is Editor-in-Chief of “Eflux”, the departmental Journal.**
22. **Student projects**
- a) Percentage of students who have done in-house projects including inter departmental/programme:**100%**
- b) Percentage of students placed for projects in organizations outside the institution i.e.in Research laboratories/Industry/ other agencies: Nil
23. **Awards / Recognitions received by faculty and students**
- On an average 25% to 30% faculty members of the department got cash awards from the institution for best results for their respective subjects. In year 2013-14, 14 faculty members got cash awards for the best results.
 - Various faculty members got cash awards for publishing their papers in a reputed journal.

S. No.	Faculty	Title	Conference
1	Mr. Ravindra Kumar	Weighted Least Square method applied for State Estimation in Power System	IETET 2011, GIMT Kurukshetra
2	Mr. Ravindra Kumar	Detection of Bad Measurements in State Estimation in Power System	ETEEE 2011, KNIT Sultanpur

3	Mr. Lalitesh Kumar	A Multiobjective Based Optimization Approach for Robustness Recovery of a LQG Compensator	Indian Control Conference 2015, IIT Chennai
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Students Awarded/Recognized : Various awards and recognitions acclaimed by the students of Department are listed below:

Year 2013-2014

S.NO	NAME OF PARTICIPANTS	NAME OF EVENT	ORGANISED BY	DATE/ DURATION	PRIZE
1	Mukund Khandelwal	MANZAR	Jamia Hamdard, New Delhi	25/09/13	1 st
2	Nalini Singh	MANZAR	Jamia Hamdard, New Delhi	25/09/13	1 st
3	Devina Kumar	MANZAR	Jamia Hamdard, New Delhi	25/09/13	1 st
4	Abhishek Verma	MANZAR	Jamia Hamdard, New Delhi	25/09/13	1 st
5	Mukund Khandelwal	NDIM Cultural Fest 14	NDIM New Delhi	13/02/14	Consolation Prize
6	Nalini Singh	NDIM Cultural Fest 14	NDIM New Delhi	13/02/14	Consolation Prize
7	Prachi Gupta	CORUS 14	Sharda University, Greater Noida	22/02/14 to 23/02/14	1 st Prize
8	Mukund Khandelwal	CORUS 14	Sharda University, Greater Noida	22/02/14 to 23/02/14	Consolation Prize
9	Nalini Singh	CORUS 14	Sharda University, Greater Noida	22/02/14 to 23/02/14	Consolation Prize
10	Devina Kumar	CORUS 14	Sharda University, Greater Noida	22/02/14 to 23/02/14	Consolation Prize
11	Abhishek Verma	CORUS 14	Sharda University, Greater Noida	22/02/14 to 23/02/14	Consolation Prize

12	Vishvajeet Singh	CHAKRAVYUH	IMS Ghaziabad	07/10/13 to11/10/13	3 rd Prize in Basketball
13	Rahul Srivastava	CHAKRAVYUH	IMS Ghaziabad	07/10/13 to11/10/13	3 rd Prize in Basketball
14	Rajat rai	CHAKRAVYUH	IMS Ghaziabad	07/10/13 to11/10/13	3 rd Prize in Basketball
15	Anam Afreen	CHAKRAVYUH	IMS Ghaziabad	07/10/13 to11/10/13	2 nd Position in Basketball (Girls)
16	Priya Sharma	CHAKRAVYUH	IMS Ghaziabad	07/10/13 to11/10/13	2 nd Position in Basketball (Girls)
17	Pratiksha Singh	CHAKRAVYUH	IMS Ghaziabad	07/10/13 to11/10/13	2 nd Position in Basketball (Girls)
18	Avinash Kumar Giri & saurabh Singh Kushwaha	CHAKRAVYUH	IMS Ghaziabad	07/10/13 to11/10/13	Gold and Bronze in Power Lifting
19	Pratiksha Singh	AAMOD 14	SRMS College of Engineering, Bareilly	21/02/14 to 23/02/14	Gold in Shotput
20	Vasavikta	AAMOD 14	SRMS College of Engineering, Bareilly	21/02/14 to 23/02/14	Gold in Badminton
21	Surabhi Jain	AAMOD 14	SRMS College of Engineering, Bareilly	21/02/14 to 23/02/14	Two Golds in TT

Year 2012-2013

Gunjan Varshney (M. Tech student) received Gold Medal by MTU, Noida, GB Nagar

Co-curricular / extra curricular awards won by students :

S.NO	NAME OF PARTICIPANTS	NAME OF EVENT	ORGANISED BY	DATE/ DURATIO N	PRIZE
1	Pulkit Agarwal	Antaragni- Euphony	IIT Kanpur	2012	6 th
2	Manish Kumar	Antaragni- Euphony	IIT Kanpur	2012	3 rd
3	Siddharth Tripathi	KSHITIJ	IIT Kharagpur	2013	Consolati on prize

Year 2011-2012

S.NO	NAME OF PARTICIPANTS	NAME OF EVENT	ORGANISED BY	DATE/ DURATIO N	PRIZE
1	Nitesh Gupta	ROBORACE	IMS Ghaziabad	2011	2 nd
2	Prachi Gupta	RENDEVO US	IIT Delhi	Oct 2011	Consolati on prize
3	Subham Swaroop	NUKKAD NATAK	IIT Delhi	2011	Consolati on prize
4	Saurav Kanojiya	RENDEVO US	IIT Delhi	2011	Consolati on prize

Year 2010-2011

S.NO.	NAME OF PARTICIPANTS	NAME OF EVENT	ORGANISED BY	DATE/ DURATIO N	PRIZE
1	Nitesh Gupta	Aquatic robo race	ABES Ghaziabad	Oct. 2010	2 nd

2	Rohit Gera	Aqua rush	DCE, New Delhi	Feb 2011	1 st
3	Nitesh Gupta	Robo race	IMS Ghaziabad	March 2011	2 nd
4	Nitesh Gupta	Robo race	IIT Kharagpur	Jan 2011	4 th
5	Sanket Gupta	Aquatic robot war	ABES, Ghaziabad	Oct 2010	1 st
6	Nitesh Gupta	Robo race	DCE, New Delhi	Feb 2011	1 st
7	Nitesh Gupta	Aquatic race	Jaypee Noida	March 2011	2 nd
8	Nitesh Gupta	Robo war	DCE , New Delhi	Feb 2011	2 nd
9	Sanket Gupta	Robo war	DCE, New Delhi	Feb 2011	1 st
10	Sanket Gupta	Aqua rush	DCE New Delhi	Feb 2011	1 st
11	Rohit Gera	Robo war	DCE, New Delhi	Feb 2011	1 st
12	Yuvaksh	Science quiz	ABES-IT, Ghaziabad	Nov 2010	1 st
13	Priya Aggarwal	Robo race	DCE New Delhi	Feb 2011	1 st
14	Prateek Singh	Clay modeling	VIET Ghaziabad	Sept 2011	2 nd
15	Ved Alok	Robo war	SRMS Bareilly	March 2011	3 rd
16	Fatehyaab Alam	All India debate	AMU Aligarh	March 2011	3 rd

24. List of eminent academicians and scientists / visitors to the department

Following are the list of academicians and scientists/ visitors to the department

S.No.	Name	Designation
1	Ms. Neerja Mathur	Member, Central Electricity Authority
2	Mr. Dhananjay Ketkar	MD, Network Management System Unit, ALSTOM, Noida
3	Mr. M. G. Raoot	Ex Executive Director (POWER GRID) Presently : MD & CEO Power Exchange of India Ltd, Bombay

4	Prof. M L Kothari	Retd. Prof. IIT Delhi
5	Prof. G Bhuvaneshwari	Retd. Professor, IIT Delhi
6	Dr. S C Saxena	VC Jaipuria Institute of Information Technology
7	Sh. Reji Kumar Pillai	President, India Smart Grid Forum
8	Sh. V K Gupta	Principal Director, NPTI (NR), Badarpur, New Delhi
9	Sh. P P Wahi	Director (Energy), CBPI, New Delhi
10	Dr. Lakshman Hari	CEO, National High Power Test Laboratory, Bina (MP)
11	Sh. Arbind Gupta	Electrical Domain Consultant, TCS
12	Er. V K Agarwal	GM, Northern Regional Load Dispatch Centre (NRLDC), New Delhi
13	Sh. S K Chaudhary	Director NPTI
14	Sh. M K jaiswal	Head, High Voltage lab, Noida
15	Dr. Bhim Singh	Prof. Electrical Engineering Deptt. IIT , Delhi
16	Dr. A R Abhyankar	Assistance Professor, IIT Delhi
17	Prof M L Kothari	Retd. Professor, IIT Delhi
18	Prof. K B Naik	Ex Director KNIT Sultanpur, Director General, Radha Govind Institute of Technology, Meerut
19	Prof Pramod Agarwal	Professor IIT Roorkee
20	Prof S K Mishra	Professor IIT Delhi
21	Prof K P S Rana	Prof NSIT, New Delhi

**25. Seminars/ Conferences/Workshops organized & the source of funding:
National**

The Department organized following National Conferences :

- 1. IEEE Sponsored National Conference on Electrical Power & Energy Systems** during 20-21 Sept 2013. The National Conference was funded by Department of Science and Technology (DST), Government of India and Mahamaya Technical University (MTU), Noida
- 2. IEEE Sponsored National Conference on Emerging Trends in Electrical, Electronics and Computer Technologies** during 5-6 Sept 2008. The National Conference was funded by AICTE.

Seminars/Guest Lectures

Date	Topic	Speaker
8/10/13	Automation technologies	Mr. T.S Bharath, Bosh Rexroth
22/10/13	Health monitoring through information and communication technology (with special emphasis on solution to india's healthcare problems)	Prof. David Hewson, UTT, France
22/03/2013	Smart Grids for India's Prosperity	Sh. Reji Kumar Pillai President, India Smart Grid Forum
08/03/2013	Power Scenario in India & Future Challenges	Sh. V K Gupta Principal Director, NPTI (NR), Badarpur, New Delhi
21/11/2012	Emerging Trends in Maintenance of Transmission Lines and Towers	Sh. P P Wahi Director (Energy) CBPI, New Delhi
18/10/2012	High Power Short Circuit Test Facilities	Dr. Lakshman Hari CEO, National High Power Test Laboratory, Bina (MP)
01/10/2011	Transmission and Distribution System Planning and Design concept	Sh. Arbind Gupta Electrical Domain Consultant, Tata Consultancy Services
22/04/2011	Grid Operation in Northern India	Er. V K Agarwal GM, Northern Regional Load Dispatch Centre (NRLDC), New Delhi
04/02/2011	Career Prospectus in Power Sector	Sh. S K Chaudhary Director, NPTI Dr. Rohit Verma Dy. Director, NPTI
01/10/2010	Testing & Evaluation of High Voltage Equipment	Sh. M K Jaiswal Head, High Voltage Lab, Noida

09/04/2010	Electrical Power Quality	Dr. Bhim Singh Prof. Electrical Engineering Department, IIT Delhi
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Faculty Development programmes

FDP	Date	Topic	Speaker
Advances in Sensors, Instrumentation & Control	07/05/2014	PC Based Instrumentation	Prof K P S Rana NSIT, New Delhi
	07/05/2014	Intelligent/ smart sensor	Prof R P Maheshwari IIT Delhi
	08/05/2014	Hydraulics and Pneumatic Systems	Mr. Mayank Verma JCB India Limited
	08/05/2014	Power Systems Instrumentation	Prof M P Dave AKGEC, Ghaziabad
	09/05/2014	Introduction to Lab View and its Features	Dr. Bhupal Singh Professor AKGEC, Ghaziabad
Economic Operation of Power System	05/12/12	Conventional Economic Operation & EMS	Prof. M P Dave Emeritus Professor AKGEC, Ghaziabad
	05/12/12	Electricity Bidding and Pricing in Open Access System	Dr. A R Abhyankar Assistant Professor, IIT Delhi
	05/12/12	Integration of Renewables for Economic Operation	Prof M L Kothari Retd. Professor IIT Delhi
Power Electronics & its Applications	03/03/2012	Power Converter Devices	Prof. K B Naik Ex Director, KNIT Sultanpur Director General, Radha Govind Institute of Technology, Meerut
	03/03/2012	Converters & Inverters	Prof. Pramod Agarwal IIT Roorkee
	03/03/2012	Power Quality Improvement	Prof Bhim Singh IIT Delhi
	05/03/2012	Generalized Power Flow Controllers	Prof. S K Mishra IIT Delhi
	05/03/2012	HVDC	Prof. M P Dave

		Transmission	Emeritus Professor AKGEC, Ghaziabad
	06/03/2012	PC Based Instrumentation	Dr. Bhupal Singh AKGEC, Ghaziabad
	06/03/2012	Vector Control of Induction Machines	Prof. G. Bhuvneshwari IIT Delhi

26. Student profile programme/course wise:

Name of the Course/ Programme	Applications Received (Year 2013)	Selected (Year 2013)	Enrolled		Pass Percentage
			*M	*F	
B.Tech	By UPTU Lucknow	121	99	22	96.21
M Tech (EPES)	By UPTU Lucknow	11	8	3	-
M Tech (A&R)	By UPTU Lucknow	9	6	3	-

Name of the Course/ Programme	Applications Received	Selected			Enrolled					
					*M			*F		
Year		2012	2011	2010	2012	2011	2010	2012	2011	2010
B Tech (EN)	By UPTU Lucknow	120	124	120	92	95	90	28	29	30
M Tech (EPES)	By UPTU Lucknow	11	13		4	8		7	5	
M Tech (A&R)	By UPTU Lucknow	12	7		10	4		2	3	

*M = Male *F = Female

27. **Diversity of Students**

B TECH (EN)

YEAR	% of students from the same state	% of students from other state	% of students from abroad
2013	94.21%	5.79%	NIL
2012	95%	5%	NIL
2011	93.44%	6.56%	NIL
2010	94.167%	5.83%	NIL

M TECH (EPES)

YEAR	% of students from the same state	% of students from other state	% of students from abroad
2013	72.73%	27.27%	NIL
2012	90.9%	9.09%	NIL
2011	84.62%	15.38%	NIL
2010	88.24%	11.76%	NIL

M TECH (A & R)

YEAR	% of students from the same state	% of students from other state	% of students from abroad
2013	88.89% (8 no.)	11.11% (1 no.)	NIL
2012	92.86% (13 no.)	7.14% (1 no.)	NIL
2011	75% (3 no.)	25% (1 no.)	NIL
2010	100% (12 no.)	0%	NIL

28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defense services, etc.?

GATE INFORMATION

YEARS	2014		2013		2012		2011	
BRANCH	No. of students Appeared for GATE	No. of students Qualified GATE	No. of students Appeared for GATE	No. of students Qualified GATE	No. of students Appeared for GATE	No. of students Qualified GATE	No. of students Appeared for GATE	No. of students Qualified GATE
B.TECH - EN	31	15	66	45	47	21	16	09

The details of students appeared and qualified in CAT exam are given below:

CAT EXAM INFORMATION

YEARS	2014		2013	
BRANCH	No. of students Appeared for CAT	No. of students Qualified CAT	No. of students Appeared for CAT	No. of students Qualified CAT
B.TECH - EN	3	2	7	3

The details of students appeared and selected in Defense services are given below:

INDIAN NAVY

YEARS	2014		2013		2012		2011	
BRANCH	No. of students Appeared	No. of students Selected	No. of students Appeared	No. of students Selected	No. of students Appeared	No. of students Selected	No. of students Appeared	No. of students Selected
B.TECH - EN	51	-	52	1	33	1	57	1

INDIAN AIR FORCE

YEARS	2014		2013		2012		2011	
BRANCH	No. of students Appeared	No. of students Selected	No. of students Appeared	No. of students Selected	No. of students Appeared	No. of students Selected	No. of students Appeared	No. of students Selected
B.TECH - EN	-	-	-	1	-	1	-	-

INDIAN ARMY

YEARS	2014		2013		2012		2011	
BRANCH	No. of students Appeared	No. of students Selected	No. of students Appeared	No. of students Selected	No. of students Appeared	No. of students Selected	No. of students Appeared	No. of students Selected
B.TECH - EN	-	-	53	-	-	1	-	-

29. Student progression

Student progression	2014 Passout Batch (No. of Students)	2013 Passout Batch (No. of Students)	2012 Passout Batch (No. of Students)	2011 Passout Batch (No. of Students)
UG to PG	17	48	21	9
PG to M.Phil.	Not available			
PG to Ph.D.				
Ph.D to Post-Doctoral				
Employed				
• Campus selection	45	80	105	101
• Other than campus recruitment	-	-	-	-
Entrepreneurship / Self-employed	Not available			

30. Details of Infrastructural facilities

a) Library

Central Library:

➤ Infrastructural Details/Facilities:

S.No.	Parameter	Details
1	Carpet area of Library	1465 Sqm
2	Reading Space	150 Sqm
3	No. of Seats in reading space	304
4	No. of Users (issue book)	300 per day
5	Number of Users (Reading space)	300 per day
6	No. of Lib. Staff with Degree in Lib.	04
7	Computerization for search, indexing, issue/return records?	Yes
8	Records Bar-coding used?	Yes
9	Timings	Academic Working day 08:30 AM to 09:00 PM (Upto 12 mid night during Weeks preceding exams etc.)
10	INDEST or other similar membership?	BCL, DELNET, IEEE, ASME, Springer, Science Direct, J-Gate, ASTM, McGrawHill
11	Number of titles	6088
12	Number of Volumes	73798
13	Number of New Titles added in 2012-13	506
14	Number of New volumes added in 2012-13	12968

Print Journals 12 No.

Title	Publisher	Periodicity
India Power	CPU	Quarterly
Indian Journal of Advance in Electronics & Electrical Engineering	GRP	Bi-Annual
Indian Journal of Mechatronics and Applications	GRP	Bi-Annual
International Journal of Electric Power	GRP	Bi-Annual
International Journal of Image Processing and Applications	ISP	Bi-Annual
International Journal of Power System Optimization and Control	Serials	Bi-Annual
Indian Journal of Electrical Engineering and Research	GRP	Bi-Annual
Journal of Resources, Energy and Development	TERI	Half-Yearly
Indian Journal of Industrial Electronics and Control	GRP	Bi-Annual
Current Development in Electrical Engineering	RIP	Half-Yearly
Global Journal of Embedded System in Engineering Research	RIP	Half- Yearly
International Journal of Electrical Engineering	RIP	Bi-Annual

c. On-Line Resources (Common for B. Tech and M. Tech)

Journals	IEEE(155 Journals), Springer, Science Direct, IGate
E- Books	McGraw Hill
ASTM	Standards through digital library
NPTEL	On-line Lectures

M. Tech (EPES)

Books	Titles	Volumes
	59	783

Print Journals 5 No.

Title	Publisher	Periodicity
International Journal of Electric Power Systems Research	GRP	Bi-Annual
International Journal of Advanced Mechatronics Systems Research	GRP	Bi-Annual
International Journal of Electrical Engineering and Embedded Systems	Serials	Bi-Annual
International Journal of Innovations in Electric Power Systems	Serials	Bi-Annual
International Journal of Control Theory and Applications	Serials	Bi-Annual

Departmental Library

No. of Books	Book Racks	No. of Tables	No. of Chairs
268	5	2 Large Size	12

Besides these books Departmental Journals of other Departments of the college are also available. These Journals are published Half Yearly

b) Internet facilities for Staff & Students :

S.No.	Parameter	Details
1	Internet Provider	C J-Online
2	Available BW	100 Mbps
3	Access Speed	Good
4	Availability in an exclusive lab	Yes
5	Availability in most computing labs	Yes
6	Availability in departments and other units	Yes
7	Availability in faculty rooms	Yes
8	Institute's own e-mail facility to faculty/students	Yes
9	Security/privacy to e-mail/internet users	Yes

c) Class rooms with ICT facility:

2013-2014

Table (a)

Room Description	Usage	Shared / Exclusive	Capacity	Rooms Equipped with
Class Rooms:				
CL-14(Odd), 20(Even)	2 nd Year E	Exclusive	75	LCD Screen, Fans, Tube Lights, Green Board
CL-15(Odd), CL -21(Even)	2 nd Year F	Exclusive	75	LCD Screen, Fans, Tube Lights, Green Board
CL-16(Odd), CL-22(Even)	3 rd Year E	Exclusive	75	LCD Screen, Fans, Tube Lights, Green Board
CL-24(Odd), CL-24(Even)	3 rd Year F	Exclusive	75	LCD Screen, Fans, Tube Lights, Green Board
CL-25(Odd), CL-25(Even)	4 th Year E	Exclusive	75	LCD Screen, Fans, Tube Lights, Green Board
CL-26(Odd), CL-26(Even)	4 th Year F	Exclusive	75,60	LCD Screen, Fans, Tube Lights, Green Board

Tutorial rooms: All class rooms are also used as tutorial rooms.				
Seminar rooms:				
Seminar hall	Seminars & presentations etc.	Shared	250	LCD Projector, LCD Screen, Sound System
Mini seminar hall-1	Seminars & presentations etc.	Shared	60	LCD Projector, LCD Screen, Sound System
Mini seminar hall-2	Seminars & presentations etc.	Shared	60	LCD Projector, LCD Screen, Sound System
Meeting rooms: Departmental office and library				

2012-2013

Table (b)

Room Description	Usage	Shared / Exclusive	Capacity	Rooms Equipped with
Class Rooms:				
LT-9(even), LT-12(odd)	2 nd Year E	Exclusive	70	LCD Screen, Fans, Tube Lights, Green Board
LT-14(even), LT-13(odd)	2 nd Year F	Exclusive	70	LCD Screen, Fans, Tube Lights, Green Board
LT-15(even), LT-14(odd)	3 rd Year E	Exclusive	70	LCD Screen, Fans, Tube Lights, Green Board
LT-16(even), LT-15(odd)	3 rd Year F	Exclusive	70	LCD Screen, Fans, Tube Lights, Green Board
LT-17(even), LT-16(odd)	4 th Year E	Exclusive	70	LCD Screen, Fans, Tube Lights, Green Board
LT-18(even), Mini Seminar	4 th Year F	Exclusive	70,60	LCD Screen, Fans, Tube Lights, Green Board

Hall(odd)				
Tutorial rooms: All class rooms are also used as tutorial rooms.				
Seminar rooms:				
Seminar hall	Seminars & presentations etc.	Shared	250	LCD Projector, LCD Screen, Sound System
Mini seminar hall-1	Seminars & presentations etc.	Shared	60	LCD Projector, LCD Screen, Sound System
Mini seminar hall-2	Seminars & presentations etc.	Shared	60	LCD Projector, LCD Screen, Sound System
Meeting rooms: Departmental office and library				

2011-2012

Table (c)

Room Description	Usage	Shared / Exclusive	Capacity	Rooms Equipped with
Class Rooms:				
LT-15(even), LT-16(odd)	2 nd Year E	Exclusive	70	LCD Screen, Fans, Tube Lights, Green Board
LT-16(even), LT-17(odd)	2 nd Year F	Exclusive	70	LCD Screen, Fans, Tube Lights, Green Board
LT-17(even), LT-19(odd)	3 rd Year E	Exclusive	70	LCD Screen, Fans, Tube Lights, Green Board
LT-26(even), LT-20(odd)	3 rd Year F, 4 th Year E	Exclusive	70	LCD Screen, Fans, Tube Lights, Green Board
Room Description	Usage	Shared / Exclusive	Capacity	Rooms Equipped with
Mini Seminar Hall(odd & even),	4 th Year E&F	Shared	60	LCD Screen, Fans, Tube Lights, Green Board

LT-27(even)				
Tutorial rooms: All class rooms are also used as tutorial rooms.				
Seminar rooms:				
Seminar hall	Seminars & presentations etc.	Shared	250	LCD Projector, LCD Screen, Sound System
Mini seminar hall-1	Seminars & presentations etc.	Shared	60	LCD Projector, LCD Screen, Sound System
Mini seminar hall-2	Seminars & presentations etc.	Shared	60	LCD Projector, LCD Screen, Sound System
Meeting rooms: Departmental office and library				

2010-2011

Table (d)

Room Description	Usage	Shared / Exclusive	Capacity	Rooms Equipped with
Class Rooms:				
LT-15(even), LT-6(odd)	2 nd Year E	Exclusive	70	LCD Screen, Fans, Tube Lights, Green Board
LT-16(even), LT-7(odd)	2 nd Year F	Exclusive	70	LCD Screen, Fans, Tube Lights, Green Board
LT-17(even), LT-8(odd)	3 rd Year E	Exclusive	70	LCD Screen, Fans, Tube Lights, Green Board
LT-18(even) LT- 9(odd)	3 rd Year F	Exclusive	70	LCD Screen, Fans, Tube Lights, Green Board
ML-5(odd)	4 th Year E & F	Shared	70	LCD Screen, Fans, Tube Lights, Green Board
LT-27(even)	4 th Year E	Exclusive	70	LCD Screen, Fans, Tube Lights, Green Board
LT-5(even)	4 th Year F	Exclusive	70	LCD Screen, Fans, Tube Lights, Green Board
Tutorial rooms: All class rooms are also used as tutorial rooms.				

Seminar rooms:				
Seminar hall	Seminars & presentations etc.	Shared	250	LCD Projector, LCD Screen, Sound System
Mini seminar hall-1	Seminars & presentations etc.	Shared	60	LCD Projector, LCD Screen, Sound System
Mini seminar hall-2	Seminars & presentations etc.	Shared	60	LCD Projector, LCD Screen, Sound System
Meeting rooms: Departmental office and library				

d) **Laboratories:** A total of 13 Laboratories, listed as follows:

S.No.	Name of the Laboratory	Area Sq. M.	Lab/Major Equipments
1	Basic Electrical Lab	118.8	3 Φ Induction Motor, 1 Φ Induction Motor, DC Compound Motor(02), Alternator set, Rectifier kit, Theorem trainer kit, RLC circuit study kit, CRO, DC series Motor, Tachometer, 1 Φ variac (04), 3 Φ variac, 1 Φ Transformer, Energy meter, Power factor mete, Frequency meter, Wattmeter (29), AC Voltmeter (07),
2	Numerical Technique Lab/ Electrical Simulation Lab	78.84	MATLAB SIMULINK, PSPICE, PC-16
3	Control System Lab		AC Servo Motor, synchro transmitter receiver pair, AC servo voltage stabilizer (1 no), ON/OFF Temp. controller using RTD, PID Controller, Temperature controller system Compensation design, Linear system simulator, DC position control, Steper motor, Digital control system, DC Speed control, CRO (20 MHz) CRO Real Time (25MHz)

4	Power Electronics Lab		Industrial electronic trainer, Speed control of dc Motor using SCR Chopper circuits, Inverter using SCR Power electronics experiment kit, (8 nos), Complementary commutation I Characteristics of SCR, UJT Trigg. of SCR
5	Drives Lab		AC Drives 161S , 160B, 22A, DC Drive 220V
6	Electrical Measurement Lab	37.8	DC Potentiometer, Wein, Hay, Schering, Anderson & Kelvin double bridge, Power supply, DC Source, DSO (Black/ White), Spot Galvanometer, Voltage potentiometer, Semiconductor Voltmeter, Radio receiver ,CRO
7	Electrical Instrumentation Lab		Pressure measurement trainer, Displacement measurement trainer, Strain measurement tutor, Torque measurement Tutor, Thermal trainer, Linear displacement trainer, Strain measurement trainer, Digital multimeter, Trainer, LVDT
8	Power System Lab - Additional Workshop II	78.84	Digital storage oscilloscope 60 MHz (Color), Motorized oil testing set, Single pole instantaneous O/C relay (1 no), Static inverse time single phase O/C relay (1 no), Voltage polarized single pole directional relay (1 no), Single pole direction IDMT E/F relay (1 no), Single phase 2 winding transformer directional relay (1 No), Relay MICOMP, 20 MHz CRO with power scope (2 nos), Phase Sifting Transformer (2 Nos), Digital Timer
9	Project Lab		Power supplies, Soldering Iron, Multimeters, Function Generators, CROs,
10	Network Lab	78.84	CRO-6, FG -10, DC power supply-6, Various R-L-C Circuit DC Milli-ammeter (5 Nos), DC voltmeter (3 Nos) 25/50V

11	Microprocessor Lab		UPC - PLCT PLC Trainer & DSO-2200, Starter Control & Star -Delta Starter, Lift Controller , μ P 8086 AD LCD Kit (10 nos), μ P 8085 AD LCD Kit (5 nos), S.T.K. - 500 & AVR Trainer Kit (1 no), Computer, Power Supply 12/24V (10 No.)
12	Electrical Machine Lab - Workshop I	158.99	3 Φ Auto Transformer (6 nos), Tachometer digital (3 nos), Demonstration panel for parallel operation of 2 alternator set, Demonstration panel for V Curve synchronous motor, Demo. panel for load test on 3 phase Squirrel cage I.M. DC power supply unit, DC shunt motor 1.5 KW, 3 phase inductive load 10 A, DC Series motor 1 HP (1 no), DC Compound Motor 1 KW (1 no), Analogue tachometer (1 no), Dc compound motor, 1 HP (2 nos), Wattmeter 2.5/5A 50/300/600V (18 nos), 1 Φ Auto transformer 10A, 0-270V (11 nos), Single phase transformer (13 Nos.), Automatic Star- Delta starter (1 no), 3 Φ Slip ring Induction Motor With Rotor resistance starter (2 set), DC motor generator set + panel , DC Motor +3 Φ Alternator +Exiter + Panel

M.TECH. LAB DETAILS

S.N.	Name of the Laboratory	Area Sq. M.	Lab/Major Equipments
1.	Online Computer Controlled Lab (Research lab)	78.84	Dig Silent power factory integrated power system software, MATLAB SIMULINK, PSchematics, PC (4 nos.)
2.	Microprocessor Lab	78.84	UPC - PLCT PLC Trainer & DSO-2200, Starter Control & Star -Delta Starter, Lift Controller , μ P 8086 AD LCD Kit (10 nos), μ P 8085 AD LCD Kit (5 nos), S.T.K. - 500 & AVR Trainer Kit (1 no), Computer, Power Supply 12/24V (10 No.)

31. **Number of students receiving financial assistance from college, university, government or other agencies**

1. Financial assistance is received by the SC/ ST candidates under Freeship and Scholarship scheme of the Government.

B.Tech	2010-11	2011-12	2012-13	2013-14
EN	65	87	81	113
M TECH (EPES)	0	1	0	

2. Gate Scholarship is also given to the M.Tech students.

M.Tech	2010-11	2011-12	2012-13	2013-14
M TECH (EPES)	0	2	5	7

3. 5% students are benefitted under fee waivers category on merit basis.
4. Cash award is also given to top three students of every branch.

Following list gives the detail of cash award received by the top three students of EN branch for the **Session 2012-13.**

SL. N O.	UNIV. ROLL NO.	NAME OF STUDENTS	MARKS OBTAINED	% MARKS	POSITION IN BRANCH	BRANCH / YR.	PRIZE MONEY
1	0902721013	ANAMIKA BHARTI	4088	81.76	I	EN/IV	15000
2	0902721079	ROHIT GERA	4076	81.52	II	EN/IV	4000
3	0902721010	AMAN SRIVASTAVA	3998	79.96	III	EN/IV	3000

32. **Details on student enrichment programmes (special lectures / workshops / seminar) with external experts:** Already mentioned in S.No 24 and 25.

33. **Teaching methods adopted to improve student learning**

All the classrooms are equipped with audio-visual systems to aid in teaching-learning process.

Buddy programme is adopted for students with poor performance. In buddy programme every poor performing student is assigned a mentor, who is a fellow of the same class with good academic performance. Care is taken in assigning the mentor so that the students are comfortable with each other.

34. **Participation in Institutional Social Responsibility (ISR) and Extension activities:**

1. The personnel in the Department are involved in “Communal Harmony Campaign” and in raising funds for National Foundation for Communal Harmony (An autonomous organization with the Ministry of Home Affairs, Government of India, with the main objective of providing assistance for the physical and psychological rehabilitation of the child victims of communal, caste, ethnic or terrorist violence, with special reference to their care, education and training besides promoting communal harmony, fraternity and national integration.)
2. The personal in the Department are also involved in blood donation during “Blood Donation Camp” organized every year by Rotary Club Ghaziabad.

35. **SWOC analysis of the department and Future**

Strengths:

- Good Faculty involving senior faculty members from academia and industry
- Good stability of faculty and staff
- A very good Laboratory infrastructure with well equipped labs
- Better quality students being admitted
- Situated in metropolitan area which attracts good students as well as faculty and staff
- A very good hostel infrastructure with good facilities, for boys and girls
- Transparent salary structure
- Salaries as per 6th pay commission

Weaknesses:

- Research has not yet picked up a proper pace because of lack in research infrastructure and sufficient resources as well as a shortage in faculty members.
- Interaction with the industry is lacking and so is the consultancy
- Lacking in middle level faculty.

Opportunities:

- Being situated in metropolitan area surrounded by the Industrial Belt of Ghaziabad, Noida, Faridabad, Gurgaon, tremendous opportunities are available.
- Being nearer to Delhi, the sponsored projects of DST (Department of Science & Technology), CSIR, DRDO, NTPC could easily be explored and attracted
- Being near to Delhi there are better chances of liaison with MNRE, NPTI, NTPC, PGCIL etc.

Challenges:

- The biggest challenge for us is to exploit the available opportunities, to attract the better man power and to develop a good research infrastructure.

Future Plans :

We see a very bright future of the department with good research facilities, R & D and Consultancy. Also overcoming the challenges to exploit maximum available opportunities.

3. Evaluative Report of the Departments

1. **Name of the department** : Electronics & Communication Engineering
2. **Year of Establishment** : 1998
3. **Names of Programmes / Courses offered (UG, PG, M.Phil., Ph.D., Integrated Masters; Integrated Ph.D., etc.)**

Programme of Study	Description
B.Tech. Electronics & Communication Engineering	<ul style="list-style-type: none"> ➤ Started with 40 seats in 1998 ➤ Intake increased to 60 in 1999 ➤ Intake increased to 90 in 2000 ➤ Intake increased to 120 in 2002 ➤ Intake increased to 180 in 2013
	<ul style="list-style-type: none"> ➤ First accredited by NBA-AICTE in year 2006 for 3 years, re-accredited in 2009 for 3 years ➤ Inspection from 07-09 Nov 2014 for re-accreditation
PG	<ul style="list-style-type: none"> ➤ M.Tech. in Electronics and Communication (Started in 2009 with 18 seats) ➤ M.Tech. in VLSI Design (Approval given by AICTE in 2011) , started w.e.f. 2012 with 18 seats

4. **Names of Interdisciplinary courses and the departments/units involved:**
Electronics and Instrumentation Engineering.
5. **Annual/ semester/choice based credit system (programme wise):** Semester
6. **Participation of the department in the courses offered by other departments:** Yes
7. **Courses in collaboration with other universities, industries, foreign institutions, etc.:**
 - **MATLAB training by IIT Kanpur:** Department of ECE has entered into an MOU with IIT Kanpur for imparting a comprehensive training program of 90 hours to be run by their dedicated faculty at AKGEC premises on weekend basis. Around 120 students of ECE are participating in this program.
 - **AICTE sponsored Program “Employability Enhancement Training Program (EETP) with BSNL:** Employability Enhancement Training Program (EETP) for 3rd Year B.Tech. (ECE) students are being conducted under AICTE - BSNL MoU. The objective of this program is to provide competency based employability enhancement skills and hands-on skill training through BSNL Training Centers. Nineteen students of 3rd year B.Tech. (ECE) are presently undergoing this program. The program started on 15th July’13 and will be completed by Dec’14. It is being conducted on every Monday by Bharat Sanchar Nigam

Ltd. at Advance Level Telecom Training Center (ALTTC), Ghaziabad. This programme commenced w.e.f 15th July, 2013 for duration of 18 months.

8. Details of courses/programmes discontinued (if any) with reasons: No

9. Number of teaching posts:

Designation	Sanctioned	Filled
Professors	3+2*=5	06
Associate Professors	6+2*=8	NIL
Assistant Professors	15+2*=17	29

* For M.Tech Programmes

10. Faculty profile with name, qualification, designation, specialization, (D.Sc./D.Litt. /Ph.D. / M. Phil. etc.,)

S. No.	Name	Qualification	Designation	Specialization/ Area of Interest	No. of Years of Experience		Number of Ph.D students guided for last four years
					Industry	Academics	
1	Prof. P.K. Chopra	M.Tech, B.E, Ph.D. (Pur)	Prof. & HoD	Satellite Communication/ Radar, Wireless & Mobile Communication	22	11	NIL
2	Dr. R.L. Sharma	Ph.D., M.Tech., M.Sc., B.Sc.	Prof.	Opto-electronics & optical Fiber communication	28	12	NIL
3	Dr. R.K. Mehrotra	Ph.D., M.Sc., B.Sc.	Prof.	Mobile Communication	30	6	NIL
4	Dr. K.K. Tripathi	Ph.D., M.Tech., B.E., B.Sc.	Prof.	Electronics and Communication	NIL	48	03
5	Dr. L. R. Gupta	Ph.D., M.Sc.(Engg.), B.Sc.	Prof.	Semiconductor Devices	NIL		NIL

6	Dr. Rajesh Kumar	Ph.D., M.Sc. (Engg.), B.E.	Prof.	Control System/Transducer, Sensors & Instrumentation	1	11	NIL
7	Purvi Jain	B.Tech	Asstt. Prof.	Electronics	NIL	1	NIL
8	Mr. Manish Zadoo	B.E,M.Tech., Ph.D (Pur)	Asstt. Prof.	Communication Systems/ Microwave ,Field Theory	5	14	NIL
9	Mr. Abdul Manan	B.E., M.Tech	Asstt. Prof.	VLSI	1	6.2	NIL
10	Mr. Amit Chaudhury	B.TechM.Tech	Asstt. Prof.	VLSI	NIL	6	NIL
11	Ms. Shalini Tripathi	B.Sc, M.Sc , M.Tech	Asstt. Prof.	Semiconductor Devices	NIL	5.5	
12	Mr. Rahul Vivek Purohit	M.Tech., B.E., Ph.D. (Pur)	Asstt. Prof .	Microwave/ antenna	NIL	8	NIL
13	Ms. Richa Singh	M.Tech., B.E., Ph.D. (Pur)	Asstt. Prof.	Electronics and Communication/ Analog electronics	NIL	7.5	NIL
14	Ms. Amita Asthana	B.E., M.Tech. (Pur.)	Asstt. Prof .	Electronics and Communication/ Network and digital circuits	NIL	9.5	NIL
15	Mr. Devvrat Tyagi	M.Tech., B.E.	Asstt. Prof.	Electronics and Communication/ VLSI Design	NIL	4	NIL
16	Ms. Suvarna Mujumdar	B.E., M.Tech. (Pur.)	Asstt. Prof.	Electronics and Communication/ Network and Digital circuits	NIL	6	NIL
17	Ms. Rajni Parashar	M.Tech., B.E.	Asstt. Prof.	Microelectronics and VLSI Design/ Digital Signal	NIL	3.5	NIL
18	Ms. Richa	M.Tech., B.E.	Asstt. Prof.	Electronics and Communication/ Analog electronics	NIL	2.5	NIL
19	Ms. Preeti Verma	M.Tech., B.Tech.	Asstt. Prof.	Microelectronics and VLSI Design/Digital	0.8	3.5	NIL

				Signal Processing			
20	Ms. Akanksha Aggarwal	M.Tech., B.Tech., Ph.D. (Pur)	Asstt. Prof.	Electronics and Communication	NIL	2	NIL
21	Mr. M. Girish Kumar	M.Tech., B.Tech.	Asstt. Prof.	VLSI Design	NIL	2	NIL
22	Ms. Uma Sharma	M.Tech., B.Tech.	Asstt. Prof.	VLSI Design	NIL	1.5	NIL
23	Ms. Manisha Pratihast	M.Tech., B.E.	Asstt. Prof.	Electronics and Communication	NIL	6.5	NIL
24	Ms. Geetika Goyal	M.Tech., B.Tech.	Asstt. Prof.	VLSI Design	NIL	2	NIL
25	Ms. Neeti Gupta	M.Tech., B.Tech.	Asstt. Prof.	Electronics and Communication	NIL	1.5	NIL
26	Mr. Surinder Kumar Singh	M.E., B.Tech.	Asstt. Prof.	Electronics and Communication	NIL	3	NIL
27	Mr. Jitender Chhabra	M.Tech., B.Tech.	Asstt. Prof.	Electronics and Communication	NIL	3	NIL
28	Mr. Anup	M.Tech., B.Tech.	Asstt. Prof.	VLSI Design	NIL	1.5	NIL
29	Mr. Dhruv Solanki	M.Tech, B. E.,	Asstt. Prof.	VLSI Design	NIL	1.5	NIL
30	Mr. Brijesh Kumar	M.Tech, B.Tech	Asstt. Prof.	Control Systems	NIL	1	NIL
31	Ms. Shikha Singh	M.Tech, B.Tech	Asstt. Prof.	Microprocessors	NIL	2	NIL
32	Ms. Anchal Gupta	M.Tech, B.Tech	Asstt. Prof.	Analog Circuits	NIL	1	NIL
33	Ms. Anshu Tyagi	M.Tech, B.Tech	Asstt. Prof.	Microwave	NIL	3.5	NIL
34	Mr. Shivam Krishna Agarwal	B.Tech	Asstt. Prof.	Communication	NIL	1	NIL
35	Mr. Sandeep Kumar Singh	B.Tech	Asstt. Prof.	Robotics	NIL	1	NIL

11. **List of senior visiting faculty** : Nil
12. **Percentage of lectures delivered and practical classes handled (programme wise) by temporary faculty:** NA
13. **Teacher-Student Ratio (programme wise):**
 B.Tech (ECE): 1:15
 M.Tech (ECE): 1:6
 M.Tech (VLSI): 1:6
14. **Number of academic support staff (technical) and administrative staff; sanctioned and filled**
Academic Support Staff : 7
Administrative Staff : 1
15. **Qualifications of teaching faculty with DSc/ D.Litt/ Ph.D/ MPhil / PG:**
No. Of Faculties with Ph.D : 05
No. Of Faculties with M.Tech : 25
No. of Faculties with B.Tech : 05
16. **Number of faculty with ongoing projects from a) National b) International funding agencies and grants received:** Nil
17. **Departmental projects funded by DST - FIST; UGC, DBT, ICSSR, etc. and total grants received:**
 ➤ NIL. However certain projects are running with joint collaboration of AKGEC and partner industries. The primary objective of these ventures is to offer real time technical consultancy and solutions towards strengthening Industry-Academia linkages.

S.No.	Company name	Company sector	Status	Type of service	Branch	Start date	Finish date
1.	Micromatic Grinding Technologies Pvt. Ltd	Engineering	Private	Design & development of a low cost microcontroller based interface system	ECE	13 /11/2013	on going

18. Research Centre /facility recognized by the University:

- Following facilities at AKGEC have been recognized as a Research centre /Training centre:

S.No.	Research Centre	Year of Establishment	Description/Area of Research undertaken
1	AKGEC TIFAC-CORE	2009	This institution has the distinction of being the only Engineering College in the state of U.P. to have the establishment of TIFAC-Centre of Relevance and Excellence (CORE) in the field OfAutomation & Robotics. The main purpose of this centre is to promote research, consultancy, project development and training in the emerging technological field of Automation and Robotics.
2	AKGEC Industrial KUKA Robotic Training Centre	2010	The college has set up India's first Industrial Robot Training Centre in Collaboration with KUKA Robotics, Germany. AKGEC-KUKA centre is setup to produce highly skilled technical manpower in the field of Industrial Robotics. The trained manpower will help Indian Manufacturing Industry to adopt latest technologies to improve quality and efficiency with high productivity in manufacturing centre.
3	AKGEC- LABVIEW ACADEMY in collaboration with National Instruments	2011	To strengthen the commitment for enhanced Industry-Academia interaction, college has setup UP's first Lab VIEW Academy in collaboration with National Instruments. This academy is an initiative of NI under their Planet NI (Nurturing Innovation) framework which strives to increase employability of engineering graduate by creating 'Centers of Excellence' in Engineering Colleges and Universities which will provide cost effective access to world class latest technology through classroom teaching- learning. AKGEC-NI Lab VIEW Academy curriculum gives students the opportunity to validate their knowledge and skills at a professional level with certification. Experience and certification in Lab VIEW can improve students' career opportunities.

4	AKGEC- Centre of Competence in Automation Technology	2012	AKGEC jointly with Bosch Rexroth AG, Germany has established Centre of Competence in Automation Technology at AKGEC. It is the first centre in North India. The centre is equipped with state of art facilities of Hydraulics, Pneumatics, Sensorics, PLCs and Mechatronics. The centre is designed to support the training need of the manufacturing industry, young engineers, students and concerned professionals.
5	AKGEC- Siemens PLM Centre of Excellence	2012	AKGEC in collaboration with SIEMENS Industry Software Ltd (SISL) has setup first 'Product Lifecycle Management (PLM)-Centre of Excellence" in North India. This COE benefits of SIEMENS Academic Partnership Program to improve technical stature of academic institutions.
6	AKGEC-AIA Centre for Integrated Automation	2014	AKGEC, in its endeavor to promote Industry-Academia Partnership, has collaborated with Automation Industry Association (AIA) under the Campus Connect Program. Under this initiative “Competency Development Centre (CDC)” for training in the state of art automation technologies for proliferation and promotion of contemporary education in automation has been established at AKGEC campus as ‘ AKGEC-AIA Centre for Integrated Automation’
7	AKGEC – FRONIUS Welding Technology Centre (WTC)	2014	AKGEC, jointly with Fronius International GmbH, has planned to set up India’s first Welding Technology Centre at Ghaziabad. Fronius International GmbH is an Austrian company, based in Pettenbach, Upper Austria. Fronius is active in the fields of welding technology and battery charging technology. This centre will conduct trainings at par with International Standard of Welding. The Welding Training programs will teach various methods to permanently fuse metals by applying intense heat and filler metal. Theoretical and practical study will provide learning for basic welding concepts along with metallurgy, safety, testing, fabrication, as well as inspection process

8	AKGEC – e-Yantra	2015	e-Yantra is a project to spread education in Embedded Systems and Robotics by IIT Bombay sponsored by Ministry of Human Resource Development (MHRD) through the National Mission on Education through ICT (NMEICT).
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19. Publications:

- a) Publications per faculty: On an average 2
- b) Number of papers published in peer reviewed journals (national /international) by faculty and students: Annexure 3A-Research Publications
- c) Number of publications listed in International Database (For Eg: Web of Science, Scopus, Humanities International Complete, Dare Database - International Social Sciences Directory, EBSCO host, etc.) : 01
- d) Monographs: NIL
- e) Chapter in Books: 13
- f) Books Edited: 01
- g) **Books with ISBN/ISSN numbers with details of publishers**

Name of the Book	Authors	Publisher	Year
Basic Electronics Engineering Made easy. ISBN: 978-81-31511-97-8	Mr. Manish Zadoo	Cengage Learning Formerly Thomson Press.	2010-11

- h) **Citation Index:** Nil
 - i) **SNIP:** Nil
 - j) **SJR:** Nil
 - k) **Impact factor:** Between 0.1 to 2
 - l) **h-index:** NIL
- See Annexure 3A- Research Publications.

20. Areas of consultancy and income generated: NIL

21. Faculty as members in

- a) National committees: IETE
- b) International Committees: Nil
- c) Editorial Board: Wiley Publications

22. Student projects:

- a) Percentage of students who have done in-house projects including inter Departmental/programme: 100%
- b) Percentage of students placed for projects in organizations outside the Institution i.e.in Research laboratories/Industry/ other agencies: NIL

23. Awards / Recognitions received by faculty and students:

- On an average 25% to 30% faculty members of the department got cash awards from the institution for best results for their respective subjects.
- Various faculty members got cash awards for publishing their papers in a reputed journal.

24. List of eminent academicians and scientists / visitors to the department:

- Following are the list of eminent academicians and scientists/ visitors to the department in last 3 years:

S.No.	Name of Eminent Academicians and Scientists Visited	Designation /Institute /Organization	Purpose of Visit	Details
1	Er. Ashish Tayal	Addl G.M. (Mobile) ALTTC, Ghaziabad	Interaction /Guest Lecture	Topic: Planning High Capacity Digital Radio Network Held on: 18/11/2014
2	Mr. M.K. Seth	Principle GM ALTTC, Ghaziabad	Interaction /Guest Lecture	Topic: How to Activate Neural Network Held on: 16/10/2014
3	Prof. M.S. Tyagi	Ex-Prof. IIT Kanpur	Interaction /Guest Lecture	Topic: Silicon Carbide (SiC) : A New Generation Semiconductor Material Held on: 29/09/2014
4	Mr. Vaibhav Mishra	Chief Strategy Officer, Pine Training Academy	Interaction /Guest Lecture	Topic: Role of FPGA in Digital Signal Processing Held on: 22/08/2014
5	Mr. Ashish Tayal	Additional G.M. (Mobile) ALT Centre Ghaziabad	Interaction /Guest Lecture	Topic: Evolution of Mobile Communication Technology From 2G to 4G in Indian Scenario Held on: 22/04/2014

6	Dr. D.R. Bhaskar	Department of ECE Jamia Millia Islamia Delhi	Interaction /Guest Lecture	Topic: Analog Processing "Gm-C APPROCH Held on: 27/03/2014
7	Er. Sanjay Singhal	Managing Director, Accenture's Delivery for Technology in India	Interaction /Guest Lecture	Topic: Mobile Application Development - Issues and Consideration Held on: 19/02/2014
8	Dr. K.V. Damodaran	Advisor (Regulatory Affairs), Member, Power Grid Corporation Ltd.	Interaction /Guest Lecture	Topic: Information Technology in Indian Aviation-Transforming the Passenger Experience Held on 29/01/2014
9	Dr.K.V Damodaran	Adviser Regulatory affairs)TRAI, Member power Grid Corporation	Interaction /Guest Lecture	Topic: Regulatory updates in communication sector. Held on: 15/11/13
10	Mr.Manjeet Singh.	Telecom Consultant and Former President HFCL.	Interaction /Guest Lecture	Topic: Infrastructure for IP networks. Held on: 11/10/13
11	Dr. S.C. Gupta,	Director, Northern India Engineering College	Interaction /Guest Lecture	Topic: New Trends in Optical Broadband Communication. Held on: 30/08/13
12	Prof. S.K. Kak.	Vice Chancellor, MTU Noida.	Opening Ceremony of National Conference*/Lecture	Topic: Emerging trends in Mobile Communications" Held on: 15-16/03/13
13	Mr. Vimal Wakhlu.	CMD, TCIL	Opening Ceremony of National Conference /Lecture	Topic: Emerging trends in Mobile Communications" Held on: 15-16/03/13
14	Prof. (Dr.) V.K. Jain.	IIT New Delhi	Opening Ceremony of National Conference/ Guest Lecture	Topic: Emerging trends in Mobile Communications" Held on: 15-16/03/13
15	Prof (Dr)H.S. Sharma	Director General ,JMS Group of Institutions	Interaction /Guest Lecture	Topic: Planning Operations & maintenance of Mobile Networks. Held on: 28/02/13

16	Prof.V.K.Jain	Professor and Head,EE Deptt,IIT Delhi	Interaction /Guest Lecture	Topic: Line coding in Digital Communications Held on:19/11/12
17	Mr. Narinder K. Chhiber	Secretary General, PTC India Foundation, New Delhi	Interaction /Guest Lecture	Topic: Planning Operations & maintenance of Mobile Networks. Held on: 26/10/12
18	Mr. P.K.Garg	Vice Chairman, Radio Regulatory Board, ITU, Govt. of India	Speaker ,Faculty Development program	Topic: Satellite Communication. Held on: 21-23/09/12
19	Mr. Vikas Nigam	Divisional Engineer, ALTTC, Ghaziabad	Interaction /Guest Lecture	Topic: 3G and beyond. Held on: 30/07/13
20	Wg.Cdr.(Retd.) Arif Khan	Director Ericsson India Pvt.Ltd	Interaction /Guest Lecture	Topic: Indian telecom regulatory infrastructure Held on:13/04/12
21	Mr.Gulshan Rai	Addl. Secretary ,Deptt. Of Telecommn, Govt. Of India.	Inaugration /Speaker of National conference	Topic: EOIP Held on:2-3/03/12
22	Mr.V.K.Arya	Sr.General Manager,BSNL ,ALTTC Ghaziabad.	Interaction /Guest Lecture	Topic: IPv6 Addressing Held on:11/11/2011
23	Wg.Cdr.(Retd.) G.R.Chumber	Vice President (operations) Ralcom Technologies	Interaction /Guest Lecture	Topic: Recent Technological Trends in Business Opportunities. Held on:21/08/2010

25. Seminars/ Conferences/Workshops organized & the source of funding

a) National:

Events	Name of the Conference/FDP	Conducted on	Source of Funding
Conference/s	1. Latest Trends in Wireless Communication	6 th -7 th Feb., 2015	College
	2. Advancements in Satellite Communications	14-15 th Feb, 2014	College & Infosys
	3. Emerging trends in Mobile Communications	15-16 th March, 2013	College & Infosys

	4. EOIP- The future deployment scenario	2nd -3rd March, 2012	College & Infosys
Faculty Development Programmes/Workshops	1. Recent Trends in Embedded System Design held on	1 st -2 nd Aug. 2014	College
	2. Future trends in Mobile Communication	20-21 st September, 2013	College
	3. FDP on Satellite Communication	21 st -22 nd September, 2012.	College

International: NIL

26. Student profile programme/course wise:

- Admissions to B.Tech. and MCA I year as well as B-Tech II year (Lateral Entry) are made through Combined State Entrance Exam (UPSEE) conducted by the UPTU, Lucknow.

Name of the Course/programme	Applications received	Selected	Enrolled	Pass percentage
			*M/*F	
B.Tech.ECE	By UPTU Lucknow	185	185	NA
M.Tech.ECE	By UPTU Lucknow	13	13	NA
M.Tech.VLSI.	By UPTU Lucknow	10	10	NA

*M = Male *F = Female

27. Diversity of Students:

S.No.	Name of the Course	Academic Session	% of students from the same state	% of students from other States	% of students from abroad
1.	B.Tech.ECE	2013-14	93.51	6.48	NIL
2.	M.Tech.ECE		92.30	7.69	NIL
3.	M.Tech.VLSI.		50.00	50.00	NIL

28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defense services, etc.? :

- The details of students appeared and qualified in GATE exam are given below:

GATE INFORMATION

YEARS	2014		2013		2012		2011	
BRANCH	Appeared	Qualified	Appeared	Qualified	Appeared	Qualified	Appeared	Qualified
B.TECH - ECE	45	18	41	20	22	16	15	12

- The details of students appeared and qualified in CAT exam are given below:

CAT EXAM INFORMATION

YEARS	2014		2013	
BRANCH	No. of students Appeared for CAT	No. of students Appeared for CAT	No. of students Qualified CAT	No. of students Appeared for CAT
B.TECH - ECE	3	2	Not available	

- The details of students appeared and selected in Defense services are given below:

INDIAN NAVY

YEARS	2014		2013		2012		2011	
BRANCH	Appeared	Selected	Appeared	Selected	Appeared	Selected	Appeared	Selected
B.TECH - ECE	66	2	50	Nil	50	2	65	1

INDIAN AIR FORCE

YEARS	2014		2013		2012		2011	
BRANCH	Appeared	Selected	Appeared	Selected	Appeared	Selected	Appeared	Selected
B.TECH - ECE	Not available	1	Not available		Not available	1	Not available	

INDIAN ARMY

YEARS	2014		2013		2012		2011	
BRANCH	Appeared	Selected	Appeared	Selected	Appeared	Selected	Appeared	Selected
B.TECH - ECE	Not available		26	NIL	Not available			

29. Student progression:

Student progression	(2014)	(2013)	(2012)	(2011)
UG to PG	20	20	16	12
PG to M.Phil.	Not available			
PG to Ph.D.				
Ph. D to Post-Doctoral				
Employed <ul style="list-style-type: none"> • Campus selection • Other than campus recruitment 	103	79	133	166
Entrepreneurship / Self-employed	Not available			

30. Details of Infrastructural facilities

a) Library:

Central Library:

➤ Infrastructural Details/Facilities:

S.No.	Parameter	Details
1	Carpet area of Library	1465 Sq.m
2	Reading Space	150 Sq.m
3	No. of Seats in reading space	330
4	No. of Users (issue book)	300 per day
5	Number of Users (Reading space)	300 per day
6	No. of Lib. Staff with Degree in Lib.	04
7	Computerization for search, indexing, issue/return records?	Yes
8	Records Bar-coding used?	Yes

9	Timings	Academic Working day 08:30 AM to 09:00 PM (Upto 12 mid night during Weeks preceding exams etc.)
10	INDEST or other similar membership?	BCL,DELNET, IEEE, ASME, Springer, Science Direct, J-Gate ASTM, McGrawHill
11	Number of titles	6088
12	Number of Volumes	73798
13	Number of New Titles added in 2012-13	506
14	Number of New volumes added in 2012-13	12968

Departmental Library:

Number of Books available	236
Proceedings of National Conferences	Available

d) Internet facilities for Staff & Students:

S.No.	Parameter	Details
1	Internet Provider	C J-Online
2	Available BW	100 Mbps
3	Access Speed	Good
4	Availability in an exclusive lab	Yes
5	Availability in most computing labs	Yes
6	Availability in departments and other units	Yes
7	Availability in faculty rooms	Yes
8	Institute's own e-mail facility to faculty/students	Yes
9	Security/privacy to e-mail/internet users	Yes

e) Class rooms with ICT facility :

(i) All Class rooms are equipped with LCD Projection Systems, LCD Screens, USB ports for Laptop connectivity, Wireless Audio systems and Green board. These facilities enhance lecture delivery and effective communication. To supplement this process, Internet is available across the campus for online access to lectures of NPTEL and IEEE research papers. 9 classrooms with above features are exclusively available to Department of ECE.

(ii) In order to supplement the process of understanding in certain subjects, audio visual aids in the form of "Smart Classes " have been implemented. These classes are conducted using softwares which are procured from reputed vendors. These classes are conducted along with regular classes and cover the technical aspects of the subjects through an audio-visual representation of various topics. For delivering smart classes, faculty members are provided with mini laptops which are connected with high resolution projection and audio systems already installed in the classrooms. Such software's enhance the level of understanding through a three dimensional representation of the subject taught. This also facilitates the delivery of certain topics beyond syllabus (Certain Novel technologies).

Department of ECE has been conducting smart classes for the following courses during previous three years:

1. Electronics Engineering (EC-101/201) - Applicable to B.Tech First Year all streams.
2. Fundamentals of Electronic Devices (EEC-301) - Applicable to B.Tech third semester ECE.
3. Electronic Circuits (EEC-401) - Applicable to fourth semester ECE
4. Electronic Instrumentation and measurements (EEC-403) - Applicable to fourth semester ECE.
5. Digital Electronics (EEC-302) - Applicable to third Semester ECE students.

(iii) **Establishment of Virtual Labs:** Virtual Lab is an initiative of Human Resource Development (MHRD) under the National mission on education through Information and Communication Technology (ICT). Objective of the virtual lab is providing remote access to labs in various disciplines of science and engineering. This is helping the students in learning advanced concepts through remote experimentation and has provided a complete learning management system, where students can avail various tools for learning including additional web resources such as video lectures, animated demonstrations and self evaluation tests.

f) Laboratories:

S.No.	Name of the Laboratory	Lab/ Major Equipment
1	Digital Electronics Lab-I	Bread Boards, Digital Trainer Boards, CROs, Function Generators
2	PCB & Electronics workshop lab	PCB curing Machine, Dual size UV exposure, Photo Resist Dip Coater, PCB drilling Machine, PCB etching machine, PCB film maker, winding machine motor with regulator, Different power supply units, Digital trainer boards, CROs, Function generators, Software for Designing PCB

3	Digital Logic Design Lab	Digital Trainer Kits, CROs, Function Generators
4	M.Tech. VLSI Lab	Cadence Virtuoso software, MAT lab software, 30 computes along with common UPS
5	R&D LAB	Xilinx ISE 10.1, tanner Tools, UPS, Computers
6	Electronics CAD Lab	Cadence Virtuoso software, 30 computes along with common UPS
7	DSP Lab	DSP trainer Kits along with Head sets, CROs.
8	Integrated circuits Lab	Trainer Boards, IC tester CROs, Function Generators
9	Analog Integrated Electronics Lab	Trainer Boards, IC tester CROs, Function Generators
10	Communication lab I	CROs, Digital storage oscilloscope, Modulation and Demodulation kits for AM-FM, Function Generators, Filter circuit trainer, Super Heterodyne Receiver, antenna trainer, Transmission line trainer, LCRQ meter, spectrum Analyzer
11	Communication lab II	CROs, Digital oscilloscope Modulation and Demodulation kits for FM, PCM, PAM, PWM, PPM, TDM, Function Generators, Delta Mod/Demod., Sampling, Spectrum Analyzer
12	Communication Lab III	Microwave benches along with microwave components with reflex klystron and Gunn setup Optical fiber kits along with optical power meters, kit to study Radiation pattern of IR and visual LED, CROs, Components for mini projects
13	Electronics Engg. Lab-II	CROs, Function generators, Pulse Generators, Ammeters, Voltmeters, Triple and Multiple Power supply
14	Electronics Engg. Lab-I	CROs, Function generators, Pulse Generators, Ammeters, Voltmeters, Triple and Multiple Power supply
15	Electronics Engg. Lab I st Year	Display Board for Resistances, Capacitors, Inductors, Relays, Different switches, Connectors, Cables, Kit for Diode Characteristics, Kit Transistor characteristics Kits, LCRQ characteristics, Kit for FET characteristics

M.TECH. LAB DETAILS

S.N.	Name of the Laboratory	Area Sq. M.	Lab/Major Equipments
1	M.Tech. VLSI Lab	66	Cadence Virtuoso software, MAT lab software, 30 computes along with common UPS
2	M.Tech. VLSI R&D Lab		Xilinx ISE 10.1, tanner Tools, UPS, Computers
3	M. Tech. ECE	134	Advance Microcontroller Kit (Intel 8051)
4	Virtual Lab	20	10 Computers along with common UPS

31. Number of students receiving financial assistance from college, university, Government or other agencies:

Financial assistance is received by the SC/ ST candidates under Freeship and Scholarship scheme of the Government.

B.Tech	2010-11	2011-12	2012-13	2013-14
ECE	72	63	76	43
M.Tech	2010-11	2011-12	2012-13	2013-14
ECE	1	2	2	2

Gate Scholarship is also given to the M.Tech students.

M.Tech	2010-11	2011-12	2012-13	2013-14
ECE	3	5	5	07

5% students are benefitted under fee waivers category on merit basis.

Cash award is also given to top three students of every branch.

Following list gives the detail of cash award received by the top three students of ECE branch for the Session 2011-12.

Sl. No.	Univ. Roll No.	Name Of Students	Marks Obtained	% Marks	Position In Branch	Branch / Yr.	Prize Money
1	0802721005	Akanksha Chandra	4139	82.78	I	ECE / IV	5000
2	0802721001	Abhinav Seth	4119	82.38	II	ECE / IV	4000
3	0802731003	Abhishek Kumar	4017	80.34	III	ECE / IV	3000

For Session 2012-13

Sl. No.	Univ. Roll No.	Name Of Students	Marks Obtained	% marks	Position In Branch	Branch Yr.	Prize Money
1	0902731024	Avantika Jalota	4230	84.6	I	ECE/I	20000
2	0902731111	Tanya Srivastava	4160	83.2	II	ECE/IV	10000
3	0902731016	Ankit Sharma	4158	83.16	III	ECE/IV	10000

For Session 2013-14

Sl. No.	Univ. Roll No.	Name Of Students	Marks Obtained	% Marks	Position In Branch	Branch / Yr.	Prize Money
1	1002732025	Kretika Goel	4343	86.86	I	ECE / IV	20000
2	1002713072	Shagun Bhatnagar	4281	85.62	II	ECE / IV	10000
3	1002731032	Archita Jain	4265	85.30	III	ECE / IV	10000

32. Details on student enrichment programmes (special lectures / workshops / seminar) with external experts:

➤ **Following are the details on student enrichment programme:**

1. Activities/ Events conducted by Departmental Society: Department of ECE has established a departmental technical society "PHOENIX", which has been conducting various technical competitions at intercollegiate level. Students are encouraged to participate in various events such as fabrication of hardware projects in areas like robotics, instrumentation, communication engineering etc. To accomplish this, necessary support is provided in terms of components and guidance from the department.

2. Conduct of Guest Lectures by experts from Industry/Academia: Department of ECE is conducting lectures delivered by experts from various industries, research organizations and from the field of academics. These guest lectures improve the professional knowledge of students and faculty. These guest lectures are conducted once in a month.

3. LAB-VIEW: ECE department at AKGEC jointly with National Instruments (India) has set up AKGEC-NI Lab-VIEW Academy for Educational Institutions at AKGEC, Ghaziabad. This Academy is an initiative of NI under their Planet NI (Nurturing Innovation) framework which strives to increase the employability of Indian engineering graduates by creating 'Centre of Excellence' in Engineering Colleges and

Universities which will provide cost effective access to world class latest technology through classroom teaching-learning.

The Lab-VIEW Academy curriculum gives students the opportunity to validate their knowledge and skills at a professional level with certification. Experience and certification in Lab VIEW can improve student's career opportunities. The academy encourages and promotes industry oriented projects; R&D Activity and industry relevant training programs to bridge industry academia gap and improve employability of young engineers. The establishment of this training academy is one of the initiatives in the same direction.

Recently, Lab View based experiments have been added in the existing lab curriculum.

4. AICTE sponsored Program “Employability Enhancement Training Program (EETP) with BSNL: BSNL Programme: Employability Enhancement Training Program (EETP) for 4th & 3rd Year B.Tech. (ECE) students is conducted under AICTE - BSNL MoU. The objective of this program is to provide competency based employability enhancement skills and hands-on skill training through BSNL Training Centers. This program is divided into three certification courses namely Silver (5th Semester), Gold (6th Semester) and Platinum (7th Semester). It is being conducted on every Monday by Bharat Sanchar Nigam Ltd. at Advance Level Telecom Training Center (ALTTC), Ghaziabad.

The training areas cover vast spectrum of topics such as Digital Switching and IN; Mobile Communication: GSM, 3G, CDMA; Data communication and Information Technology: MPLS, VPN, Broadband, IPv6, Database Administration, Server Administration, IT Security; Optical Networks: SDH, DWDM, NGSDH, NGN, Access Networks, Management, Telecom Finance, and Telecom Network Planning.

On successful completion of the training students will be certified by BSNL as under:

- (a) BSNL Silver Certified Engineer (72 contact hours in 5th Semester)
- (b) BSNL Gold Certified Engineer (56 contact hours in 6th Semester)
- (c) BSNL Platinum Certified Engineer (56 contact hours in 7th Semester)

Nineteen students of 4th year B.Tech. (ECE) of 2015 passout batch from AKGEC, Ghaziabad have completed silver and gold certification course in 5th and 6th semester respectively. In the 7th Semester, these students have undergone 56 contact hours program for platinum certification. The platinum program was started on 14th July'14 and completed on 15th Nov, 2014.

Twenty Two students of 3rd year B.Tech. (ECE) of 2016 passout batch from AKGEC, Ghaziabad have undergone silver certification. The program was started on 11th Aug'14 and completed on 10th Nov, 2014.

5. MATLAB training by IIT Kanpur: A Program on MATLAB is conducted by ORANE LAB, SIIC, IIT KANPUR, A division of Orane Infosystem Pvt. Ltd. The course covers the theoretical and practical aspects of Advanced MATLAB and Simulink. This is useful for the students of B.Tech 2nd and 3rd year. Total number of students registered for this program is 52. The course commenced on 28th September, 2014. Total duration of the Course is 60 hours (approx.). Till date 30 hrs of course coverage including class room program have been completed and hands on experience has been provided. The course is expected to be completed by Feb 2015.

6. IETE students' Forum: Students forum was established at Department of ECE in collaboration with IETE (The Institution of Electronics & Telecommunication Engineers, New Delhi) in the month of September, 2013. Under this MoU, 77 memberships have been acquired for students of the department. These students will be entitled to receive copies of IETE publications, newsletter and technical review. Additionally, a good number of professors, assistant professors are fellow members of IETE, New Delhi.

7. Infosys Campus Connect Programme (CCP): As a step towards grooming students into perfect professionals and to make them compatible with the IT industry, campus connect programme is run by our T&P department which is conducted by Infosys. Under this programme, Infosys has designed and provided 70 hours teaching module, for which the faculty at AKGEC has been especially trained by the firm. This module is taught to top 120 students of third year as an extra course on weekends.

In addition to this, Infosys has also provided a range of projects that the students take up as a part of their final year projects. These steps not only help Infosys to reduce their in house training time but also help the students in acquiring technical skills which make them more suitable for IT industry.

8. Conduct of PDP classes in the campus: Academic excellence alone is not enough and cannot guarantee a good career. Certain personality attributes and soft skills are essential not only to get a good job placement but also to be able to contribute and grow in an organization. Taking cognizance of this, the college emphasizes all round development through a range of extracurricular activities as well as organizing and conducting formal Personality Development Program.

This programme spanning over 100 hours is conducted by a professional agency on weekends and includes training in communication skills, group discussion, interpersonal skills and interviews. This is a mandatory programme for second year B.Tech and first year MCA students of the college. This programme helps in the overall personality development of students. The whole exercise is intended to increase the employability of students. Amidst an inspiring and invigorating environment, students undergo training that turns them into top notch professionals.

9. Conduct of National Conferences: A National conference is conducted by the Department of Electronics and Communication engineering every year in the even semester. Various topics of current technological significance are selected to be delivered

in the conference. Eminent personalities from various Government and Non-Government organizations are invited to chair various sessions and deliver their lectures. Faculty members and students are encouraged to participate and contribute their research papers in the conference proceedings. This enhances the research temperament among faculty members and students. Over the past three years, following National Conferences have been held:

- a) EOIP- The future deployment scenario held on 2nd -3rd March, 2012.
- b) Emerging trends in Mobile Communications held on 15th-16th March, 2013.
- c) Advancements in Satellite Communication held on 14th -15th February, 2014.

10. Faculty Development programme: FDP is conducted by the Department of Electronics and Communication engineering every year in the odd semester. Eminent trainers from IIT's, ISRO, BSNL, MTNL and various organizations are invited for training faculty members within and outside the college. Over the past few years, following Faculty Development Programmes (FDP) have been held:

- a) Innovative and effective teaching methodology for basic Electronics held on 5th -9th Jan, 2009.
- b) FDP on Satellite Communication held on 21st-22nd September, 2012.
- c) Future trends in Mobile Communication held on 20-21st September, 2013.
- d) **FDP on Recent Trends in Embedded System Design held on 1st -2nd Aug. 2014**

11. Establishment of Virtual Labs: Virtual Lab is an initiative of Human Resource Development (MHRD) under the National mission on education through Information and Communication Technology (ICT). Objective of the virtual lab is providing remote access to labs in various disciplines of science and engineering. This would help the students in learning advanced concepts through remote experimentation. This will provide a complete learning management system where students can avail various tools for learning including additional web resources such as video lectures, animated demonstrations and self evaluation tests.

For conducting the above listed programmes, various committees comprising of members from faculty and students are assigned as per the Department duty chart.

33. Teaching methods adopted to improve student learning:

(a) Various delivery methods implemented to deliver the courses are listed below in a table:

S.No.	Lecture Delivery methods	Description	Remarks
1	Chalkboard	Conventional delivery method .In this delivery mode a faculty writes on a green board with a chalk and simultaneously	Found to be very effective technique.

		explains the whole process.	
2*	Chalkboard and Audio visual aids (PPTs).	It includes a power point presentation of the topic being taught coupled with video tutorials besides verbal explanation by the faculty	Found to be very effective and self explanatory as expressed by students.

Methods (1) and (2) are further supplemented by experimentation which is a part of the curriculum which enhances the level of understanding.

*In order to supplement Method (2) **“Smart Classes”** are conducted for various subjects. This includes an audio-visual representation of various topics giving a three dimensional understanding of instruments and technical topics of diverse domains.

For delivering smart classes, faculty members are provided with mini laptops which are connected with high resolution projection and audio systems already installed in the classrooms.

34. Participation in Institutional Social Responsibility (ISR) and Extension activities

In addition to the technical, sports and cultural activities, the college hosts events in social front as well. This includes events organized by NFCH and rotary club Ghaziabad. Following initiatives have been taken in the previous three years in this direction.

S.No.	Event	Organized By	Details
1	Fund collections	National Foundation for Communal Harmony(NFCH)	The NFCH organizes various fund collections and conduct essay competition on events like “World Communal Harmony Day”.
2	Essay competition	National Foundation for Communal Harmony(NFCH)	
3	Blood donation camp	Rotary Club Ghaziabad (RCG)	The College organizes one blood donation camp every year in collaboration with RCG in the last blood donation camp the college contribute a record of 635 units.

*Details of various events conducted by these societies are documented at the institutional level and departmental level.

35. SWOC analysis of the department and Future plans:

Strengths:

- Department of ECE has sufficient number of well qualified faculty members.
- Department has well equipped and modern labs satisfying the curriculum.
- Every department of the institute conducts a Faculty Development Programme (FDP) annually. It provides an opportunity to the faculty members to interact with experts in various domains, thereby upgrading their knowledge bank and experience.

Weaknesses:

- The Curriculum is bound by the University syllabus .The syllabus is modified once in every four years.
- The institute is not funded by the Government.

Opportunities:

- Our institute being situated within NCR, it is close to good Engineering colleges.
- Students and faculty members can visit advanced labs such as NPL, ISRO etc.
- It is closer to good electronic companies based in Delhi, Noida etc. Hence students are availing training options helping them in placement drives.

Constraints:

- A large number of Engineering colleges are opening .Certain institutions are not maintaining the requisite academic standards due to which quality of education is degrading.
- With the rapid development of Novel technologies, job requirements are changing drastically. Hence, this has posed a challenge to placement drive. This needs to improve.

3. Evaluative Report of the Departments

1. **Name of the department** : Electronics & Instrumentation Engineering
2. **Year of Establishment** : 2010
3. **Names of Programmes / Courses offered (UG, PG, M.Phil, Ph.D., Integrated Masters; Integrated Ph.D., etc.)**

Programme of Study	Description
B.Tech. Electronics & Instrumentation Engineering	Started with 60 seats in 2010

4. **Names of Interdisciplinary courses and the departments/units involved:**
Electronics and Communication Engineering.
5. **Annual/ semester/choice based credit system (programme wise):** Semester
6. **Participation of the department in the courses offered by other departments:** Yes
7. **Courses in collaboration with other universities, industries, foreign institutions, etc.:**
 - **MATLAB training by IIT Kanpur:** Department of EI has entered into an MOU with IIT Kanpur for imparting a comprehensive training program of 90 hours to be run by their dedicated faculty at AKGEC premises on weekend basis. Around 60 students of EI are participating in this program.
8. **Details of courses/programmes discontinued (if any) with reasons:** No
9. **Number of teaching posts:**

Designation	Sanctioned	Filled
Professors	01	01
Associate Professors	03	NIL
Assistant Professors	08	11

10. Faculty profile with name, qualification, designation, specialization, (D.Sc. /D.Litt. /Ph.D. / M. Phil. etc.

Sl. No.	Name	Qualification	Designation	Specialization/ Area of Interest	No. of Years of Experience		Number of Ph.D students guided for last four years
					Industry	Academics	
1	Dr. Ranjit Singh	Ph.D., M.Tech., B.Tech.	Prof.	Electronic circuits and devices/ Basic Electronics	32	6	01
2	Mr. H.S. Siyan	B.E., M.Tech. (Pur.)	Asstt. Prof.	Electronics /Semiconductors	27	9	NIL
3	Mr. Manish Zadoo	B.E,M.Tech., Ph.D (Pur)	Asstt. Prof.	Communication Systems/ Microwave /Field Theory	5	14	NIL
4	Ms. Seema Garg	M.Tech., B.Sc. (Engg.), Ph.D. (Pur)	Asstt. Prof.	Electronics and Robotics/Solid state Electronics	4	12	NIL
5	Mr. Amit Garg	M.Tech., B.E., Ph.D. (Pur.)	Asstt. Prof.	Communication and Information Systems/Image Processing	NIL	9	NIL
6	Mr. Devesh Singh	M.E., B.Tech., Ph.D. (Pur.)	Asstt. Prof.	Electronics and communication/ Integrated circuit Design	1	7.5	NIL
7	Mr.Sachin Gupta	M.E., B.Tech., Ph.D. (Pur.)	Asstt. Prof.	Electronics and communication/ communication/	NIL	4	NIL
8	Ms. Kimmy	M.Tech., B.Tech.	Asstt. Prof.	Electronics and Communication	NIL	2.5	NIL
9	Ms. Gunjan Sharma	B.E., M.Tech.	Asstt. Prof.	Electronics and Communication/ Digital Circuits, Signals	NIL	9	NIL
10	Mr. Ashish	M.Tech., B.Tech.	Asstt. Prof.	Electronics and Communication	NIL	3	NIL

11	Ms. Apra Gupta	M.E., B.Tech.	Asstt. Prof.	Instrumentation	NIL	2	NIL
12	Ms. Neha Garg	M.E., B.Tech.	Asstt. Prof.	Electronics and Instrumentation	NIL	4.5	NIL

11. List of senior visiting faculty : Nil

12. Percentage of lectures delivered and practical classes handled (programme wise) by temporary faculty: NA

13. Teacher - Student Ratio (programme wise): 1:15

14. Number of academic support staff (technical) and administrative staff; sanctioned and filled

Academic Support Staff : 7

Administrative Staff : 1

15. Qualifications of teaching faculty with D.Sc./ D.Litt/ Ph.D/ MPhil / PG:

No. of Faculties with Ph.D : 1

No. of Faculties with M.Tech : 10

No. of Faculties with B.Tech : 1

16. Number of faculty with ongoing projects from a) National b) International funding agencies and grants received: Nil

17. Departmental projects funded by DST - FIST; UGC, DBT, ICSSR, etc. and total grants received:

- NIL, however certain projects are running with joint collaboration of AKGEC and partner industries. The primary objective of these ventures is to offer real time technical consultancy and solutions towards strengthening Industry-Academia linkages.

S.No.	Company name	Company sector	Status	Type of service	Branch	Start date	Finish date
1.	Micromatic Grinding Technologies Pvt. Ltd	Engineering	Private	Design & development of a low cost microcontroller based interface system	EI	13 /11/2013	on going

18. Research Centre /facility recognized by the University:

➤ Following facilities at AKGEC have been recognized as a Research centre /Training centre:

S.No.	Research Centre	Year of Establishment	Description/Area of Research undertaken
1	AKGEC TIFAC-CORE	2009	This institution has the distinction of being the only Engineering College in the state of U.P. to have the establishment of TIFAC-Centre of Relevance and Excellence (CORE) in the field Of Automation & Robotics. The main purpose of this centre is to promote research, consultancy, project development and training in the emerging technological field of Automation and Robotics.
2	AKGEC Industrial KUKA Robotic Training Centre	2010	The college has set up India's first Industrial Robot Training Centre in Collaboration with KUKA Robotics, Germany. AKGEC-KUKA centre is setup to produce highly skilled technical manpower in the field of Industrial Robotics. The trained manpower will help Indian Manufacturing Industry to adopt latest technologies to improve quality and efficiency with high productivity in manufacturing centre.
3	AKGEC- LABVIEW ACADEMY in collaboratio n with National Instruments	2011	To strengthen the commitment for enhanced Industry-Academia interaction, college has setup UP's first Lab VIEW Academy in collaboration with National Instruments. This academy is an initiative of NI under their Planet NI (Nurturing Innovation) framework which strives to increase employability of engineering graduate by creating 'Centers of Excellence' in Engineering Colleges and Universities which will provide cost effective access to world class latest technology through classroom teaching- learning. AKGEC-NI Lab VIEW Academy curriculum gives students the opportunity to validate their knowledge and skills at a professional level with certification. Experience and certification in Lab VIEW can improve students' career opportunities.
4	AKGEC- Centre of Competence in Automation Technology	2012	AKGEC jointly with Bosch Rexroth AG, Germany has established Centre of Competence in Automation Technology at AKGEC. It is the first centre in North India. The centre is equipped with state of art facilities of Hydraulics, Pneumatics, Sensorics, PLCs and Mechatronics. The centre is designed to support the training need of the manufacturing industry, young engineers, students and concerned professionals.

5	AKGEC- AIA Centre for Integrated Automation	2014	AKGEC, in its endeavor to promote Industry-Academia Partnership, has collaborated with Automation Industry Association (AIA) under the Campus Connect Program. Under this initiative “Competency Development Centre (CDC)” for training in the state of art automation technologies for proliferation and promotion of contemporary education in automation has been established at AKGEC campus as ‘AKGEC-AIA Centre for Integrated Automation’
6	AKGEC- Siemens PLM Centre of Excellence	2012	AKGEC in collaboration with SIEMENS Industry Software Ltd (SISL) has setup first 'Product Lifecycle Management (PLM)-Centre of Excellence" in North India. This COE benefits of SIEMENS Academic Partnership Program to improve technical stature of academic institutions.
7	AKGEC – FRONIUS Welding Technology Centre (WTC)	2014	AKGEC, jointly with Fronius International GmbH, has planned to set up India’s first Welding Technology Centre at Ghaziabad. Fronius International GmbH is an Austrian company, based in Pettenbach, Upper Austria. Fronius is active in the fields of welding technology and battery charging technology. This centre will conduct trainings at par with International Standard of Welding. The Welding Training programs will teach various methods to permanently fuse metals by applying intense heat and filler metal. Theoretical and practical study will provide learning for basic welding concepts along with metallurgy, safety, testing, fabrication, as well as inspection process
8	AKGEC – e-Yantra	2015	e-Yantra is a project to spread education in Embedded Systems and Robotics by IIT Bombay sponsored by Ministry of Human Resource Development (MHRD) through the National Mission on Education through ICT (NMEICT).

19. Publications:

a) Publications per faculty: On an average 1

b) Number of papers published in peer reviewed journals (national/international) by faculty and students: **See Annexure 3A-Research Publications**

c) Number of publications listed in International Database (For Eg: Web of Science, Scopus, Humanities International Complete, Dare Database - International Social Sciences Directory, EBSCO host, etc.) : 01

d) Monographs: NIL

e) Chapter in Books: 13

f) Books Edited: 01

g) **Books with ISBN/ISSN numbers with details of publishers:**

S. No.	Name of the Book	Authors	Publisher	Year
1	Basic Electronics Engineering Made easy. ISBN: 978-81-31511-97-8	Mr. Manish Zadoo	Cengage Learning Formerly Thomson Press.	2010-11

h) **Citation Index:** NIL

i) **SNIP:** NIL

j) **SJR:** NIL

k) **Impact factor:** Between 0.1 to 2

l) **h-index:** NIL

20. Areas of consultancy and income generated: NIL

21. Faculty as members in

a) **National committees:** IETE

b) **International Committees:** NIL

c) **Editorial Board:** NIL

22. Student projects:

d) **Percentage of students who have done in-house projects including inter Departmental/programme:** 100%

e) **Percentage of students placed for projects in organizations outside the Institution i.e.in Research laboratories/Industry/ other agencies:** NIL

23. Awards / Recognitions received by faculty and students:

- On an average 25% to 30% faculty members of the department got cash awards from the institution for best results for their respective subjects.
- Various faculty members got cash awards for publishing their papers in a reputed journal.

24. List of eminent academicians and scientists/visitors to the department:

➤ Following are the list of eminent academicians and scientists/visitors to the department:

S.No.	Name of Eminent Academicians and Scientists Visited	Designation /Institute /Organization	Purpose of Visit	Details
1	Er. Ashish Tayal	Addl G.M. (Mobile) ALTTC, Ghaziabad	Interaction /Guest Lecture	Topic: Planning High Capacity Digital Radio Network Held on: 18/11/2014
2	Mr. M.K. Seth	Principle GM ALTTC, Ghaziabad	Interaction /Guest Lecture	Topic: How to Activate Neural Network Held on: 16/10/2014
3	Prof. M.S. Tyagi	Ex-Prof. IIT Kanpur	Interaction /Guest Lecture	Topic: Silicon Carbide (SiC) : A New Generation Semiconductor Material Held on: 29/09/2014
4	Mr. Vaibhav Mishra	Chief Strategy Officer, Pine Training Academy	Interaction /Guest Lecture	Topic: Role of FPGA in Digital Signal Processing Held on: 22/08/2014
5	Mr. Ashish Tayal	Additional G.M. (Mobile) ALT Centre Ghaziabad	Interaction /Guest Lecture	Topic: Evolution of Mobile Communication Technology From 2G to 4G in Indian Scenario Held on: 22/04/2014
6	Dr. D.R. Bhaskar	Department of ECE Jamia Millia Islamia Delhi	Interaction /Guest Lecture	Topic: Analog Processing "Gm-C APPROCH Held on: 27/03/2014
7	Er. Sanjay Singhal	Managing Director, Accenture's Delivery for Technology in India	Interaction /Guest Lecture	Topic: Mobile Application Development - Issues and Consideration Held on: 19/02/2014
8	Dr. K.V. Damodaran	Advisor (Regulatory Affairs), Member, Power Grid Corporation Ltd.	Interaction /Guest Lecture	Topic: Information Technology in Indian Aviation-Transforming the Passenger Experience Held on 29/01/2014
9	Dr.K.V Damodaran	Adviser Regulatory affairs)TRAI, Member power Grid Corporation	Interaction /Guest Lecture	Topic: Regulatory updates in communication sector. Held on: 15/11/13
10	Mr.Manjeet Singh.	Telecom Consultant and Former President HFCL.	Interaction /Guest Lecture	Topic: Infrastructure for IP networks. Held on: 11/10/13

11	Dr. S.C. Gupta,	Director, Northern India Engineering College	Interaction /Guest Lecture	Topic: New Trends in Optical Broadband Communication. Held on: 30/08/13
12	Prof. S.K. Kak.	Vice Chancellor, MTU Noida.	Opening Ceremony of National Conference/ Lecture	Topic: Emerging trends in Mobile Communications” Held on: 15-16/03/13
13	Mr. Vimal Wakhlu.	CMD, TCIL	Opening Ceremony of National Conference /Lecture	Topic: Emerging trends in Mobile Communications” Held on: 15-16/03/13
14	Prof. (Dr.) V.K. Jain.	IIT New Delhi	Opening Ceremony of National Conference/ Guest Lecture	Topic: Emerging trends in Mobile Communications” Held on: 15-16/03/13
15	Prof (Dr)H.S. Sharma	Director General ,JMS Group of Institutions	Interaction /Guest Lecture	Topic: Planning Operations & maintenance of Mobile Networks. Held on: 28/02/13
16	Prof.V.K.Jain	Professor and Head,EE Deptt,IIT DELHI	Interaction /Guest Lecture	Topic: Line coding in Digital Communications Held on:19/11/12
17	Mr. Narinder K. Chhiber	Secretary General, PTC India Foundation, New Delhi	Interaction /Guest Lecture	Topic: Planning Operations & maintenance of Mobile Networks. Held on: 26/10/12
18	Mr. P.K.Garg	Vice Chairman, Radio Regulatory Board, ITU, Govt. of India	Speaker ,Faculty Development program	Topic: Satellite Communication. Held on: 21-23/09/12
19	Mr. Vikas Nigam	Divisional Engineer, ALTTC, Ghaziabad	Interaction /Guest Lecture	Topic: 3G and beyond. Held on: 30/07/13
20	Wg.Cdr.(Retd.) Arif Khan	Director Ericsson India Pvt.Ltd	Interaction /Guest Lecture	Topic: Indian telecom regulatory infrastructure Held on:13/04/12
21	Mr.Gulshan Rai	Adtl. Secretary ,Deptt. Of Telecommn, Govt. Of India.	Inauguration /Speaker of National conference	Topic: EOIP Held on:2-3/03/12
22	Mr.V.K.Arya	Sr.General Manager,BSNL ,ALTTC Ghaziabad.	Interaction /Guest Lecture	Topic: IPv6 Addressing Held on:11/11/2011

23	Wg.Cdr.(Retd.) G.R.Chumber	Vice President (operations) Ralcom Technologies	Interaction /Guest Lecture	Topic: Recent Technological Trends in Business Opportunities. Held on:21/08/2010
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S.No.	Name of Eminent Academicians and Scientists Visited	Designation/Institute /Organization	Purpose of Visit
1	Dr. S.C. Gupta,	Director, Northern India Engineering College	Interaction/Guest Lecture
2	Prof. S.K. Kak.	Vice Chancellor, MTU Noida	Opening Ceremony of National Conference/Lecture
3	Mr. Vimal Wakhlu.	Chairman, TCIL	Opening Ceremony of National Conference/Lecture
4	Prof. (Dr.) V.K. Jain..	IIT New Delhi	Opening Ceremony of National Conference/ Guest Lecture
5	Mr. Narinder K. Chhiber	Secretary General, PTC India Foundation, New Delhi	Interaction/Guest Lecture
6	Mr. Vikas Nigam	Divisional Engineer, ALTTC, Ghaziabad	Interaction/Guest Lecture

25. Seminars/ Conferences/Workshops organized & the source of funding

a) National:

Events	Name of the Conference/FDP	Conducted on	Sponsored By
	1. Latest Trends in Wireless Communication	6 th -7 th Feb., 2015	College
Conference/s	2. Advancements in Satellite Communications	14-15 th Feb, 2014	College & Infosys
	3. Emerging trends in Mobile Communications.	15-16 th March, 2013	College & Infosys
	4. EOIP- The future deployment scenario	2 nd -3 rd March, 2012	College & Infosys
Faculty Development Programmes/ Workshops	1. Recent Trends in Embedded System Design held on	1 st -2 nd Aug. 2014	College
	2. Future trends in Mobile Communication	20-21 st September, 2013	College
	3. FDP on Satellite Communication	21 st -22 nd September, 2012.	College

International: NIL

26. Student profile programme/course wise:

- Admissions to B.Tech. and MCA I year as well as B-Tech II year (Lateral Entry) are made through Combined State Entrance Exam (UPSEE) conducted by the UPTU, Lucknow.

Name of the Course/programme (refer question no. 4)	Applications received	Selected	Enrolled	Pass percentage
			*M/*F	
B.Tech. EI	By UPTU Lucknow	42	42	NA

*M = Male *F = Female

27. Diversity of Students:

Name of the Course	Academic Session	% of students from the same state	% of students from other States	% of students from abroad
B.Tech-EI	2013-14	95%	5%	Nil

28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defense services, etc.?

- The details of students appeared and qualified in GATE exam are given below:

GATE INFORMATION

YEARS	2014		2013		2012		2011	
BRANCH	Appeared	Qualified	Appeared	Qualified	Appeared	Qualified	Appeared	Qualified
B.TECH - EI	7	7	*	*	*	*	*	*

* First batch is currently in fourth year and will pass out in June, 2014.

- The details of students appeared and qualified in CAT exam are given below:

CAT EXAM INFORMATION

YEARS	2014		2013	
BRANCH	No. of students Appeared for CAT	No. of students Qualified CAT*	No. of students Appeared for CAT	No. of students Qualified CAT*
B.TECH - EI	Not available		Not available	

* Students having percentile $\geq 80\%$.

- The details of students appeared and selected in Defense services are given below:

INDIAN NAVY

YEARS	2014		2013		2012		2011	
BRANCH	Appeared	Selected	Appeared	Selected	Appeared	Selected	Appeared	Selected
B.TECH - EI	23	NIL	First batch is Pass out on 2014.					

INDIAN AIR FORCE

YEARS	2014		2013		2012		2011	
BRANCH	Appeared	Selected	Appeared	Selected	Appeared	Selected	Appeared	Selected
B.TECH - EI	NIL	NIL	First batch is Pass out on 2014.					

INDIAN ARMY

YEARS	2014		2013		2012		2011	
BRANCH	Appeared	Selected	Appeared	Selected	Appeared	Selected	Appeared	Selected
B.TECH - EI	NIL	NIL	First batch is Pass out on 2014.					

29. Student progression:

Student progression	2014	(2013)	(2012)	(2011)
UG to PG	7			
PG to M.Phil.	Not Available	First batch is pass out in 2014.		
PG to Ph.D.				
Ph.D to Post-Doctoral				
Employed <ul style="list-style-type: none"> • Campus selection • Other than campus recruitment 	24			
Entrepreneurship / Self-employed		Not available		

30. Details of Infrastructural facilities:

a) Library:

Central Library:

➤ Infrastructural Details/Facilities:

S.No.	Parameter	Details
1	Carpet area of Library	1465 Sq.m
2	Reading Space	150 Sq.m
3	No. of Seats in reading space	330
4	No. of Users (issue book) 150	300 per day
5	Number of Users (Reading space)	300 per day
6	No. of Lib. Staff with Degree in Lib.	04
7	Computerization for search, indexing, issue/return records?	Yes
8	Records Bar-coding used?	Yes
9	Timings	Academic Working day 08:30 AM to 09:00 PM(Upto 12 mid night during Weeks preceding exams etc.)
10	INDEST or other similar membership?	BCL,DELNET, IEEE, ASME, Springer Science Direct, J-Gate, ASTM, McGraw-Hill

11	Number of titles	6088
12	Number of Volumes	73798
13	Number of New Titles added in 2012-13	506
14	Number of New volumes added in 2012-13	12968

➤ **Departmental Library:**

Number of Books available	236
Proceedings of National Conferences	Available

g) Internet facilities for Staff & Students:

S.No.	Parameter	Details
1	Internet Provider	C J-Online
2	Available BW	100 Mbps
3	Access Speed	Good
4	Availability in an exclusive lab	Yes
5	Availability in most computing labs	Yes
6	Availability in departments and other units	Yes
7	Availability in faculty rooms	Yes
8	Institute's own e-mail facility to faculty/students	Yes
9	Security/privacy to e-mail/internet users	Yes

h) Class rooms with ICT facility :

(i) All Class rooms are equipped with LCD Projection Systems, LCD Screens, USB ports for Laptop connectivity, Wireless Audio systems and Green board. These facilities enhance lecture delivery and effective communication. To supplement this process, Internet is available across the campus for online access to lectures of NPTEL and IEEE research papers. 9 classrooms with above features are exclusively available to Department of EI.

(ii) In order to supplement the process of understanding in certain subjects, audio visual aids in the form of "Smart Classes" have been implemented. These classes are conducted using

software's which are procured from reputed vendors. These classes are conducted along with regular classes and cover the technical aspects of the subjects through an audio-visual representation of various topics. For delivering smart classes, faculty members are provided with mini laptops which are connected with high resolution projection and audio systems already installed in the classrooms. Such software's enhance the level of understanding through a three dimensional representation of the subject taught. This also facilitates the delivery of certain topics beyond syllabus (Certain Novel technologies).

Department of EI has been conducting smart classes for the following courses during previous three years:

1. Electronics Engineering (EC-101/201) - Applicable to B.Tech First Year all streams.
2. Fundamentals of Electronic Devices (EEC-301) - Applicable to B.Tech third semester EI.
3. Electronic Circuits (EEC-401) - Applicable to fourth Semester EI
4. Electronic Instrumentation and measurements (EEC-403) - Applicable to fourth semester EI.
5. Digital Electronics (EEC-302) - Applicable to third Semester EI students.

(iii) Establishment of Virtual Labs: Virtual Lab is an initiative of Human Resource Development (MHRD) under the National mission on education through Information and Communication Technology (ICT). Objective of the virtual lab is providing remote access to labs in various disciplines of science and engineering. This is helping the students in learning advanced concepts through remote experimentation and has provided a complete learning management system, where students can avail various tools for learning including additional web resources such as video lectures, animated demonstrations and self evaluation tests.

i) Laboratories:

S.No	Name of the Laboratory	Lab/ Major equipment
1	Electronics Engg. Lab-I	CROs, Function generators, Pulse Generators, Ammeters, Voltmeters, Triple and Multiple Power supply
2	Project Lab	CROs, Function Generators, Multi meters , DSO, LCRQ Meter, Bread Boards
3	Transducer Lab	Density's shearing bridge, Optical transducer Trainer-LDR instrument, Kelvin Bridge trainer, Temperature Transducer, Post Office/ Wheat Stone Bridge, LVDT Trainer, Characteristics 15of AD-590 Transducer Kit for Measurement of Angular Displacement, trainer for Quarter/ half/Full Bridge strain cantilever. Measurement for Pressure transducer. Capacitive Transducer. DSO.
4	Instrumentation Lab	PCM using ADC & DAC converter, ADC to DAC using sample and Hold Circuit Kit, Kit for characteristics of strain gauge, Construction of Chopper Amplifier, Piezo Electric transducer
5	Micro controller Lab	New Lab. Equipment to be purchased for the Even Semester starting in January 2013
6	Electronics Engg. Lab- II	CROs, Function generators, Pulse Generators, Ammeters, Voltmeters, Triple and Multiple Power

		supply
7	Digital Electronics Lab-I	Digital Trainer Boards, CROs, Function Generators
8	Microprocessor Lab	CROs, Function Generators, 8085, 8086 LCD kits. Microcontrollers, Various Study Card, SMPS and various Power Supply units trainer
9	DSP Lab	DSP trainer Kits along with Head sets , CROs
10	Telemetry Lab	CROs, Digital storage oscilloscope Modulation and Demodulation kits for AM,FM, PCM using ADC & DAC converter

31. Number of students receiving financial assistance from college, university, Government or other agencies:

Financial assistance is received by the SC/ ST candidates under Freeship and Scholarship scheme of the Government.

B.Tech	2010-11	2011-12	2012-13	2013-14
EI	10	15	24	14

- 5% students are benefited under fee waivers category on merit basis.
- Cash award is also given to top three students of every branch.
- Following list gives the detail of cash award received by the top three students of EI branch for the **Session 2012-13**.

Sl. No.	Univ. Roll No.	Name Of Students	Marks Obtained	% Marks	Position In Branch	Branch / Yr.	Prize Money
1	1102732901	Harshit	1704	85.20	I	EI / III	5000
2	1002732045	Shivani Garg	1695	84.75	II	EI / III	4000
3	1002732056	Vishakha Tiwari	1671	83.55	III	EI / III	3000

Session 2013-14

Sl. No.	Univ. Roll No.	Name Of Students	Marks Obtained	% Marks	Position In Branch	Branch / Yr.	Prize Money
1	1002732045	Shivani Garg	4217	84.34	I	EI / IV	20000
2	1102732901	Harshit	3792	84.27	II	EI / IV	10000
3	1002732056	Vishakha Tiwari	4074	81.48	III	EI / IV	3000

32. Details on student enrichment programmes (special lectures / workshops / Seminar) with external experts:

Following are the details on student enrichment programme:

1. Activities/ Events conducted by Departmental Society: Department of EI has established a departmental technical society “PHOENIX”, which has been conducting various technical competitions at intercollegiate level. Students are encouraged to participate in various events such as fabrication of hardware projects in areas like robotics, instrumentation, communication engineering etc. To accomplish this, necessary support is provided in terms of components and guidance from the department.

2. Conduct of Guest Lectures by experts from Industry/Academia: Department of EI is conducting lectures delivered by experts from various industries, research organizations and from the field of academics. These guest lectures improve the professional knowledge of students and faculty. They are conducted once a month.

3. LAB-VIEW: EI department at **AKGEC** jointly with National Instruments (India) has set up AKGEC-NI Lab-VIEW Academy for Educational Institutions at AKGEC, Ghaziabad. This Academy is an initiative of NI under their Planet NI (Nurturing Innovation) framework which strives to increase the employability of Indian engineering graduates by creating ‘Centre of Excellence’ in Engineering Colleges and Universities which will provide cost effective access to world class latest technology through classroom teaching-learning.

The Lab-VIEW Academy curriculum gives students the opportunity to validate their knowledge and skills at a professional level with certification. Experience and certification in Lab VIEW can improve student’s career opportunities. The academy encourages and promotes industry oriented projects; R&D Activity and industry relevant training programs to bridge industry academia gap and improve employability of young engineers. The establishment of this training academy is one of the initiatives in the same direction.

Recently, Lab View based experiments have been added in the existing lab curriculum.

4.MATLAB training by IIT Kanpur: A Program on MATLAB is conducted by ORANE LAB, SIIC, IIT KANPUR, A division of Orane Infosystem Pvt. Ltd. The course covers the theoretical and practical aspects of Advanced MATLAB and Simulink. This is useful for the students of B.Tech 2nd and 3rd year. Total number of students registered for this program is 52. The course commenced on 28th September, 2014. Total duration of the Course is 60 hours (approx.). Till date 30 hrs of course coverage including class room program have been completed and hands on experience has been provided. The course is expected to be completed by Feb 2015.

5. IETE students' Forum: This forum was established at Department of EI in collaboration with IETE (Institute of Electronics and Telecommunication Engineers), New Delhi in the month of September, 2013. Under this MoU, 77 memberships have been acquired for students of the department. These students will be entitled to receive copies of IETE publications, newsletter and technical review. Additionally, a good number of professors, assistant professors are fellow members of IETE, New Delhi.

6. Infosys Campus Connect Programme (CCP): As a step towards grooming students into perfect professionals and to make them compatible with the IT industry, campus connect programme is run by our T&P department which is conducted by Infosys. Under this programme, Infosys has designed and provided 70 hours teaching module, for which the faculty at AKGEC has been especially trained by the firm. This module is taught to top 120 students of third year as an extra course on weekends. In addition to this, Infosys has also provided a range of projects that the students take up as a part of their final year projects. These steps not only help Infosys to reduce their in house training time but also help the students in acquiring technical skills which make them more suitable for IT industry.

7. Conduct of PDP classes in the campus for EI students: Academic excellence alone is not enough and cannot guarantee a good career. Certain personality attributes and soft skills are essential not only to get a good job placement but also to be able to contribute and grow in an organization. Taking cognizance of this, the college emphasizes all round development through a range of extracurricular activities as well as organizing and conducting formal Personality Development Program.

This programme spanning over 100 hours is conducted by a professional agency on weekends and includes training in communication skills, group discussion, interpersonal skills and interviews. This is a mandatory programme for second year B.Tech and first year MCA students of the college. This programme helps in the overall personality development of students. The whole exercise is intended to increase the employability of students. Amidst an inspiring and invigorating environment, students undergo training that turns them into top notch professionals.

8. Conduct of National Conferences: A National conference is conducted by the Department of Electronics and Instrumentation engineering every year in the even semester. Various topics of current technological significance are selected to be delivered in the conference. Eminent personalities from various Government and Non-Government organizations are invited to chair various sessions and deliver their lectures. Faculty members and students are encouraged to participate and contribute their research papers in the conference proceedings. This enhances the research temperament among faculty members and students. Over the past three years, following National Conferences have been held:

- a) EOIP- The future deployment scenario held on 2nd -3rd March, 2012.
- b) Emerging trends in Mobile Communications held on 15th-16th March, 2013.
- c) Advancements in Satellite Communication held on 14th -15th February, 2014

9. Faculty Development programme: FDP is conducted by the Department of Electronics and Instrumentation engineering every year in the odd semester. Eminent trainers from IIT's, ISRO, BSNL, MTNL and various organizations are invited for training faculty members within and outside the college. Over the past few years, following Faculty Development Programmes (FDP) have been held:

- a) Innovative and effective teaching methodology for basic Electronics held on 5th -9th Jan, 2009.
- b) FDP on Satellite Communication held on 21st-22nd September, 2012.
- c) Future trends in Mobile Communication held on 20-21st September, 2013.
- d) **FDP on Recent Trends in Embedded System Design held on 1st -2nd Aug. 2014**

10.Establishment of Virtual Labs: Virtual Lab is an initiative of Human Resource Development (MHRD) under the National mission on education through Information and Communication Technology (ICT). Objective of the virtual lab is providing remote access to labs in various disciplines of science and engineering. This would help the students in learning advanced concepts through remote experimentation. This will provide a complete learning management system where students can avail various tools for learning including additional web resources such as video lectures, animated demonstrations and self evaluation tests. For conducting the above listed programmes, various committees comprising of members from faculty and students are assigned as per the Department duty chart.

33. Teaching methods adopted to improve student learning:

Various delivery methods implemented to deliver the courses are listed below in a

S.No.	Lecture Delivery methods	Description	Remarks
1	Chalkboard	Conventional delivery method .In this delivery mode a faculty writes on a green board with a chalk and simultaneously explains the whole process.	Found to be very effective technique.
2*	Chalkboard and Audio visual aids (PPTs).	It includes a power point presentation of the topic being taught coupled with video tutorials besides verbal explanation by the faculty	Found to be very effective and self explanatory as expressed by students.

Methods (1) and (2) are further supplemented by experimentation which is a part of the curriculum which enhances the level of understanding.

*In order to supplement Method (2) “Smart Classes” are conducted for various subjects. This includes an audio-visual representation of various topics giving a three dimensional understanding of instruments and technical topics of diverse domains.

For delivering smart classes, faculty members are provided with mini laptops which are connected with high resolution projection and audio systems already installed in the classrooms.

34. Participation in Institutional Social Responsibility (ISR) and Extension activities

In addition to the technical, sports and cultural activities, the college hosts events in social front as well. This includes events organized by NSS and rotary club Ghaziabad. Following initiatives have been taken in the previous three years in this direction.

S.No	Event	Organized By	Details
1	Fund collections	National Foundation for Communal Harmony(NFCH)	The NFCH organizes various fund collections and conduct essay competition on events like “World Communal Harmony Day”.
2	Essay competition	National Foundation for Communal Harmony(NFCH)	
3	Blood donation camp	Rotary Club Ghaziabad (RCG)	The College organizes one blood donation camp every year in collaboration with RCG in the last blood donation camp the college contribute a record of 635 units.

35. SWOC analysis of the department and Future plans:

Strengths:

- Department of EI has sufficient number of well qualified faculty members.
- Electronics and Instrumentation stream being a specialized branch has a tremendous scope in the future.
- Department has well equipped and modern labs that satisfy the curriculum requirements.
- Department of EI conducts one National conference and one Faculty Development Programme (FDP) annually. It provides an opportunity to the faculty members to interact with experts in various domains, thereby upgrading their knowledge bank and experience.

Weaknesses:

- The Curriculum is bound by the University syllabus .The syllabus is modified once in every four years.
- EI being a specialized branch .It is still a narrow branch. It poses a tremendous competitiveness in terms of job opportunities and placement.
- The institute is not funded by the Government .Hence all resources are to be funded solely by the institution.

Opportunities:

- Our institute being situated within NCR, it is close to good Engineering colleges.
- Students and faculty members can visit advanced labs such as NPL, ISRO etc.
- It is closer to good electronic companies based in Delhi, Noida etc. Hence students are availing training options helping them in placement drives.

Constraints:

- A large number of Engineering colleges are opening .Certain institutions are not maintaining the requisite academic standards due to which quality of education is degrading.
- With the rapid development of Novel technologies, job requirements are changing drastically. Hence, this has posed a challenge to placement drive. This needs to improve.

Evaluative Report of the Department: Information Technology

1. **Name of the department:** Information Technology
2. **Year of Establishment:** 1999
3. **Names of Programmes / Courses offered (UG, PG, M.Phil., Ph.D., Integrated Masters; Integrated Ph.D., etc.):** UG (B.Tech)
4. **Names of Interdisciplinary courses and the departments/units involved:** Nil
5. **Annual/ semester/choice based credit system (programme wise):** Semester Based
6. **Participation of the department in the courses offered by other departments:** Yes
7. **Courses in collaboration with other universities, industries, foreign institutions, etc:**
 - a. Running Java Training Courses in Collaboration with Ducat, Noida
 - b. Running LINUX Training Courses in Collaboration with RCPL, NOIDA
8. **Details of courses/programmes discontinued (if any) with reasons:** NIL
9. **Number of teaching posts:**

Designation	Sanctioned	Filled
Professors	2	3
Associate Professors	4	0
Asst. Professors	16	24

10. **Faculty profile with name, qualification, designation, specialization, (D.Sc./D.Litt./Ph.D. / M. Phil. etc.,)**

S.No.	Faculty Name	Qualification	Designation	Specialization	No. of Years of Experience	No. of Ph.D. Students
1.	Prof.R.P. Saw	ME	Professor & HOD	Web Technology, Mobile Computing	33	-
2.	Prof. Ashiv Shah	M.Tech	Professor	E-Commerce, Network security	22	-
3.	Dr. Anu Chaudhary	Ph.D	Professor	High Speed Data networks, DBMS	13	3 Candidates
4.	Mr. Raja Ghosal	M.Tech	Asst.Prof.	Computer Networks, Queing Theory	15	-
5.	Ms. Anupama Sharma	M.Tech	Asst.Prof.	DBMS, Data Structure, MANET	12	-

6.	Mr. Ruchin Gupta	M.Tech	Asst.Prof.	Operating System, Software Testing, Soft	13	-
7.	Mr.Jitendra Kr Seth	M.Tech	Asst.Prof.	Object Oriented System, Cloud Computing.	9	-
8.	Mr.Sumit Sharma	MS,MBA,B.Tech	Asst.Prof.	Cyber Security, Software Engineering	11	-
9.	Mr.Narendra Kumar	M.Tech	Asst.Prof.	Fuzzy Logic, Digital Image Processing	9.5	-
10.	Ms.Tahira Mazumder	M.Tech	Asst.Prof.	Network Security, Computer Architecture	10	-
11.	Mr.Pancham	M.Tech-Pursuing	Asst.Prof.	Operating System, Computer Networks	6.6	-
12.	Mr.Kapil Tomar	M.Tech	Asst.Prof.	Design and Analysis of Alorithms,Cloud	6	-
13.	Mr.Sushil Kr. Bagi	M.Tech	Asst.Prof.	Distributed System, Software Engineering	6	-
14.	Ms. Deepti Gupta	M.Tech	Asst.Prof.	Design and Analysis of Alorithms,	6	-
15.	Ms. Punam Kumari	M.Tech.	Asst.Prof.	Artificial Intelligence,Software	5.6	-
16.	Ms. Yogita Chhabra	M.Tech.	Asst.Prof.	Microwave Engineering, Computer Graphics	5	-
17.	Ms. Shweta Sharama	M.Tech.	Asst.Prof.	Artificial Intelligence, Software Engineering	3.6	-
18.	Ms. Vidushi	M.Tech.	Asst.Prof.	Operating System, Software Testing, Soft	6 Months	-
19.	Ms. Kavita Agrawal	M.Tech.	Asst.Prof.	Data Mining,	2	-
20.	Mr. Atul Kumar	M.Tech.	Asst.Prof.	Data Mining,	9	-
21.	Ms. Shweta Roy	B.Sc (Engg.). M.Tech. (Pur)	Asst.Prof.	Data Mining,	9.5	-
22.	Ms. Lovey Rana	M.Tech.	Asst.Prof.	Microwave Engineering, Computer Graphics	1	-
23.	Ms. Neetu Mishra	M.Tech, Ph.D.(Pur)	Asst.Prof.	Artificial Intelligence, Software Engineering	7.5	-
24.	Ms. Akansha Singh	M.Tech, Ph.D.(Pur)	Asst.Prof.	Network Security, Computer Architecture	6	-
25.	Ms. Anupam Singh	B.Tech.	Asst.Prof.	Operating System, Computer Networks	2	-
26.	Ms. Yashu Sharma	B.Tech., M.Tech. (Pur)	Asst.Prof.	Design and Analysis of Alorithms,Cloud	2	-
27.	Mr. Mayur Kansal	B.Tech., MBA (Pur)	Asst.Prof.	Network Security, Computer Architecture	4	-

11. **List of senior visiting faculty:** Nil
12. **Percentage of lectures delivered and practical classes handled (programme wise) by temporary faculty:** Nil
13. **Teacher-Student Ratio (Programme wise):** 1:15
14. **Number of academic support staff (technical) and administrative staff; sanctioned and filled:**
 - i. Lab Staff (Technical): 4 No's
 - ii. Office staff(Administrative) : 3 No's
15. **Qualifications of teaching faculty with DSc/ D.Litt/ Ph.D/ MPhil / PG.:**

No. of Faculty with Ph.D : 01
 No. of Faculty with M.Tech : 21
 No. of Faculty with B.Tech : 05
17. **Number of faculty with ongoing projects from a) National b) International funding agencies and grants received:** Nil
17. **Departmental projects funded by DST - FIST; UGC, DBT, ICSSR, etc. and total grants received:** Nil
18. **Research Centre /facility recognized by the University:** Nil
19. **Publications:**

Session (2013-14)				
S.No.	Author	Title	Month	Publication Detail
1	Jitendra Kumar Seth	An Optimistic Approach for Intrusion Security in Cloud	July 2014	International Journal of Computer Applications (0975-8887) Volume 97- No-13.
2	Pancham Singh, Deepak Chaudhary and Ruchin Gupta	Comparison of Cache Page Replacement Techniques to Enhance Cache Memory Performance	July 2014	International Journal of Computer Applications98 (19):27-33,. Published by Foundation of Computer Science, New York, USA
3	Dr.Anu Chaudhary	Performance Evaluation of VoIP in MPLS network using NS-2	June-14	International journal of COMPUTERS AND TECHNOLOGY , Vol. 13, No. 9

4	Ruchin Gupta, Narendra Teotia	Least Recently Used Page Replacement using Last Use Distance (LRUL)	Dec-13	(IJCA) International Journal of Computer Applications, Volume 84/Number 2 (ISBN: 973-93-80879-22-4))
5	Ruchin Gupta, Narendra Teotia	Visualizing Page Replacement Techniques based on Page Frequency and Memory Access Pattern	Dec-13	(IJCSIT) International Journal of Computer Science and Information Technologies, Vol. 4 (6) , 2013, 886-890

20. **Areas of consultancy and income generated:** Nil

21. **Faculty as members in:**

- a) National committees: 02
- b) International Committees: 02
- c) Editorial Boards: 01

22. **Student projects**

- a) Percentage of students who have done in-house projects including inter departmental/ programme

S.No	Year	% of Students (Interdepartmental Projects)
1	2013-14	4.7
2.	2012-13	4.7
3.	2011-12	4.2
4.	2010-11	8.6

- b) **Percentage of students placed for projects in organizations outside the institution i.e.in Research laboratories/Industry/ other agencies:** Nil

23. **Awards / Recognitions received by faculty and students:**

- On an average 25% to 30% faculty members of the department got cash awards from the institution for best results for their respective subjects.
- Branch toppers and university rank holders students gets awards.
- Various faculty members got cash awards for publishing their papers in a reputed journal.

24. List of eminent academicians and scientists / visitors to the department

- Amit Kumar, Ducat Noida.
- Mr. Sheetal Sharma Technical trainer, JETKING Infotrain Private LTD, Delhi.
- Mr. Gaurav Joshi, Corporate Trainer, NIIT Noida.
- Dr. Naveen Kumar, Reader, IGNOU, new Delhi.
- Mr. B.P. Sharma, MD Wizard Infosolutions Pvt.Ltd, Ghaziabad.
- Mr. Sachin Gaur & Mr. Gaurav Dhir Founders MixORG Delhi.
- Dr. Ramesh Bansal, Professor, University of Queensland, St. Lucia Australia.
- Dr. D.K. LOBIYAL, School of Computer & Systems Sciences, Jawaharlal Nehru University, New Delhi.
- Dr. Sateesh K. Peddoju Department of Electronics & Computer Engineering Indian Institute of Technology Roorkee Uttarakhand, India.
- Dr. Emmanuel Shubhakar Pilli Department of Computer Science & Engineering, School of Computing, Graphic Era University, Dehradun.
- Mr. R. K. Bajpai, Programme Manager TATA CONSULTANCY LTD.
- Mr. Pramod Joshi, Ex.MD Syncata India, Ex Co-Founder and Director, The Winning Mantran, Noida., Advisor to the Chancellor, GLA niversity, Mathura etc.
- Mr. Parvez Ali , Mr. Deep Singh Ducat, Ghaziabad
- Mr. Raja Dasgupta , Head, Oracle Workforce Development Program and Certifications, India
- Chandra S. Samavedula ,Senior manager, Ericsson Global Services, Gurgaon

25. Seminars/ Conferences/Workshops organized & the source of funding

a) National

S.No	Year/Date	Name of the Event	Sponsorship
1.	15-16 Feb'13	FDP on NS-2	-
2.	24-25 Aug'12	FDP on MANET	-
3.	04-05 Nov'11 2011	National Conference- ITBT2011.	Technical Sponsorship by: CSI Ghaziabad Chapter, GMA, IEEE Computer Society Delhi section
4.	10-11 April, 2009	National Conference- ITBT2009.	Technical Sponsorship by: CSI Ghaziabad Chapter, IETE, Delhi

26. Student profile programme/course wise: NA

Remark: Admissions to B.Tech. and MCA I year as well as B-Tech II year (Lateral Entry) are made through Combined State Entrance Exam (UPSEE) conducted by the UPTU, Lucknow.

Name of the Course/programme	Applications received	Selected	Enrolled		Pass percentage
			M	F	
B.Tech.IT	By UPTU Lucknow	111			96.25%

*M = Male *F = Female

27. Diversity of Students:

Name of the Course (Year Wise)	% of students from the same state	% of students from other States	% of students from abroad
B.Tech(IT) 2010	95.6%	4.4%	Nil
B.Tech(IT) 2011	95.2%	4.8%	Nil
B.Tech(IT) 2012	97.6%	2.4%	Nil
B.Tech(IT) 2013	97.3%	2.7%	Nil

28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defense services, etc.?

GATE INFORMATION

YEARS	2014		2013		2012		2011	
BRANCH	No. of students Appeared for GATE	No. of students Qualified GATE*	No. of students Appeared for GATE	No. of students Qualified GATE*	No. of students Appeared for GATE	No. of students Qualified GATE*	No. of students Appeared for GATE	No. of students Qualified GATE*
B.TECH - IT	8	4	28	6	14	11	6	5

* Students having percentile $\geq 80\%$.

The details of students appeared and qualified in CAT exam are given below:

CAT EXAM INFORMATION

YEARS	2014		2013	
BRANCH	No. of students Appeared for CAT	No. of students Qualified CAT*	No. of students Appeared for CAT	No. of students Qualified CAT*
B.TECH - IT	3	0	4	2

* Students having percentile $\geq 80\%$.

The details of students appeared and selected in Defense services are given below:

INDIAN NAVY

YEARS	2014		2013		2012		2011	
BRANCH	No. of students Appeared	No. of students Selected	No. of students Appeared	No. of students Selected	No. of students Appeared	No. of students Selected	No. of students Appeared	No. of students Selected
B.TECH - IT	43	-	27	-	22	-	52	-

INDIAN AIR FORCE

YEARS	2014		2013		2012		2011	
BRANCH	No. of students Appeared	No. of students Selected	No. of students Appeared	No. of students Selected	No. of students Appeared	No. of students Selected	No. of students Appeared	No. of students Selected
B.TECH - IT	-	-	-	1	-	-	-	-

INDIAN ARMY

YEARS	2014		2013		2012		2011	
BRANCH	No. of students Appeared	No. of students Selected	No. of students Appeared	No. of students Selected	No. of students Appeared	No. of students Selected	No. of students Appeared	No. of students Selected
B.TECH - IT	-	-	26	1	-	-	-	-

29. Student progression

Student progression	2014 Passout Batch (No. of Students)	2013 Passout Batch (No. of Students)	2012 Passout Batch (No. of Students)	2011 Passout Batch (No. of Students)
UG to PG	4	8	11	5
PG to M.Phil.	Not available			
PG to Ph.D.				
Ph.D to Post-Doctoral				
Employed <ul style="list-style-type: none"> • Campus selection • Other than campus recruitment 	79 -	83 -	75 -	83 -
Entrepreneurship / Self-employed	Not available			

30. Details of Infrastructural facilities

a) Library:

Central Library:

➤ Infrastructural Details/Facilities:

S.No.	Parameter	Details
1	Carpet area of Library	1465 Sqm
2	Reading Space	150 Sqm
3	No. of Seats in reading space	330
4	No. of Users (issue book)	300 per day
5	Number of Users (Reading space)	300 per day
6	No. of Lib. Staff with Degree in Lib.	05
7	Computerization for search, indexing, issue/return records?	Yes

8	Records Bar-coding used?	Yes
9	Timings	Academic Working day 08:30 AM to 09:00 PM (Upto 12 mid night during Weeks preceding exams etc.)
10	INDEST or other similar membership?	IEEE (ASPP), Springer, ASME, McGrawHill, Science Direct (Elsevier), J-Gate Engineering, ASTM Digital Library, ASCE, BCL,DELNET, EZProxy
11	Number of titles	7639
12	Number of Volumes	79699
13	Number of New Titles added in 2013-14	201
14	Number of New volumes added in 2013-14	2408

Departmental Library:

Number of Books available	175
Proceedings of National Conferences	Available

j) Internet facilities for Staff & Students:

S.No.	Parameter	Details
1	Internet Provider	C J-Online
2	Available BW	100 Mbps
3	Access Speed	Good
4	Availability in an exclusive lab	Yes
5	Availability in most computing labs	Yes
6	Availability in departments and other units	Yes
7	Availability in faculty rooms	Yes
8	Institute's own e-mail facility to faculty/students	Yes
9	Security/privacy to e-mail/internet users	Yes

c) Class rooms with ICT facility:

(i) All Class rooms are equipped with LCD Projection Systems, LCD Screens, USB ports for Laptop connectivity, Wireless Audio systems and Green board. These facilities enhance lecture delivery and effective communication. To supplement this process, Internet is available across the campus for online access to lectures of NPTEL and IEEE research papers. 6 classrooms with above features are exclusively available to Department of IT.

(ii) In order to supplement the process of understanding in certain subjects, audio visual aids in the form of "Smart Classes " have been implemented. These classes are conducted using softwares which are procured from reputed vendors. These classes are conducted along with regular classes and cover the technical aspects of the subjects through an audio-visual representation of various topics. For delivering smart classes, faculty members are provided with mini laptops which are connected with high resolution projection and audio systems already installed in the classrooms. Such software's enhance the level of understanding through a three dimensional representation of the subject taught. This also facilitates the delivery of certain topics beyond syllabus (Certain Novel technologies).

Laboratories:

S.N .	Name of the Laboratory	Area in Sq. M.	Lab/Major Equipments
1	Fundamental IT Lab-3 (Part-1)	87.1	16 Computers HP Intel Core i3 3.1 GHz., 2 GB RAM, 500 GB HDD, 18.5” LCD Monitor, 1-Dot Matrix Printer,2-Laptop,1-Laser Printer,1-Lcd Projector,2-Switch 24 Port, 2-Network Camera
2	Fundamental IT Lab-3 (part-2)		15 Computers HP Intel Core i3 3.1 GHz., 2 GB RAM, 500 GB HDD, 18.5” LCD, 1 Hc lCore 2duo 2.93, 1GB Ram, 320 GB HDD
3	Advance IT Lab-4 (Part-1)	87.1	16 Computers HP Intel Core i3 3.1 GHz., 2 GB RAM, 500 GB HDD, 18.5” LCD Monitor, 1-Dot Matrix Printer,1-Laptop,UPS 20 KVA ,1-Lcd Projector,2-Switch 24 Port, 2-Network Camera
4	Advance IT Lab-4 (Part-2)		15 Computers HP Intel Core i3 3.1 GHz., 2 GB RAM, 500 GB HDD, 18.5” LCD, 1 Hc lCore 2duo 2.93, 1GB Ram,320 GB HDD
5	Web Technology Lab (Part-1)	116.2	18 Computers HP Intel Core i3 3.1 GHz., 2 GB RAM, 500 GB HDD, 18.5” LCD Monitor, 1- Thumb Impression Scanner, 1-Dot Matrix Printer, UPS 10 KVA ,2-Switch 24 Port, 2-Network Camera

6	Web Technology Lab (Part-2)		18 Computers HP Intel Core i3 3.1 GHz., 2 GB RAM, 500 GB HDD, 18.5" LCD Monitor
7	PC Communication Lab (Part-1)	116.2	18 Computers Core2Duo 2.93 GHz., 1GB RAM, 160GB HDD,LCD Monitor, UPS 20 KVA ,2-Switch 24 Port, 18- Head Phone Mic
8	PC Communication Lab (Part-2)		17 Computers Core2Duo 2.93 GHz., 1 GB RAM, 160 GB HDD,LCD Monitor, 13-Head Phone Mic

31. Number of students receiving financial assistance from college, university, government or other agencies:

88 students got financial assistance in the Year 2013-14.

32. Details on student enrichment programmes (special lectures / workshops /seminar) with external experts:

Date	Topic Name	Name of the Speaker
4/09/13	New trends in IT & its applications	Chandra S. Samavedula ,Senior manager, Ericsson Global Services, Gurgaon
3/09/13	Overview of Java Technology	Amit Kumar, Ducat Noida
7/03/13	Cloud Computing	Mr. Sheetal Sharma JETKING Infotrain Private LTD, Delhi.
25/01/13	Oracle Database 10G: Administration	Mr. Gaurav Joshi NIIT Noida.
22/11/12	Network Security Issues and Solutions	Dr. Naveen Kumar Reader, IGNOU, new Delhi.
26/10/12	New era of Development with Microsoft Technologies	Mr. B.P. Sharma MD Wizard Infosolutions Pvt.Ltd, Ghaziabad.
1/02/12	Entrepreneurship in IT Arena	Mr. Sachin Gaur & Mr. Gaurav Dhir Founders MixORG Delhi
13/01/12	Research Methodology	Dr. Ramesh Bansal Professor, University of Queensland,St.Lucia Australia.

33. Teaching methods adopted to improve student learning: Chalk Board, PowerPoint Presentations, Student's Project and Seminar Presentations, and Practical Labs etc.

34. Participation in Institutional Social Responsibility (ISR) and Extension activities: Blood Donation Camps, Minority Fund Collections, Anti-Ragging campaign etc.

35. SWOC analysis of the department and Future plans:

STRENGTHS

1. Young and dynamic faculty
 - (a). Sufficient number
 - (b). Excellent academic backgrounds
2. A curriculum designed to meet both national and international standards:
 - (a) Strong engineering science component
 - (b) Availability of a good variety of general education courses
 - (c) A well structured laboratory experience
 - (d) A strong professional component
3. Well equipped laboratory, library and IT Facilities
4. Adequate funding
 - Research
 - Teaching improvement
 - Hiring adequate human resources
 - Maintaining and upgrading facilities, new campus project

WEAKNESSES

1. Deficiencies in certain outcomes in graduating students
 - (a). Communication skills
 - (b). Design/real world applications
 - (c). Laboratory experience
2. Quality and quantity of current students
 - (a). The lack of motivation to excel
 - (b). The culture of being “spoon-fed”
 - (c). Inadequate language preparation
 - (d). Inadequate training in critical or analytical thinking
3. Inappropriate mode of teaching
 - (a). Spoon-feeding
 - (b). Lack of active learning
 - (c). Inadequate classroom assessment
4. Large proportion of faculty with limited industrial and research experience

OPPORTUNITIES

1. Available faculty development opportunities
 - (a). Sufficient funding
 - (b). Availability of attending workshops, seminars etc
 - (c). Possibility of utilizing local mentors for teaching and research
2. Location
 - (a). Being in Delhi NCR easy access for companies and placements.
3. Young and dynamic society
 - (a). A good pool for potential students
 - (b). Readiness to accept changes

CHALLENGES

1. Competition (local, regional and global)
 - (a). Emerging local and regional private colleges.
 - (b). Accessibility of international schools via distance education.
 - (c). Fast pace of developments in technology (e.g. IT, emerging new fields)
2. Declining enrollment (interest) in engineering
 - (a). Lack of sufficient number of quality students with strong interest in engineering
 - (b). Inadequate public awareness for engineering profession and job opportunities
3. Quality of incoming students (language, analytical thinking, motivation)
 - (a). Inadequate University curriculum
 - (b). The quality of teaching staff in education

Future plans

To empower students with latest technology will also provide them the platform to improve their presentation skills hence build the confidence level. Provide research environment to students and faculty to meet the current and future challenges of technological development.

3. Evaluative Report of the Departments

1. Name of the department: **Mechanical Engineering Department**
2. Year of Establishment: **1998**
3. Names of Programmes / Courses offered (UG, PG, M.Phil., Ph.D., Integrated Masters; Integrated Ph.D., etc.): **B.TECH/UG, M.TECH/PG**
 - PG - M.Tech in Automation and Robotics (Joint programme with EN department) started in 2004 with an intake of 18).
 - PG – M. Tech in Mechanical Engineering started in 2014 with an intake of 18.
4. Names of Interdisciplinary courses and the departments/units involved:
M.Tech in Automation & Robotics (ME, EN, CS, ECE, IT, EI)
5. Annual/ semester/choice based credit system (programme wise): **Semester**
6. Participation of the department in the courses offered by other departments
The department faculty teaches all Mechanical Engineering subjects in B.Tech 1st year, Open electives of ECE, EN, EI, CE, CS & IT Departments
7. Courses in collaboration with other universities, industries, foreign institutions, etc.
NIL
8. Details of courses/programmes discontinued (if any) with reasons **NIL**

Number of teaching posts:

Designation	Sanctioned	Filled
Professors	3+1*=4	05
Associate Professors	6+1*=7	04
Assistant Professors	19+1*=20	26

*Faculty for M.Tech. Programme

10. Faculty profile with name, qualification, designation, specialization, (D.Sc./D.Litt. /Ph.D. / M. Phil. etc.,)

Sl. No.	Faculty Name	Qualification			Designation	Specialization	No. of Years of Experience	No. of Ph.D. Students guided in last 4 years
1	Dr. R. K. Agarwal	Ph.D	M.S	B.Tech	Director	Fluid Dynamics	34	0
2	Prof. I.P. Sharma (HoD)	Ph.D (Pur)	M.E.	B.E.	Professor	Mechanical Engineering	33	0
3	Prof. J.P. Malhotra	Ph.D	M.S. MECH. ENGG, M. ENGG	B.Tech	Professor	Gas Turbine and Wind Turbine	40	0
4	Prof. M.K.Muju	Ph.D	M.Tech	B.Tech.	Professor	Manufacturing Science	46	0
5	Dr. G.P. Dube	Ph.D	M.Tech	B.Tech.	Professor	Applied Mechanics	38	0
6	Mr. R.K.Singh	Ph.D (Pur)	M.Tech	B.Tech.	Associate Professor	Industrial & Production	14	0
7	Mr. Devendra Singh	Ph.D (Pur)	M.Tech	B.Tech.	Associate Professor	Automation & Robotics	18	0
8	Mr. Pradeep Jain	Ph.D (Pur)	M.E.	B.E.	Associate Professor	CAD/CAM	15	0
9	Mr. Pallab Biswas	Ph.D (Pur)	M.Tech	B.Tech.	Associate Professor	Industrial Engineering	14	0
10	Mr. Vivek Kr. Pansari	Ph.D (Pur)	M.E	B.E	Assistant Professor	Manufacturing systems	10	0
11	Mr. Kamal Kumar Mittal	Ph. D (Pur)	M.Tech	B.Tech.	Assistant Professor	Manufacturing	6	0
12	Mr. Amit Kr. Gupta	Ph. D (Pur)	M.Tech	B.Tech.	Assistant Professor	Manufacturing	5	0
13	Mr. Vikash Kumar	Ph.D (Pur)	M.Tech	B.Tech.	Assistant Professor	Manufacturing	6	0
14	Mr. Ajay Kant Dubey		M.Tech	B.E	Assistant Professor	Automation & Robotics	9	0
15	Mr. Dinesh Kr. Singh		M.E	B.Tech.	Assistant Professor	Mechanical Engineering	8	0
16	Mr. H.S.Chaurasiya		M.Tech	B.Tech.	Assistant Professor	Machine Design	8	0
17	Mr. Jitendra Yadav		M.Tech	B.Tech.	Assistant Professor	Machine Design	6	0
18	Mr. Pul Singh Panugothu		M.Tech	B.Tech.	Assistant Professor	Machine Design	6	0

19	Mr. Rajiv Kumar		M.Tech	B.Tech.	Assistant Professor	Industrial & Production	4	0
20	Mr. Gajesh Kumar		M.Tech	B.Tech.	Assistant Professor	Industrial Engineering	3	0
21	Ms. Namrata Gupta		M.E.	B.E.	Assistant Professor	Industrial Engineering	3	0
22	Mr. Ajay Pratap Singh		M.Tech	B.Tech.	Assistant Professor	Fluids Engg	2	0
23	Ms. Neha Agarwal		M.Tech	B.Tech.	Assistant Professor	Automation & Robotics	5	0
24	Mr. Laxmikant Yadav		M.Tech	B.Tech.	Assistant Professor	Thermal Engg.	1	0
25	Mr. R.K. Maurya		M.Tech	B.Tech.	Assistant Professor	Automation & Robotics	6	0
26	Mr. Gaurav Tripathi		M.Tech	B.Tech.	Assistant Professor	Metallurgical and Materials Engg.	1	0
27	Mr. Amit Sharma		M.Tech	B.Tech.	Assistant Professor	Thermal Engg.	1	0
28	Mr. Raja Ram		M.Tech	B.Tech.	Assistant Professor	Thermal Engg.	4	0
29	Ms. Apeksha Ranjan		M.Tech	B.Tech.	Assistant Professor	Thermal Engg.	8	0
30	Mr. Ashish Sharma		M.Tech	B.Tech.	Assistant Professor	Manufacturing	1	0
31	Ms. Saumya		M.Tech	B.Tech.	Assistant Professor	Industrial Engineering	1	0
32	Mr. R.V.Mishra		M.Tech	B.Tech.	Assistant Professor	Industrial Engineering	8	0
33	Mr. Sachin Thakur		M.Tech	B.Tech.	Assistant Professor	Mechanical Engineering	14	0
34	Mr. Narender Kumar			B.Tech.	Assistant Professor	Manufacturing	34	0
35	Mr. Ankur Gaur			B.Tech.	Assistant Professor	Industrial Engineering	1	0

11. List of senior visiting faculty : No visiting faculty
12. Percentage of lectures delivered and practical classes handled (programme wise) by temporary faculty : No temporary faculty
13. Teacher-Student Ratio (programme wise): 1:15
14. Number of academic support staff (technical) and administrative staff; sanctioned and

filled:

S. No.	Name of Staff	Designation
1	G.N. Srivastava	Lab. Assistant
2	Rajnikant Saxena	Lab. Assistant
3	Pappu Singh	Lab. Assistant
4	J.S. Sirohi	Lab. Assistant
5	Ajay Singh	Lab. Assistant
6	M.C. Gupta	Lab. Assistant
7	Kuldeep Tyagi	Lab. Assistant
8	N.K. Gautam	Lab. Assistant
9	Sriprakash Bhargava	Lab. Assistant
10	Vinay Kumar	Lab. Assistant
11	Surender Singh	Lab. Assistant
12	Yogendra Jangid	Lab. Assistant
13	Sonu Kumar	Lab. Assistant
14	Gyanendra Kr. Pandey	Lab. Assistant
15	Prahlad Swarup	Lab. Assistant
16	Suresh Chand Sharma	Lab. Assistant
17	Sukhveer Singh	Office Assistant

15. Qualifications of teaching faculty with DSc/ D.Litt/ Ph.D/ MPhil / PG.

No. of Faculties with Ph.D : 04

No. of Faculties with M.Tech : 29

No. of Faculties with B.Tech : 02

16. Number of faculty with ongoing projects from

a) National agencies and grants received:

Sl.No	Nature of the Project	Name of the Project	Company	Session	Cost	No. of Faculty
1	Industry Sponsored	Development of Rescue Robot	Creative robotics Pvt. Ltd.	2010-11	20,000/	3
2	Consultancy	Auto CAD	BIT, Meerut	2010-11	90,000	3

		Training				
3	Consultancy	Virtual Assembly Design of Roller Fixture	VATEC ENGINEERS , Indore (M.P.)	2010-11	25,000/-	3
4	Industry Sponsored	Automatic Visual Inspection System	VERTEX Automation , Noida	2011-12	25,000/-	3
5	Consultancy	Design of Field Leveling System	Apogee Precision Lasers	2012-13	50,000/-	3
6	Industry Sponsored	Automation System	SMC Pneumatics (India) Pvt ltd. and OMRON Automation Pvt. Ltd	2012-13	1,00,000/- -	3
7	Consultancy	Design of Super Structure for Solar Generator	JAKSON	2012-13	-----	3
8	Consultancy	Vision System for Sheet Inspection	Creative Robotics(In Progress)	2012-13	50,000/-	3
9	Consultancy	Design and development of Automatic Ball Sorting Machine	SMC Pneumatics (India) Pvt Ltd , Noida	2013-14	-----	3
10	Consultancy	Development of Vision System for Sheet Inspection”	Creative Robotics Pvt. Ltd. Ghaziabad	2013-14	-----	3
11	Consultancy	Optimization of high precision grinding machine bed	Micromatic Grinding Technology Ltd. Ghaziabad.	2013-14	-----	3
12	Consultancy	Design and Development of Rapid Prototyping Machine	AKGEC , Ghaziabad	2013-14	-----	3

b) International funding: **Nil**

17. Departmental projects funded by DST - FIST; UGC, DBT, ICSSR, etc. and total grants received: **Nil**

18. Research Centre /facility recognized by the University

The college has established various world class interdisciplinary laboratories of with industry partners as a part of TIFAC CORE and is recognized by the University. These Labs Were Equipped With State Of Art Technology and are as Follows:-

1. AKGEC-Bosch Rexroth Centre of Competence in Automation Technology.
2. AKGEC-Janatics Industrial Pneumatics Knowledge Centre

3. AKGEC-Kuka Industrial Robotic Training Centre
4. AKGEC-Siemens PLM Centre Of Excellence

19. Publications: Refer Annexure 3A- Research Publications

Sl. No.	Name of author	Title of paper	Month and year of publication	Publication detail
2013-14				
1	Devendra Singh	Performance of a Swinging Vane Small Vertical Axis Wind Mill	April , 2014	National Conference on Recent Advances in Mechanical and Civil Engineering.
2	Pradeep Jain	Temperature Measuring & Controlling using PID & Fuzzy Logic	April , 2014	National Conference on Recent Advances in Mechanical and Civil Engineering.
3	Pallab Biswas	Conflict Free Routing Algorithm in Flexible Manufacturing System	April , 2014	National Conference on Recent Advances in Mechanical and Civil Engineering.
4	K.K. Mittal	Performance Measures of Reconfigurable Manufacturing System	April , 2014	National Conference on Recent Advances in Mechanical and Civil Engineering.
5	Neha Agrawal	Application Of Pro-E And GA For Optimization Of 3-Dof Robotic System	April , 2014	National Conference on Recent Advances in Mechanical and Civil Engineering.
6	Pradeep Jain	Real Time Obstacle Detection For An Automotive Vehicle	April , 2014	National Conference on Recent Advances in Mechanical and Civil Engineering.
7	Pradeep Jain	Artificial Neural Networks Based Object Recognition System	April , 2014	National Conference on Recent Advances in Mechanical and Civil Engineering.
8	Raja Ram	Study of Lithium Ion Cell Using Single Particle Electrode	April , 2014	National Conference on Recent Advances in Mechanical and Civil Engineering.

20. Areas of consultancy and income generated

Sl.No	Nature of the Project	Name of the Project	Company	Session	Cost	No. of Faculty
1	Consultancy	Auto CAD Training	BIT, Meerut	2010-11	90,000	3
2	Consultancy	Virtual Assembly Design of Roller Fixture	VATEC ENGINEERS , Indore (M.P.)	2010-11	25,000/-	3
3	Consultancy	Design of Field Leveling System	Apogee Precision Lasers	2012-13	50,000/-	3
4	Consultancy	Design of Super Structure for Solar Generator	JAKSON	2012-13	-----	3
5	Consultancy	Vision System for Sheet Inspection	Creative Robotics	2012-13	50,000/-	3
6	Consultancy	Design and development of Automatic Ball Sorting Machine	SMC Pneumatics (India) Pvt Ltd , Noida	2013-14	-----	3
7	Consultancy	Development of Vision System for Sheet Inspection”	Creative Robotics Pvt. Ltd. Ghaziabad	2013-14	-----	3
8	Consultancy	Optimization of high precision grinding machine bed	Micromatic Grinding Technology Ltd. Ghaziabad. (Ongoing Projects)	2013-14	-----	3
9	Consultancy	Design and Development of Rapid Prototyping Machine	AKGEC , Ghaziabad (Ongoing Projects)	2013-14	-----	3

21. Faculty as members in

a) National committees : 05

- Society of Automotive Engineers (SAE)
- Indian Society for Technical Education (ISTE)
- Indian Society for Theory and Applied Mechanics (ISTAM)
- Institute of Engineers
- Indian Society of Mechanical Engineers

b) International Committees: 03

- American Society of Mechanical Engineers (ASME)
- World Innovation Forum (WIF)
- Society of Manufacturing Engineers

c) Editorial Boards : NIL

22. Student projects

- a) Percentage of students who have done in-house projects including inter departmental/programme

Name of the Programme	Session	Percentage
B.Tech	2013-14	100
B.Tech	2012-13	100
B.Tech	2011-12	100

- b) Percentage of students placed for projects in organizations outside the institution i.e.in Research laboratories/Industry/ other agencies. **Nil**

23. Awards / Recognitions received by faculty and students :

1. Dr. Sanjeev Kumar (Ex Faculty) was awarded best researcher award in 2009-10.
2. Ms. Namrata Gupta was awarded "Best Research Paper" at All India seminar on "Design & Analysis of Mechanical System Using Optimization Techniques", organized by Institution of Engineers India, October 2011

24. List of eminent academicians and scientists / visitors to the department

Date	Topic	Speaker
19 Sep 2014	Flow Batteries	Abhay Singh, Expert
12 Mar 2014	How to face a job interview	Wg Cdr (Retd.) G S Nehra
08 Apr 2013	Super Critical Steam Turbine & Power Plants	Dr. Lajpat Rai Taneja, Ex. Prof., Deptt. of ME, IIT Delhi
21 Mar 2013	Forecastng Of Electricity Demand Of India	Shri Major Singh, Chief Engineer, Energy Planning Central Electricity Authority, New Delhi
04 Feb. 2013	Global & Indian Power Sector Overview And Career Prospects In Power Sector	Shri S.K. Choudhary, Director, NPTI, Faridabad
20 Nov. 2012	Renewable Energy and Distributed Generations	Dr P N Hrisheekesha , Director, IPEC, Ghaziabad
24 Aug. 2012	Heat Transfer Through Extended Surfaces	Dr. Praveen Pandey, Professor, MMMEC, Gorakhpur

Sl. No.	Eminent Academicians/Scientists	Designation	Name of Company/Organization
1	Sh. G. Pandian	Energy Economist	Bureau of Energy Efficiency, Ministry of Power, Govt. of India
2	Dr. N.S Saxena	Director General	National Power Training Institute, Faridabad
3	Mr. Ravi Agrawal	Director	Peperl & Fuchs
4	Shri Varun Agarwal	Secretary	Bhaktivedanta Institute
5	Ms. Gayatri Raghu	Expert	CAD Studio, New Delhi
6	Mr. Sushi Kr. Choudhary	Managing Director	Blowtech Air Devices Pvt. Ltd., Noida
7	Mr. Vinay Chaddha	CEO	Organization C Systems Pvt. Ltd., Noida
8	Mohd. Riyaz	Member & Associate Consultant	Continuum Workforce, Chandigarh
9	Dr. Rajesh Kumar Agrawal	Faculty	Amity School of Engineering & Technology, Bijwasan, New Delhi
10	Ms. Manu Srivastava	Faculty	Ideal Institute of Technology, Ghaziabad
11	Dr. Chandra Sekhar Putcha	Professor	USA
12	Dr. Praveen Pandey	Professor	MMMEC, Gorakhpur
13	Dr P N Hrisheekesha	Professor	IPEC, Ghaziabad
14	Shri S.K. Choudhary	Expert	NPTI, Faridabad
15	Shri Major Singh,	Expert	New Delhi

16	Dr. Lajpat Rai Taneja	Professor	IIT Delhi
17	Mr. D.K. Agrawal	Executive Director	NTPC (NETRA)
18	Mr. Subodh Garg	Director General	National Power Training Institute Govt. of India, Ministry of Power,
19	Mr. V.K. Kanjalia	Secretary	Central Board of Irrigation & Power Govt. of India, Ministry of Water Resources
20	Dr. Sandeep Muju	Expert	KPMG LLP, LOS Angeles, USA

25. Seminars/ Conferences/Workshops organized & the source of funding

- a) National: **1. National Conference in Emerging Trends in Mechanical Engineering, July 2012**
2. Society of Automotive Engineers Workshop
3. National Conference in RAMCE - 2014
4. Conference on Green Technology by Mechanical Students Society, 2014

b)International: Nil

26. Student profile programme/course wise:

Name of the Course/programme	Applications received	Selected	Enrolled	Pass Percentage
B.Tech, ME	By UPTU Lucknow	185	185	93.10%
M.Tech (A&R)	By UPTU Lucknow	9	9	NA

Name of the Course/programme (refer question no. 4)	Applications received	Selected	Enrolled		Pass Percentage
			*M	*F	
M.Tech (A&R) 2013-14	18	9	6	3	Result Awaited
M.Tech (A&R) 2012-13	20	14	10	4	Result Awaited
M.Tech (A&R) 2011-12	10	4	1	3	Result Awaited

*M = Male *F = Female

27. Diversity of Students

Name of the Course	Session	% of students from the same state	% of students from other States	% of students from abroad
B.Tech (ME)	2013-2014	95.21	4.79	NIL
M.Tech (A&R)	2013-2014	88.89	11.11	NIL
B.Tech (ME)	2012-2013	94.65	5.35	NIL
M.Tech (A&R)	2012-2013	92.86	7.14	NIL
B.Tech (ME)	2011-2012	97.62	2.38	NIL
M.Tech (A&R)	2011-2012	75.00	25.00	NIL
B.Tech (ME)	2010-2011	96.67	3.33	NIL
M.Tech (A&R)	2010-2011	100.00	0.00	NIL

28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defense services, etc.?

The details of students appeared and qualified in GATE exam are given below:

YEARS	2014		2013		2012		2011	
BRANCH	No. of students Appeared for GATE	No. of students Qualified GATE*	No. of students Appeared for GATE	No. of students Qualified GATE*	No. of students Appeared for GATE	No. of students Qualified GATE*	No. of students Appeared for GATE	No. of students Qualified GATE*
B.TECH - ME	71	38	46	32	47	41	20	12

* Students having percentile $\geq 80\%$

➤ **Harshit Agarwal of ME department Secured 2nd Rank in All India Ranking in GATE 2013-14**

The details of students appeared and qualified in CAT exam are given below:

CAT Exam Information				
YEARS	2014		2013	
BRANCH	No. of students Appeared for CAT	No. of students Qualified CAT*	No. of students Appeared for CAT	No. of students Qualified CAT*
B.TECH - ME	4	3	3	2

* Students having percentile $\geq 80\%$.

The details of students appeared and selected in Defense services are given below:

INDIAN NAVY

YEARS →	2014		2013		2012		2011	
BRANCH	No. of students Appeared	No. of students Selected	No. of students Appeared	No. of students Selected	No. of students Appeared	No. of students Selected	No. of students Appeared	No. of students Selected
B.TECH - ME	71	-	73	1	55	-	57	2

INDIAN AIR FORCE

YEARS →	2014		2013		2012		2011	
BRANCH	No. of students Appeared	No. of students Selected	No. of students Appeared	No. of students Selected	No. of students Appeared	No. of students Selected	No. of students Appeared	No. of students Selected
B.TECH - ME	-	-	-	1	-	1	-	-

INDIAN ARMY

YEARS →	2014		2013		2012		2011	
BRANCH	No. of students Appeared	No. of students Selected	No. of students Appeared	No. of students Selected	No. of students Appeared	No. of students Selected	No. of students Appeared	No. of students Selected
B.TECH - ME	-	-	26	-	-	1	-	-

29. Student progression

Student progression	2014 Passout Batch (No. of Students)	2013 Passout Batch (No. of Students)	2012 Passout Batch (No. of Students)	2011 Passout Batch (No. of Students)
UG to PG	41	34	41	12
PG to M.Phil.	Not available			
PG to Ph.D.				
Ph.D to Post-Doctoral				
Employed <ul style="list-style-type: none"> • Campus selection • Other than campus recruitment 	44 -	39 -	56 -	41 -
Entrepreneurship / Self-employed	Not available			

30. Details of Infrastructural facilities

a) Library

There is a central resource library center in the Department

b) Internet facilities for Staff & Students

Internet facility available for all faculty and staff with the help of wifi and in central library.

c) Class rooms with ICT facility

10 Classrooms with a capacity of 75 each are exclusively available with LCD projector and Screens for Mechanical Engineering Students .

d) Laboratories

Curriculum Lab Description	Exclusive Use/Shared?	Space (Sq.m)/ No. of Students	No. of experiments	Quality of Instruments	Lab Manuals
Material Science & Testing Lab (EME351)	Exclusive	98.54	10	1. Universal Testing Machine 2. Shear test attachment 3. Brinell test attachment 4. Impact test attachment 5. Torsion Testing machine. 6. Vibration test 7. Muffle Furnace 8. Belt Grinder Machine 9. Single wheel polishing machine	Available
Refrigeration & Air Conditioning Lab (EME654)	Shared	105.00	8	1. Window type air conditioning test rig 2. Vapor compression refrigeration test rig	Available
Heat & Mass Transfer Lab (EME554)	Shared		10	1. Boiling Heat Transfer Apparatus 2. Thermal Conductivity of metal Bar 3. Heat Transfer in forced convection. 4. Emissivity Measurement Apparatus. 5. Parallel/ Counter flow Heat Exchanger. 6. Pin - Fin Apparatus. 7. Composite wall Apparatus. 8. Heat pipe Demonstrator. 9. Pool boiling Apparatus.	Available
Fluid Machinery Lab (EME 651)	Exclusive	155.00	1	1. Pelton Turbine Test Rig 2. Francis turbine test rig. 3. Kaplan turbine 4. Hydraulic Ram 5. Reciprotating Pump test rig 6. Centrifugal Pump test	Available

				rig	
Automobile Lab (EME752)	Shared	98.00	10	1. 4-Stroke 4 cylinder petrol engine. 2. 4-Stroke single cylinder diesel engine. 3. Air compressor test rig 4. Lighting system of Maurti-800	Available
CAD/CAM Lab (EME751)	Exclusive	116.00	10	1. Pro-e server 2. Pro-E software 3. UPS & Accessories 4. CNC XL Turn 5. CNC Milling. 6. Esprit CAM software	Available
TOM Lab (EME653)	Exclusive	105.00	8	1. Universal Governor 2. Whirling of Shaft Apparatus 3. Governor with motor 4. Static & Dynamic Balancing 5. Vibration Laboratory 6. Cam Analysis	Available
Fluid Mechanics Lab (ECE351)	Exclusive	162.00	7	1. Apparatus For Flow Visualization 2. Venturimeter & Orificemeter 3. Apparatus Laminar & Turbulent 4. Apparatus For Loss in Pipe Fitting 5. Apparatus For Metacentric Height 6. Darcy's Law Apparatus 7. Impact of Jet Apparatus 8. Surface Tension Apparatus 9. Electrical Analogy Apparatus 10. Conducting Orifice Apparatus	Available
Thermodynamics Lab (EME353)	Shared	129.00	10	1. Locomotive Boiler 2. Lancashire Boiler 3. Bobcock & Wilcox Boiler 4. Two Stroke Petrol Engine model 5. Four	Available

				Stroke Diesel Engine model 6. Steam Engine.	
Measurement & Metrology Lab (EME453)	Shared		8	Slip Gauge, Speedometer (dial type), Speedometer (digital), Fillar gauge set, Flange micrometer, Flange Micrometer (25-50 mm), Vernier caliper (dial), Termo couple, Digital Vernier, Surface Plate (cast iron), Surface plate stand, Spirit level indicator, Combination set, Strain Trainer Kit, LV & DT	Available
Workshop (EWS151/251)	Shared	325.00	10	1. SHAPER MACHINE 2. MILLING MACHINE	Available
Manufacturing Sc. I (EME452)	Shared		8	3. DRILLING MACHINE	Available
Manufacturing Sc. II (EME553)	Shared	421.00	8	4. LATHE MACHINE 5. SURFACE GRINDING MACHINE 6. WOODEN LATHE MACHINE 7. BENCH GRINDER 8. Power Press 9. Tick Welding Machine 10. Mig Welding Machine	Available
Engg. Mechanics Lab (EME 152/252)	Exclusive	89.59	10	1.Universal Testing Machine 2.Brinnell test attachment 3.Impact test attachment 4. Torsion Testing machine.	Available
Engg. Graphics Lab (ECE151/251)	Shared		10	Table, Drafter, Etc.	Available
Machine Design Lab (EME551/EME 652)	Shared	162.00	8	Table, Drafter, Etc.	Available
Additional Drawing Hall	Exclusive	148.00			Available

Automation & Robotics Lab	Exclusive	78.84		Star Mill Automatic Tool changer, Special Accessories for star Mill, Air compressor, Ser	Available
Mechatronics Lab	Shared	98.00		Electro Pneumatic Trainer, Electro Hydraulic trainer	Available

31. Number of students receiving financial assistance from college, university, government or other agencies

Financial assistance is received by the SC/ ST candidates under Freeship and Scholarship scheme of the Government.

B.Tech	2010-11	2011-12	2012-13	2013-14
B.TECH (ME)	72	100	117	46
M TECH (A & R)	1	0	1	3

Gate Scholarship is also given to the M.Tech students.

M.Tech	2010-11	2011-12	2012-13	2013-14
M TECH (A & R)	1	2	4	4

- 5% students are benefitted under fee waivers category on merit basis.
- Cash award is also given to top three students of every branch.

Following list gives the detail of cash award received by the top three students of ME branch for the **Session 2013-14**.

Sl. No.	Univ. Roll No.	Name Of Students	Marks Obtained	% Marks	Position In Branch	Branch / Yr.	Prize Money
1	1002740008	AJAY SINGH	4308	86.16	I	ME/IV	5000
2	1002740096	SAURABH VATS	4302	86.04	II	ME/IV	4000
3	1002740048	HARSHIT AGARWAL	4162	83.24	III	ME/IV	3000

32. Details on student enrichment programmes (special lectures / workshops /Seminar) with external experts

S. No.	Name of Speaker	Designation	Name of Company/Organization	Lecture Topic
1	Sh. G. Pandian	Energy Economist	Bureau of Energy Efficiency, Ministry of Power, Govt. of India	Energy Economy
2	Dr. NS Saxena	Director General	National Power Training Institute, Faridabad	Power Transmission Trends & Futuristic Scenario
3	Mr. Ravi Agrawal	Director	Peperl+Fuchs	Role of Sensors for Automation
4	Shri Varun Agarwal	Secretary	Bhaktivedanta Institute	Engineering in the Cosmos - A Scientific and Spiritual Perspective
5	Ms. Gayatri Raghu	Expert	CAD Studio, New Delhi	Auto CAD & Inventor Mechanical Software
6	Mr. Sushi Kr. Choudhary	Managing Director	Blowtech Air Devices Pvt. Ltd., Noida	Heating Refrigeration Air Conditioning Equipments
7	Mr. Vinay Chaddha	CEO	Organization C Systems Pvt. Ltd., Noida	Embedded Systems & Mech. Drives
8	Mohd. Riyaz	Member & Associate Consultant	Continuum Workforce, Chandigarh	Overview of ASME Activities
9	Dr. Rajesh Kumar Agrawal	Expert	Amity School of Engineering & Technology, Bijwasan, New Delhi	Exergy Analysis of Co-Generation Cycle for Combined Power Production and Refrigeration
10	Ms. Manu Srivastava	Expert	Ideal Institute of Technology, Ghaziabad	Optimization of Input Parameters of CNC Turning Operation for the given Component using Taguchi Method.

33. Teaching methods adopted to improve student learning

Use of SMART CLASS notes methodology has been adopted in the subjects:

Automobile Engineering

Machine Design

Engineering Mechanics

Computer Aided Engineering Graphics

Manufacturing Science - I

Manufacturing Science - II

- LCD projectors are being used in all the classes as teaching aid.
- Active Learning philosophy is being efficiently used to improve teaching process

34. Participation in Institutional Social Responsibility (ISR) and Extension activities

The College runs a society for social cause to create awareness about social responsibility among the students. The societies are named as National Social Service (NSS) and National Foundation for Communal Harmony (NFCH) and are running under Mr. S. S. Sharma (Faculty) under the able guidance of the Director. The students of Mechanical Engineering Department actively participate in such activities.

35. SWOC analysis of the department and Future plans

The department has highly qualified faculty and well skilled staff to undertake the theory and practical classes of the students. The department is also well equipped with various Lab facilities, training aids and other infrastructures to disseminate the required knowledge according to the syllabus and beyond syllabus to the students. However on analysis certain deficiencies were felt by the faculty and adequate measure has been taken to improve this areas. The details of the above are as follows.

Weaknesses	Improvements
Qualification of faculty at lecturer level need up-gradation	The department consists of twenty six Faculty members including four Professors, four Associate Professors, and eighteen Assistant Professors. The minimum qualification of faculties is M.Tech and many of them are pursuing Ph.D from premier Institutes.
More effort for skill upgradation of technical supporting staff needed	Technical Staffs are qualified with basic Diploma and relevant industry experience. They were motivated to pursue their studies further, and training sessions on skill upgradation is conducted from time to time.
Participation of students in competitive exam quite low / to be enhanced	During the last three years considerable numbers of students (around 70 %) appeared for competitive exams like GATE/CAT and around 50% qualified them with substantial scores. Students also secured ranks below 50 with one student securing 19th and 23rd rank. Students also got placed in companies like NTPC, IOCL, and NHPC amongst others through competition. In 2013-14, Mr Harshit Agarwal secured 2 nd Rank in All India in GATE.

<p>Habit of self learning amongst student to be strengthened</p>	<p>Self learning processes are initiated through mentorship programmes. Special classes are conducted by bright students in order to teach their juniors and give them right direction and approach in understanding complex problems. Various workshops / Seminars by Students of SAE, ISTE, and SAMVEG have been organised.</p>
<p>Effort for entrepreneurship also needed</p>	<p>Students are encouraged to understand the technicalities of entrepreneurship by opting the open elective EOE-071 (Entrepreneurship Development). They are motivated at the departmental level during seminar and project presentations to form a group and think about any entrepreneurial ideas. DMRC approved Project to generate electricity by Piezoelectric tiles is being completed by current final year students. Projects of TIFAC CORE are undertaken</p>
<p>More budget for in house R & D needed</p>	<p>Fund allocation for recurring and nonrecurring budget have been segregated and enhanced. Efforts are on to improve the consultancy and R&D activities in the department. In this direction, substantial budget has been allocated and spent for establishment of R&D lab towards project development.</p>
<p>Lack of sponsored projects and consultancy</p>	<p>In this direction, R & D Activities under Research and Industrial Consultancy Centre (RICC) have been initiated. During last three years around eight sponsored/consultancy projects were successfully completed with active participation from students under the guidance of suitable experts of the relevant field..</p>
<p>Publication of students and faculty to be enhanced</p>	<p>Students have been encouraged to write and publish technical papers in departmental journal EXCEL, which is published twice a year and AKGEC journal of Technology. Additionally, students are presenting and publishing papers in the national conference conducted by the department of ME, which is held once a year. Faculty members are continuously publishing their papers on National and International Journals/Conferences</p>

Annexure 3A – Research Publications

(August 2013- July 2014)

S. No.	Name of Faculty	Paper Title	Venue / College	Awarded Amount with Date
CONFERENCES				
1	Mr. Arun Kumar Yadav, Asstt. Prof., CSE Deptt.	New Methodology in GIR System : Improving Web Document Searching	International Conference on IC3-2013 organised by J.P. Institute of Information Technology, Noida on 8 th August to 10 th August 2013.	
2	Ms. Charu Agarwal, Asstt. Prof., CSE Deptt.	AN Optimized Un-Compressed Video Watermarking Scheme based on SVD & DWT	International Conference on IC3-2013 organized by J.P. Institute of Information Technology, Noida on 8 th August to 10 th August 2013.	
3	Dr Niti Maheshwari, Asstt. Prof., AS&H Deptt.	Extraction and Separation of Germanium using Cyanex 301	National Conference on Innovative Strategies for Science and Technology (ISST-2013) at Indraprastha Engineering College, Sahibabad on 30th November 2013	
4	Dr Parul Verma, Asstt. Prof., AS&H Deptt.	Imitation of Bio-Molecular Devices	National Conference on Innovative Strategies for Science and Technology (ISST-2013) at Indraprastha Engineering College, Sahibabad on 30th November 2013	
5	Mr. Arun Kumar Yadav, Asstt. Prof., CSE Deptt.	A Conceptual Frame Word on E-Learning	National Conference on E-Learning organized by PIET, Jaipur on 20 th December 2013.	
6	Mr. Devesh Singh, Asstt. Prof., ECE Deptt.	CMOS Digitally Programmable Grounded Inductor	International Conference on Signal Processing and Integrated Networks (SPIN) organized by Amity University, Noida on 20 th February 2014.	
7	Mr. Devesh Singh, Asstt. Prof., ECE Deptt.	Low Frequency Digitally Programmable Universal Filter for Communication System	International Conference on Signal Processing and Integrated Networks (SPIN) organized by Amity University, Noida on 20 th February 2014.	
8	Ms. Sangita Rani Satapathy, Asstt. Prof., CSE Deptt.	A Novel Technique for Mining Closed Frequent Item Sets using VSW	International Conference IACC-2014 organized by ITM, Gurgaon on 21 st – 22 nd February 2014.	

S. No.	Name of Faculty	Paper Title	Venue / College	Awarded Amount with Date
9	Mr. Akhilesh Verma, Asstt. Prof., CSE Deptt.	Content Based Image Indexing and Retrieval Techniques in Cyber Security	National Conference ICISCL-2014 organized b HBTI, Kanpur on 5 th – 6 th April 2014	
10	Mr. Akhilesh Verma, Asstt. Prof., CSE Deptt.	ICA : A New Frontier for Prevention of Cyber Crime	National Conference ICISCL-2014 organized b HBTI, Kanpur on 5 th – 6 th April 2014	
JOURNALS				
1	Mr. Jitendra Kumar Seth, Asstt. Prof., IT Deptt.	A Novel Design to Increase Trust in Cloud IaaS Model	Published in IJCSI International Journal of Computer Science Issues, Vol. 10, Issue 4, No. 1, July 2013, pp. 329-336. Impact Factor is 0.242.	Rs. 5000.00 (19 th Sept. 13)
2	Dr Abhishek Pathak, Asstt. Prof., AS&H Deptt.	Fabrication of Ag : TiO ₂ Nanocomposite Thin Films by Sol-Gel Followed by Electron Beam Physical Vapour Deposition Technique	Published in International Journal of Spectroscopy, Vol. 2013, Article ID 491716, 6 pages. Impact Factor is 0.53.	Rs. 5000.00 (9 th Dec. 13)
3	Ms. Shiva Tyagi, Asstt. Prof., CSE Deptt.	Use of Genetic Algorithm in Multi Objective Optimization of a Real World Problem using SCI Lab Genetic Tool	International Journal of Engineering Science & Management, Vol. 1, Issue-2, July-Dec. 2013.	
4	Prof. P.K. Chopra, HOD, ECE Deptt.	ANN modeling for design of a matched low noise pHEMT amplifier for mobile application	Published in International Journal Springer – Journal of Computational Electronics (ISSN No. 1569-8025), Vol. 12, Issue 4, Page No. 743-751, Dec. 2013. Impact Factor is 1.21.	Rs. 5000.00 (10 th Dec. 13)
5	Dr K.K. Tripathi, Prof., ECE Deptt.	A Novel Design of Compact 2.5 GHz Fractal Antennas	Published in AKGEC International Journal of Technology (ISSN No. 0975-9514), Vol. 4, No. 2, July-December 2013.	

S. No.	Name of Faculty	Paper Title	Venue / College	Awarded Amount with Date
6	Dr Aniruddh Singh, Asstt. Prof., AS&H Deptt.	Relationship between Mathematics and Physics : A Fresh Perspective	Published in AKGEC International Journal of Technology (ISSN No. 0975-9514), Vol. 4, No. 2, July-December 2013.	
7	Dr K.K. Tripathi, Prof., ECE Deptt.	Design and Analysis of Multiband Microstrip Antenna Array	Published in AKGEC International Journal of Technology (ISSN No. 0975-9514), Vol. 4, No. 2, July-December 2013.	
8	Mr. Ruchin Gupta, Asstt. Prof., IT Deptt.	Visualizing Page Replacement Techniques based on Page Frequency and Memory Access Pattern	Published in International Journal of Computer Science and Information Technologies (ISSN No. 0975-9646), Vol. 4 (6), 2013, pp. 886-890. Impact Factor is 2.93.	
9	Mr. Ruchin Gupta, Asstt. Prof., IT Deptt.	Least Recently used Page Replacement using Last Use Distance (LRUL)	Published in International Journal of Computer Applications (ISSN No. 0975-8887), Vol. 84, No. 2, December 2013, pp. 8-10. Impact Factor is 0.0821.	
10	Mr. Devesh Singh, Asstt. Prof., ECE Deptt.	Digitally Programmable High-Q Voltage – Mode Universal Filter	Published in International Journal Radioengineering (ISSN No. 1805-9600), Vol. 22, No. 4, Page No. 995-1006, Dec. 2013. Impact Factor is 0.68.	Rs. 5000.00 (24 th Feb. 14)
11	Prof. Ranjit Singh, Prof., ECE Deptt.	Satellite Communications : Indian Scenario”	Published in International Journal of Engineering Research and Applications (ISSN No. 2248-9622), Vol. 4, No. 5, May 2014, pp. 41-49.	
12	Dr Anu Chaudhary, Prof., IT Deptt.	Performance Evaluation of VoIP in MPLS network using NS-2	Published in International Journal of Computers & Technology, Vol. 13, No. 9, pages 4792-4798. Impact Factor is 1.532.	Rs. 5000.00 (16 th Jul. 14)
13	Ms. Kirti Seth, Asstt. Prof., CSE Deptt.	A Heuristic Model for Estimating Component – Based Software System Reliability Using Ant	Published in World Applied Sciences Journal, Issue 31, Vol. 11, pp. 1983-1991, published by International Digital Organization	Rs. 5000.00 (21 st Jul. 14)

S. No.	Name of Faculty	Paper Title	Venue / College	Awarded Amount with Date
		Colony Optimization	for Scientific Information (IDOSI). Impact Factor is 0.32.	
14	Ms. Kirti Seth, Asstt. Prof., CSE Deptt.	An Adaptive Neuro Fuzzy Model for Estimating the Reliability of Component-Based Software Systems	Published in Applied Computing and Informatics Journal, published by International Digital Organization for Scientific Information (IDOSI) International Elsevier.	
15	Dr Bharat Bhushan Prasad, HoD, CE Deptt.	Vibration Isolation and Control in Civil Engineering	Published in AKGEC International Journal of Technology (ISSN No. 0975-9514), Vol. 5, No. 1, January-June 2014.	
16	Dr K.K. Tripathi, Prof., ECE Deptt.	A study of FPGA-Based Detection Method for Induction Motors under Different Loads	Published in AKGEC International Journal of Technology (ISSN No. 0975-9514), Vol. 5, No. 1, January-June 2014.	
17	Prof. M.P. Dave, Prof., EN Deptt.	Synchronized Phasor Measurements	Published in AKGEC International Journal of Technology (ISSN No. 0975-9514), Vol. 5, No. 1, January-June 2014.	
18	Mr. Pradeep Jain, Asso. Prof., ME Deptt.	Real Time Obstacle Detection for an Automotive Vehicle	Published in AKGEC International Journal of Technology (ISSN No. 0975-9514), Vol. 5, No. 1, January-June 2014.	
19	Mr. Manish Zadoo, Asstt. Prof., ECE Deptt.	New Trends in Design and Development of Low-Cost Nanobiosensors	Published in AKGEC International Journal of Technology (ISSN No. 0975-9514), Vol. 5, No. 1, January-June 2014.	
20	Dr K.K. Tripathi, Prof., ECE Deptt.	A Study of Speed Control of PMDC Motor Using Auto-tuning of PID Controller Through Labview	Published in AKGEC International Journal of Technology (ISSN No. 0975-9514), Vol. 5, No. 1, January-June 2014.	
21	Mr. Pancham Singh, Asstt. Prof., IT Deptt.	Comparison of Cache Page Replacement Techniques to Enhance Cache Memory	Published in International Journal of Computer of Applications (ISSN No. 0975-8887), Vol. 98, No. 19, July 2014. Impact Factor is 0.0821.	

S. No.	Name of Faculty	Paper Title	Venue / College	Awarded Amount with Date
		Performance		
22	Dr C.P. Pandey, Asstt. Prof., AS&H Deptt.	Fourier – Jacobi Wavelet Transforms	Published in International Journal of Computer and Mathematical Sciences, Vol. 2, Issue 2, 2014. Impact Factor is 0.68.	
23	Dr C.P. Pandey, Asstt. Prof., AS&H Deptt.	Wavelets in Weighted Sobolev Space	Published in International Journal of Current Research, Vol. 6, Issue 1, 2014.	
24	Dr C.P. Pandey, Asstt. Prof., AS&H Deptt.	Calderon Reproducing Formula for Laguerre Convolution	Published in International Journal of Computational and Applied Mathematics, Vol. 9, No. 1, pp. 9-15, 2014.	
25	Dr C.P. Pandey, Asstt. Prof., AS&H Deptt.	Continuous Dunkl Wavelet Transform	Published in International Journal of Current Engineering and Technology, Vol. 4, No. 1, 2014. Impact Factor is 2.55.	
26	Dr Aniruddh Singh, Asstt. Prof., AS&H Deptt.	Chemical Sensor Array Design by Algebraic Properties of Response Metrics	Published in International Journal of Technology (ISSN No. 0975-7514), Vol. 4, No. 1.	

(August 2012- July 2013)

S. No.	Name of Faculty	Paper Title	Venue / College	Awarded Amount with Date
CONFERENCES				
1	Mr. Ajay Pratap Singh, Asstt. Prof., ME Deptt.	Modeling of Dissipation index and efficiency of free hydraulic jump in horizontal prismatic channel	International Conference on Applications of Fluid Engineering at G.L. Bajaj Institute of Technology & Management, Greater Noida on 20th - 22nd September 2012.	
2	Ms. Nivedita Pandey, student of EN Branch, 3rd Year	Carbon Nanotubes and its application in making gas	A Technical Programme of the 27th Indian Engineering Congress on Engineering for Sustainable Development and Inclusive Growth : Vision 2025 held on Dec. 13-16, 2012, organised by The Institution of Engineers (India), Delhi State Centre, New Delhi.	
3	Mr. Rajni Parashar, Asstt. Prof., ECE Deptt.	A Novel Technique for Power Consumption and Reduction during standby Mode	National Conference on Emerging Trends in Mobile Communication ETMC - 2013 organised by AKGEC, Ghaziabad on 15-16 March 2013.	
4	Mr. Amit Chaudhary, Asstt. Prof., ECE Deptt.	Simulation & Analysis of A Reconfigurable gm-C Ladder Base-Band Filter using Tunable OTA	National Conference on Emerging Trends in Mobile Communication ETMC - 2013 organised by AKGEC, Ghaziabad on 15-16 March 2013.	
5	Ms. Neeti Gupta, Asstt. Prof., ECE Deptt.	Femtocells : An Alternative way to Deliver the Benefits of Fixed Mobile Convergence	National Conference on Emerging Trends in Mobile Communication ETMC - 2013 organised by AKGEC, Ghaziabad on 15-16 March 2013.	
6	Ms. Anuradha, Asstt. Prof., ECE Deptt.	On Chip Interconnections for Wireless NoC	National Conference on Emerging Trends in Mobile Communication ETMC - 2013 organised by AKGEC, Ghaziabad on 15-16 March 2013.	

S. No.	Name of Faculty	Paper Title	Venue / College	Awarded Amount with Date
7	Ms. Preeti Verma, Asstt. Prof., ECE Deptt.	Performance Criteria to Analyse DAB System	National Conference on Emerging Trends in Mobile Communication ETMC - 2013 organised by AKGEC, Ghaziabad on 15-16 March 2013.	
8	Dr Ranjit Singh, Prof., ECE Deptt.	Performance Criteria to Analyse DAB System	National Conference on Emerging Trends in Mobile Communication ETMC - 2013 organised by AKGEC, Ghaziabad on 15-16 March 2013.	
9	Ms. Uma Sharma, Asstt. Prof., ECE Deptt.	Smart Capacitive Humidity Sensor based on Flexible RFID Label	National Conference on Emerging Trends in Mobile Communication ETMC - 2013 organised by AKGEC, Ghaziabad on 15-16 March 2013.	
10	Dr Rajesh Kumar, Prof., ECE Deptt.	Smart Capacitive Humidity Sensor based on Flexible RFID Label	National Conference on Emerging Trends in Mobile Communication ETMC - 2013 organised by AKGEC, Ghaziabad on 15-16 March 2013.	
11	Mr. Manish Zadoo, Asstt. Prof., ECE Deptt.	Human Powered Mobile Battery Recharging Kit, Green - Charging	National Conference on Emerging Trends in Mobile Communication ETMC - 2013 organised by AKGEC, Ghaziabad on 15-16 March 2013.	
12	Ms. Gunjan Sharma, Asstt. Prof., ECE Deptt.	Recognition of Human Iris for Biometric Identification	National Conference on Emerging Trends in Mobile Communication ETMC - 2013 organised by AKGEC, Ghaziabad on 15-16 March 2013.	
13	Ms. Preet Verma, Asstt. Prof., ECE Deptt.	Recent Trends in Development of Microstrip Antennas	National Conference on Emerging Trends in Mobile Communication ETMC - 2013 organised by AKGEC, Ghaziabad on 15-16 March 2013.	

S. No.	Name of Faculty	Paper Title	Venue / College	Awarded Amount with Date
JOURNALS				
1	Dr. Sweety Agarwal, Asstt. Prof., AS&H Deptt.	Tensions in the Tragedies of Eugene O'Neill	Published in International Journal Helicon Views (ISSN No. 0976-3035), Vol. XVII, No. 1, pp. 49-56. Impact Factor is NIL.	
2	Ms. Kirti Seth, Asstt. Prof., CSE Deptt.	A Rule-based approach for estimating the reliability of component-based systems	Published in Elsevier Journals of Advances in Engineering Software, (ISSN No. 0965-9978), Vol. 54 (2012), pp. 24-29. Impact Factor is 1.092.	Rs. 5000.00 (19 th Sept. 12)
3	Dr. I.P.S. Paul, Prof., ME Deptt.	Foreign and Indian Experience in Policy and Regulatory Issues and Challenges for Private Investment in the Indian Power Sector	Published in International Journal of Central Power Research Institute (CPRI) (ISSN No. 0973-0338), Vol. 7, Issue 2, pp. 215-222, September 2011. Impact Factor is NIL.	
4	Ms. Anuradha, Asstt. Prof., ECE Deptt.	Power, Interconnect and Complexity Crises in Future VLSI : From a Designer's Point of View	Published in International Journal of Electrical Engineering and Technology (IJEET), Vol. 3, Issue 2, July-September 2012, pp. 210-222. Impact Factor is NIL.	
5	Dr Aniruddh Singh, Asstt. Prof., AS&H Deptt.	Nash Equilibrium, Fermat Principle and Governing Dynamics	Published in AKGEC International Journal of Technology (ISSN No. 0975-9514), Vol. 3, No. 2, July-December 2012	
6	Dr I.P.S. Paul, Prof., ME Deptt.	Newer Ways of Maintenance in Plants	Published in AKGEC International Journal of Technology (ISSN No. 0975-9514), Vol. 3, No. 2, July-December 2012	
7	Ms. Shilpi Singh, Asstt. Prof., AS&H Deptt.	Face of HR Practices in Today's Scenario in India Banks	Published in International Journal of Application or Innovation in Engineering & Management (IAIEM) (ISSN 2319-4847), Vol. 2, Issue 1, Jan. 2013, pp. 218-226. Impact Factor is 2.379	

S. No.	Name of Faculty	Paper Title	Venue / College	Awarded Amount with Date
8	Mr. Rahul Vivek Purohit, Asstt. Prof., ECE Deptt.	Combining Speech and Gender Classification for Effective Emotion Recognition	Published in International Journal of Computer Applications (ISSN No. 0975-8887), Vol. 64, No. 4, February 2013. Impact Factor 0.814.	Rs. 5000.00 (9 th April 13)
9	Prof. I.P.S. Paul, Prof., ME Deptt.	Foreign and Indian Experience in Policy and Regulatory Issues and Challenges for Private Investment in The Indian Power Sector	Published in The International Journal of CPRI (Central Power Research Institute) ISSN No. 0973-0338, Vol. 7, Issue 2, Pp. 215-221, September 2011. Impact Factor is 2.5.	
10	Ms. Shilpi Singh, Asstt. Prof., AS&H Deptt.	Face of HR Practices in Today's Scenario in Indian Banks	Published in International Journal of Application or Innovation in Engineering & Management (IAIEM) ISSN No. 2319-4847, Vol. No. 2, Issue 1, January 2013. Impact Factor NIL.	
11	Dr Shiwani Singhal, Asso. Prof., AS&H Deptt.	Application of dried plant biomass as novel low-cost adsorbent for removal of cadmium from aqueous solution	Published in International Journal of Environment Science & Technology (IJEST) published by Spriner with DOI 10.1007/s13762-013-0278-0. Impact Factor is 3.051.	
12	Prof. P.K. Chopra, HOD, ECE Deptt.	Design of Low Noise pHEMT Amplifier for Mobile Satellite Receiver using ANN Technique	Published in International Journal of Optical Memory and Neural Networks (Information Optics), 2012, Vol. 21, No. 4, pp. 249-259. Impact Factor is 0.253.	Rs. 5000.00 (5 th May 13)
	Mr. Manish Zadoo, Asstt. Prof., ECE Deptt.	An Unmanned Aerial Vehicle for Navigation and Surveillance Purposes	Published in AKGEC Journal of Technology, (ISSN No. 0975-9514), Vol. 4, No. 1, January - June 2013.	
13	Dr Aniruddh Singh, Asstt. Prof., AS&H Deptt.	Chemical Sensor Array Design Using Algebraic Properties of the Response Matrix	Published in AKGEC Journal of Technology, (ISSN No. 0975-9514), Vol. 4, No. 1, January - June 2013.	

S. No.	Name of Faculty	Paper Title	Venue / College	Awarded Amount with Date
14	Dr I.P.S. Paul, Prof., ME Deptt.	Dimensions of Efficient Use of Electrical Power in CPRI	Published in AKGEC Journal of Technology, (ISSN No. 0975-9514), Vol. 4, No. 1, January - June 2013.	

(August 2011- July 2012)

S. No.	Name of Faculty	Paper Title	Venue / College	Awarded Amount with Date
CONFERENCES				
1	Ms. Deepti Singh, Asstt. Prof., CSE Deptt.	A Survey on Various Protocols for Dynamic Address Assignment in Mobile Ad Hoc Networks	Presented in International Conference on Issues and Challenges in Networking, Intelligence and Computing Technologies (ICNICT-2011), organised by Krishna Institute of Engineering and Technology (KIET), Ghaziabad on 2 nd Sept. 2011.	
2	Mr. Shashank Sahu, Asso. Prof., CSE Deptt.	Future Trends in Software Development Evolving in Intelligent Agent	Presented in International Conference on Issues and Challenges in Networking, Intelligence and Computing Technologies (ICNICT-2011), organised by Krishna Institute of Engineering and Technology (KIET), Ghaziabad on 2 nd Sept. 2011.	
3	Mr. Pancham Singh, Asstt. Prof., IT Deptt.	Cloud Storage in Cloud Computing	Presented in National Conference on Emerging Trends in Computing and Information Technology organised by Raj Kumar Goel Institute of Technology for Women, Ghaziabad on 9 th Sept. 2011.	
4	Mr. Ruchin Gupta, Asstt. Prof., IT Deptt.	Analysis of Optimal Page Replacement Technique in Operating System using Histogram	Presented in 2 nd National Conference on Information Technology for Business Transformation (ITBT'2011) (Jointly organised by AKGEC Ghaziabad, IEEE Computer Society, Delhi, CSI Ghaziabad & GMA) held on 4 th & 5 th November 2011 at AKGEC, Ghaziabad.	
5	Mr. Pancham Singh, Asstt.	Analysis of Optimal Page Replacement Technique	Presented in 2 nd National Conference on Information	

S. No.	Name of Faculty	Paper Title	Venue / College	Awarded Amount with Date
	Prof., IT Deptt.	in Operating System using Histogram	Technology for Business Transformation (ITBT'2011) (Jointly organised by AKGEC Ghaziabad, IEEE Computer Society, Delhi, CSI Ghaziabad & GMA) held on 4 th & 5 th November 2011 at AKGEC, Ghaziabad.	
6	Mr. Sumit Sharma, Asstt. Prof., IT Deptt.	a) A Study of on Demand Routing Protocols and their Performance Comparison for MANET b) A Survey on Security Issues in Mobile Ad-hoc Network	Presented in 2 nd National Conference on Information Technology for Business Transformation (ITBT'2011) (Jointly organized by AKGEC Ghaziabad, IEEE Computer Society, Delhi, CSI Ghaziabad & GMA) held on 4 th & 5 th November 2011 at AKGEC, Ghaziabad.	
7	Ms. Shweta Sharma, Asstt. Prof., IT Deptt.	Safekeeping Exploitation in Movable Extemporized Networks	Presented in 2 nd National Conference on Information Technology for Business Transformation (ITBT'2011) (Jointly organized by AKGEC Ghaziabad, IEEE Computer Society, Delhi, CSI Ghaziabad & GMA) held on 4 th & 5 th November 2011 at AKGEC, Ghaziabad.	
8	Dr. B.B. Sagar, Asso. Prof., IT Deptt.	Security Issues and Security Measurements Steps for E-Networks	Presented in 2 nd National Conference on Information Technology for Business Transformation (ITBT'2011) (Jointly organized by AKGEC Ghaziabad, IEEE Computer Society, Delhi, CSI Ghaziabad & GMA) held on 4 th & 5 th November 2011 at AKGEC, Ghaziabad.	
9	Mr. Ruchin Gupta, Asstt. Prof., IT Deptt.	Analysis of Optimal Page Replacement Technique in Operating System using Histogram	Presented in 2 nd National Conference on Information Technology for Business Transformation (ITBT'2011) (Jointly organized by AKGEC Ghaziabad, IEEE Computer	

S. No.	Name of Faculty	Paper Title	Venue / College	Awarded Amount with Date
			Society, Delhi, CSI Ghaziabad & GMA) held on 4 th & 5 th November 2011 at AKGEC, Ghaziabad.	
10	Ms. Namrata Gupta, Asstt. Prof., ME Deptt.	Optimization of LASER Welding using Anova & Multiple Regression (Received the Best Paper Award)	Presented in All India Seminar on Designed & Analysis of Mechanical Systems using Optimization Techniques, organised by The Institution of Engineers (India), Indore Local Centre in Association with Institute of Engineering & Technology, Devi Ahilya Vishwavidyalaya (IET-DAVV), Indore on 14-15 Oct. 2011.	Rs. 5000.00 (22 nd Nov. 11)
11	Dr. Sanjeev Kumar, Prof., ME Deptt.	Reduction of Health and Safety Hazards using Automatic Arc Welding System	Attending a International Conference on Emerging Trends in Engineering and Technology at GIMT Kurukshetra on 20th - 22nd Oct. 2011	
12	Ms. Preeti Verma, Asstt. Prof., ECE Deptt.	Leakage Power and Delay Analysis of Lector based CMOS Circuits	Presented in 2 nd IEEE International Conference on Computer & Communication Technology (ICCCT)-2011 at MNNIT, Allahabad held on 15 th - 17 th Sept. 2011.	
13	Ms. Shilpi Singh, Asstt. Prof., AS&H Deptt.	Is Going Green Worth It?	Presented in International Conference on Emerging Challenges in a Changing Global Business Environment held on 18 th Nov. 2011 organised by AKGIM, Ghaziabad.	
14	Ms. Richa, Asstt. Prof., ECE Deptt.	Finite Element Analysis of Curved Cone Corrugated Ground Plane Conical Antenna	Presented in International Conference 'COMSOL Conference 2011' held on 4-5 November 2011 in Bangalore.	
15	Prof. I.P.S. Paul, Dean (R&D), ME Deptt.	Motion Control and Path Tracking of Mobile Robots using Artificial Intelligence Method	Presented in IEEE Sponsored Conference on Computational Intelligence, Control and Computer Vision in Robotics & Automation,	

S. No.	Name of Faculty	Paper Title	Venue / College	Awarded Amount with Date
			IEEE CICCRA 2008, NIT, Rourkela, Orissa.	
16	Dr. Sanjeev Kumar, Prof., ME Deptt.	Reduction of Health and Safety Hazards using Automatic Arc Welding System	Presented in 2 nd International Conference on Emerging Trends in Engineering and Technology (IETET-2011) at GIMT, Kurukshetra on October 20-22, 2011 and Published in International Journal of Applied Engineering Research (ISSN No. 0973-4562), Vol. 6, No. 18 (2011), pp. 2729-2734.	
17	Mr. Ravindra Kumar Agarwal, Asstt. Prof., EN Deptt.	Detection of Bad Measurement in Sate Estimation in Power System	Presented in National Conference on Emerging Trends in Electrical and Electronics Engineering (ETEEE-2011) organised by KNIT, Sultanpur on 26th - 27th Nov. 2011.	
18	Ms. Shiwani Singhal, Asso. Prof., AS&H Deptt.	Cleaner Approach for water remediation : Biosorption, A comparative study of removal of heavy metal, ions by bisorbent and commercially available activated carbon.	Presented in International Conference on Green Chemistry (ICGC-2011) at Jaipur, on 7th - 8th Dec. 2011	
19	Mr. Ajay Pratap Singh, Asst. Prof., ME Deptt.	Active Flow Control Using Vortex Generator Jet	Attending an International Conference on 26th Indian Engineering Congress at Institute of Engineers, Bangalore held on 15th - 18th Dec. 2011.	
20	Dr. Anil Kumar Rai, Prof., EN Deptt.	A Photovoltaic Maximum power point tracker : An ANN Approach	Presented in International Conference on Energy Security, Global Warming and Sustainable Climate on 9th February 2012 at Swatantrata Bhawan, BHU/BERS Complex, Mahamana Nagar, Varanasi	
21	Mr. Sachin Kumar Gupta, Asstt. Prof., ECE	a) MIMO-OFDM Systems in Frequency Selective Fading	Presented in National Conference on EOIP : The Future Deployment Scenario organized by AKGEC	

S. No.	Name of Faculty	Paper Title	Venue / College	Awarded Amount with Date
	Deptt.	Channel : An Analytical Approach b) Leakage Reduction Technique to Overcome from Impact of Scaling	Ghaziabad on 2 nd & 3 rd March 2012 at AKGEC, Ghaziabad.	
22	Prof. R.L. Sharma, ECE Deptt.	Sound Guided System for Detection and Counteraction in Indoor Environment	Presented in National Conference on EOIP : The Future Deployment Scenario organized by AKGEC Ghaziabad on 2 nd & 3 rd March 2012 at AKGEC, Ghaziabad.	
23	Dr. Ranjit Singh, Prof., ECE Deptt.	Sound Guided System for Detection and Counteraction in Indoor Environment	Presented in National Conference on EOIP : The Future Deployment Scenario organized by AKGEC Ghaziabad on 2 nd & 3 rd March 2012 at AKGEC, Ghaziabad.	
24	Mr. Rajesh Kumar, Asstt. Prof., ECE Deptt.	a) An Efficient Knowledge Discovery Algorithm using Fuzzy Entropy in Synchronous Generator : A Case Study b) Band Width Evaluation of MEMS - Based Embedded Gas Sensor c) A Novel Design of Low Power Wireless Temperature Sensor Data Over IP	Presented in National Conference on EOIP : The Future Deployment Scenario organized by AKGEC Ghaziabad on 2 nd & 3 rd March 2012 at AKGEC, Ghaziabad.	
25	Mr. Amit Garg, Asstt. Prof., ECE Deptt.	Wavelet Based Compression of CT-SCAN Images for Telemedicine	Presented in National Conference on EOIP : The Future Deployment Scenario organized by AKGEC Ghaziabad on 2 nd & 3 rd March 2012 at AKGEC, Ghaziabad.	
26	Mr. Navneet	Authentication	Presented in National Conference	

S. No.	Name of Faculty	Paper Title	Venue / College	Awarded Amount with Date
	Sharma, Asstt. Prof., ECE Deptt.	Mechanism for Cross Layer Fast Handover between Mobile WiMAX and 3G Networks using Mobile IPv6.	on EOIP : The Future Deployment Scenario organized by AKGEC Ghaziabad on 2 nd & 3 rd March 2012 at AKGEC, Ghaziabad.	
27	Ms. Rajni Parashar, Asstt. Prof., ECE Deptt.	Authentication Mechanism for Cross Layer Fast Handover between Mobile WiMAX and 3G Networks using Mobile IPv6.	Presented in National Conference on EOIP : The Future Deployment Scenario organized by AKGEC Ghaziabad on 2 nd & 3 rd March 2012 at AKGEC, Ghaziabad.	
28	Ms. Richa, Asstt. Prof., ECE Deptt.	Finite Element Simulation on the Absorption Radiation in Human Model Exposed to EMF Radiation	Presented in National Conference on EOIP : The Future Deployment Scenario organized by AKGEC Ghaziabad on 2 nd & 3 rd March 2012 at AKGEC, Ghaziabad.	
29	Ms. Akanksha Aggarwal, Asstt. Prof., ECE Deptt.	Multilevel Data Compression Using Knuth - Morris - Pratt	Presented in National Conference on EOIP : The Future Deployment Scenario organized by AKGEC Ghaziabad on 2 nd & 3 rd March 2012 at AKGEC, Ghaziabad.	
30	Ms. Preeti Verma, Asstt. Prof., ECE Deptt.	Impact of Temperature Fluctuations on Low Power CMOS Circuit Characteristics	Presented in National Conference on EOIP : The Future Deployment Scenario organized by AKGEC Ghaziabad on 2 nd & 3 rd March 2012 at AKGEC, Ghaziabad.	
31	Mr. Abdul Manan Sheikh, Asstt. Prof., ECE Deptt.	CMOS based High Speed & Low Power Design Techniques	Presented in National Conference on EOIP : The Future Deployment Scenario organized by AKGEC Ghaziabad on 2 nd & 3 rd March 2012 at AKGEC, Ghaziabad.	
32	Mr. Rahul Vevek Purohit, Asstt. Prof., ECE Deptt.	Variation of Resonant Frequency of Rectangular Micro Strip Patch Antenna in Presence of Water Content	Presented in National Conference on EOIP : The Future Deployment Scenario organized by AKGEC Ghaziabad on 2 nd & 3 rd March 2012 at AKGEC, Ghaziabad.	

S. No.	Name of Faculty	Paper Title	Venue / College	Awarded Amount with Date
33	Mr. M. Girish Kumar, Asstt. Prof., ECE Deptt.	Leakage Reduction Technique to Overcome from Impact of Scaling	Presented in National Conference on EOIP : The Future Deployment Scenario organized by AKGEC Ghaziabad on 2 nd & 3 rd March 2012 at AKGEC, Ghaziabad.	
34	Ms. Nishi Bala Chauhan, Asstt. Prof., AS&H Deptt.	Boal's "TO" Techniques in Language Learning	Presented in International Conference on Role and Responsibilities of Humanities & Social Sciences in Technical Education on 16th & 17th March 2012, organized by SRM University, Ghaziabad	
35	Prof. B.M. Kalra, HOD, CSE Deptt.	Enhancing Informal Learning Using Web 2.0 Tools	Presented in 1st International Conference on Innovations and Advancements in Information and Communication Technology (ICIAICT 2012) at Gautam Budh University, Greater Noida on 30-31 March 2012.	
36	Dr. Rajesh Prasad, Prof., CSE Deptt.	a) Reoptimization for Steiner Tree Problem (Adding and Deleting an edge) b) Improved Bit-Parallel String Matching Algorithm Overcoming Computer Word Size Limitation	Presented in IEEE 1st International Conference on Recent Advances in Information Technology (RAIT-2012) organized by ISM, Dhanbad on 16th March 2012	
37	Mr. Dharmendra Kumar, Asstt. Prof., CSE Deptt.	3D Password - An Overview	Presented in National Conference on Emerging Trends in Computer Science & Information Technology (ETCSIT-2012) held on 12th April 2012 at Al-Falah School of Engineering & Technology, Fardiabad.	
38	Dr. M.K. Muju, Prof., ME Deptt.	a) Fuzzy Logic Control for Autonomous	Presented in National Conference on Emerging Trends in Mechanical	

S. No.	Name of Faculty	Paper Title	Venue / College	Awarded Amount with Date
		<p>Rover and Verification by MATLAB</p> <p>b) Tremor Control of Micro-Robot for Surgical Applications using MATLAB</p> <p>c) Application of Pro-E Software and Genetic Algorithm in Kinematic Analysis of 3-DOF Robotic System</p> <p>d) Optimization of Robot Trajectory Path Using Genetic Algorithm</p> <p>e) RFID : Technology, Applications and Future</p>	Engineering : ETME-2012 held on 27 th & 28 th July 2012 at AKGEC, Ghaziabad	
39	Mr. Pallab Biswas, Asstt. Prof., ME Deptt.	Flexible Supply Chains in Manufacturing : Potential, Challenges, and Direction of Future Research	Presented in National Conference on Emerging Trends in Mechanical Engineering : ETME-2012 held on 27 th & 28 th July 2012 at AKGEC, Ghaziabad	
40	Mr. Rajender Singh Yadav, Asstt. Prof., ECE Deptt.	Tremor Control of Micro-Robot for Surgical Applications using MATLAB	Presented in National Conference on Emerging Trends in Mechanical Engineering : ETME-2012 held on 27 th & 28 th July 2012 at AKGEC, Ghaziabad	
41	Ms. Neha Agarwal, Asstt. Prof., ME Deptt.	Application of Pro-E Software and Genetic Algorithm in Kinematic Analysis of 3-DOF Robotic System	Presented in National Conference on Emerging Trends in Mechanical Engineering : ETME-2012 held on 27 th & 28 th July 2012 at AKGEC, Ghaziabad	
42	Mr. Pradeep Jain, Asstt. Prof., ME Deptt.	Application of Pro-E Software and Genetic Algorithm in Kinematic Analysis of 3-DOF	Presented in National Conference on Emerging Trends in Mechanical Engineering : ETME-2012 held on 27 th & 28 th July 2012 at AKGEC,	

S. No.	Name of Faculty	Paper Title	Venue / College	Awarded Amount with Date
		Robotic System	Ghaziabad	
43	Mr. Ajay Kant Dubey, Asstt. Prof., ME Deptt.	Design, Fabrication and Calibration of 3-D Load Cell	Presented in National Conference on Emerging Trends in Mechanical Engineering : ETME-2012 held on 27 th & 28 th July 2012 at AKGEC, Ghaziabad	
44	Dr. Ranjit Singh, Prof., ECE Deptt.	Manufacturing Plant Reliability	Presented in National Conference on Emerging Trends in Mechanical Engineering : ETME-2012 held on 27 th & 28 th July 2012 at AKGEC, Ghaziabad	
45	Dr. Bharat Bhushan Prasad, HOD & Prof., CE Deptt.	Reliability Based Design of Machine Foundations	Presented in National Conference on Emerging Trends in Mechanical Engineering : ETME-2012 held on 27 th & 28 th July 2012 at AKGEC, Ghaziabad	
46	Dr. I.P.S. Paul, Prof., ME Deptt.	a) Emerging Trends in Operation / Maintenance Management Problem Solving Teams in Industries b) Prospective and Approaches to Modern Plants Maintenance	Presented in National Conference on Emerging Trends in Mechanical Engineering : ETME-2012 held on 27 th & 28 th July 2012 at AKGEC, Ghaziabad	
47	Prof. I.P. Sharma, HOD, ME Deptt.	Emerging Trends in Operation / Maintenance Management Problem Solving Teams in Industries	Presented in National Conference on Emerging Trends in Mechanical Engineering : ETME-2012 held on 27 th & 28 th July 2012 at AKGEC, Ghaziabad	
48	Dr. Aniruddh Singh, Asstt. Prof., AS&H Deptt.	Thermal Depolymerization of High Polymer Plastic to Gasoline Like Monomers : A General Overview and Some Theoretical Speculations	Presented in National Conference on Emerging Trends in Mechanical Engineering : ETME-2012 held on 27 th & 28 th July 2012 at AKGEC, Ghaziabad	

S. No.	Name of Faculty	Paper Title	Venue / College	Awarded Amount with Date
JOURNALS				
1	Prof. P. K. Chopra, HOD, ECE Deptt.	Spectrum Saving through Fixed Mobile Convergence : Mobile Bandwidth Saving Estimate Model	Published in IETE Journal of Research (ISSN No. 0377-2063), Vol. 57, Issue 3, May-June 2011.	Rs. 5000.00 (3 rd Oct. 11)
2	Dr. Anu Chaudhary, Asso. Prof., IT Deptt.	Genetic Algorithm for Shortest Path in Packet Switching Networks	Published in International Journal of Theoretical and Applied Information Technology (JATIT), Islamabad, Pakistan (ISSN No. 1992-8645), Vol. 29, No. 2, pp. 107-117, dated 31 st July 2011.	
3	Ms. Nishi Bala Chauhan, Asstt. Prof., AS&H Deptt.	De's Fiction, A Protest Against Malist Culture	Published in International Journal of English Writing 'The Criterion' (ISSN 0976-8165) Vol. II, Issue II, June 2011.	
4	Dr. Sanjeev Kumar, Prof., ME Deptt.	Balancing Inverted Pendulum by Angle Sensing Using Fuzzy Logic Supervised PID Controller Optimized by Genetic Algorithm	Published in International E-Journal of Sensors & Transducers Journal (ISSN 1726-5479), Vol. 133, Issue 10, Oct. 2011, pp. 74-82, published by International Frequency Sensor Association (IFSA), Barcelona, Spain with e-impact factor of 205.76.	
5	Mr. Ruchin Gupta, Asstt. Prof., IT Deptt.	Histogram based analysis of page replacement techniques	Published in International Journal of Computer Applications 32(4): 1-7, October 2011. Published by Foundation of Computer Science, New York, USA, Vol. 32, No. 4 (ISBN : 978-93-80865-17-3), Impact Factor is 0.835	Rs. 5000.00 (17 th Nov. 11)
6	Dr. Sachin Kumar, Asstt. Prof., AS&H	Nonlinear evolution of inertial Alfvén wave turbulence	Published in International Journal of Astrophysics and Space Science (DOI 10: 1007/s 10509-011-0895-	Rs. 6000.00 (15 th Nov. 11)

S. No.	Name of Faculty	Paper Title	Venue / College	Awarded Amount with Date
	Deptt.		3) with impact factor 1.47.	
7	Dr. Shiwani Singhal, Asso. Prof., AS&H Deptt.	Adsorption of lead using a new green material obtained from <i>Portulaca</i> plant	Published in International Journal of Environmental Science & Technology with DOI 10.1007/S13762-011-0012-8 by Graduate School of the Environment and Energy, Science and Research Branch, IAU, Tehran, Iran. Impact Factor is 3.1579	Rs. 6000.00 (23 rd Nov. 11)
8	Prof. P.K. Chopra, HOD, ECE Deptt.	A New Topology for Telecom and Broad Band Services in Spars, Remote and Hilly Areas	Published in International Journal of WSEAS Transactions on Communications (ISSN No. 1109-2742), Issue 9, Vol. 10, Sept. 2011. Impact Factor is 0.461.	Rs. 6000.00 (23 rd Nov. 11)
9	Prof. R.L. Sharma, Prof., ECE Deptt.	Polarization Mode Dispersion (PMD), its Limits, Compensation and Effect on Optical Fiber Networks	Published in International Journal of Computing (ISSN No. 2151-9617), Vol. 3, Issue 8, August 2011. Impact Factor is 0.21.	Rs. 5000.00 (28 th Nov. 11)
10	Mr. Rajesh Kumar, Asstt. Prof., ECE Deptt.	A Novel Design of Low Power Smart Wireless Gas Sensor	Published in International Journal of Computing (ISSN No. 2151-9617), Vol. 3, Issue 5 (May 2011), Page 93-98. Impact Factor is 0.21.	Rs. 5000.00 (8 th Dec. 11)
11	Prof. I.P.S. Paul, Dean (R&D), ME Deptt.	An Intelligent Motion Planning Approach for Multiple, Mobile Robots Using Artificial Potential Field Method	Published in International Journal of Applied Artificial Intelligence in Engineering System (ISSN No. 0975-3176), Vol. 2(1) (2010), pp. 11-26. Impact Factor is 2.7.	Rs. 7000.00 (9 th Dec. 11)
12	Ms. Kirti Seth, Asstt. Prof., CSE Deptt.	Reliability of Component Based Systems - A Critical Survey	Published in Journal of ACM Special Interest Group on Software Engineering, Vol. 36, No. 6, November 2011.	Rs. 5000.00 (15 th Dec. 11)
13	Ms. Charu Agarwal, Asstt. Prof., CSE Deptt.	Concepts, Challenges and Opportunities of Cloud Computing for Business Analyst	Published in AKGEC International Journal of Technology (ISSN No. 0975-9514), Vol. 2, No. 2, pp. 25-30, July-December 2011 published by AKGEC, Ghaziabad.	

S. No.	Name of Faculty	Paper Title	Venue / College	Awarded Amount with Date
14	Ms. Anupama Sharma, Asstt. Prof., IT Deptt.	Comparison of Approaches Used for Data Reconciliation : A Survey	Published in AKGEC International Journal of Technology (ISSN No. 0975-9514), Vol. 2, No. 2, pp. 31-38, July-December 2011 published by AKGEC, Ghaziabad.	
15	Ms. Yuvika Singhal, Asstt. Prof., IT Deptt.	Comparison of Approaches Used for Data Reconciliation : A Survey	Published in AKGEC International Journal of Technology (ISSN No. 0975-9514), Vol. 2, No. 2, pp. 31-38, July-December 2011 published by AKGEC, Ghaziabad.	
16	Dr. Ranjit Singh, Prof., ECE Deptt.	Comparison of Approaches Used for Data Reconciliation : A Survey	Published in AKGEC International Journal of Technology (ISSN No. 0975-9514), Vol. 2, No. 2, pp. 31-38, July-December 2011 published by AKGEC, Ghaziabad.	
17	Dr. I.P.S. Paul, Prof., ME Deptt.	R&D Perspectives for Indian Power Sector-2020	Published in AKGEC International Journal of Technology (ISSN No. 0975-9514), Vol. 2, No. 2, pp. 42-45, July-December 2011 published by AKGEC, Ghaziabad.	
18	Dr. P. Dhama, Asstt. Prof., AS&H Deptt.	Cadmium Concentration Decreases the Root Biomass Yield of Various Plant Species during the Phytoextraction Experiment	Published in ISST Journal of Applied Chemistry (ISSN No. 0976-7355), Vol. 2, No. 2 (July-December 2011), pp. 55-58. Impact Factor NIL.	
19	Ms. Anupama Sharma, Asstt. Prof., IT Deptt.	Co-relation based detection of attribute outlier for data cleaning	Presented in International Journal of Engineering Research & Industrial Application (IJERIA) (ISSN No. 0974-1518), Vol. 4, No. 4, Nov. 2011, pp. 83-96.	
20	Prof. P. K. Chopra, HOD, ECE Deptt.	ANN Modeling Approach for Designing Low Noise PHEMT Amplifier in Wireless Communication Systems	Published in International Journal of Optical Memory and Neural Networks (Information Optics) (ISSN 1060-992X), 2011, Vol. 20, No. 4, pp. 271-278. Impact Factor is 0.104.	

S. No.	Name of Faculty	Paper Title	Venue / College	Awarded Amount with Date
21	Prof. Rupali Bhardwaj, MCA Deptt.	A Fuzzy Intra-Clustering Approach for Load Balancing in Peer-to-Peer System	Published in Journal of Information and Computing Science (ISSN No. 1746-7659, England UK), Vol. 7, No. 1, 2012, pp. 019-024. Impact Factor is NIL.	
22	Ms. Shilpi Singh, Asstt. Prof., AS&H Deptt.	Technology Transfer and Approach to Indian Rural Market	Published in International Journal of Social Sciences & Interdisciplinary Research (ISSN No. 2277 677X), Vol. 1, No. 1, Jan - March 2012. Impact Factor is NIL.	
23	Mr. Narendra Kumar, Asstt. Prof., IT Deptt.	Fuzzy Time Series Based Method for Wheat Production Forecasting	Published in International Journal of Computer Application (IJCA) (ISBN No. 0975-8887), Vol. 44, No. 12, April 2012. Impact Factor is 0.835.	
24	Ms. Pooja Arora, Asstt. Prof., MCA Deptt.	Semantic Searching and Ranking of Documents using Hybrid Learning System and WordNet	Published in International Journal of Advanced Computer Science and Applications (IJACSA), Vol. 3, No. 6, June 2012, pp. 113-120. Impact Factor is 1.187.	Rs. 5000.00 (23 rd July 12)
25	Dr. I.P.S. Paul, Prof., ME Deptt.	A Study of Advances in Maintenance Management System in Industrial Plants	Published in AKGEC International Journal of Technology (ISSN No. 0975-9514), Vol. 3, No. 1, pp. 18-22, January-June 2012 published by AKGEC, Ghaziabad.	
26	Mr. Atul Sood, Asstt. Prof., EN Deptt.	Analysis of Direct Torque Control of PMSM Drive Using Different Inverter Topologies	Published in AKGEC International Journal of Technology (ISSN No. 0975-9514), Vol. 3, No. 1, pp. 23-27, January-June 2012 published by AKGEC, Ghaziabad.	
27	Dr. Anil Kumar Rai, Prof., EN Deptt.	Analysis of Direct Torque Control of PMSM Drive Using Different Inverter Topologies	Published in AKGEC International Journal of Technology (ISSN No. 0975-9514), Vol. 3, No. 1, pp. 23-27, January-June 2012 published by AKGEC, Ghaziabad.	
28	Mr. Ritesh	Analysis of Direct	Published in AKGEC International	

S. No.	Name of Faculty	Paper Title	Venue / College	Awarded Amount with Date
	Sharma, Asstt. Prof., EN Deptt.	Torque Control of PMSM Drive Using Different Inverter Topologies	Journal of Technology (ISSN No. 0975-9514), Vol. 3, No. 1, pp. 23-27, January-June 2012 published by AKGEC, Ghaziabad.	
29	Dr. Sachin Kumar, Asstt. Prof., AS&H Deptt.	Quantum Treatment of Kinetic Alfven Wave	Published in International Journal of Astrophysics and Space Science (ISSN No. 0004-640X), Pages & Year DOI 10.1007/s10509-012-1120-8 (2012). Impact Factor is 1.686	Rs. 5000.00 (12 th July 12)

Department wise Detail of Books Published

Applied Science & Humanities Department:

S.No.	Name of Book	Authors	Publisher	Year
1	“Electricity”, “Relativity”, “Heat” & “Light”. ISBN: Electricity: 978-93-83146-00-0, Relativity; 978-93-	Dr Aniruddh Singh	-	2013
2	- Quantum Monte Carlo Methods for Light Nuclei	Dr Aniruddh Singh	LAP Publication Germany	2010
3	Business Environment & Business Communications	Ms.Shilpi Singh	Vardan Publication, Meerut	-

Computer Science & Engineering Department:

S.No.	Name of Book	Authors	Publisher	Year
01.	Computer Concepts and Programming in C ISBN : 978-81-89928-21-6	Dr. B. K. Sharma	Dhanpat Rai Publications (P) LTD	2010
02.	Theory of Automata & Formal Languages ISBN : 978-93-83182-32-9	Dr. B. K. Sharma	Dhanpat Rai Publications (P) LTD	2010
03.	Discrete Mathematics ISBN: 978-81-89928-01-8	Dr. B. K. Sharma	Dhanpat Rai Publications (P) LTD	2011
04.	Graph Theory ISBN : 978-93-83182-81-2	Dr. B. K. Sharma	Dhanpat Rai Publications (P) LTD	2011
05.	Website Designing with JAVA ISBN:978-93-5014-069-6	Dr Lalit Kishore Arora	KATSON Publication	2010
06.	Object Oriented Techniques with JAVA ISBN : 978-93-5014-069-7	Dr Lalit Kishore Arora	KATSON Publication	2010
07.	Object Oriented Programming using C++ ISBN: 978-93-50140-29-1	Dr Lalit Kishore Arora	KATSON Publication	2010

Books authored by CSE Department Faculty members :

S. No.	Faculty Name	Session	Title	Publication
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1.	Dr. Sachin Kumar	2011-12	Data Mining	Katsons
2.	Mr. Ajay Kumar	2012-13	Artificial Intelligence	JLH Publication
3.	Ms. Prachi Maheshwari	2012-13		
4.	Ms. Kirti Seth	2012-13	Data Mining	Lambert Publication

Electronics & Communication Engineering Department:

S.No.	Name of the Book	Authors	Publisher	Year
1.	Basic Electronics Engineering Made easy. ISBN: 978-81-31511-97-8	Mr. Manish Zadoo	Cengage Learning Formerly Thomson Press.	2010-11

Information Technology Department:

S. No	Author Name	Book Title	Publishing House	Month and Year of Publication	ISBN No
1.	Mr. Pancham Singh	Operating System	Nandani Publication	Sept-11	978-93-81126-26-4
2.	Mr. Pancham Singh	Graph Theory	Nandani Publication	Oct-11	978-93-81126-31-8

Declaration by the Head of the Institution

I certify that the data included in this Self-study Report (SSR) are true to the best of my knowledge.

This SSR is prepared by the institution after internal discussions, and no part thereof has been outsourced.

I am aware that the Peer team will validate the information provided in this SSR during the peer team visit.



Signature of the Head of the institution

with seal:
Director
Ajay Kumar Garg Engg. College
Ghaziabad

Place: Ghaziabad, U.P.

Date: 18 March, 2014