GH raisoni COLLEGE | Engineering and Management Nagpur

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

Department of Electronics & Telecommunication Engineering



ELECTRONICA
newsletter
2024-25

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Department of Electronics &
Telecommunication Engineering

ELECTRONICA

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ELECTRONICA

PATRONS

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Chairman, RGI

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Director, GHRCEM

Dr. Devashree Marotkar
Head of Department

Dr. Shubhangini Ugale
Editor in Chief

NEWSLETTER CREDITS:

EDITORIAL PANEL

Mr. Devkumar Haladkar, 8th sem
Mr. Meet Dhaneja, 6th sem
Mr. Devarsh Parshuramkar, 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 Telecommunication 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 Telecommunication engineering problems

PSO2 : Applying 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.

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 5th sem students & 7th sem students on 25 June 2024.

The alumni Ms. Shefali Pawar a 2021 batch pass out student, currently working in Cognizant, Hyderabad as a Associate Software Engineer.

She started her session with students interest in IT sector and higher study, shared her valuable information about MBA and how to search job in LinkDin. She suggest all students make your link din profile to apply for job. She give knowledge to student about lattest language skill require to select in company. She motivated all students to join online courses and learn new skills. Interactive session was done between students and alumni, Ms. Shefali Pawar. Students definitely get benefit by her guidance.

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.



Skill Training Program on “Embedded IoT and PCB Design”

Electronics & Telecommunication Engineering Department of G. H. Raisoni College of Engineering & Management, Nagpur had organised Five days Students skill training program on “Embedded IoT and PCB Design” from 8th July to 12th July 2024 for B. Tech. 2nd year (ETC) Students. Total 60 Students had attended and benefited from this skill training program.

Training session is conducted by Mr. Sandeep Sonaskar, Director V S INFORMATICS PVT LTD, NAGPUR. In this training sessions, they cover introduction to Embedded system, Online simulator on Basics of electronics components, Introduction and installation of ESP32 board, Communication Protocol, Thingspeak cloud server, PCB Design, Practice, Project Construction and various examples on the mentioned topics.

The Skill Training Program was concluded with a question answering session. At the end of training session feedback was taken. This training program was successfully coordinated by faculty in charges Ms. Swati Hadke & Dr. Sanket Kasturiwala from Department of Electronics & Telecommunication Engineering under the able guidance of Dr. Devashree Marotkar, HOD, ETC Department & Dr. Vivek Kapur, Director, GHRCEM, Nagpur.





Glimpses of Skill Training Sessions

Skill Training Program on “Advance Embedded IoT”





Electronics & Telecommunication Engineering Department of G. H. Raisoni College of Engineering & Management, Nagpur had organised Five days Students skill training program on "Advance Embedded IoT" from 15th July to 20th July 2024 for B. Tech. 3rd year (ETC) Students. Total 59 Students had attended and benefited from this skill training program.

Training session is conducted by Mr. Sandeep Sonaskar, Director V S INFORMATICS PVT LTD, NAGPUR. In this training sessions, they cover introduction and installation of ESP32 board, ESP32 Bluetooth, BLYNK, Thingspeak cloud server, PHP Script, Practice, Project Construction and various examples on the mentioned topics.

The Skill Training Program was concluded with a question answering session. At the end of training session feedback was taken. This training program was successfully coordinated by faculty in charges Ms. Swati Hadke and Dr. Sanket Kasturiwala from Department of Electronics and Telecommunication Engineering under the able guidance of Dr. Devashree Marotkar, HOD, ETC Department & Dr. Vivek Kapur, Director, GHRCEM, Nagpur.





Glimpses of Skill Training Sessions

Expert lecture on AI's Impact on Future Careers: Opportunities for Engineering Professionals









Department of Electronics & Telecommunication Engineering of G H Raisoni College of Engineering and Management, Nagpur has organized expert lecture on AI's Impact on Future Careers: Opportunities for Engineering Professionals on 3/07/2024 by expert Mr. Ajinkya Nikhade, AI AJ Technocrats for students of Electronics and Telecommunication department.

The program was commenced by welcome speech by Ms. Falguni Bolakhe. Expert delivered lecture on AI's role in shaping careers, Skills for the future, Navigating the job Market, Entrepreneurship and AI, Maximizing Benefits from ChatGPT, Problem Solving and Prototyping, Technical Documentation and code generation, Learning and Research, Collaboration and Communication. He guided students how to search the job using LinkedIn and how company select unique resume.

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.

PEER TEACHING

Department of Electronics & Telecommunication Engineering of G H Raisoni College of Engineering and Management, Nagpur has organized Peer Teaching for B. Tech 5th semester students on 11 July 2024.

The Peer Mr. Nikhil Thakare from 7th semester delivered session on "Smith Chart".

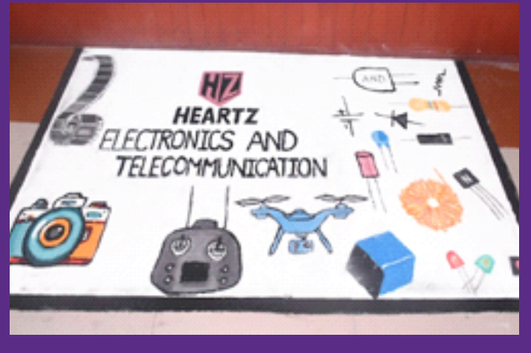
He delivered session with basic parameters of transmission line, input impedance, load impedance, reflection coefficient and then with few examples on smith chart. He guided students how to find value of VSWR, Reflection coefficient, and Normalized load impedance. Students learn the smith chart and motivated by his Peer session.

The session was coordinated by subject teacher, Dr. Shubhangini Ugale. Under the guidance of Dr. Devashree Marotkar, HOD of Electronics and Telecommunication department.





HEARTZ -2024 Forum Inaugural ceremony organized by Department of ETC, G H Raisoni College of Engineering and Management, Nagpur









The Department of Electronics and Telecommunication Engineering at G.H. Raisoni College of Engineering and Management (GHRCEM), Nagpur, successfully conducted an inaugural ceremony of HEARTZ – 2024.

This event not only underscored the importance of student forum but also demonstrated the value of modest platform to showcase technical as well as extra-curricular skills.

The function was inaugurated by chief guest Mr. Sanjay Apturkar, Assistant Scientist, MRSAC, Dr. Vivek Kapur Sir, Director, GHRCEM, Nagpur, Dr. Devashree Marotkar Ma'am, Head of the Department Electronics and Telecommunications Engineering, GHRCEM Nagpur.

Dr. Shubhangini Ugale Forum in-charge HEARTZ committee, ETC dept. GHRCEM Nagpur.

Mr. Sanjay Apturkar, Assistant Scientist, MRSAC, addressed the gathering, emphasizing the importance of practical knowledge & value of various skills. Dr. Vivek Kapur, Director of GHRCEM, spell the beans on increasing demand and importance of skilled engineers. Dr. Devashree Marotkar Ma'am, delivered the preamble & idea behind student's forum which provide opportunities to achieve the overall development of students. Dr. Shubhangini Ugale Ma'am gave the insights regarding various activities conducted under the forum.

The inauguration concluded with a Vote of Thanks presented by Mr. Devkumar Haladkar, president, HEARTZ committee, 2024.

The event saw the participation of around 181 students. The success of this event was made possible through the support of Shri. Sunilji Raisoni, Chairman of the Raisoni Group, and Shri. Shreyas Raisoni, Executive Director of the Raisoni Group.

The event concluded on a high note with the distribution of certificates, badges and medals to all the office bearers and academic as well as extracurricular student achievers.















ISR Activity at Sharda Mahila Vidyalaya on 27/07/2024





















Student forum HEARTZS of Electronics and Telecommunication Department, GHRCEM organized ISR activity at Sharda Mahila Vidyalaya, Nagpur on 27/07/2024 with permission of Dr. Vivek Kapur, Director, GHRCEM, Nagpur and Dr. Devashree Marotkar, HOD, ETC Department. This activity explored technical activities among young generation. The Idea behind this Institute Social Responsibility (ISR) activity is to enlighten the primary, secondary & higher secondary school students with different aspects that they face in their daily life or may face in future. These aspects includes computer awareness program, career guidance, how to make mini model etc. After each session members of HEARTZ asked question to students those students who answered the question appreciated by distributing prizes. All faculties of school appreciate HEARTZS members for their involvement in technical activity. They also congratulate the whole HEARTZ committee and told them to keep replicating good work as they did here. At the end of day HEARTZ committee gave gifts to every student of school as token of love. This ISR activity was conducted by members of HEARTZ under supervision of Dr. Shubhangini Ugale and Mr. Vishal Jaiswal, HEARTZ Faculty In-charge of ETC department.







Industrial Visit Report at MRSAC Nagpur

Department of Electronics and Telecommunication Engineering, GHRIET Nagpur had organized One Day Industrial Visit at Maharashtra Remote Sensing Application Center (MRSAC) Nagpur on dated 12/07/2024 for 7th semester ETC students.

MRSAC is a well-established premier institution and recognized as one of the best State Centre in Natural Resource Monitoring and Management by offering innovative, effective and optimal solution. MRSAC is a “Nodal Agency” for developing a Maharashtra Geo-Spatial Digital Database System-(MGDDS) for Govt. of Maharashtra and works in coordination with Planning Department, GoM. The Centre is keeping in pace with cutting-edge technology in the field of RS-GIS, GPS, 3D-technology, Radar, Lidar, Web-GIS, Cloud Computing. Now the Centre has highly specialized dedicated computer labs as 3D-Photogrammetry lab, Drone data processing Lab, Web-portal and web-site generation lab. The objective of this visit was to gain how satellite data is processed and this data used in the various applications and also used for well-being societies and farmers.

Total 42 Students from 7th semester were present for this industrial visit. This industrial visit benefitted students for their overall development. Industrial visit in-charge Mr. P. Chawke and Mr. V. Jaiswal worked hard for success of the visit under guidance Dr. Devashree Marotkar HOD, ETC Engg. Department. Dr. Vivek Kapur Director GHRIET provided all necessary support for the visit.





















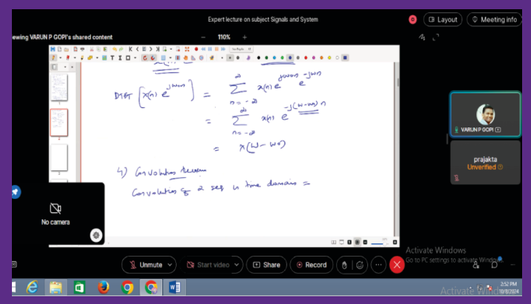
Online Expert Lecture on topic "Spread Spectrum Methods & OFDM" Organized by ETC department for students of 5th Semester GHRCEM, Nagpur





Online expert lecture was organized on 27/09/2024 by Department of Electronics and Telecommunication Engineering for students of 5th Semester ETC at GHRCEM, Nagpur. The lecture was on Digital Communication subject which was conducted online on Webex. The lecture was delivered by Dr. Sourabh Solanki working as an Assistant Professor at National Institute of Technology, Warangal in the Department of Electronics and Communication Engineering. This lecture helped the students to understand the various concepts regarding Spread Spectrum Methods and OFDM, during the session sir has covered topic such as PN Sequence, Direct Sequence Spread Spectrum, Frequency Hopping and OFDM and its multiplexing techniques and applications The expert lecture concluded with a question answering session, during which the expert Dr. Sourabh Solanki had addressed all the queries asked by the attendees. Total 50 students were present in the session. Students also learned immensely from the information and expertise provided by the expert. Feedback has taken from the students and its impact analysis gives the satisfactory results. Students requested to have such more session in the future. Mr. Purushottam Y. Chawke coordinated this expert lecture under the guidance of Dr. Devashree Marotkar, Head of Dept. ETC and Dr. Vivek Kapur, Director of GHRCEM, Nagpur.

Online Expert Lecture on topic " Discrete Time Fourier Transform (DTFT) and Discrete Fourier Transform" Organized by ETC department for Students of 3 rd Semester GHRCEM, Nagpur





Online expert lecture was organized on 8/10/2024 by Department of Electronics and Telecommunication Engineering for students of 3 rd ETC at GHRCEM, Nagpur. The lecture was on Signals & System subject which was conducted online on Webex. The lecture was delivered by Dr. Varun P. Gopi working as an Assistant Professor at NIT – Tiruchirappalli in the Department of Electronics and Communication Engineering. This lecture helped the students to understand the various concepts regarding Discrete Fourier Transform and Discrete Time Fourier Transform, during the session sir has covered topic such as DFT & DTFT and properties of DFT and DTFT.

The expert lecture concluded with a question answering session, during which the expert Dr. Varun P. Gopi has addressed all the queries asked by the attendees. Total 56 students were present in the session. Students also learned immensely from the information and expertise provided by the expert. Feedback has taken from the students and its impact analysis gives the satisfactory results. Students requested to have such more session in the future.

Ms. Prajakta Upadhye coordinated this expert lecture under the guidance of Dr. Devashree Marotkar, Head of Dept. ETC & Dr. Vivek Kapur, Director of GHRCEM, Nagpur.

A Report on Expert Lecture Topic: "Latest Trends in Optical Communication and Career Opportunities in Telecom Sector"

Department of Electronics & Telecommunication Engg. Organized a Guest Lecture for the Final Year/7th Sem students on "Latest Trends in Optical Communication and Career Opportunities in Telecom Sector" on 8th October 2024 (Tuesday) at Class Room 303. This topic is based on the curriculum of Final year 7th sem subject of Optical Communication. An expert Mr. Lochan Keote, Assistant General Manager, FTTH, BSNL, Nagpur was invited for delivering a lecture. During his lecture, he explained various recent technologies used in fiber optic communication system. He also touched various communication protocols used in optical communication system.

In the second part of lecture, he also explored various career as well as internship opportunities in Telecom sector and motivated students about demand of Electronics Engineer in upcoming industries.

Total 70 students were present for this lecture. At last online feedback were collected for a lecture.







Dr.Swati Dixit, Course Teacher and Ms. Priyanka Chopkar, Event Coordinator coordinated this expert lecture under the guidance of Dr. Devashree Marotkar, Head of Dept. E & TC and Dr. Vivek Kapur, Director of GHRIETN.

Report on Parent-Teacher Meeting

Parent-Teacher Meeting in the current academic session 2024-25 odd semester was conducted on, 24th August, 2024 at 11:00 a.m. for the 3rd, 5th and 7th semester Electronics & Telecommunication Engineering students. Total 27 parents were attended the meet.

The main aim of the meet was to discuss the performance of students with their parents. Parents were given feedback on their ward's performances in CAE- I Exam. Students those who were in detention list were strictly instructed to improve their attendance. The progress report as well as attendance status shown to the parents and their suggestions were noted.

It was a great interaction between the teachers & the parents for the development of their children where they discussed both the strengths and areas of improvements.

The PTM came to an end with the conclusion that joint effort, mutual understanding and co-operation of parents and teachers is very important for the proper nourishment and progress of students. Parents appreciated the efforts taken by the department to enhance the overall teaching learning process.









Glimpses of Parent-Teacher Meeting