

# PRATHIBIMB

## Department Newsletter

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“The engineer has been, and is, a maker of history. ”

– James Kip Finch

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THE REFLECTION OF EC @AJIET

### PROGRAM EDUCATIONAL OBJECTIVES

**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.

### DEPARTMENT VISION

- To be recognized as a center of excellence in the area of Electronics and Communication Engineering by nurturing the young innovative minds into skillful and ethical professionals to cater the industrial and societal needs.

### DEPARTMENT MISSION

**M1:** To establish state-of-the art laboratories to facilitate research and innovation to upgrade the knowledge and skills in healthcare sector and IoT.

**M2:** To provide industry interaction for training programs on latest technology

**M3:** To provide ethical and value based education by promoting activities addressing the societal needs.

# About A J Institute of Engineering and Technology (AJIET)

Our Institution AJ Institute of Engineering & Technology is established in 2016, AJIET is the flagship of Laxmi Memorial Education Trust (LMET). The trust was founded by Dr. A J Shetty, registered during 1991 in memory of Late Laxmi Shetty, mother of Dr. AJ Shetty, the President and Managing Director of the Trust and Sri.Prasanth Shetty, Vice-President LMET, who for saw an academic community growing in strength and repute. He believed in quality education would play a significant role in nation building. The trust oversees various Institutions, including those dedicated to Medical Sciences, Hotel Management and many more.

Currently, the trust is managing 15 Institutions which are located in Mangaluru city limits and imparting quality education in the fields of Medical, Dental, Engineering and Management Education. Thousands of economically backward citizens have been benefitted from the free medical facility provided by the trust. Provides opportunity for both students and faculties to engage with industry, society and also access to an ever-growing alumni network. Also provides excellent research support by funding multidisciplinary innovative projects essential for solving the needs of the society. AJ Institute of Engineering and Technology (AJIET) Mangalore, has an 8-year legacy of producing quality industry-ready engineers. We offer courses in B.E. in Civil, Mechanical, Electronics and Communication, Computer Science, Information Science & Engineering, AI & ML, AI & Data Science, IoT & Cyber Security including Block Chain Technology (ICB).

AJIET is one of the outstanding Engineering College located in Mangalore, and is well known for providing high quality education at a very affordable cost. Ours is the only Engineering college which is located within the city limits of Mangaluru region and the campus is spread over in a lush green campus of 11.59 acres of land. At AJIET, academics go beyond the pursuit of a professional degree. We motivate students to achieve high levels of learning by providing a supportive environment, dedicated teachers, superior delivery mechanisms and state-of-the-art infrastructure. This in turn nurtures high caliber engineers and management professionals, ready to redefine what's possible.

AJIET strives to impart quality education along with industrial exposure. We make this possible by providing world-class facilities to undertake research activities relevant to industrial and professional needs, while also promoting entrepreneurship as well as value-added education that is socially relevant. Among the branches Civil, Mechanical, Electronics and Communication, Computer Science, Information Science & Engineering are accredited by NBA during the year 2022. We also offer Research Centers in Civil, Electronics & Communication, and Mechanical Engineering, Computer Science, Physics, Chemistry & Mathematics. Every year, around 2000 students study in AJIET.

Till date, more than 2000 engineers have graduated from our Institution. From the past four years, the academic strength of AJIET is reflected in the constant and excellent results over the past 8 years – above 96% University pass percentage, and one University rank.



# About A J Institute of Engineering and Technology (AJIET)

AJIET has established IoT Club, Aero Club, Automotive Club, Radio Club, Embedded & Robotic Club, Eco Club, Industry Institute Partnership Cell (IIC) and Entrepreneurship Development Cell (EDC) for the benefit of the students. This gives a wide exposure beyond curriculum to the students.

A successful education creates a learner for life:

Over 8 years, we have evolved and perfected a unique approach to knowledge delivery in all our engineering programmes. We are deeply involved in the students' academic lives to ensure that they work towards excellence from the start. We emphasize on a curriculum that facilitates knowledge –gathering as well as higher order thinking. Our faculty engage in experimental teaching methodologies, motivating students towards high academic performance. With invaluable industry & corporate exposure, every experience and opportunity presented to them holds immense possibilities for self-development. Over 1000 students many of them are industry leaders, entrepreneurs who have stepped out of our portals.

Learning that goes beyond four walls:

For learning to be genuine and sustainable, we help students to implement theoretical concepts to practical applications. Guest lectures, technical seminars, conferences and industrial visits introduce them to workplace practices and latest technological developments. We have introduced innovative Smart Classrooms, where industry leaders conduct webinars or simulated classroom teaching in key subject areas.

At AJIET, an approach of research is instilled in our students. Students undertake research projects, they are involved in paper presentation at seminars and participate in technology fests. They also work with faculty, collaborating on projects and building deep rooted relations with A J Medical College and industries.

Holistic learning in a dynamic environment:

AJIET is a place for creative thinking and passionate pursuits. The campus is alive with the energy and enthusiasm of its students, faculty and other members, who organize events and activities, proactively. Sports & yoga forms an integral part of the curriculum as we emphasize on the physical as well as mental well-being of our students. Individual interests and talents are encouraged through interactive clubs like Aero-modelling and robotics clubs and many more.

Training & Placement:

- Placement cell organizes personality development programmes & workshops, comprising, communication skills, presentation skills, group discussions, Technical Quizzing, Aptitude tests, Mock interviews and they like, to gear up candidate's profile.
- Placement cell invites corporate companies for recruitment on campus. A fully fledged Training, Placement and Entrepreneurship cell is established in the campus and is headed by Mrs. Kavitha and Dr. Anil as Main coordinator. This department acts as a liaising window, connecting HR Departments of corporate world.
- A placement cell is also operating to have corporate relations with various MNCs' for effective placements. This ensures in connecting corporate companies located in metro cities. Major recruiters are Switch Gear, Headway, Aykan, Mu Sigma, Toshiba Mitsubishi, Tata Electronics, Toyota Kirloskar, Juspay, Delta X, EuroNext, Aarbee structure, Novigo Solution, G R Infrastructure, TCS, Wipro, Infosys, Atkins, 7 Edge, Hiwin Indo MIM, Unicourt, Miraфра, Shree Cement, Hashedin and many more

# INSTITUTE VISION AND MISSION



## VISSION OF THE INSTITUTE

“To produce top-quality engineers who are groomed for attaining excellence in their profession and competitive enough to help in the growth of nation and global society.”

## MISSION OF THE INSTITUTE

**M1:** To offer affordable high-quality graduate program in engineering with value education and make the students socially responsible.

**M2:** To support and enhance the institutional environment to attain research excellence in both faculty and students and to inspire them to push the boundaries of knowledge base

**M3:** To identify the common areas of interest amongst the individuals for the effective industry- institute partnership in a sustainable way by systematically working together.

**M4:** To promote the entrepreneurial attitude and inculcate innovative ideas among the engineering professionals.

“

The true sign of intelligence is not knowledge but imagination

”

- Albert Einstein

# ABOUT THE DEPARTMENT



The Electronics and Communication Engineering department, established in 2016, has an intake of 120 students and was accredited by the NBA for three years in 2023. The department offers undergraduate programs in Bachelor of Engineering, Post Graduate M.Sc. (Engineering), and Doctoral degree programs. The faculty is highly qualified and provides outcome-based education, allowing students to upgrade their technical knowledge and develop skills for employment, higher education, and entrepreneurship.

The curriculum includes industrial visits, webinars, technical talks, and workshops. The department also runs IEEE, IE (I), and ISTE student's chapters, and students participate in various activities. The department also runs Embedded and Robotics clubs and radio clubs, EVSA, fostering communication, leadership, teamwork, and technical and non-technical skills. The department has spacious classrooms with LCD projectors and well-equipped laboratories. Faculty members are encouraged to develop themselves through various activities, exposure to latest technologies, and industry-ready training.

**“ Engineers like to solve problems. If there are no problems handily available, they will create their own problems.**

**– Scott Adams**

**”**



## From HOD's Desk



**Dr. Kiran Kumar V G**  
Associate Professor & HOD

Welcome to the Department of Electronics and Communication Engineering, AJIET. The mission of Department of Electronics and Communication Engineering AJIET is to ensure its students successful careers.

The modern era has seen rapid advancements in Electronics and Communication, including Embedded Electronics, VLSI, Microprocessors, Supercomputers, Robotics, and Healthcare. As demand for advanced technology increases, so does the demand for Electronics Engineers, with students highly sought by top companies, demonstrating the endless scope of this field.

The Department of Electronics and Communication Engineering, established in 2016, aims to provide quality education through excellent infrastructure and teaching faculty, ensuring student satisfaction.

The Department offers innovative teaching and leadership experiences, enhancing students' communication and critical-thinking skills through Industry-Department Collaboration with MoUs and enhancing their employability.

“  
Success is not the  
key to happiness.  
Happiness is the  
key to success. If  
you love what you  
are doing, you will  
be successful  
”

# DEPARTMENTAL ACTIVITIES

## Talk on “Technology used in audio and video processing of Prasar Bharati”

The Talk was held on October 4, 2023, as part of the IEEE Day celebrations, began with an invocation led by prominent figures including Mr. Manjukiran B, the IEEE Student Branch Councillor at AJIET; Dr. Shantharama Rai C, Principal; Dr. Gnane Swarnadh Satapathi, head of the AJIET Radio Club; and the Guest Speaker Mr. Chandrasekhar Shetty, Broadcast Engineer at Prasar Bharathi.



## Collage competition

The collage competition has been organised for 1st Years Students of ECE as well as other branches on the occasion of “IEEE day -2023” Celebrations on 04.10.2023. The theme for the Collage competition was “Sustainable Technology for Better Tomorrow”. Competition was held as a group event, where a maximum of 3 members were allowed to form a team. 18 teams from various departments have participated actively.



## IEEE Day with Orphanage/ Poor Children

IEEE student branch of AJIET has visited Poor Children whose parents are working as Labours in construction works which included 12 Students from ECE. The AIM of the event was to distribute NoteBooks, Story books, and Stationary Materials.



## Essay Competition

The Essay competition has been organised for 1st Years Students of ECE and other branches on the occasion of “IEEE day -2023” Celebrations on 04.10.2023. The topic for the Essay competition was “ROLE OF SOCIAL MEDIA ON SOCIETY”/ “ಸಮಾಜದಲ್ಲಿ ಸಮೂಹ ಮಾಧ್ಯಮಗಳ ಪಾತ್ರ”. Competition was held in English and Kannada Language. 65 students from various departments have participated actively.

# DEPARTMENTAL ACTIVITIES

## Talk on Computing Trends & PARAM Utkarsh Supercomputer

Talk on Computing Trends & PARAM Utkarsh Supercomputer In collaboration with IEEE-AJiet Student Branch, organized an invited talk on the topic “Trends in computing and PARAM utkarsh supercomputer” was held on 18.10.2023 at 2:00 PM. The Resource person for the talk was Er Divya M G, Joint Director, SDOS & Administration Group, at Centre for Development of Advanced Computing (C-DAC), Bangalore .



## Ayudha Pooja Celebrations

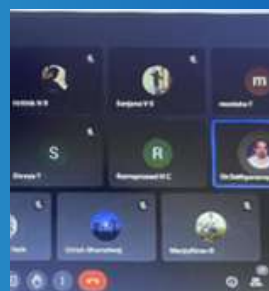
Ayudha Pooja was celebrated on 23.10.2023 by the department in association with Electrovertz Student Association at Basic Electrical Lab from 9:00AM onwards. Aayudha Pooja rituals were carried out by the Archak in presence of a large number of devotees along with the Bhajana program from the students of ECE.

The arrangements for the program were actively done by the members of departmental student association EVSA. All the labs and department floor was beautifully decorated along with the rangoli as a sign of celebration After the rituals prasadam, sweets and juice were distributed.



## Talk on Acing the Interview

A talk on “ Acing the Interview” was organized on 26.10.2023 for 3rd and final year students . The Resource Person for the talk was Dr. Mohit P Tahiliani, Chair, IEEE Mangalore Subsection & Ms. Sandhya R J, Power R & D Pvt. Ltd.



## MOCK INTERVIEW

IEEE Bangalore Section & IEEE Mangalore Subsection in association with AJIET IEEE Student Branch Has organised MOCK INTERVIEW for Final Year ECE Students on 26.10.2024



## Workshop on Embedded System & Robotics

A 2 days workshop on Embedded System & Robotics for 2 year IEEE students was organized on 27th & 28th Oct 2023 . The first Session of the workshop was about Introduction to Embedded Systems, IoT and Robotics, where the Resource Person Explained about different Processors/Controllers and How Embedded Systems will be Built. Dr. Mahantesh also addressed about features of an Embedded Systems, its features, Advantages and disadvantages.





# DEPARTMENTAL ACTIVITIES

## Industrial Visit

A J Institute of Engineering and Technology Mangalore's IEEE student section arranged an industrial visit to KarMic Design Pvt Ltd which included 5 Students of ECE. The visit gave the students a better understanding of industrial procedures and the principles of circuit design and modeling. Mr. Manjukiran B, Asst. Prof. Dept of ECE coordinated the event.



## Yoga sessions



As per the Outcome Based Education (OBE) and Choice Based Credit System (CBCS) (Effective from the academic year 2023-24) all students have to register for any one of the courses namely National Service Scheme (NSS), Physical Education (PE)(Sports and Athletics), and Yoga(YOG) with the concerned coordinator of the course during the first week of III semesters. Accordingly 10 students of 3rd sem ECE have registered for yoga. Yoga classes are conducted every friday afternoon from 2:00PM - 5:00PM in AJIET campus starting from December.

## EVSA Branch Inauguration 2023-24

The Department of Electronics and Communication Engineering in association with Electrovertz Student Association hosted the "Inaugural ceremony" for the Academic Year 2023-24 on December 5, 2023, at Seminar hall-3. The event welcomed First and Second-year students into the department and featured Mr.Mathew Ninnan, Vice-President, Product development at Semnox Solutions Pvt. Ltd. as the Chief Guest. The ceremony included prayer, Welcome Speech, logo unveiling, oath-taking by Office Bearers, and award distribution. Inspiring speeches by the chief guest and principal motivated students. Cultural programs, games, and refreshments marked the Swagatam segment.



## FACULTY ACHIEVEMENTS

SL.No	Date	Staff Name	Organized by	Event Name	Type of Event	No of Days
1	Oct-2023	Mrs. Pratheksha Rai N	Udemy	Verilog HDL Fundamentals for Digital Design and Verification	Online Certification	5.5 Hours
2	18/12/2023-20/12/2023	Mrs. Deepashree A P	Department of Artificial Intelligence & Machine learning in Association with IQAC, Bangalore Institute of Technology, Bengaluru	"Data Analytics with Excel"	FDP	3 Days

## FACULTY PUBLICATION

Dr. Gnane Swarnadh Satapathi, Dr. Ranjan Kumar Mahapatra along with other Co-Authors, published paper entitled "Improvement in Corrosion Performance of ECAPed AZ80/91 Mg Alloys Using SS316 HVOF Coating" in Materials (Basel). on Oct 11, 2023 with doi link: 10.3390/ma16206651. PMID: 37895635; PMCID: PMC10608680.

Mrs. Pratheksha Rai N, along with other Co-Authors, published paper entitled "Secured Authentication of RFID Devices Using Lightweight Block Ciphers on FPGA Platforms," in IEEE Access, vol. 11, pp. 107472-107479, 2023.

Dr. Gnane Swarnadh Satapathi, Dr. Ranjan Kumar Mahapatra along with Co-Authors (2023), published paper entitled "A combined fuzzy backtracking search optimization algorithm to localize retinal blood vessels for Diabetic Retinopathy", in Biomedical Physics & Engineering Express. 9. 10.1088/2057-1976/ace789.

## STUDENT ACHIEVEMENTS

SL.No	Date	Student Name	Sem	Venue	Event Name	Award
1	15-12-2023	Thrishul Charan	3	AJiet, Mangaluru	Javelin	Second Place



## PLACEMENT DETAILS

**Ms. Geetha D P of Final Year ECE got Placed in Jaro Education**



**Mr. Prajwal Gowda of Final Year ECE got Placed in Technologics**



## PLACEMENT DETAILS



**Prajwal Gowda**  
Placed in Teachnook  
4-6 LPA



**Geetha D P**  
Placed in Jaro Education  
4 LPA

# EDITORIAL BOARD

## FACULTY EDITORS



Editor: Dr. Kiran Kumar V G,  
Associate Professor & HOD



Editor: Ms. Pratheeksha Rai N,  
Assistant Professor

## STUDENT EDITORS



SUHAN RAI, 3rd YEAR



MOHD. AAWAN SHAIKH, 3rd YEAR



THRISHUL CHARAN, 2nd YEAR

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