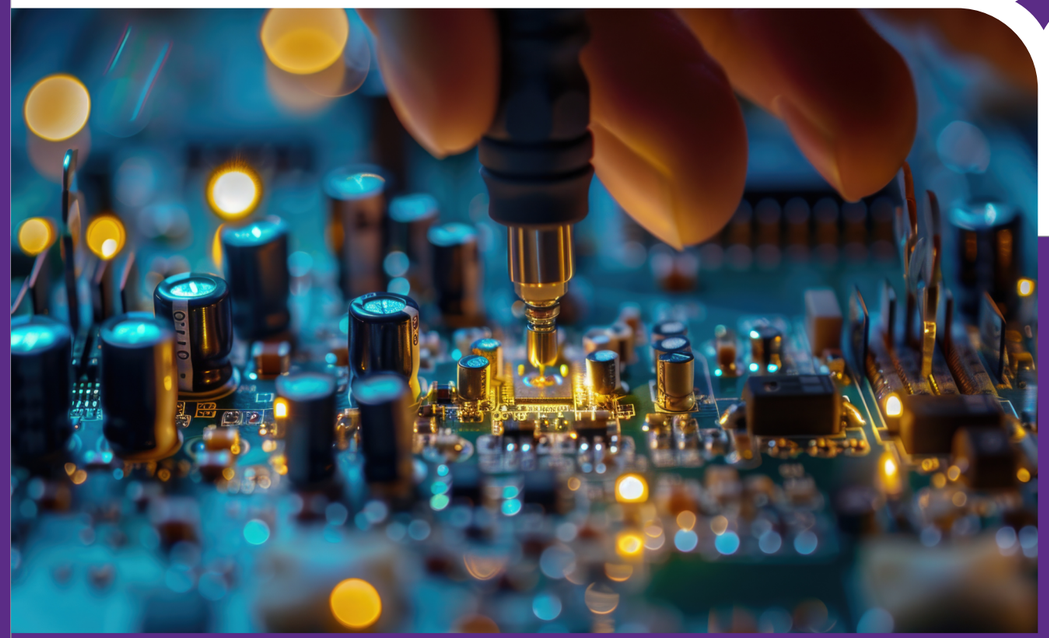
GH raisoni COLLEGE | Engineering and Management Nagpur

An Autonomous Institute, Affiliated to RTMNU, Nagpur
NAAC Accredited "A+" Grade

Department of Electronics & Tele-Communication Engineering



ELECTRONICA
newsletter
2025-26

Volume : 5, Issue :1

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Department of Electronics &
Tele-Communication Engineering

ELECTRONICA

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Director, GHRCEM

Dr. Devashree Marotkar
Head of Department

Ms. Priyanka Chopkar
Editor in Chief

Dr. Shubhangini Ugale
Editor in Chief

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Mr. Shrawan Kawale, 6th sem
Mr. Rutuj Adakane, 6th sem
Mr. Manish Patle, 6th sem
Ms. Rutvika Atagare, 4th sem

Department Vision & Mission

VISION

To develop professionals to become a valuable resource for industry, possessing a sound social awareness and sense of responsibility through academic excellence in Electronics and Telecommunication Engineering

MISSION

- **M1 :** To develop the department into a multi-faceted learning environment supported by adequate facilities, infrastructure, and learning resources.
- **M2 :** To provide quality and value-based education to undergraduate students in the field of Electronics and Telecommunication Engineering.
- **M3 :** To prepare graduates for industry, higher education, and research by fostering innovation, ethical values, professional skills, and lifelong learning.

Program Educational Objectives (PEOs)

PEO1 : Have in-depth knowledge in Electronics and Tele-communication Engineering to Innovate, design and develop modern electronic system

PEO2 : Sustain intellectual curiosity in professional carrier through lifelong learning

PEO3 : Have strong work ethics, professional attitude, team spirit, leadership skill and enterprising skills to serve industry and society

Program Specific Outcomes (PSOs)

The graduates of the department will attain ability to:

PSO1 : Apply, mathematics and Science through differential and integral calculus transform to solve complex electronics and communication engineering problems

PSO2 : Applying electronic modern IT tools for the design and analysis of complex electronics systems

PSO3 : Acquired technical knowledge for qualifying in competitive examinations at various levels

Program Outcomes (POs)

Engineering Graduates will be able to:

1. **Engineering knowledge:** Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
2. **Problem analysis:** Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
3. **Design/development of solutions:** Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.
4. **Conduct investigations of complex problems:** Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.
5. **Modern tool usage:** Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modelling to complex engineering activities with an understanding of the limitations.
6. **The engineer and society:** Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.
7. **Environment and sustain ability:** Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
8. **Ethics:** Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
9. **Individual and team work:** Function effectively as an individual, and as a member or leader in diverse teams, and in multi disciplinary settings.
10. **Communication:** Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.
11. **Project management and finance:** Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multi disciplinary environments.
12. **Life-long learning:** Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

Two-Day Technical Workshop on Hands-on Training of Laboratory Equipment's and its Maintenance





The Department of Electronics and Telecommunication Engineering and the Department of Electrical Engineering at G H Raisoni College of Engineering and Management, Nagpur, successfully organized a two-day technical workshop on "Hands-on Training of Laboratory Equipments and its Maintenance" on 23rd and 24th June 2025. The workshop was specially conducted for non-teaching staff to enhance their technical skills and practical understanding of electronics and circuit systems.

The first day commenced with an insightful session on the basics of electronics. Mr. Kunal Khawashi delivered a comprehensive overview of essential components such as resistors, capacitors, diodes, and transistors. Foundational concepts including Ohm's Law and Kirchhoff's Laws were explained with practical relevance to real-world circuit applications.

Following this, the focus shifted to digital electronics. Participants explored various logic gates AND, OR, NOT, NAND, NOR, XOR, and XNOR—along with their truth tables and practical implementation. Engaging hands-on sessions allowed the non-teaching staff to build basic logic circuits using ICs and breadboards, greatly enhancing their confidence and conceptual clarity.

The second day of the workshop delved into power supply circuits. Mr. Khawashi explained different types of rectifiers, filters, voltage regulators, and introduced the concept of Switched Mode Power Supply (SMPS). The working principles and roles of individual components in stabilizing power outputs were clearly illustrated.

The later part of the day focused on fault analysis techniques. Participants were trained in diagnosing and troubleshooting electronic circuit faults using multimeters and circuit diagrams. Live demonstrations and real-time fault correction exercises provided hands-on experience, sharpening the participants' analytical and problem-solving skills.

The workshop provided a valuable opportunity for non-teaching staff to gain both theoretical and practical insights into electronics and circuit troubleshooting. Mr. Kunal Khawashi interactive and application-oriented approach made the sessions highly engaging and impactful.

This training program was conducted successfully under the guidance of: Dr. Devashree Marotkar, Head, Department of Electronics and Telecommunication Engineering, Dr. Bhupendra Kumar, Head, Department of Electrical Engineering and Dr. Vivek Kapur, Director, GHRCEM, Nagpur

Their constant support and leadership ensured the smooth execution and success of this initiative. The workshop concluded on a positive note, with enthusiastic participation and valuable takeaways for all attendees.

Skill Training Program on "Raspberry Pi Bootcamp"

The Department of Electronics and Telecommunication Engineering successfully organized a five-day Skill Training Program on 'Raspberry Pi Bootcamp' from 14th July to 18th July 2025 for B.Tech. Third year Fifth Semester students. Total 50 students were participated in this training program. This workshop was conducted in collaboration with V S Informatics Pvt. Ltd., Nagpur, aiming to bridge the gap between academic learning and practical application in the domain of embedded systems and IoT.

The program was meticulously structured to provide a hands-on learning experience to students. The key objectives were to impart foundational knowledge of Raspberry Pi, introduce Python programming, work with sensors, and develop real-time IoT applications with cloud integration.









Glimpses of Skill Training Sessions

Skill Training Program on "Raspberry Pi Bootcamp"

Workshop Highlights:

Day 1:

- Introduction to Raspberry Pi models, hardware overview, and basic setup.
- Installing Raspberry Pi OS, exploring Linux commands, and enabling remote access via SSH and VNC.

Day 2:

- Python programming basics and scripting.
- GPIO interfacing using Python – LED blinking and button sensing.

Day 3:

- Sensor integration: DHT11 and IR sensor.
- Projects: Digital thermometer, motion detection alarm, and auto fan control.

Day 4:

- IoT fundamentals, MQTT vs HTTP, and ThingSpeak platform.
- Uploading sensor data to ThingSpeak and dashboard creation.

Day 5:

- GUI application development using Tkinter.
- Controlling GPIO and robotic functions via GUI.

Outcomes:

- Students gained practical experience in embedded programming using Python.
- Developed multiple mini-projects involving sensors, actuators, and real-time data monitoring.
- Enhanced understanding of IoT ecosystems and cloud integration techniques.

The training was well-received by the students, who appreciated the interactive sessions and real- world project applications. The college provided necessary infrastructure support including internet-enabled systems, Raspberry Pi kits, and lab facilities.

Campus Recruiting Training Program

Campus Recruiting Training Program is organised from 14/07/2024 to 18/07/2024 for 7th semester students of Electronics and Telecommunication Engineering. The session was conducted by Mr. Tushar Mule, Senior Advisor, Training & Placement Global Education Limited.

The Five-day training program was divided into two parts: the first three days were technical sessions conducted by Mr. Vinod, a technical trainer, and the last two days focused on non-technical skills, conducted by Mr. Tushar Mule.

During the first three days, Mr. Vinod provided in-depth technical training. He guided students through various technical concepts and company procedures, helping them build a strong foundation necessary for their future roles in the industry.

In the last two days, Mr. Tushar Mule conducted sessions to enhance students' soft skills and prepare them for campus recruitment. He began by understanding the students' career goals and introduced the importance of Campus Recruiting training, designed to help students gain knowledge and confidence for interviews and group discussions. The training covered self-introduction, resume writing, group discussion techniques, interview tips, and mock personal interviews (PI).

The program concluded with positive feedback from around 60 students, who expressed satisfaction in having their questions answered and gaining useful insights into career growth and the industry.

Mr. Vishal Jaiswal coordinated this program under the guidance of Dr. Devashree Marotkar, Head of Dept. Electronics and Telecommunication Engineering and Dr. Vivek Kapur, Director of GHRCEM, Nagpur.



Campus Recruitment Training Session - 2025

Alumni Interaction

Department of Electronics & Telecommunication Engineering of G H Raisoni College of Engineering and Management, Nagpur has organized alumni interaction session for B. Tech 7th sem students on 21st July 2025.

The alumni Mr. Nilesh Wange a 2015 batch pass out student, currently working in Infosys, Nagpur as a Technology lead.

The session began with Mr. Nilesh Wange engaging students on their aspirations in the IT sector and their interest in pursuing higher studies. He shared practical strategies for leveraging LinkedIn as a career tool, guiding students on how to create a professional profile, connect with industry professionals, and actively apply for relevant opportunities. Mr. Wange emphasized the importance of staying updated with latest programming languages and technical skills that are currently in demand by leading companies.

He encouraged students to enroll in online certification courses and to adopt a habit of continuous learning to remain competitive in the job market. The session was highly interactive, with students openly asking questions and seeking personalised guidance. Topics covered included resume optimisation, effective networking, emerging IT trends, and project presentation skills. His real-world insights and motivational approach inspired students to take proactive steps towards their career goals. The students expressed that they would greatly benefit from his guidance in shaping their professional journey.

The session was coordinated by Dr. Shubhangini Ugale. Under the guidance of Dr. Vivek Kapur, Director of GHRCEM and Dr. Devashree Marotkar, HOD of Electronics and Telecommunication department.





Alumni Interaction

Department of Electronics & Telecommunication Engineering of G H Raisoni College of Engineering and Management, Nagpur has organized alumni interaction session for B. Tech 7th sem students on 6th August 2025.

The alumni Mr. Gulshan Thakare a 2015 batch pass out student, currently working in TeamViewer GmbH Germany as a Sr. Web & Marketing Apps. Manager.

Mr. Gulshan Thakare, an esteemed alumnus of our institute, conducted an inspiring and interactive session with the students. He began by sharing his personal journey from his academic life to achieving success in the professional world. He spoke in detail about his experiences in the corporate sector, the challenges he faced, and the lessons he learned along the way.

Mr. Gulshan Thakare emphasized the importance of acquiring relevant software skills that are in high demand in the industry and guided students on how to strategically prepare for aptitude tests, which play a vital role in recruitment processes. He advised students to begin their preparation as early as the 3rd semester, focusing not only on technical knowledge but also on developing soft skills through activities such as group discussions, debates, and event participation. He encouraged them to take the initiative in organizing and contributing to various college and external activities, as these experiences help in building leadership qualities, teamwork, and confidence.

In an honest and motivating manner, he also shared his own stories of failures and successes, highlighting how perseverance, self-belief, and continuous learning can lead to growth. The session was highly interactive, with students actively engaging, asking questions, and seeking guidance on career paths, skill development, and interview preparation.

His insights and practical tips left a strong impression on the students, motivating them to set clear goals, work consistently towards them, and remain adaptable in a rapidly changing professional environment. The session proved to be immensely beneficial and inspiring for all attendees.

The session was coordinated by Dr. Shubhangini Ugale. Under the guidance of Dr. Vivek Kapur, Director of GHRCEM and Dr. Devashree Marotkar, HOD of Electronics and Telecommunication department.





HEARZ Forum Installation Ceremony

The Department of Electronics and Telecommunication Engineering successfully organized its Forum Installation Ceremony on 8th August 2025 in Block B, Eklavya Seminar Hall. The event was graced by the presence of esteemed dignitaries, faculty members, and students from the 3rd, 5th, and 7th semesters.

The program commenced with a warm welcome address by Dr. Shubhangini Ugale, who highlighted the importance of forum installation in enhancing student leadership, teamwork, and co-curricular engagement. This was followed by an inspiring address from the Head of the ETC Department, who extended heartfelt congratulations and best wishes to the newly formed committee, encouraging them to work with dedication for the department's growth.

The Chief Guest, Dr. Vivek Kapur, interacted enthusiastically with the students. He emphasized the significance of the Electronics and Telecommunication Engineering field, its evolving opportunities, and the role of students in contributing to technological advancements. His motivating words left a lasting impact on the audience.

One of the key highlights of the ceremony was the award distribution. Toppers and Best Student Awards for the academic session 2024–25 were presented to outstanding students, recognizing their consistent efforts and achievements. Additionally, badges were conferred upon the newly appointed forum committee members, symbolizing their responsibilities and commitment.

The formal proceedings concluded with the National Anthem, instilling a sense of pride and unity among all attendees.

Post-ceremony, the celebration continued with a fun-filled Antakshari competition organized by Ms. Anupama Gomkale. Students from various semesters participated actively, showcasing their enthusiasm and bonding beyond academic activities. The event fostered a lively and joyous atmosphere, where both faculty members and students shared moments of enjoyment and camaraderie.

Overall, the Forum Installation Ceremony 2025 was a resounding success, seamlessly blending formal proceedings with interactive activities. It not only celebrated academic excellence and leadership but also strengthened the spirit of togetherness within the ETC department.























Skill Training Program on "Hands on Electronics Components & Instruments and PCB Designing"

The Department of Electronics and Telecommunication Engineering successfully organized a five-day Skill Training Program on "Hands on Electronics Components & Instruments and PCB Designing" from 28th July to 1st August 2025 for B.Tech. Second Year Third Semester students in association with Heartz and IETE Student Forum. Total 60 students were participated in this training program. a 5-day hands-on skill training program was organized in collaboration with EART Technology Pvt. Ltd., Nagpur, aiming to enhance practical skills and technical exposure among students also to bridge the gap between academic learning and practical application in the domain of circuit designing and PCB fabrication technology.













The training covered key areas including:

- **Day 1:** Introduction to passive and active components (resistors, transistors, MOSFETs, SMPS, relays) and their applications in circuits.
- **Day 2:** Hands-on with sensors (IR, PIR, Gas, Fire, Biomedical, etc.), actuators, and various AC/DC motor types with drivers.
- **Day 3:** Training in electronics testing tools, followed by IoT application development using ESP32 and Blynk (low-code platform).
- **Day 4:** PCB design basics using EASYEDA – schematic creation, layout, and logo placement.
- **Day 5:** Relay module PCB fabrication – 3D analysis, Gerber generation, drilling, soldering, and testing.

Each session included practical demonstrations, enhancing student understanding of electronics manufacturing and IoT systems. A working relay module was developed and tested by participants, integrating both hardware and software skills.

Outcomes:

Students gained hands-on experience with real-world tools and platforms like ESP32, Blynk, and PCB design software. This initiative fostered technical confidence and encouraged project-based learning.

Support & Resources:

The college provided infrastructure including internet-enabled labs and Arduino IDE setups. Kits and components were supplied by the training partner.

A seminar on “Drone Technology” is organised at Department of Electronics and Telecommunication Engineering in GHRCEM, Nagpur.

Drone Club of Electronics and Telecommunication Department has organised a seminar “Drone Technology” on 29th Aug. 2025 for 3rd & 5th semester students of Electronics and Telecommunication Engineering. The session was conducted by Faculty In charge and Committee members of Drone Club.

The main objective of this seminar was to make the aspiring engineers acquainted with the latest technologies being used in Drone. The idea of organizing this seminar was to teach the basic fundamentals as well as emerging trends of drone in the students.

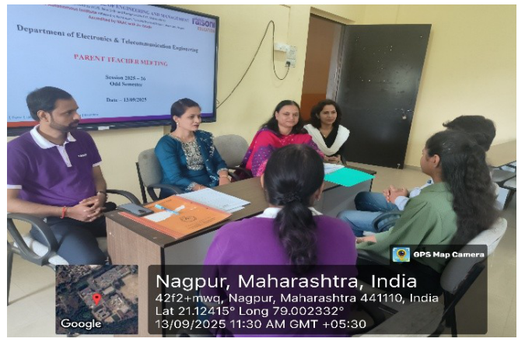
The session covered important topics like history and evaluation of drone, classification, payload installation and utilisation, latest challenges in drone. It also include the UAV Remote Sensing (UAV-RS) technology which is widely used in military as well as civil purpose for several applications.

The session concluded with students expressing their satisfaction. Around 30 students have attended the session. Mr. Vishal Jaiswal coordinated this program under the guidance of Dr. Devashree Marotkar, Head of Dept. Electronics and Telecommunication Engineering and Dr. Vivek Kapur, Director of GHRCEM, Nagpur.



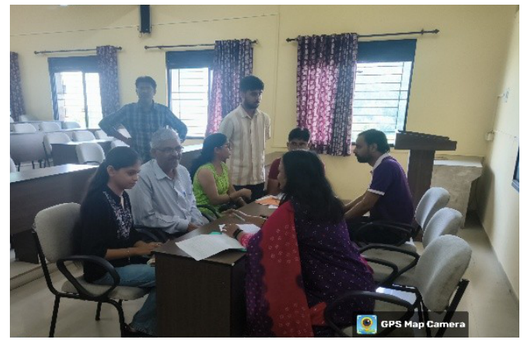


Parent-Teacher Meeting









The Parent-Teacher Meeting for the 3rd, 5th, and 7th semester Electronics & Telecommunication Engineering students was conducted on 13th Sep. 2025 at 11:00 a.m. A total of 25 parents attended the meeting.

The meeting aimed to review and discuss the academic performance of students with their parents. Feedback was provided on the students’ results in the CAE-I examination. Parents of students listed in the detention category were strongly advised to ensure improvement in their ward’s attendance. Detailed progress reports along with attendance records were presented, and parents’ suggestions were carefully noted.

In addition, the parents were made aware of the Vision and Mission of the Institute and Department, emphasizing the commitment to quality technical education, innovation, and overall personality development of students. The Program Specific Outcomes (PSOs) were also discussed to give parents a clear understanding of the specialized skills and competencies that students are expected to acquire during the course of their program.

This interactive session fostered a meaningful dialogue between teachers and parents, focusing on both the strengths and areas requiring improvement for the students. The exchange highlighted the importance of collaborative efforts in nurturing the students' academic and personal growth.

The meeting concluded with a consensus that mutual understanding, cooperation, and consistent support between parents and teachers are vital for the holistic development and success of the students. The parents appreciated the department's continuous efforts to enhance the overall teaching and learning experience.

The session was organized and conducted by the class in-charge and subject faculties Ms. Prajakta Upadhye, Mr. Purushottam Chawke, Mr. Vishal Jaiswal, Ms. Priyanka Chopkar and Ms. Sucheta Raut, under the guidance of Dr. Devashree Marotkar, Head of the E&TC Department, and Dr. Vivek Kapur, Director of GHRCEM, Nagpur.

Poster Making Competition 2025

Title of the Event: Poster Making Competition 2025

Organized by: Department of Electronics & Telecommunication Engineering

Date & Venue:15th September 2025, B-309

Introduction

The Department of Electronics & Telecommunication Engineering organized a Poster Making Competition 2025 on 15th September 2025 at B-309. The event aimed to unleash students' creativity and innovation while highlighting advancements in the field of Electronics, Communication, and Emerging Technologies.

Event Themes

Participants were given thought-provoking themes to explore through their posters:

- Evolution of Electronics
- Role of Communication in the Modern World
- Future of Artificial Intelligence & IoT
- Green Technology & Sustainable Electronics
- 5G & Beyond – The Next Era of Connectivity
- Women in Technology & Innovation

These themes encouraged students to combine artistic creativity with technical knowledge.

Participation & Rules

- Students participated in teams of 2 to 5 members.
- Posters were submitted in Lab 308 by 12:20 PM on 15th September 2025.
- Registrations were confirmed in advance with the Class Representatives by 12th September 2025.
- The competition witnessed active participation from students across semesters, displaying their innovative ideas through impactful posters.

Exhibition Highlights

- Posters were displayed in the Room No. 309, creating a colorful and informative exhibition atmosphere.
- Participants showcased their ideas using colors, creativity, and design skills.
- Faculty members and Mr. Purushottam Chawke judges evaluated posters based on originality, creativity, relevance to theme, and presentation skills.
- Students also explained their posters to the judges, which improved their presentation and communication skills.

Outcomes of the Event

- The event successfully promoted creative thinking and technical awareness among students.
- Participants gained confidence and teamwork experience through collaborative efforts.
- The exhibition reflected a blend of art and technology, making it both visually appealing and intellectually engaging.

The first prize was awarded to Rutvika Atagare, Niharika Rodge, Lavanya Gajbhiye and Raunak Kandrikar while the second prize was secured by Maithili Hasoriya, Rutuj Adakani, Sahil Sadawarti and Sameer Khodl and all participants received certificates of appreciation.

The Poster Making Competition 2025 was a grand success, providing a platform for students to express their innovative ideas artistically while linking them to modern technological trends. The initiative not only encouraged students to think beyond textbooks but also inspired them to contribute to future innovations in the field of Electronics & Communication. The program was successfully coordinated by Dr. Shubhangini Ugale under the guidance of Dr. Vivek Kapur, Director of GHRCEMN and Dr. Devashree Marotkar, HOD of ETC Dept.





Two-Day Value added Program on Augmented & Virtual Reality at GHRCEM, Nagpur

A two-day training program on "Augmented Reality & Virtual Reality" was successfully conducted on September 23rd and 24th, 2025 at G H Raisoni College of Engineering & Management (GHRCEM), Nagpur. The workshop was organized by the CSE and ETC Departments in association with Dnnovate Technologies Pvt. Ltd., Pune, under the Center of Excellence AR-VR Lab. Mr. Rahul Chute, Creative Director, Dnnovate Technologies Pvt. Ltd. Pune was the experts for this workshop.

The workshop witnessed active participation from over 55 students and faculty members, who enthusiastically engaged in learning about the latest advancements in Augmented Reality (AR) and Virtual Reality (VR) technologies.

The training program covered various key topics, including:

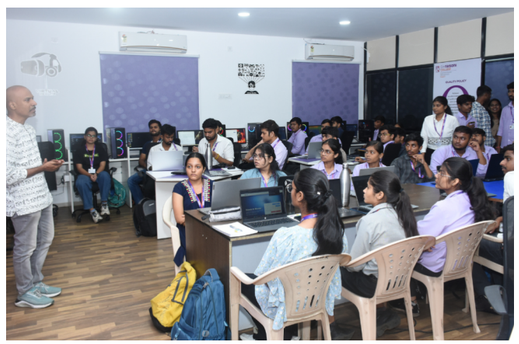
- Unity Introduction and Basic Practical
- Introduction to Augmented Reality and its Applications
- Hands-on Demonstration of Augmented and Virtual Reality Implementation

The workshop provided an excellent platform for participants to gain hands-on experience in cutting-edge AR-VR technologies, enhancing their technical skills and understanding of real-world applications.

The event was conducted under the guidance of Dr. Vivek Kapur (Director, GHRCEM, Nagpur), Dr. Sonali Ridhorkar (HoD, CSE), Dr. Devashree Marotkar (HoD, ETC), and co-ordinated by Dr. Sarvesh Warjurkar and Dr. Sanket Kasturiwala,

The initiative received an overwhelming response from students and faculty members, emphasizing the growing importance of immersive technologies in shaping the future of education and industry.





ISR Activity

The Department of Electronics & Telecommunication Engineering successfully organized an ISR (Institutional Social Responsibility) Activity under the HEARTZ Forum on 27th September 2025 at Sharda Mahila Vidyalaya, Sakkardara, Nagpur.

The program aimed to spread awareness, provide guidance, and develop curiosity among students about the rapidly growing field of electronics and emerging technologies. It included a variety of engaging and knowledge-enriching activities such as:

- Career Guidance Sessions, where students were motivated to explore opportunities in higher education, industry, and research, while also receiving insights into future career paths.
- Electronics Evolution Awareness Program, highlighting the transformation of electronics from its early stages to modern-day advancements in IoT, AI, and automation.
- Hands-on Introduction to Electronic Components and Mini-Model Designing, where participants got practical exposure to basic components and the process of building small working models.
- Drone and Robotics Demonstrations, sparking excitement and interest in cutting-edge technologies, giving students a glimpse into real-world applications.
- Memory Games and Interactive Activities, conducted to encourage teamwork, quick thinking, and active participation among the students.

The overall session was highly interactive, encouraging students to ask questions, share ideas, and actively engage in discussions. The event concluded with an enthusiastic Question & Answer session, where students clarified their doubts and deepened their understanding of the topics covered.

Finally, to recognize and encourage the participants, prizes were distributed to the winners of various activities. The event not only enriched the knowledge of the students but also successfully fulfilled its goal of inspiring young minds towards innovation, creativity, and the world of electronics.

The session was successfully coordinated by Dr. Shubhangini Ugale and Mr. Ashish Katore, with valuable support from all coordinators and under the guidance of Dr. Vivek Kapur, Director of GHRCEM, Nagpur and Dr. Devashree Marotkar, HOD of ETC Dept.























Peer Teaching

Title of the Event: Importance of Electromagnetic and Waveguide (EMW) subject in GATE Examination.

Organized by: Mr. Sujal Sapkal, Student of 7th Semester

Date & Venue: 26/09/25, Block B-Room No. 304

Introduction

A Career Guidance Session on GATE Examination Preparation was conducted by Mr. Sujal Sapkal, a 7th Semester student, for his classmates and friends. The purpose of this session was to spread awareness about the importance of GATE, its benefits for higher education and career opportunities, and to guide students with subject-wise preparation strategies, including Electromagnetics and Waveguide, which are significant topics in the Electronics and Communication stream.

1. **Importance of GATE Examination:**
- Opportunities in higher education (M.Tech, MS, Ph.D.).
- Career openings in Public Sector Units (PSUs), research, and core technical jobs.
- Enhancement of technical, logical, and analytical skills through GATE preparation.

2. **Subject-Wise Weightage Discussion:**
- Overview of important subjects and their marks distribution in GATE.
- Emphasis on core subjects like Electromagnetics, Waveguides, Signals & Systems, Digital Electronics, Control Systems, and Communication.
- Explanation of how Electromagnetics and Waveguide form the backbone of communication engineering and frequently appear in GATE with good weightage.

3. **Electromagnetics and Waveguide Focus:**
- Detailed explanation of Maxwell's equations, wave propagation, transmission lines, and waveguides.
- Discussion on practical applications of waveguides in microwave communication, radar, and satellite systems.
- Strategies to study numerical problems related to cut-off frequency, propagation modes, and field distributions.
- Previous year GATE question analysis to highlight the significance of this subject.

4. **Form Filling Guidance:**
- Step-by-step explanation of the GATE registration process.
- Important instructions on uploading documents, choosing exam centers, and meeting deadlines.

5. **Preparation Strategy:**

- Time management and subject-wise study schedule.
- Suggested standard books and online resources for Electromagnetics and Waveguide.
- Importance of practicing mock tests and solving previous year question papers for accuracy and speed.

6. **Motivational Talk:**

- Encouraged peers to take up GATE seriously as a gateway to success.
- Shared inspirational stories of successful candidates.
- Instilled confidence and discipline in preparation.

Peer teaching is coordinated by Dr. Shubhangini Ugale under the guidance of Dr. Vivek Kapur, Director of GHRCEMN and Dr. Devashree Marotkar, HOD of ETC Dept.





Interstella 3.0

Title of the Event: 4th & 5th October 2025
Organized by: NASA Space Apps Nagpur
In collaboration with: The Youthopian Force
Venue: G H Raisoni College of Engineering and Management, Nagpur
Supported by: Indian Council for Technical and Research Department

Interstella 3.0 was a two-day space and innovation event organized by NASA Space Apps Nagpur in collaboration with The Youthopian Force, hosted at G H Raisoni College of Engineering and Management, Nagpur. The event was held under the direct collaboration of the NASA Earth Department and focused on promoting space exploration, innovation, and awareness among students and young researchers.

The event featured two major segments – the NASA Space Apps Challenge 2025 (Hackathon) and the NSA MUN (National Space Affairs Model United Nations).

The NASA Space Apps Challenge is a globally recognized hackathon conducted annually by NASA. This year, the Nagpur edition witnessed 93 teams registered and 33 teams presenting their innovative solutions using NASA's open-source data. The winning team from Nagpur will represent India at the international level, marking a proud achievement for the region. The hackathon attracted participants from across India and abroad, making it one of the most successful editions hosted at GHRCEM.

The NSA MUN brought together 140 participants who role-played as diplomats representing various countries, engaging in debates and discussions on global issues, space governance, and sustainability. The event enhanced participants' leadership, analytical, and policy-making skills while fostering global awareness & collaboration.

The session was successfully coordinated by Ms. Priyanka Chopkar, with valuable support from all coordinators and under the guidance of Dr. Devashree Marotkar, Head of the ETC Department, Dr. Sonali Ridhorkar Head of the CSE Department, and Dr. Vivek Kapur, Director of GHRCEM, Nagpur.

Overall, Interstella 3.0 was a grand success, uniting innovators, researchers, and students to explore the possibilities of space science and technology. It reinforced Nagpur's position as a hub for youth-led space innovation and strengthened ties between academia and international research organizations.







