

# A. J. Institute of Engineering & Technology



## PRATHIBIMB

The Reflection of EC @ AJIET

**Volume 4**

**Issue 1**

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING  
Academic Year (Jul-Sept): 2022-2023



## 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

## EVSA

- **Farewell for the third batch (2018-22) on 16-07-2022**

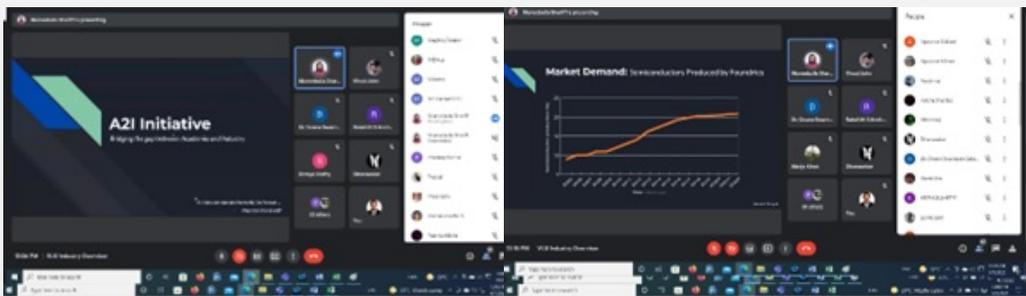
The Farewell Programme for the 2018-2022 batch was organized by the department of Electronics & Communication Engineering in association with Electrovertz Student Association on 16th July 2022 from 10:00 AM onwards. The event was conducted in presence of Dr. Gnane Swarnadh Satapathi-HOD, Mr. Manjukiran B, Student Co-ordinator, with the faculty advisor of the student Association-. Pratheksha Rai N along with teaching and non-Teaching Faculty as well as students and graduates.



## Webinar

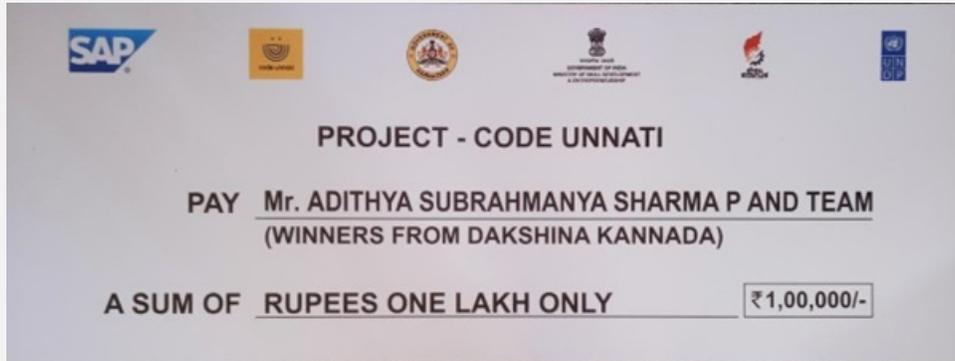
- **Webinar on “A2I” on 04-07-2022**

The Department of Electronics and Communication Engineering in-association with EVSA organized a webinar “A2I : Academics to Industry” : Bridging the gap between industry and academia a project mentoring program has been initiated by the Electronics and Communication Engineering department for the EC Students at AJ Institute of Engineering and Technology, thanks to Mr Vinod John , VP-Hardware Engineering and Practice Head who is managing various skills like Analog,IO, Memory and HW Board Design at Mirafra Technologies and Mr Mueeb Ulla Sharif who is leading the verification team at Mirafra Technologies and Dr Kiran Kumar V G Associate Professor Department of Electronics and Communication Engineering for having initiated this unique program. The idea behind this project mentoring program is to train the third year students with the hardware (Verilog, DV, UVM) and make them industry ready(VLSI).



**Students Achievements**

- On 12/8/2022 Winner of Young Innovation challenge Felicitated with seed funding 1 LAKH Under Project Code Unnati, Karnataka. The students are Ms. Saniha, Mr. Midhun Mohanan, Mr. Ashlesh S, Mr. Adithya Subrahmanya Sharma P



### Faculty Achievements

- Dr. Gnane Swarnadh Satapathi has undergone 30 contact hours of Advanced level training under Innovation Ambassador program under MIC, Govt.of India



- Granted patent by Raghu Chandra Garimella, Dr. Gnane Swarnadh Satapathi, Mastanamma Yarram, Vamshiram MarthalIndian on “A SWITCH BOARD UNIT TO PROVIDE WIRELESS SWITCHING OPERATIONS FOR ELECTRICAL APPLIANCES” patent number 400975 , granted on 7/7/22
- Dr. Gnane Swarnadh Satapathi, Mr. Manjukiran Bagimane , Mrs. Sahana Adyanthaya presented the research paper entitled “prediction of Diabetic Retinopathy in fundus imaging with CNN Visualisation model MobileNetV2 ” in 2nd Global Conference on Recent Developments in Computer and Communication Technology, Karnataka, during 28 and 29 July 2022. Organized by the departments of Computer Science and Engineering, Electronics and Communication Engineering and Information Science and Engineering, AJIET,Mangalore.

### Placement (2019 Batch)



Mr. Akshay  
Sasken



Ms. Moksha  
Sasken



Ms. Lekha Palli  
Kyndryl



Ms. Pooja M  
Kyndryl



Ms. Tasmiya  
Kyndryl



Ms. Sana Katija  
Kyndryl



Ms. Raaniya  
Kyndryl



Mr. Adithya  
Kyndryl



Ms. Saniha  
Kyndryl



Ms. Amrita  
Kyndryl



Ms. Sonal  
Kyndryl



Ms. Shreya S  
Kyndryl



Ms. Shravyashree  
Novigo



Mr. Shashank  
Novigo



Mr. Yashas  
Novigo

### 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, 4<sup>th</sup> year, Department of E&C*
- **Student Editor:** *Mr. Yashas Shetty K, 3<sup>rd</sup> year, Department of E&C*
- **Student Editor:** *Ms. Hitaishini C U & Ms. Geetha D P, 2<sup>nd</sup> 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)

- Engineering knowledge:** Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
- 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.
- 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.