DEPARTMENT OF ELECTRICAL & ELECTRONICS ENGINEERING

AKGEC
GHAZIABAD

Volume: 1, Issue: 1

SPARK 2025

Igniting Ideas and Innovation

Vision of Institute

To introduce undergraduate and postgraduate 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.

Mission of Institute

We strive to provide and maintain academic environment and 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 Policy

To provide and continually improve academic environment and systems which give total satisfaction and enable students to develop their full potential and mature into competent professionals and responsible members of society.

Vision of the Department of Electrical and Electronics Engineering

To produce excellent engineering professionals committed to serve the society & nature embedded with a strong moral character, value system and good leadership qualities having an urge for lifelong learning.

Mission of the Department of Electrical and Electronics Engineering

***M1**: To empower the faculty members and encourage them to continually develop to keep pace with the changing trends in technology.*

***M2**: To provide a conducive environment for effective teaching and learning with focus on creating new knowledge, skills set and imbibing moral values with professional ethics.*

***M3**: To promote the culture of research and development through effective student engagement and regular infrastructural development.*

***M4**: To develop strong industry-academia alliance for practicing real time projects and also involve industry in content delivery.*

***M5**: To adopt transparent practices for the overall progress and welfare of the student, faculty members and staff.*

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Message from Advisor's Desk

It is a matter of great pleasure to learn that the Department of Electrical and Electronics Engineering, Ajay Kumar Garg Engineering College, Ghaziabad, is publishing its departmental magazine ***SPARK – Igniting Ideas and Innovation*** for the year 2025. Such initiatives provide an excellent forum to highlight scholarly progress, inventive thinking and the diverse achievements of the department.

Electrical and Electronics Engineering remains central to contemporary technological advancement, contributing significantly to areas such as power engineering, renewable energy integration, smart grids, electric mobility, automation and intelligent systems. In this fast-changing scenario, academic departments are expected to go beyond classroom instruction by cultivating innovation, ethical awareness, research curiosity, leadership skills and social consciousness among learners.

I acknowledge the dedicated efforts of the EN faculty in enriching academics, strengthening research activities, fostering industry collaboration and encouraging active participation in co-curricular and extracurricular pursuits including technical forums, competitions, cultural events and sports. These initiatives are instrumental in nurturing well-rounded professionals.

The magazine aptly represents the department's focus on quality, creativity, and comprehensive development. I extend my congratulations to the Head of the Department, faculty, students and contributors and wish the department continued growth and success.

Best wishes,

Prof. Amita Dev
Advisor
AKGEC, Ghaziabad

Message from Director's Desk

I am delighted to learn that the Department of Electrical and Electronics Engineering is bringing out its Departmental Magazine for the year 2025. This publication serves as a vibrant portrayal of the department's academic ethos, technical initiatives, noteworthy accomplishments and the creative contributions of both students and faculty members.

The EN Department at AKGEC has steadily progressed in the areas of academic excellence, laboratory enhancement, research and development, industry interaction and student performance. The department's emphasis on outcome-oriented education, experiential learning and the integration of contemporary tools and technologies has played a significant role in strengthening students' technical proficiency and industry preparedness.

Beyond documenting departmental activities, the magazine provides a valuable platform for students to develop skills in technical communication, innovation, cocurricular activities and collaborative work—competencies that are vital for their professional growth. I commend the dedicated efforts of the Head of the Department, faculty coordinators, editorial team, and students who have contributed to this publication.

I convey my best wishes to the Electrical and Electronics Engineering Department for sustained progress and distinction and I trust that this magazine will inspire the academic community to reach new heights in the years to come.

With best regards,

Dr. Hemant Ahuja
Director
AKGEC, Ghaziabad

Message from Head of the Department

It gives me immense pleasure to extend my heartfelt greetings to the readers of the Departmental Magazine 2025 of the Electrical & Electronics Engineering Department, Ajay Kumar Garg Engineering College, Ghaziabad.

The Department of Electrical & Electronics Engineering has always been committed to academic excellence, innovation, and holistic development of students. In today's rapidly evolving technological landscape, electrical and electronics engineering plays a pivotal role in shaping sustainable energy solutions, smart systems, automation, and advanced communication technologies. Our department continuously strives to keep pace with these advancements through a balanced blend of strong theoretical foundations, practical exposure, industry interaction, and research-oriented learning.

This magazine is a reflection of the creativity, technical acumen, and intellectual curiosity of our students and faculty members. It provides a platform for showcasing innovative ideas, technical articles, project insights, research contributions, and co-curricular achievements. I appreciate the sincere efforts of the editorial team, contributors, and faculty coordinators for bringing out this magazine with dedication and enthusiasm.

I encourage our students to remain inquisitive, innovative, and socially responsible professionals. Let this magazine inspire you to explore new horizons, think critically, and contribute meaningfully to the field of engineering and to society at large.

I wish the departmental magazine great success and extend my best wishes to all students and faculty members for their future endeavours.

Warm regards,

Dr. Lokesh Varshney
Professor &Head of Department
Electrical & Electronics Engineering
Ajay Kumar Garg Engineering College, Ghaziabad

From the Editorial Team

It is with great pride and enthusiasm that we present the first edition of **SPARK** – **Igniting ideas and innovation**, the departmental magazine of the Electrical and Electronics Engineering Department. This magazine serves as an intellectual and creative platform dedicated to highlighting the academic excellence, technical innovation, and remarkable achievements of our students, faculty, alumni, and staff.

This edition reflects the collective commitment of the EN fraternity—department leadership, faculty members, students, alumni, recruiters, and industry collaborators—who continuously strive to advance the domains of electrical and electronics engineering. Readers will find a rich blend of insightful technical articles, cutting-edge research, innovative projects, and inspiring alumni experiences, along with comprehensive coverage of departmental activities, technical events, and cultural initiatives.

Our objective is to foster an environment that encourages the exchange of ideas, promotes creativity, and nurtures professional growth. We hope this magazine stimulates curiosity, inspires innovation, and motivates active participation in the evolving field of electrical and electronics engineering.

The editorial team sincerely thanks the Advisor, Director, Head of Department and all faculty members for their invaluable guidance and constant support. We also acknowledge the dedicated efforts of students and staff whose contributions have made this publication possible.

Editorial Team

ACADEMIC ACTIVITIES AND INITIATIVES

IEEE Second International Conference on Advancements and Key Challenges in Green Energy and Computing (AKGEC 2024)

A three-day IEEE International Conference on Advancements and Key Challenges in Green Energy and Computing (AKGEC 2024) was organized by the department of Electrical & Electronics Engineering on 21 -23 November 2024. The event was aimed on fostering innovation and collaboration to accelerate the green energy transition. The conference witnessed 649 papers under four tracks and four special sessions. After a rigorous review process, finally 102 papers were presented under these tracks which ensured the selection of high-quality research contributions. Key topics for the conference included challenges in scaling renewable energy projects, advancements in technology, and the integration of sustainable solutions into existing infrastructures.

The three days were engaging with parallel track presentations, where researchers and participants presented their innovative studies and findings across diverse themes. A significant addition was the tutorial session, led by Dr. Sreejith S. from NIT Silchar and Dr. Shakila B. from NIT Nagaland. The highlight of Day 1 was the Special Interest Group on Humanitarian Technology (SIGHT) poster presentation activity, an entirely student-driven initiative organized by IEEE AKGEC volunteers. This activity showcased projects aimed at leveraging technology for humanitarian purposes, emphasizing practical solutions to real-world challenges.

A hands-on tutorial session led by Dr. Soumya Shubhra Nag focused on Battery Management Systems (BMS) and Its Implementation in MATLAB was organized on day two. Additionally, a Young Professional (YP) session was also conducted by Dr. Vikas Garg, Professor at CHRIST University, provided a platform for early-career professionals to share their perspectives on the challenges and opportunities in green energy. The highlight of day two was an Industry-Academia Panel Discussion on "Integrating Innovations: Overcoming Challenges in Green Energy Transition". The eminent panellists were:

- **Mr. Meenu Singhal**, Regional Managing Director, Socomec
- **Dr. R. Balasubramanian**, Ex-Professor, IIT Delhi
- **Ms. Ritu Lal**, Client Partner, Infrastructure and Energy Practices, Amrop India
- **Mr. Vineet Bhatia**, Executive Director, Energy and Renewables, Grant Thornton Bharat LLP
- **Mr. Sumit Koriwal**, Regional Manager Sales, Fronius India Pvt. Ltd
- **Dr. Ashish Srivastava,** Professor at SVSU, was the moderator

The final day of the conference was engaged with keynote sessions, dynamic technical presentations and the highlight of Day three was the Women in Engineering (WIE) Meet and Greet Program, organized by the WIE IEEE UP Section.

Distinguished guests and speakers of the conference

- **Shri Dinesh Jagdale**, former Joint Secretary, Ministry of New and Renewable Energy (MNRE) was the inaugural Chief Guest
- **Dr. Mohd. Rihan**, Director General, National Institute of Solar Energy (NISE), MNRE was the Inaugural Guest of Honour
- **Mr. Sanjeev Kaul,** Executive Vice President and Head, Green Hydrogen, Jackson Greens was the Inaugural Guest of Honour

- **Shri Reji Kumar Pillai**, President India Smart Grid Forum, was the Valedictory Chief Guest
- **Dr Vipin Chandra Shukla,** Scientist G, Head A2K+ , Department of Scientific & Industrial Research (DSIR) was the Valedictory Guest of Honour
- **Mr Arpit Sharma,** CEO, Skill Council for Green Jobs, was the Valedictory Guest of Honour
- **Prof. (Dr.) Akshay K. Rathore**, IEEE Fellow and Professor at the Singapore Institute of Technology (SIT), Singapore was the international inaugural keynote speaker
- **Prof. (Dr.) Mohan Lal Kolhe**, Professor, Smart Grid & Renewable Energy, University of Agder, Norway was the International Keynote Speaker
- **Prof. B. K. Panigrahi**, Professor at IIT Delhi and Founding Head of CART was the National keynote speaker
- **Shri Rajiv Kumar Porwal**, Director (Systems Operations) Grid India was the National Keynote Speaker
- **Shri A K Saxena**, Senior Director, Electricity and Renewables, TERI was the National Keynote Speaker
- **Dr. R. Balasubramanian**, Ex Professor IIT Delhi, was the National Keynote Speaker





FDP on AI Application in Controller Design for Industrial Sector

A five-day faculty development program was conducted by Electrical and Electronics Engineering Department from 2-6 September 2024. The FDP was aimed to familiarize the participants with the latest trends, techniques, applications of AI in the field of controller design and seek the insights into how AI algorithms and machine learning can be effectively applied to enhance the performance, efficiency and adaptability of controllers across different engineering domains.

Resource Persons:

Dr. J.S. Lathar: NIT, Kurukshetra with the topic Artificial Neural Network in Modelling and Control and Reinforcement Learning & its Impact in Control Design and Robustness in control design

Dr. Sheetla Prasad: Assoc. Professor, Galgotias University with topic Artificial Intelligence based sliding mode control strategy and Stability of the Non-linear Control systems

Dr. Ashish Srivastava: Professor & Dean SFE, Vishwakarma skill University, Faridabad with the topic AI Based Controllers for solar Tracker and MPPT controller Design

Dr. Deepak Kumar: Assoc Prof. MNNIT Prayagraj with the topic Advanced Internal model control and Advanced Internal model control using optimization algorithms and its applications.

Dr. Ankit Sachan: Assistant Professor, Graduate School of Advanced Science and Engineering, Hiroshima University with the topic AI in Robotics and Autonomous systems & Emerging trends in AI in Controller Design aspects

Mr. Manoj Kumar: Application Engineer Design Tech System PVt. Ltd took the Hands On Session on MATLAB tool Boxes

Dr. Avadhpati: Assistant Professor, NIT, Silchar with the topic Design of Controller for Maglev Systems

Dr. Ramesh Singh: Senior Product Manager, Corporate Product Management, Tata ELXSI, Bangalore with the topic Operation and Technical Advances of EV Controllers

Workshop on MATLAB for Faculty Members of AKGEC

A Workshop on MATLAB for Faculty Members was conducted on28 April 2025. The session covered the diverse topics like application-based and Industry-ready learning approach for faculty, introduction and working with MATLAB & Simulink Onramp programs with certification along with hands-on training on the basic topics in MATLAB & Simulink. The workshop was aimed to provide the attendees the information about the certification programs offered by MathWorks and also to gain an insight about the latest and trending topics in MATLAB and Simulink useful in research and development.




Faculty Training

Dr J G Yadav and Dr Vani Bhargava attended 6 days Training program from 18-20 August2025 and 22-24 August 2025) on "CAEV: Connected, Autonomous and Electric Vehicle Course Combined with Artificial Intelligence" at MG Motors Plant Vadodara, Gujrat under MG Nurture Initiative. This training included technical sessions combined with physical plant visits of various machining facilities and assembly lines, and another online 6 days "Employability Skill Development Program" from 25-30 August 2025 by JSW MG Motors India Pvt Ltd.

Summer Internship at Electric Vehicle Centre of Excellence

The Electric Vehicle Centre of Excellence (EV CoE), established in March 2025, aims to promote hands-on learning, research, and skill development in electric mobility and sustainable transportation. It provides advanced facilities for students and faculty to innovate and contribute to green transportation. Key resources include EV and hybrid experimental setups, battery and BMS training systems, vehicle workbenches, conversion kits, charging units, and battery prototyping kits.

A 5-week Summer Internship Program was conducted on Electric Vehicles from 24June to 29 July 2025 by Electric Vehicle Centre of Excellence. The internship recorded the participation of 27 students, including 15 from AKGEC and 12 from ABES Engineering College. The participation reflected strong inter-institutional academic collaboration between the two institutions.

The internship emphasized experiential learning, enabling students to work directly on EV platforms, battery systems, power converters, and drivetrain assemblies. Session-wise quizzes were conducted to assess conceptual understanding, in which the participants demonstrated commendable performance. In addition, study projects were assigned to reinforce learning and promote analytical and problem-solving skills. The program culminated in project presentations, where students showcased their learning outcomes and technical competence. Based on overall performance, project quality, attendance, and evaluation marks, cash awards were presented to the best-performing interns, recognizing their dedication and excellence throughout the program.

Faculty Technical Seminar

The Technical Faculty Seminar served as a dynamic platform for knowledge exchange, enabling faculty members to present emerging research trends, innovative methodologies, and practical insights in the field of Electrical and Electronics Engineering.These seminars fostered academic excellence by encouraging interdisciplinary discussions, critical thinking, and continuous professional development. Through expert deliberations and interactive sessions, the initiative strengthened research culture and promoted collaborative learning within the department.The seminar series reflects the department's commitment to lifelong learning, innovation, and staying abreast of evolving technological advancements.

Name of Faculty	Topic	Date
Mr. Parveen Dhull	Hybrid radio over fibre transport system	31-01-2025
Ms. Nidhi Singh	Reference Management Tool	22-03-2025
Ms. Navjyoti Sharma	UAV Wireless Charging: Charging Techniques and Standards	24-04-2025
Mr. Ritesh Kumar Sharma	DC Micro grid Control and Stabilization Technique	30-05-2025
Mr. Ravindra Kumar	Distributed Generation: Future trend of Electrical industry	17-06-2025
Dr. Vani Bhargava	Voltage stability enhancement in presence of Multiple DG placement	17-06-2025
Dr Sarika Kalra	An overview of Electric Motors for Electric Vehicles	25-07-2025
Dr J G Yadav	Modelling and Simulation of Switched Reluctance Motor Drive	25-07-2025
Dr. A. K. Rai	Exergy analysis of FLISPV Thermal Water heating system	31-07-2025
Dr.Nitisha Shrivastava	Sustainable Consumption & Conservation of Resources	27-09-2025
Mr. Neeraj Gupta	Automatic Stamping and Sorting Machine using PLC and Pneumatic System	13-12-2025

UHV Seminar

The Universal Human Values sessions were conducted by the Department and delivered by faculties. These sessions emphasized the importance of ethics, empathy, and integrity in both personal and professional life.These sessions reflects on harmony within self, family, society, and nature, fostering responsible and value-based thinking.Through meaningful discussions and real-life examples, the initiative encouraged holistic development beyond technical competence.The program reinforced the department's commitment to nurturing socially responsible engineers with strong moral foundations.

Faculty Name	UHV Topic	Date
Prof. V.K. Parashar	An Overall Perspective leading to Right Understanding	30-01-25
Ms. Navjyoti Sharma	Role of Education in Holistic Development	22-03-25
Dr. A. K. Rai	Basic Human Aspiration & its Fulfilment	25-04-25
Ms. Nidhi Singh	Harmony in Family	20-06-25
Mr. Ravindra Kumar	Exploring our Aspirations & Concerns	11-10-15
Mr. Neeraj Gupta	Harmony in Nature	25-11-25

Guest Lectures (under IEEE Student Activity)

Gagrin to Gaganyaan by Ex ISRO Scientist

In Celebration of National Space Week, the department of Elelctrical and Electronics Engineering had organized a special talk titled Gagrin to Gaganyaan on 28 August 2025. The talk was delivered by Dr. R.R. Ellangovan, Ex ISRO Scientist and currently professor at KCG college of Technology, Chennai along with Mr. A.C Mathur, Retd. ISRO scientist. The event was aimed to inspire our students and

faculty concerning the historical and technological developments in human space exploration connecting global achievements from Yuri Gagrin's Mission to India's upcoming Gaganyaan program.

Opportunities and Challenges in Power Flow Control in a Modern Grid by Dr. Kalyan Sen

The Department of Electrical and Electronics Engineering, in collaboration with the IEEE Power &Energy Society (PES) Student Branch Chapter had organized an IEEE Distinguished Lecturer Program(DLP) on 18 September2025.

The lecture was delivered by Dr. Kalyan K. Sen, President & CTO, Sen Engineering Solutions Inc., Pennsylvania, USA. Dr. Sen is a globally renowned technologist, researcher andIEEELife Fellow, who has made pioneering contributions in the field of power flow control and FACTStechnologies. During the session, Dr. Sen provided a comprehensive overview of modern gridoperations, emphasizing the need for flexibility, stability, and efficiency in power systems. He discussedreal-world applications of Sen Transformer technology, highlighting its role in enhancing voltageregulation and power transfer capability. The technical discussion offered valuable insights intosustainable grid management, integration of renewables, and future trends in smart and resilientelectrical networks.

Connected and Autonomous Vehicles and ADAS by Mr. Paalem Vamshhi

The Department of Electrical and Electronics Engineering, Ajay Kumar Garg Engineering College, Ghaziabad, organized an expert session on "Connected and Autonomous Vehicles and ADAS" on 14October 2025. The session was coordinated by the IEEE IAS and PES Student Branch Chapters. The

expert speaker, Mr. Paalem Vamshhi, an automotive technology professional, delivered an insightful talk covering the fundamentals of connected and autonomous vehicles, advanced driver assistance systems, and the latest trends in intelligent mobility. The session provided valuable exposure to emerging automotive technologies beyond the classroom curriculum. Students actively interacted with the speaker, gaining a better understanding of industry perspectives and future opportunities in the field of future mobility.

Electric Ambulance by Dr. Wolf Burger

The Department of Electrical and Electronics Engineering organized an expert lecture on"Electric Ambulance" on 6 November 2025, delivered by Dr. Wolf Burger, Senior Expert,SES Germany. Dr. Burger, an internationally recognized expert in electric mobility andsustainable vehicle technologies,provided deep insights into the future of emergencytransportation powered by clean energy.

The interactive session allowed students to seek expert guidance on EV design, performancechallenges, and future industry trends. His real-world examples, coupled with engineeringinsights, made the session highly engaging and informative.It effectively highlighted the growing relevance ofelectric vehicles in transforming the healthcare and transportation sectors.

Hydrogen Fuel Cells: Theory and Demonstration by Dr. Wolf Burger

The Department of Electrical and Electronics Engineering organized an insightful expertsession on "Hydrogen Fuel Cells: Theory and Demonstration" on 7November 2025. Thesession was conducted by Dr. Wolf Burger, Senior Expert from SES Germany, who hasextensive experience in advanced energy systems and fuel cell technologies.

A key highlight of the session was the hands-on demonstration, where students had theopportunity to closely observe the functioning of hydrogen fuel cells. Dr. Burger showcased aprototype electric vehicle powered entirely by a hydrogen fuel cell, demonstrating itsoperation, performance behavior, and sustainability advantages. This practical exposuregreatly enhanced the students' understanding of fuel cell applications in electric mobility.

Faculty Achievement and Awards

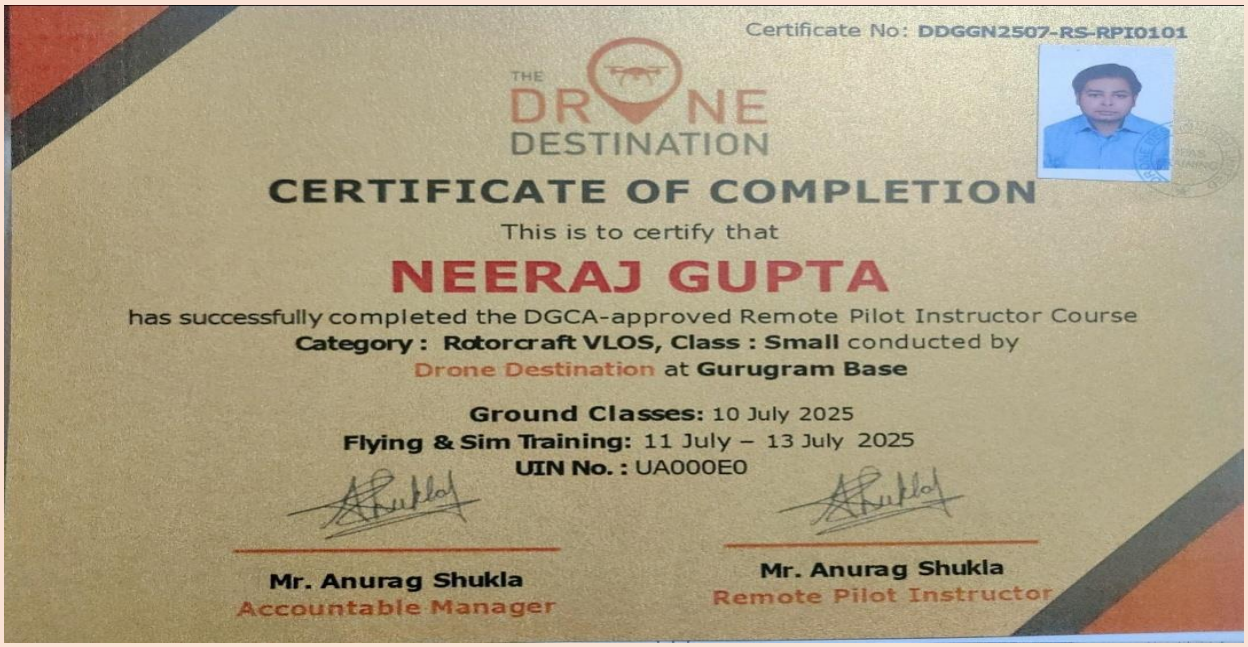
CST Grant

The counsil of Science & Technology, U.P, has santionerd the project titled " AI-based Design and Development of Power Train for a Low-Cost Ecofriendly Electric Vehicle driven by Switched Reluctance Motor" (PID-5052) with a financial support of Rs. 17.58 lakh.

The project is lead by Dr. J.G. Yadav, Associate Professor, as principal Investigator and Dr. Vani Bhargava, Associate Professor as the Co-PI.

DGCA Approved Remote Pilot Instructor Course

Mr. Neeraj Gupta, Assistant Professor, had successfully completed the DGCA (Directorate General of Civil Aviation, India) Approved Remote Pilot Instructor Course under category: Rotorcraft VLOS, Class: Small, conducted by Drone Destination at Gurugram Base.



Best Centre of Excellence in Clean Desk Award 2025

Under the vision of Swachh Bharat Abhiyaan : Ek Kadam Swachhta Ki aur, college celebrates Clean Desk Award every year. This year **Electric Vehicle Centre of Excellence has been awarded as the best centre of excellence and** the Clean Desk Award 2025 is presented to Mr. Yogesh Kumar, Lab Assistant, Electric Vehicle for maintaining clean and organized work place**.**

MoUs and Collaborations

MoU with Airports Authority of India (AAI)

A Memorandum of Understanding (MoU) between Airports Authority of India, a body corporate and constituted by the central Government under the Airports Authority of India Act (Act 55 of 1994) and our institute has been initiated to accomplish the aim of Internship program.

The aim of the MoU was to create interest in civil aviation among the students by supplementing theoretical knowledge with practical operations, giving exposure to students in STEM and non -STEM domains and giving opportunity to work on small-duration projects related to civil Aviation.

The MoU also refers to the internship program in which the students can be a part of project implementation at Airport, visits, workshops along with 20-week internship program.

MoU with MG Motor India

The department has successfully collaborated and initiated a Memorandum of Understanding (MoU) between the college and MG Motor India (MGI), marking a significant step toward strengthening industry–academia engagement. This MoU is effective for a period of one year, from 7th July 2025 to 6th July 2026.

The collaboration aims to provide students and faculty with meaningful exposure to emerging technologies, particularly in the domains of Electric Vehicles (EVs), Artificial Intelligence (AI), and advanced automotive systems, while fostering skill development aligned with industry requirements.

Key Possibilities and Opportunities under the MoU:

- Joint implementation of industry-oriented training program: CAEV Course (Connected, Autonomous & Electric Vehicle) Course combined with AI (Artificial Intelligence) module (CAEV + AI)

- Hands-on skill development through workshops, labs, and practical sessions
- Guest lectures and expert talks by professionals from MG Motor India
- Faculty development programs (FDPs) and training opportunities at MGI facilities
- Industrial visits for students to MG Motor India plants, including the Halol (Gujarat) facility
- Opportunities for student internships and mentorship under industry guidance
- Support in strengthening the EV Centre of Excellence and related academic initiatives

This MoU is expected to play a pivotal role in enhancing student employability, fostering innovation, and creating a sustainable ecosystem for continuous learning and collaboration between academia and industry.

Students Achievements

AKTU Zonal and States achievements

At the Zonal Level, our AKGEC Team secured the Overall Championship in the Ghaziabad Zone at the AKTU Sports Zonal Fest hosted by RKGIT, with an impressive tally of 26 medals.

At the State-level Sports Fest, held at Galgotias College of Engineering & Technology (GCET), Greater Noida on 6-7 November 2025, our teams once again proved their mettle by achieving an outstanding 6 Gold, 2 Silver and 1 Bronze medals. The Following students from the department of Electrical and Electronics Engineering participated and won medals for the institute.

NAME OF STUDENT	EVENT	AWARD
Saumya Gupta	SAKSHAM'25(Carrom)	Second position
Prince Sharma	SAKSHAM'25 (Cricket)	First position
Vaishnavi Srivastava	SAKSHAM'25 (Badminton)	Second Position
Saanvi Aggarwal	AKTU Zonal's (Kabaddi)	Second position
Saanvi Aggarwal	AKTU Zonal's (Badminton)	Second position
Saanvi Aggarwal	SAKSHAM'25 (Badminton)	Second position
Abhay	SAKSHAM'25 (Cricket)	First position
Abhay	SAKSHAM'25 (Kabaddi)	First position
Anmol Singh	SAKSHAM'25 (Kabaddi)	First position

Research and Development

Papers Published

The department encourages its faculty members and students to undertake high quality research in newly emerging areas of engineering, technology, science and humanities. In year 2025, the faculty members of Electrical and Electronics Engineering department have published the following list of research papers in referred journals and conferences at national and international level:

G. Srivastava "Robotic Resistance Spot Welding." In Proceedings of the International Conference on Convergence of Applied Science in Engineering & Technology (COASET-2025), March 2025.

G. Srivastava "Design and Optimization of Robots for Competitive Basketball." In Proceedings of the International Conference on Convergence of Applied Science in Engineering & Technology (COASET-2025), March 2025.

Nitisha Shrivastava, Arjun Baliyan "Efficacy of Continued Fraction Expansion Technique in the Approximation of Fractional Order Systems." International Journal of Electrical and Computer Engineering Systems, Vol. 15, No. 9, pp. 803–817, 2024.

Nitisha Shrivastava, Arjun Baliyan. "Modelling and Validation of Hybrid Series Active Filter for Power Quality Enhancement Using OPAL-RT Simulator." International Journal of Electrical and Computer Engineering, Vol. 15, No. 2, pp. 1274–1288, 2025.

Priya Devi, **Lokesh Varshney, Sarika Karla** "Performance Improvement of PV System Arrangements with HMS Method in Partial Shade Condition." 6th International Conference on Recent Developments in Control, Automation & Power Engineering (RDCAPE-2025), 18–19 September 2025, Amity University Noida, India.

Priya Devi, **Lokesh Varshney, Sarika Karla** "Performance Improvement of PV System Arrangements with MS Method in Partial Shade Situations." 6th IEEE India Council International Subsections Conference (INDISCON 2025), 21–23 August 2025, National Institute of Technology Rourkela, India.

Vaibhav Mishra, Mayank Dubey, **Vani Bhargava, Navjyoti Sharma** "Integration of Super capacitor and Flywheel Along with Battery for High-Performance Hybrid Energy Storage System." Journal of Electrical Systems, Vol. 21, Issue 1, pp. 138–149, 2025.

Rishabh Baranwal, Rahul Gupta, **Vani Bhargava, Navjyoti Sharma** "Solar to 'X': Design and Modelling of a Solar-Powered DC Ironing System for Sustainable Cloth Ironing." Journal of Electrical Systems, Vol. 21, Issue 1, pp. 226–236, 2025.

N. Singh, V. Niranjan, N. R. Chauhan, M. Saraswat. "Impact of Drones on Various Industries." AIP Conference Proceedings, Vol. 3330, Art. No. 020010, 2025.

G. Pal, Y. K. Saxena, S. Trivedi, Jitender, P. Kumar, **A. K. Maurya**. "Flexidrone: Revolutionizing Emergency Response in Natural Calamities." 2025 Third International Conference on Augmented Intelligence and Sustainable Systems (ICAISS), Trichy, India, 2025.

A. K. Rai, A. K. Maurya, **R. K. Sharma**, M. Singh. "Modelling Analysis and Characteristics of Multi-Level Inverter for Integrating Solar PV System to Grid." Journal of Advanced Research in Fluid Mechanics and Thermal Sciences, Vol. 125, Issue 2 (2025), pp. 82–92

A. K. Rai "Energy Matrices of Rooftop Grid-Connected 40 kWp PV System", Energy, Ecology and Environment, Volume 1 (2025), Springer, Singapore pp 221-230.

A. K. Rai "Carbon Credit Earned of a Rooftop Grid-Connected Photovoltaic Systems", Energy, Ecology and Environment, Volume 2 (2025) , Springer, Singapore pp 259-268.

V. Agrawal, Suryansh, Y. K. Dwivedi, Jitender, A. Sharma, **A. K. Maurya**. "Next-Gen Shopping: The Smart Shoppe Trolley for Autonomous Retail Navigation." 2025 7th International Conference on Energy, Power and Environment (ICEPE), Sohra (Cherrapunjee), India, 2025.Top of Form

Shantanu Shishodia, Ritu Bisht, Prerna Balodi, Shashank Rawat, **Neeraj Gupta, Mahendra Dutt Dwivedi**. "Automatic Stamping and Sorting Machine Using PLC and Pneumatics." AIP Conference Proceedings, Vol. 3297, Art. No. 060005, 2025.

Nathi Ram Chauhan, **Nidhi Singh**, Neha Sangwan, Rishika Yadav, Sneha Purwar, Vanshika Mittal, Manish Saraswat "Enhancement on Seed Distribution using Drones in Agriculture" Nov 2025.

R. L. Meena and **R. K. Sharma**, "Design, Control, Operation and Stability of Grid-connected DC Micro grid with Constant Power Load," 2024 2nd International Conference on Advancements and Key Challenges in Green Energy and Computing (AKGEC), Ghaziabad, India,

Sakambari Mishra, Sudhanshu Maurya, **Lokesh Varshney,** Firdous Sadaf Mohammad Ismail, Alamma BH, T. C. Manjunath, "Optimization of time-cost-quality trade-off problems using Advanced Jaya algorithm in construction project scheduling" accepted in Asian Journal of Civil Engineering, 2025.

FDPs / WORKSHOPS/ SEMINARS ATTENDED BY FACULTY MEMBERS

Faculty members of the department regularly participate in Faculty Development Programmes (FDPs), workshops and seminars to enhance their academic, research, and professional competencies. These programmes provide valuable exposure to emerging technologies, innovative teaching methodologies, and recent industry trends. The faculty members of Electrical and Electronics Engineering department have attended the FDPs, workshop and seminars in the year 2025:

Title	Organized by	Dates	Name of Faculty Members
ATAL FDP on Global Scenario of Sustainable Energy and Climate Change	Pimpri Chinchwad education trust Pimpri Chinchwad College of Engineering and Research	27/01/2025 – 01/02/2025	Dr. Nitisha Shrivastava
Clean And Green Technologies	NITTTR, CHANDIGARGH	27/01/2025 – 31/01/2025	Dr. A.K Rai
ATAL FDP on Technological Innovations in Climate Change Adaptation for Sustainability	MM Engineering College, Mullana-Ambala (online)	10/02/2025 – 15/02/2025	Dr. Nitisha Shrivastava
Hybrid Machining	NITTTR, Chandigarh	17/02/2025 – 21/02/2025	Mr. Gaurav Srivastava
Impact of Artificial Intelligence on Automated Software Development and Delivery	AKGEC	04/03/2025 – 08/03/2025	Dr. Vani Bhargava Ms. Nidhi Singh Ms. Navjyoti Sharma
workshop on communication maestro	AKGEC	10/03/2025 – 11/03/2025	Ms. Navjyoti Sharma Dr. A. K. Rai
Empowering the future Advancements in Power Electronics for Electric Vehicle & Renewable Energy	NIT Warangal in association with NIT Suratkal	17/03/2025 - 27/03/2025	Dr Sarika Kalra
Smart Technologies for Sustainable Energy Systems	AKGEC	06/04/2025 – 11/04/2025	Dr. Vani Bhargava
AICTE IDEA LAB FDP	AKGEC SKILLS	21/04/2025 – 25/04/2025	Mr. Neeraj Gupta

FDP on Design of EV, PV and Wind Power Plants and Applications of IoT: Hand on Practice	Sasi Institute Of Technology And Engineering , A.P	28/04/2025 - 03/05/2025	Dr Sarika Kalra
Workshop on MATLAB	AKGEC	28/04/2025 – 28/04/2025	Dr. Nitisha Shrivastava
Conference Quality and Management Workshop	Noida Institute of Engg. &Technology, G.N	24/05/2025	Dr. Lokesh Varshney Dr. A. K. Rai
CAEV: Connected, Autonomous and Electric Vehicle Course Combined with Artificial Intelligence	MG Motors Plant Vadodara, Gujrat under, MG Nurture Initiative.	18/08/2025-20/08/2025 & 22/08/2025-24/08/2025	Dr J G Yadav Dr Vani Bhargava
Employability Skill Development Program	JSW MG Motors India Pvt Ltd, Vadodara, Gujrat	25/08/2025 - 30/08/2025	Dr J G Yadav Dr Vani Bhargava
IoT with Machine Learning in Defence Applications	Electronics and ICT Academy, NIT Patna, MIT Bengaluru	04/08/2025 - 16/08/2025	Ms. Nidhi Singh Ms. Navjyoti Sharma
Driving the Future: Sustainable Mobility through Electric Vehicle Technologies and MATLAB Simulations	AICTE ATAL Academy FDP at Shri Vishwakarma Skill University	08/12/2025 - 13/12/2025	Ms. Nidhi Singh Ms. Navjyoti Sharma Dr. Vani Bhargava Dr. Lokesh Varshney Dr. A. K. Rai Mr. ParveenDhull Mr. Ravindra Kumar Ms. Nupur Mittal
Digital Transformation in Power System: AI, Block chain & Cybersecurity (DTPS-2025)"	Electronics and ICT Academy, NIT Patna & Dayalbagh Educational Institute, Agra	18/08/25 - 30/8/25	Mr. Ritesh Kumar Sharma
Generative AI	E & ICT Academy, IIT Kanpur	01/12/2025 – 15/12/2025	Mr. Neeraj Gupta

Patents Published

Our Institute provides a strong ecosystem that encourages research, innovation and intellectual property creation among faculty members and students. The institute actively supports patent culture through dedicated research cells, financial assistance, expert guidance and regular awareness programmes on intellectual property rights, promoting interdisciplinary collaboration, industry partnerships, and incubation support to transform innovative ideas into patentable outcomes. The faculty members of Electrical and Electronics Engineering department have Published or filed the following patents in the year 2025:

Faculty Name	Title of patent/ Design	Patent /Design Publication Number/ Patent Granted Number	Patent / Design Published / Granted Date (DD/MM/YYYY)	Status (Filled/Published/Grant)
Mr. Arun Kumar Maurya Dr. Nitisha Shrivastava	A system and a method for wearable fall detection and automated emergency alert	202511009639	21-02-2025	Published
Mr. Arun Kumar Maurya	A System and Method to Automatically Clean and Sanitize Toilet Seat-Tops Using Air and UV.	202511022329	21-03-2025	Published
Ms. Mehak Monga	A system and a method to enhance security using AI-laser light detection	564636	30-03-2025	**Granted**
Dr. Anil Kumar RaiDr. J G Yadav	IOT-based traffic signal regulation system for emergency vehicle prioritization	202511042254	01-05-2025	Filed
Dr. Vani Bhargava, Ms. Navjyoti Sharma	A System and Method for Smart, Solar-Powered Ironing with AI and Blockchain Monitoring	202511047976	30-05-2025	Published
Ms. Kanak Gahlaut	System and method for navigation and mobility for visually impaired individuals using smart glasses	567017	30-05-2025	**Granted**
Dr Anil Kumar Rai Dr Lokesh Varshney	Advanced EV battery management system for enhanced safety and lifespan	202511056252	27-06-2025	Published

Ms. Navjyoti Sharma Mr. Ritesh Sharma	IoT-enabled sun-tracking solar smart irrigation system and working method thereof	202511063940	18-07-2025	Published
Ms. Divyanshi Chaudhary	Smart shopping cart system with ai powered navigation, checkout, and personalized recommendations	569261	29-07-2025	**Granted**
Dr Vani Bhargava Ms Nidhi Singh	IoT-based dual-mode firefighting robotic device	202511068176	08-08-2025	Published
Mr. Neeraj Gupta	FPGA-based system for real-time control and telemetry applications and working method thereof	202511063938	18-07-2025	Published
Mr. Neeraj Gupta	Aerodynamically stabilized can sized satellite (cansat) system and working method there of	202511063939	18-07-2025	Published
Mr. Neeraj Gupta Mrs. Nidhi Singh	Smart asset tracking system and working method thereof	202511063941	18-07-2025	Published

पेटेंट कार्यालय,भारत सरकार
पेटेंट प्रमाण पत्र

The Patent Office, Government Of India
Patent Certificate

पेटेंट सं. / Patent No. : 569261
आवेदन सं. / Application No : 202411063055
फाइल करने की तारीख / Date of Filing : 21/08/2024
पेटेंटी / Patentee : Divyanshi Chaudhary

प्रमाणित किया जाता है कि पेटेंटी को, उपरोक्त आवेदन में यथाप्रकटित *SMART SHOPPING CART SYSTEM WITH AI POWERED NAVIGATION, CHECKOUT, AND PERSONALIZED RECOMMENDATIONS* नामक आविष्कार के लिए, पेटेंट अधिनियम, 1970 के उपबंधों के अनुसार आज तारीख अगस्त 2024 के इक्कीसवें दिन से बीस वर्ष की अवधि के लिए पेटेंट अनुदत्त किया गया है।

It is hereby certified that a patent has been granted to the patentee for an invention entitled *SMART SHOPPING CART SYSTEM WITH AI POWERED NAVIGATION, CHECKOUT, AND PERSONALIZED RECOMMENDATIONS* as disclosed in the above mentioned application for the term of 20 years from the 21st day of August 2024 in accordance with the provisions of the Patents Act, 1970.

अनुदान की तारीख / Date of Grant : 29/07/2025

Controller of Patents

पेटेंट कार्यालय,भारत सरकार
पेटेंट प्रमाण पत्र

The Patent Office, Government Of India
Patent Certificate

पेटेंट सं. / Patent No. 564636

आवेदन सं. / Application No 202411063057

फाइल करने की तारीख / Date of Filing 21/08/2024

पेटेंटी / Patentee Mehak Monga

प्रमाणित किया जाता है कि पेटेंटी को, उपरोक्त आवेदन में यथाप्रकटित *A SYSTEM AND A METHOD TO ENHANCE SECURITY USING AI- LASER LIGHT DETECTION* नामक आविष्कार के लिए, पेटेंट अधिनियम, 1970 के उपबंधों के अनुसार आज तारीख अगस्त 2024 के इक्कीसवें दिन से बीस वर्ष की अवधि के लिए पेटेंट अनुदत्त किया गया है।

It is hereby certified that a patent has been granted to the patentee for an invention entitled *A SYSTEM AND A METHOD TO ENHANCE SECURITY USING AI- LASER LIGHT DETECTION* as disclosed in the above mentioned application for the term of 20 years from the 21st day of August, 2024 in accordance with the provisions of the Patents Act, 1970.

Date of Grant : 30/09/2025

Controller of Patents

Note: The fees for renewal of this patent, if it is to be maintained, will fall / has fallen due on 21st day of August, 2025 and on the same day in every year thereafter.

पेटेंट कार्यालय,भारत सरकार
पेटेंट प्रमाण पत्र

The Patent Office, Government Of India
Patent Certificate

पेटेंट सं. / Patent No. : 567017

आवेदन सं. / Application No. : 202411063106

फाइल करने की तारीख / Date of Filing : 21/08/2024

पेटेंटी / Patentee : Karak Gahlaut

प्रमाणित किया जाता है कि पेटेंटी को, उपरोक्त आवेदन में यथाप्रकटित *SYSTEM AND METHOD FOR NAVIGATION AND MOBILITY FOR VISUALLY IMPAIRED INDIVIDUALS USING SMART GLASSES* नामक आविष्कार के लिए, पेटेंट अधिनियम, 1970 के उपबंधों के अनुसार आज तारीख अगस्त 2024 के इक्कीसवें दिन से बीस वर्ष की अवधि के लिए पेटेंट अनुदत्त किया गया है।

It is hereby certified that a patent has been granted to the patentee for an invention entitled *SYSTEM AND METHOD FOR NAVIGATION AND MOBILITY FOR VISUALLY IMPAIRED INDIVIDUALS USING SMART GLASSES* as disclosed in the above mentioned application for the term of 20 years from the 21st day of August 2024 in accordance with the provisions of the Patents Act,1970.

Date of Grant : 30/09/2025

Controller of Patents

Note: The fees for renewal of this patent, if it is to be maintained, will fall / has fallen due on 21st day of August, 2025 and on the same day in every year thereafter.

Workshop on "MATLAB Basics: Your First Step into Computational Excellence"

A Technical Session on "MATLAB Basics: Your First Step into Computational Excellence" for the students of B.Tech EN 2nd and 3rd year was conducted on 22 August 2025. The session covered various topics on application-based and Industry-ready learning approach for students, MATLAB & Simulink Onramp programs with certification along with hands-on training on the basic topics in MATLAB & Simulink All the students of B.Tech EN 2nd & 3rd year actively participated and learned to access MATLAB software through the institute domain. Through hands-on training, students learn to model, simulate and analyze real-world engineering problems efficiently. MATLAB enhances understanding of subjects such as signal processing, control systems, power systems, and machine learning.

Code2 Ctrl (2-day Workshop on Embedded System and IoT Workshop)

A two-day workshop "Code2 Ctrl" based on Embedded system and Internet of things was organized by **Team Oorja, society of Department of Electrical and Electronics** on 10 November 2025. In the workshop day-1 was dedicated to Microcontroller and Microprocessor and their Programming language. The day-2 was on internet protocol. The event witnessed massive success and enthusiasm by the participant. The workshop was aimed to sensitize the students with controllers functioning and programming along with sensors functioning. Quiz competitions along with fun games and activities were also arranged on both the days. The participants were also awarded with certification of 2-day workshop and hands-on.

Industrial Visits

400/200 KV Power Grid Substation at Sonipat, Gohana Road, Haryana

An Industrial visit was scheduled for second year students of the department at 400/200 KV Power Grid Substation at Sonipat, Gohana Road, Haryana on 16 May 2025. A total of 47 students had visited the substation. The visit was planned to make students To understand and learn Layout of Substation Equipment in Substation, Ratings along with types of Equipment employed and types of protection schemes incorporated In Substations. The students also experienced the deep understanding of different types of relays, circuit breakers used in substation and its working and co-ordination.

National Institute of Solar Energy, Gurugram, Haryana

An Industrial visit was scheduled for Third year students of the department at National Institute of Solar Energy, Gurugram, Haryana on 30 May 2025.

A total of 34 students visited the institute and witness large-scale solar collectors, diverse types of solar cells and learned about the ongoing research in Building Integrated Photovoltaic (BIPV) systems. The state-of-the-art PV testing laboratories and the Green Hydrogen Facility added immense value to the experience. The Students showed keen interest in several innovative projects aimed at harnessing solar energy for sustainable solutions.

IEEE ALL INDIA STUDENT – YOUNG PROFESSIONALS – WOMEN IN ENGINEERING – LIFE MEMBERS CONGRESS (AISYWLC'25)

A three-day flagship IEEE event "AISYWLC'25" jointly organized by Adani University and Nirma University was attended by Six of our students. The event brought together students, young professionals, industry leaders, researchers, and innovators from across India to discuss emerging technologies, entrepreneurship, ethics, and industry–academic linkages. The conference included knowledge-driven sessions, cultural experiences, networking opportunities, and interactive workshops.

Placements

Outstanding academic performance, coupled with holistic development through diverse college events and activities, has led to strong placement outcomes for our students. Campus placements have shown consistent growth in both quantity (number of students placed) and quality (company profiles, job roles, and salary packages). The 2025 B.Tech graduates secured 90.50% placement percentage, with the highest package of 11LPA.

The Major recruiters included top-tier companies such as Advance Valve, Avl India, BENEPIK, ETA Engineering Pvt Ltd., Exco Tech, Gainwell Commosales Pvt. Ltd., Gensol Engineering Pvt Ltd.,

HYOXEN VEHICLE TECHNOLOGY, High Technext Engineering, ISSPL, Intellipaat, Jackson Group, Jakson India (Chs India), KEI Industries, Leewayhertz, Nimbus Property Systems, Rockwell Automation, SWAAYATT ROBOTS, Srex Power, Sunwoda, Electronic India, Torrent Gas, Twinkle Enterprises, Uttam Stirps, Visual Technologies India

The Following Students were placed in the companies

S.No	Name of the Student Placed	Name of the Employer
1	Abhay Tripathi	Jackson Group
2	Aditi Rai	ETA Engineering Pvt Ltd.
3	Amitesh Kumar shukla	ETA Engineering Pvt Ltd.
4	Anvesha Pandey	Rockwell Automation
5	Aryan Bajpai	ETA Engineering Pvt Ltd.
6	Parikshit Singh	Gensol Engineering Pvt Ltd.
7	Rishabh Baranwal	ISSPL
8	Sarthak Gupta	ETA Engineering Pvt Ltd.
9	Uttkarsh Saini	Jackson Group
10	Vikas kushwah	Jackson Group
11	Shivanshu Singh	Rockwell Automation
12	Aditi Sharma	BENEPIK
13	Parth Suyal	SWAAYATT ROBOTS
14	Rahul Kumar	KEI Industries
15	Harsh Tyagi	KEI Industries
16	Bhawna	Torrent Gas
17	Sheevendra Singh	Torrent Gas

18	Devansh Kumar	High Technext Engineering
19	Vishwanath	Sunwoda Electronic India
20	Priyanshu Pandey	Gainwell Commosales Pvt. Ltd.
21	Rishit Kumar Gupta	SURYAM INTERNATIONAL
22	Pawan Kumar Yadav	HYOXEN VEHICLE TECHNOLOGY
23	Aman Goel	Advance Valve
24	Muskan Gupta	Advance Valve
25	Ketan Tiwari	Advance Valve
26	Saurabh Baranawal	Srex Power
27	Atharv Khare	Srex Power
28	SnehaVasisth	Leewayhertz
29	Sonam Kumari	Nimbus Property Systems
30	Aakash Singh	Cohesive
31	Anant Jain	Avl India
32	Toshendra Kumar Bhardwaj	Jakson India (Chs India)
33	Madhusudan Sharma	Twinkle Enterprises
34	Rahul Gupta	Visual Technologies India
35	Ritika Shrivastava	Akash Industries
36	Aditya	Uttam Stirps
37	Uttam Bajpai	Exco Tech
38	Kanishk Upadhyay	Intellipaat

Highest package achiever:

PARTH SUYAL, SWAAYATT ROBOTS, 11 LPA

Major Infrastructural development and Milestone

Electric Vehicle Centre of Excellence (EV CoE) and Skill Courses

The Electric Vehicle Centre of Excellence (EV CoE) has been established on March 2025 to promote hands-on learning, research, and skill development in the field of electric mobility and sustainable transportation technologies. This facility was designed to provide students and faculty with cutting-edge resources to explore, innovate, and contribute to the future of green transportation.

The Key Facilities provided by EV CoE are

- EV Drive Train Experimental Setup with Data Acquisition System
- Combined Hybrid Vehicle Experimental Setup
- Battery & BMS with CAN Protocols Training Workbench
- EV Machine Cut-Out Section Workbench
- Two-Wheeler Electric Vehicle Training Workbench
- Two-Wheeler Conversion Kit
- Three-Wheeler Electric Vehicle Training Workbench with Service Platform
- Cell Charging and Discharging (8-Channel) Unit
- Learning &Development Kit, battery prototyping.

The Objectives of the EV CoE were aimed to encourage experiential learning and practical exposure to EV technologies, support research and development in sustainable mobility solutions and to build industry-relevant skills among students and faculty.

Future plans of Electrical & Electronics Engineering Department

Faculty Development Program and Hands-on Training on MATLAB & Simulink with Applications in Emerging Technologies

A Five-days Faculty Development Program is Planned on Hands-on Training on MATLAB & Simulink with Applications in Emerging Technologies in the even semester of the session.

The Program is designed to equip faculty members with advanced competencies in MATLAB and Simulink, enabling them to integrate emerging technologies into their teaching, research, and industry-connected curriculum delivery. The five-day intensive Program combines expert-led lectures with hands-on training sessions conducted by MathWorks specialists, addressing contemporary engineering challenges in Artificial Intelligence, Machine Learning, Electric Vehicles, IoT, Smart Grids, and Quantum Computing.

2026 3rd International Conference on Advancements and Key Challenges in Green Energy and Computing (AKGEC2026)

The Department is planning the third edition of the IEEE International Conference on Advancements and Key Challenges in Green Energy and Computing (AKGEC 2026) from26– 28 February 2026.

Building on the success of the previous editions, AKGEC2023 and AKGEC2024, the conference aims to bring together leading academicians, researchers, industry professionals, and students to exchange knowledge, share research outcomes, and explore innovations in the areas of Green Energy, Computational Intelligence, and Sustainable Technologies.

The conference will feature multiple tracks and focus areas designed to promote in-depth discussions on cutting-edge advancements, practical applications, and key challenges faced in creating sustainable solutions for the future. All accepted and presented papers will be submitted to IEEE Xplore for publication, subject to meeting IEEE quality standards.

Technically Co-sponsored by

AJAY KUMAR GARG ENGINEERING COLLEGE

3rd International Conference on Advancements & Key Challenges in Green Energy & Computing (AKGEC 2026)

Conference Record Number - #68790

The Department of Electrical and Electronics Engineering at Ajay Kumar Garg Engineering College, Ghaziabad, Uttar Pradesh, India, is organizing the 3rd International Conference on Advancements and Key Challenges in Green Energy and Computing (AKGEC-2026).The conference is technically co-sponsored by IEEE UP Section, IEEE Industry Applications Society (IAS), and IEEE Power & Energy Society (PES). It will provide a premier forum for researchers, academicians, industry experts, and students from across the globe to present their latest research, exchange knowledge and discuss emerging trends.

The conference aims to facilitate comprehensive discussions and exploration of innovations in Green Energy, Sustainable Technologies, Computational Intelligence, Artificial Intelligence, Embedded Systems, and Smart Infrastructures. Special emphasis will be placed on sustainable solutions for climate-resilient cities, E-Mobility, and future energy systems.

Conference Tracks

Track 1 : Green Energy, Electric Drives and Smart Grid
Track 2 : Computing and Security
Track 3 : Sustainable Technologies and Development
Track 4 : Artificial Intelligence and Embedded Systems

Call for Papers

Novel unpublished research papers and works are invited from academicians, researchers, industry professionals, and students across the globe for potential presentation at the conference. All submissions will undergo a plagiarism check and a rigorous peer-review process to ensure originality, quality, and technical relevance.

Papers with a similarity score of 25% or higher (including references) may be rejected without further review. Accepted and presented papers, subject to IEEE standards, will be submitted to IEEE Xplore for publication, ensuring wide visibility and dissemination.

Important Dates

Full Paper Submission	:	15th November 2025 ~~15th October 2025~~
Notification of Acceptance Starts	:	15th November 2025
Registration Starts	:	15th November 2025
Last Date to Register	:	31st December 2025
Conference Dates	:	26th - 28th February 2026

Submission

https://cmt3.research.microsoft.com/AKGEC2026

https://enconf.akgec.ac.in
email : eee.events@akgec.ac.in | Cont. : +91-9968479672

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AKGEC Ghaziabad

Ms. Preeti Singh
Scientific Officer
AKG Skills

Alumni Speaks

Parth Suyal (Batch of 2021-25)

My time at EN Department, AKGEC played a crucial role in shaping my career direction in Embedded Systems and Robotics. Beyond classroom learning, the department provided me with resources to work on various projects. My professors were consistently supportive of my endeavours in competitions, projects and internships. The EN Department actively facilitated project work by providing essential resources—ranging from electronic components and lab infrastructure to dedicated space for experimentation and development. This freedom to work on projects helped me overcome my limits to work consistently. To the current students, I strongly encourage you to engage deeply in projects, explore emerging technologies, and make full use of the resources available in the department. Hands-on experience will be your greatest teacher.

I am grateful to my department and my professors for supporting my journey of growing as a true engineer: a real problem solver.

Priyanshu Pandey (Batch of 2021-25)

My journey at Ajay Kumar Garg Engineering College was truly transformative. The environment, faculty, and opportunities here helped me build both technical skills and confidence. I'll always be grateful for the foundation this college gave me.

Rahul Gupta (Batch of 2021-25)

I am honored to be an alumnus of this institution, which played a vital role in shaping my academic and professional journey. I wish the college continued growth and success.

Rashank Agrawal (Batch of 2021-25)

Ajay Kumar Garg Engineering College shaped not only my career but also my perspective towards growth and learning. The guidance from mentors and the campus culture played a vital role in shaping my future.

Rishabh Baranwal (Batch of 2021-25)

My journey with the Electrical & Electronics Engineering Department at AKGEC has been both inspiring and transformative. The department provided a strong technical foundation, practical exposure, and a research-oriented mind-set that shaped my approach as an engineer.From innovative projects to technical competitions and conferences, every experience encouraged critical thinking and real-world problem solving. Today, as a Graduate Engineer Trainee (GET) at Jakson Group, working on Solar Rooftop projects, I directly apply the concepts and discipline developed during my time at AKGEC. To my juniors: stay curious, strengthen your fundamentals, embrace hands-on learning, and believe in your ideas—the department will give you the platform to grow.

Amar Ujala,(GZB.) 24.11.2024 Sunday Page No.:-G,05

एकेजी कॉलेज में आयोजित कार्यशाला में शामिल लोग। स्रोत : संस्थान

2030 तक सौर ऊर्जा से 500 गीगा वाट बिजली का होगा उत्पादन

गाजियाबाद। राष्ट्रीय सौर संस्थान के महानिदेशक डॉ. मोहम्मद रेहान ने कहा कि वर्तमान समय में 92 गीगा वाट बिजली का उत्पादन सौर ऊर्जा से हो रहा है। जिस तरह से तेजी से हालात बदल रहे हैं, उससे 2030 तक 500 गीगा वाट उत्पादन का लक्ष्य आसानी से छू सकते हैं। उन्होंने यह बातें शनिवार को अजय कुमार गर्ग इंजीनियरिंग कॉलेज में आईईईई की हरित ऊर्जा और कंप्यूटिंग विषय पर आयोजित तीन दिवसीय अंतरराष्ट्रीय कार्यशाला में कही। शनिवार को कार्यशाला का समापन हो गया। नवीन और नवीकरणीय ऊर्जा मंत्रालय के संयुक्त सचिव दिनेश जगडाले ने कहा कि बढ़ता प्रदूषण वैश्विक समस्या है। इस समस्या से हरित ऊर्जा से निपटा जा सकता है। उन्होंने सौर ऊर्जा को लेकर सरकार की तमाम योजनाओं के बारे में विस्तार से जानकारी दी। सिंगापुर इंस्टीट्यूट ऑफ टेक्नोलॉजी के प्रोफेसर अक्षय के राठौर, आईआईटी दिल्ली के प्रोफेसर डॉ. बीके पाणिग्रही ने हरित ऊर्जा में पावर इलेक्ट्रॉनिक्स की भूमिका, ऊर्जा प्रणाली में एआई और मशीन लर्निंग की महत्ता समझाई। छात्र-छात्राओं ने हरित ऊर्जा पर अपनी अपने अपने शोध पत्र प्रस्तुत किए। कार्यशाला में हरित ऊर्जा पर देश की स्थिति और भविष्य की संभावनाओं पर मंत्रालयों से आए प्रतिनिधियों व वैज्ञानिकों ने प्रतिभाग किया। इस मौके पर कॉलेज के महानिदेशक डॉ. आरके अग्रवाल ने सभी अतिथियों का स्मृति चिन्ह भेंट कर सम्मान किया। इस मौके पर डॉ. आर. चाल सुब्रमण्यन, प्रोफेसर नीरज गुप्ता, मोहन कोल्हे, हेमंत आहूजा, लोकेश वाधूलेय, वाणी भार्गव आदि मौजूद रहे। संवाद

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गीगा वाट बिजली का उत्पादन वर्तमान में सौर ऊर्जा से हो रहा

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