



K. D. K. COLLEGE OF ENGINEERING

DEPARTMENT OF ELECTRONICS &
TELECOMMUNICATION ENGINEERING



Vol - IX Issue: 1

Dec- 2024

NEWSLETTER

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VISION :

Endeavoring in developing technically competent, confident and socially responsible Electronics Engineers.

MISSION:

- M1- Focus on teaching learning process to spread in-depth knowledge of principles and its applications pertaining to Electronics Engineering and interdisciplinary areas.
- M2- To inculcate creative thinking through innovative and group work exercises which enhances the entrepreneur skills, employability and research capabilities.
- M3- Provide ethical and value-based education by promoting activities addressing the societal needs.

Program Educational Objective (PEOs):

Graduates of Electronics Engineering shall:

- PEO1 - Exhibit their knowledge and skills in analyzing and solving the real time engineering problems.
- PEO2 - Be successful in careers, higher studies, researcher entrepreneurial assignments.
- PEO3 - Have exposure to emerging technologies, have opportunities to work as team member on multidisciplinary projects with effective communication skills and leadership qualities.

Program Specific outcome (PSOs):

The Program Specific Outcomes (PSOs) of the Department of Electronics Engineering are given below:

- PSO1 - Students shall have ability to design and deploy systems in Electronics, Communication, Embedded Systems, Automation, VLSI, Signal Processing, Robotics and IoT.
- PSO2 - Students shall have aptitude towards design, development and research of innovation products/ systems in Electronics solving real time, societal problems.

About Electronics & Telecommunication Engineering Department: -

Electronics Engineering department has been established in 1999, approved by AICTE New Delhi and Government of Maharashtra, with an initial intake of 40 students. The intake was then increased to 60 from the session 2002-2003. and then 90. The department has good infrastructure for imparting training and education which includes well equipped laboratories. The department believes in over all development of students and is aligned in making students technically sound by organizing different technical seminars, workshop, guest lectures all throughout the year under departmental forum IETE Students Forum (ISF). Department undertakes R&D activities and consultancy assignments. The department has highly qualified staff with industrial experience. The students of the department also excel in the University Examinations and secure merit ranks every year. The head of the department is Dr. P.D. Khandait. Faculty members of the department have presented and published their research papers in several National and International Conferences and Journals.

Technical Events And Competitions Organized In The Department

One-Week Student Internship Program on Development of Embedded Systems using Arduino

The Department of Electronics and Telecommunication at K. D. K. College of Engineering, Nagpur, organized a one-week student internship program on the development of embedded systems using Arduino from June 19, 2024, to June 25, 2024. This program aimed to provide students with hands-on experience and practical knowledge in the field of embedded systems and microcontroller programming, sensor and actuator interfacing, and project development. Students got the blessed presence of Head of Department Dr. P. D. Khandait, Internship Incharge Dr. R. A. Burange, Internship Co-Incharge Prof. S. A. Bagal. The feedback from participants was overwhelmingly positive. They appreciated the hands-on approach, the support from faculty and mentors, and the practical relevance of the program. Many students mentioned that the program boosted their confidence in working with embedded systems and Arduino.



Three Day's Industry Skill Training Program

The IETE Student Forum (ISF) of the Department of Electronics and Telecommunication Engineering at K.D.K. College of Engineering, Nagpur, in collaboration with SS-Infotech, organized a Three-Day Industry Skill Training Program from 26th-28th July for 2nd- and 3rd-year students. To equip students with industry-relevant skills, enhance technical proficiency, and bridge the gap between academics and real-world applications. Introduction to industry tools, programming frameworks, and software. Hands-on training in embedded systems, IoT, MATLAB, Python, and real-world case studies. Advanced techniques in automation, machine learning, and system optimization, followed by the valedictory ceremony. Students gained practical skills, industry readiness, and networking opportunities with experts. Thanks to ISF members, Prof. S. A. Bagal, SS-Infotech trainers, and ISF President Mr. Shreyash Almast for their efforts in making the event a success.



Social Activities Organized By The Department

Anti-Drug Day Rally (Drug Awareness Drive)

On 26th June 2024, the I.E.T.E Student Forum (ISF) organized a Drug Awareness Drive at Dargah Road, Tajbagh, Nagpur, in observance of the International Day Against Drug Abuse. The event aimed to educate the community, especially youth, about the dangers of drug abuse and promote a drug-free lifestyle. It included speeches by a social worker and a local police officer, a rally with anti-drug placards and slogans, and direct interactions with residents. Pamphlets were distributed, and personal discussions addressed misconceptions about drugs. The drive effectively raised awareness and encouraged community participation, with plans for similar future initiatives.



Swachchata Abhiyan (Cleanliness Drive)

On 2nd October 2024, the IETE Student Forum (ISF) organized a Cleanliness Awareness Drive at Makardhokda village, Nagpur, to mark Gandhi Jayanti. The event aimed to promote sanitation, hygiene, and environmental awareness among villagers. Under the guidance of Prof. S. A. Bagal and Prof. V. M. Mahawadiwar, and with support from the village Sarpanch Mrs. Shalu Gillurkar, students and villagers actively participated in cleaning streets, drains, and water bodies. An awareness rally, slogan chanting, informative sessions, and tree plantation were also conducted to engage the community. Waste was segregated and disposed of responsibly. The event concluded with a pledge to maintain cleanliness, leaving a lasting impact on both the village and its residents.



Departmental And Annual Commemorative Events

Trends in Electric Vehicle Design

The Department of Electronics & Telecommunication Engineering and Department of Electrical Engineering of K. D. K. College of Engineering, Nagpur (M.S.) is jointly organizing One week Faculty Development Program on "Trends in Electric Vehicle Design: Challenges & Issues" in association with IQAC and IIC of KDKCE from 24th-29th June, 2024. This one-week vehicle training focuses on mastering control panels and MATLAB/Simulink for modern automotive systems. Participants start with fundamentals of vehicle dynamics, sensors, actuators, and ECU architecture, then learn to read and design control-panel layouts, indicator logic, and diagnostic flows. Using MATLAB/Simulink, they model longitudinal and lateral dynamics, implement and tune PID/state-space controllers, and simulate subsystems like cruise control, ABS/traction, and steering assist. Practical labs cover data acquisition, CAN-bus signals, calibration workflows, and fault injection to interpret warnings and DTCs on the control panel. By midweek, learners build dashboards for live signal monitoring, create scripts for automated testing, and validate models with HIL/SIL concepts. The program closes with a capstone mini-project integrating a vehicle model, a control strategy, and a control-panel UI, along with best practices for safety, documentation, and version control—equipping participants to analyze issues quickly, communicate insights clearly, and deliver robust controller updates in real vehicles.



GARUDA AEROSPACE PVT LTD

The Drone Training Program organized by Garuda Aerospace to enhance faculty skills in drone technology. From 21-10-24 to 25-10-24 Time: 10:00 AM – 5:00 PM At. Garuda Aerospace Pvt. Ltd., Agni College of Technology, OMR, Thazhambur, Chennai, Tamil Nadu – 603103 To develop skills and knowledge in drone technology, supporting professional growth and academic programs under the signed MoU for the Centre of Excellence. The five-day hands-on practice on drone ground training with and without payload is designed to provide a comprehensive understanding of drone handling under different conditions. On the first day, trainees are introduced to drone components, safety procedures, and pre-flight checks, followed by basic ground handling and practice of take-off and landing without payload. The second day focuses on maneuvering skills, including stable hovering, directional movements, and orientation control, helping participants gain confidence in flying without load. On the third day, attention is given to payload handling, where trainees learn about different payload types, attachment and balancing techniques, and practice short-distance hovering with load to observe its impact on stability and power consumption. The fourth day emphasizes controlled flying with payload, including take-off, landing, and performing flight patterns while maintaining stability and managing emergencies such as imbalance. Finally, on the fifth day, integrated practice sessions are conducted both with and without payload, where participants execute mock missions such as delivery drops and payload lifting, followed by performance evaluation, safety review, and troubleshooting exercises. This structured program ensures that trainees build strong skills in drone operation, adaptability, and safety awareness under varying payload conditions.



Cyber security and Ethical Hacking

Department of Electronics & Telecommunication Engineering has organized One Week Value added course on 'cyber security and Ethical Hacking' in association with IQAC and IIC. The course was conducted in association with IQAC and IIC Nagpur. During inauguration function of this one week Value added course Dr. V. P. Varghese, Principal, KDKCE, Dr. A.M. Badar, Vice-Principal, KDKCE, Dr. P. D Khandait, Head, ETC Department & VAC convener, Dr. J. S. Gawai, VAC Co-convenor, and Mr. P.M.Wasu, Keynote Speaker and Nagpur were prominently present on dais. One week Value added course was attended by students of third year and final year. During the First day of this one week Value added course program, the experts lecture on "Cyber security" by Mr. P.M.Wasu Director, CMS-IT, Nagpur was conducted. The experts explain about basic understanding of Cyber Security Concepts, layers of security, Vulnerability, threat, Harmful acts, Internet Governance – Challenges and Constraints, Computer Criminals, CIA Triad, Assets and Threat, motive of attackers, active attacks, passive attacks, Software attacks, hardware attacks, Cyber Threats-Cyber Warfare, Cyber Crime, Cyber terrorism, Cyber Espionage, etc., Comprehensive Cyber Security Policy. During this Value added course, On Second day the experts delivers lecture on seven layers of cyber security. On the Third day the experts lecture on the credit card frauds in mobile and wireless computing era. The experts explain about the techniques of credit card frauds. On fourth day an expert lecture on "Cyber Security: Organizational Implications". On fifth day expert explain about Privacy Issues: Basic Data Privacy Concepts: Fundamental Concepts, Data Privacy Attacks, Data linking and profiling, privacy policies and their specifications, privacy policy languages, privacy in different domains- medical, financial, etc. On sixth day Mr P. M.Wasu explains cybeseurity with examples and mini cases. On seventh day Mr P.M.Wasudelivers lecture on Cyberspace and the Law & Cyber Forensics. On the eighth day expert delivers lectures on Ethical hacking. Expert explains types of ethical hacking. On the ninth day he explains techniques of ethical hacking. On tenth day Mr. P.M.Wasu explains benefits of ethical hacking. On the eleventh day expert delivers lecture on the hacking process. On twelfth day expert explains advantages and disadvantages of ethical hacking. On thirteenth day expert delivers lecture on advanced ethical hacking. This one week Value added course was very informative and interactive. The main objective of this program was to aware the students and to inspire the participants to explore emerging technologies and innovations that can enhance the functionality and efficiency of cyber security and ethical hacking integrated with cloud platforms. So, the outcome of this one week value added course is fully satisfied as all the students learnt about cyber security and ethical hacking.



I.E.T.E Student forum (ISF) Committee Installation & Freshers Party

The I.E.T.E Student forum plays an important role in conducting events in the departmental level which contributes in development of student. The Committee was formed by the election procedure which gave students right to choose their trusted Committee Members. And also was followed by freshers party for the newcomers in B.Tech electronics and telecommunication engineering department. The Committee Installation program began with Welcoming the Chief Guest from our NAGPUR University, Dr. Hariom Puniyani Sir Working as Associate Dean in Commerce and Management DEPT. and Dr. V. P. Varghese (Principal of K.D.K College of engineering), Dr. A.M Badar (Vice -Principal of K.D.K. College of engineering). On this occasion Principal Dr. V. P. Varghese and Vice Principal Dr. A. M Badar shared addressed the students with their experience and valuable thoughts followed motivational speech by the Chief Guest Dr. Hariom Puniyani Sir. Dr. P.D. Khandait, HOD ETC Dept, Prof. S. A Bagal, ISF In-Charge and all the faculty members were prominently present in the installation Program. After that Fresher's party consisted of some dance performances of 2nd year students followed by dance performances by Seniors and then the event headed towards the Mr & Miss Freshers competition. The Mr & Miss Freshers competition was judged by Dr. J.S Gawai, V.M. Mahawadivar and Prof R. A Burange. The contestant were asked a question and then followed by a ramp walk. Based on the answers and the confidence level the contestants determined the victory of the competition. Soon After the results of Mr & Miss Freshers were declared. Then the event concluded with the vote of thanks by the president of newly formed ISF Committee Mr. Shreyash Almast (ISF).

