A. J. Institute of Engineering & Technology

AJIET

PRATHIBIMB

The Reflection of EC @ AJIET

Volume 3

Issue 3

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

Academic Year (Jan-Mar): 2021-2022

ABOUT THE DEPARTMENT

The department of Electronics and Communication Engineering was established in the year 2016 and current intake is 60 students. The department offers undergraduate program BE, M.Sc (Engg) and PhD in Electronics and Communication engineering. The department has highly qualified faculty with 1 Professor, 4 Associate Professors and 9 Assistant Professors. The department is geared up with outcome-based education imparted to the students. Students at the department are consistently provided with opportunities to upgrade their technical knowledge and develop skills that make them best employable, qualified for higher education or develop them as a strong entrepreneur. The teaching faculty is actively engaged in research and they published papers in National/International conference proceedings/Journals. As a part of the curriculum, industrial visits, webinars, technical talks and workshops are arranged for students. The Institute has an IEEE, IE (I), ISTE Student's Chapter. The students actively participate in the various activities of IE (I), ISTE and IEEE. All the students of various departments participate actively in embedded & robotics club and Radio club which is run by the department itself. Special Soft skills, aptitude and technical trainings are imparted to the students as a part of regular curriculum to make them excel in their career. The department classrooms are much spacious with LCD projectors fitted for conducting e-lectures to make learning a better experience in the department. The department also has well established and well-equipped laboratories for student's technical pursuit.Faculty members are being constantly encouraged to develop themselves through Various FDPs, conferences, workshops, publications, R & D activities and Massive Open Online Courses (MOOCs) exams. They are exposed to latest technologies like IoT, Robotics, Machine Designing, etc. through R&D labs established by industries in these fields. Students are also made industry ready through various trainings, regular company internships, mini and major projects

VISION

To be recognized as a centre of excellence in the region by nurturing the young innovative minds into skillful and ethical professionals to cater the global industrial and societal needs.

MISSION

- To establish state-of-the art laboratories to facilitate research and innovation to upgrade the knowledge and skills.
- To provide industry interaction for training programs on latest technology.
- To provide ethical and value based education by promoting activities addressing the societal needs.

HOD-DESK

Welcome to the Department of Electronics and Communication Engineering at A J Institute of Engineering and Technology, Mangalore. We started our journey in the year of 2016. Over the past five years, we have grown our expertise and competence in the core ECE and research. The primary focus of our department is to impart technical knowledge to students, promote their problem solving and innovative skills in the growing technologies. We have a long history in educating young minds, conducting innovative research, and offering professional services to local and overseas communities. Our department has a distinguished record in both teaching and research. Faculty members have excellent academic credentials and are highly regarded. This website provides an overview of the academic programs, research activities of our department, research facilities, profiles of faculty members, and details of student activities. Many of our graduates now occupied good positions in the industry and community. Each year, we also invite various departmental speakers, academicians and practitioners in a variety of forums, in addition to the numerous and unparalleled public events. We also encourage students to organize and participate in various events which sets a challenge to the young minds to provide solutions for the problems of social relevance. With all these inputs one can find our students very hardworking, practical-oriented and highly skilled to work in any environment. We are encouraged to see many industries coming back to our department, which reinforces our belief in the effectiveness of our students and their suitability to the dynamic corporate world.

Dr. Gnane Swarnadh Satapathi
Head of the Department

Project Exhibition

- The Institute of Engineers (India) student chapter of AJIET in association with Embedded & Robotics club organized a project exhibition for final year students on 13-01-2022 from 9:30AM to 12:00PM. Major objective of organizing this exhibition was to provide the platform and unleash the potential of the students by showcasing their innovative projects developed in the final year either as industry defined problem or user defined problem and provide an opportunity for the students to demonstrate their learning experience. The outcome of the project exhibition was that students were able to show their project at higher level and the process boosted their confidence.

- Mini -Project Exibition was conducted by the Department of Electronics and Communication Engineering on 26/02/2022 at hardware Labs. The exhibition was judged by Mrs. Sahana K Adyanthaya and Prof. Prakash Shetty. The three best projects were awarded as follows:

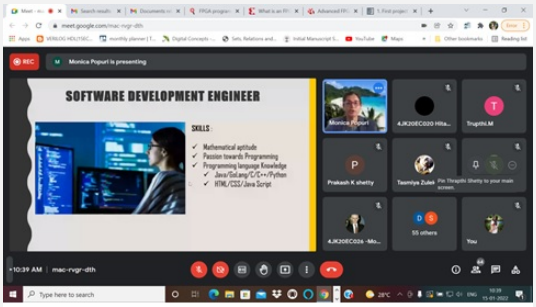
  1.SMART WHEELCHAIR - Mr. Hardik Rai and team

  2. PROSTHETIC ARM - Ms. Hithaishini and team

  3. AUTOMATIC RAIN SENSING USING - Ms. Seema Rai and team

Webinar

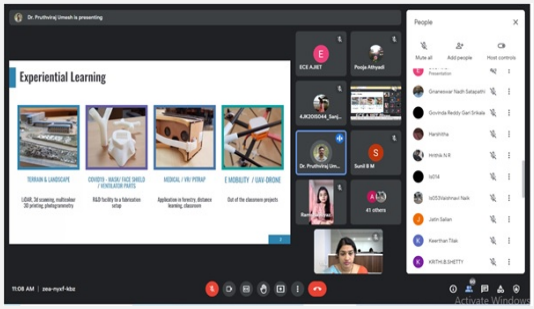
- A webinar was organized on the topic “Employability skills for engineering Students" by the resource person Ms. Monica Popuri, from Hewlett Packard Enterprise, Bangalore on 15/01/2022.



- A webinar was organized on the topic “Role of IEEE in Engineering Students life" by the resource person Ms. Ashwini Holla, IEEE Execom member, Mangalore on 27/01/2022. The agenda of the webinar is to give an idea about IEEE Vision, Mission and various activities conducted around the globe and benefits received from IEEE.

- A webinar was organized on the topic “Google Cloud" by the resource person Ms. Navami K, Technical Solution Engineer, Google LLC, Bengaluru on 28/01/2022. The agenda of the webinar is to give an idea about Google Cloud. The Talk involved to give brief idea about what is GCP, who will be using GCP and commonly used Products.

- A webinar was organized on the topic “Experiential Learning Through Trans disciplinary Approach" by the resource person Dr Pruthviraj Umesh, Assistant Professor,NITK,Surathkal, on 31/01/2022. The session began with the concept of experiential learning and the brief explanation of products such as UAV Drone, e-mobility, Medical /VR/PITRAP,COVID 19 Mask/-face Shield/Ventillator parts, developed by the staffs,research scholars and M.Tech students of NITK, Suratkal. The speaker gave a brief insight on e vehicle christened as VIDHYUG 2.1 which was designed with a view of reducing the carbon footprint inside the campus.This e vehicle is exclusively used for dispatching files or letters from administrative building to other blocks.



Online-Quiz Event

- The Department of Electronics and Communication Engineering in-association with EVSA organized Quiz competition on 05-02-2022 in online mode. Trupthi M of 3rd year ECE was the host for the day. The event was organized only for the students of the ECE Department. The event was conducted by Trupthi M and Shreya Shetty of 3rd year ECE. The topics of quiz were technical and general and there were 10 teams of two students in each team. The main motto of this event was to test and increase the knowledge in students. Deeptha and Athmiya of 2nd year ECE won the event and Geeta & Roshan, Anirudh & Aditya and Hardik & Hemanth were runners. The event was supervised by Mrs. Pratheksha N Rai and Mr. Prakash K Shetty.

Faculty Achievements

- Mr. Kiran Kumar GV, Mr. Nagesh, Mrs. Asmita poojary published paper “FPGA implementation novel lightweight MBRISI cipher” in Journal of Ambient Intelligence and Humanized Computing. ISSN 1868-5145 https://doi.org/10.1007/s12652-022-03726-y on 12-Feb-2022.
- Dr. Gnane Swarnadh Satapathi and Mr. Neelapa Anil kumar, Mosa Satya Anuradha published paper “System on chip based Automated Optic Desk Segmentation in Retinal Images” in IEEE International Conference on Feb 2022.

Placement (2018 Batch)

Mr. ADEESH SHETTY
JUEGO STUDIOS

Ms. NIKITHA
JUEGO STUDIOS

Mr. SAROAN KRISHNA
JUEGO STUDIOS

Mr. ADIK
Electrical Future
Contracting Est

Editorial Board

- **Chief Editor:** *Dr. Gnane Swarnadh Satapathi, HOD, Department of E&C*
- **Editor:** *Mrs. Pratheksha Rai N, Assistant Professor, Department of E&C*
- **Student Editor:** *Ms. Pooja SP & Ms. Thrusha K, 4th year, Department of E&C*
- **Student Editor:** *Mr. Yashas Shetty K , 3rd year, Department of E&C*
- **Student Editor:** *Ms. Hitaishini C U & Ms.Geetha D P, 2rd year, Dept. of E&C*

Program Educational Objectives(PEOs)	
PEO1	Exhibit a desire for lifelong learning through professional and societal activities.
PEO2	Exhibit and apply their technical skills and knowledge in Electronics and Communication Engineering for industry and societal needs
PEO3	Exhibit leadership qualities, professional skills, management skills and ethics needed for successful career.

Program Specific Outcomes (PSOs)	
PSO1	Embedded Systems: Ability to apply the fundamental knowledge of core Electronics and Communication Engineering subjects in the analysis, design, and development of integrated electronic systems.
PSO2	Communication Systems: Ability to apply the fundamental knowledge of signal processing in the analysis, design, and development of communication systems.
PSO3	Simulation: Ability to use modern electronic tools such as MATLAB, Xilinx and Multisim, to design and analyze the complex electronics and communication systems.

Program Outcomes (POs)

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 consid-

erations.

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 modeling 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 sustainability:** 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 multidisciplinary 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 multidisciplinary 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.