

PRATHIBIMB

Department Newsletter

AY:2023-24

Volume-5

JAN-FEB-MAR

ISSUE-3

“Engineering problems are undefined; there are many solutions, good, bad, and indifferent. The art is to arrive at a good solution.”

– Richard James

प्रतिबिम्ब
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, Mirafra, 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.



“ Failure is simply the opportunity to begin again, this time more intelligently. ”

- Henry Ford

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.

Science can amuse and fascinate us all, but it is engineering that changes the world

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.

“
The difference
between ordinary
and extraordinary
is that little extra.
”

DEPARTMENTAL ACTIVITIES

Workshop on IOT & Applications

The program was held at ATAL tinkering Lab, SDPT PU College on 23-01-2024. A total of 28 students have benefited from the program. Basics programming on analog and digital data has been taught and how to interface different types of sensors has been given introduction, Controlling of light using a blynk app through Bluetooth, Reading temperature & humidity by interacting DHT11 sensor & amp; line follower robot experiments have been demonstrated. Finally, explanation videos and feedback of the students have been recorded. Dr. Gnane, Mr. Manjukiran B, Mr. Suhandas were the Faculty Coordinators of the event.



Workshop on Design Thinking, Critical Thinking and Innovation

An one day workshop titled “Design Thinking, Critical Thinking and Innovation” by Mr. Akshay Alwa (Advocate, High court Karnataka) was organized on 24-01-2024. A total of 123 students have benefited from the program. The Dean of Academics, Dr. Mahabaleshwarappa P welcomed the Chief Guest Mr. Akshay Alwa (Advocate, High court Karnataka). The eminent speaker spoke about innovation and creative thinking to the students who aspire to start their own ventures. Besides this, the eminent speakers shared their experiential learnings towards transforming businesses and products through “Design Thinking, Critical Thinking and Innovation Design” and also ensured to guide and mentor students in their respective journeys towards starting their own ventures.



Report on “Navmatdata and Viksit Bharat”

The program held at Seminar hall-2, AJIET on 25-01-2024 from 11:30AM-12:30PM. A total of 155 participants have got benefited from the program. Prime Minister Narendra Modi said that first-time voters support development agenda and they have a responsibility of building a developed India by 2047. The PM addressed thousands of first-time voters virtually on National Voter’s Day assembled at around 5,000 plus organized 'NaMo Nav Matadata Sammelans' across the country.



Talk on Entrepreneurship Skill, Attitude and Behaviour Development

The Institute Innovation Council of AJIET in association with IEI organized a talk on 25-01-2024 about “Entrepreneurship Skill, Attitude and Behaviour Development” from 9:30AM-12:00PM. The Master of ceremony for the Talk was Ms. Shama , Student 5th semester, ECE. The function started by welcoming Speaker Captain Brijesh Chowta, Ex-Army Officer and Entrepreneur , Dr. Shantharama Rai C, Principal and IIC president, Dean Academics Dr Mahabaleshwarappa P, Heads of the various Departments and the students. Shreya D K, student of 5th semester, ECE introduced the guest speaker. Principal addressed the participants.



DEPARTMENTAL ACTIVITIES

Workshop on Unikit

The Department of Electronics and Communication Engineering in association with Electrovertz student Association organized "Embedded System Design through a quick hands-on demo using Embedded Development Platform-Uni-Kit" workshop for second-year ECE students on January 30, 2024, at the CAED Lab. Mr. Vilas Shetty and Mr. Ashish from Zilliot Technologies, welcomed by Dr. Kiran Kumar V G, led the event. Mr. Ashish discussed breakout board design, PCB components, and Ki-CAD software application, while Mr. Vilas Shetty covered embedded systems, development boards, Mikro and Qwicc connectors, and debugging techniques.



Workshop on UX Design

The Department of Electronics and Communication Engineering in association with Electrovertz student Association organized "UX Design" workshop for second and third-year ECE students was held on February 8, 2024, at Seminar Hall-2. The Guest speaker Mr. Vignesh Kamath, design engineer, was welcomed by Dr. Kiran Kumar V G, the department head. The workshop was an knowledge enriching session on UX which also included an activity session where students, grouped and focusing on a "Pet Owners App", listed goals and frustrations to use as references for designs made with the FIGMA tool. Mr. Kamath also provided tips on cracking interviews in the UX domain.g.



Motivational talk

The Department of Electronics and Communication Engineering in association with Electrovertz student Association organized A Motivational Talk titled "How can I Become A Promising Leader? – Some Cases" was held on February 15, 2024, in Seminar Hall-1. The guest speaker, Dr. Sudhir Raj K, a professor from JKSHIM, Nitte, focused on leadership during his 90-minute speech. Introduced by Ms. Sujanya P, a third-year student, and welcomed with a bouquet by Dr. Kiran Kumar, HOD of the Electronics and Communication Engineering Department, Dr. Sudhir Raj engaged the audience with real-world cases, making his talk both engaging and informative.



One day workshop on Arduino Programming

IEEE Student Branch of AJIET organized one day workshop on Arduino Programming using Tinkercad. Resource person Dr. Gnane S Satapathi and Mr. Manjukiran B, Department of ECE, AJIET, Mangaluru conducted the workshop.

The session's goal was to provide participants a quick introduction to Arduino programming. Using Tinkercad. Arduino is an open-source physical computing platform based on a simple I/O board and a development environment that implements the Processing/Wiring language.



FACULTY ACHIEVEMENTS

FACULTY PARTICIPATION

SL.No	Date	Staff Name	Organized by	Event Name	Type of Event	No of Days
1	26.02.2024 -01.03.2024	Mr. Manjukiran B	DDGDV College	Adaptability & resilience in the Face of rapid Change For Academia”	FDP	5-Days
2	26.02.2024 -01.03.2024	Dr. Gnane swarnadh satapathi	DDGDV College	Adaptability & resilience in the Face of rapid Change For Academia”	FDP	5-Days
3	11/03/2024 - 15/03/2024	Mrs. Pratheksha Rai N	National Institute of Technical Teachers Training and Research, Chandigarh	Free Simulators for ECE Lab Practises	FDP	1 Week
4	11/03/2024 - 15/03/2024	Mr. Manjukiran B	National Institute of Technical Teachers Training and Research, Chandigarh	Free Simulators for ECE Lab Practises	FDP	1 Week
5	11/03/2024 - 15/03/2024	Mrs. Deepashree A P	National Institute of Technical Teachers Training and Research, Chandigarh	Free Simulators for ECE Lab Practises	FDP	1 Week
6	26.02.2024 -01.03.2024	Mr. Manjukiran B	DDGDV College	Adaptability & resilience in the Face of rapid Change For Academia”	FDP	5-Days
7	26.02.2024 -01.03.2024	Dr. Gnane swarnadh satapathi	DDGDV College	Adaptability & resilience in the Face of rapid Change For Academia”	FDP	5-Days
8	11/03/2024 - 15/03/2024	Mrs. Pratheksha Rai N	National Institute of Technical Teachers Training and Research, Chandigarh	Free Simulators for ECE Lab Practises	FDP	1 Week

SL.No	Date	Staff Name	Organized by	Event Name	Type of Event	No of Days
12	11/03/2024 - 15/03/2024	Mr. Manjukiran B	National Institute of Technical Teachers Training and Research, Chandigarh	Free Simulators for ECE Lab Practises	FDP	1 Week
13	11/03/2024 - 15/03/2024	Mrs. Deepashree A P	National Institute of Technical Teachers Training and Research, Chandigarh	Free Simulators for ECE Lab Practises	FDP	1 Week
14	11/03/2024 - 15/03/2024	Mr. Ganesh U G	National Institute of Technical Teachers Training and Research, Chandigarh	Free Simulators for ECE Lab Practises	FDP	1 Week
15	11/03/2024 - 15/03/2024	Dr. Kiran Kumar V G	National Institute of Technical Teachers Training and Research, Chandigarh	Free Simulators for ECE Lab Practises	FDP	1 Week
16	11/03/2024 - 15/03/2024	Mrs. Divya A	National Institute of Technical Teachers Training and Research, Chandigarh	Free Simulators for ECE Lab Practises	FDP	1 Week
	11/03/2024 - 15/03/2024	Mrs. Sahana K Adyanthaya	National Institute of Technical Teachers Training and Research, Chandigarh	Free Simulators for ECE Lab Practises	FDP	1 Week
18	11/03/2024 - 15/03/2024	Mr. Jithendra NK	National Institute of Technical Teachers Training and Research, Chandigarh	Free Simulators for ECE Lab Practises	FDP	1 Week
19	11/03/2024 - 15/03/2024	Mr. Suhandas	National Institute of Technical Teachers Training and Research, Chandigarh	Free Simulators for ECE Lab Practises	FDP	1 Week

FACULTY ACHIEVEMENTS



Dr. Gnane Swarnadh Satapathi has been the Guest Lecture for an Online Webinar on "Development of Medical Equipments" at SRM Madurai College of Engineering and Technology on February 16th, 2024, from 11.00 AM -12.00PM

Dr. Gnane swarnadh satapathi has been recognized as the Gem of Mentor India by Atal Innovation Mission.

Dr. Ranjan Kumar Mahapatra, Dr. Gnane Swarnadh Satapathi, Mr. Manjukiran B (2023) along with Co-Authors and Students, published paper entitled “High notch microstrip antenna array at Ka band”, 1-6. doi:10.1109/ICIICS59993.2023.10421482.

Mr. Suhandas along with Co-Authors, published paper entitled “A Novel Framework of Video Condensation and Video Retrieval Process using Hybrid Meta-Heuristic Development with Yolo-based Anomaly Detection; in International Journal of Intelligent Systems Technologies and Applications, doi:10.1504/IJISTA.2024.10062805

Dr. Kiran Kumar V G along with Co-Authors, published paper entitled “Design, Implementation and Analysis of HIBRI Cipher on IoT Platforms” Journal of The Institution of Engineers (India) Ser. B (2024). <https://doi.org/10.1007/s40031-024-01067-2>

Dr. Kiran Kumar V G along with Co-Authors, published paper entitled “A Unified Approach Toward Security Audit and Compliance in Cloud Computing” Journal of The Institution of Engineers (India) Ser. B (2024).<https://doi.org/10.1007/s40031-024-01034-x>

Dr. Gnane Swarnadh Satapathi along with Co-Authors (2024), published paper entitled “Severity Analysis Automation for Detection of Non-Proliferative Diabetic Retinopathy”, doi:10.1007/978-981-99-8886-0_27.

Dr. Gnane Swarnadh Satapathi, Dr. Ranjan Kumar Mahapatra along with Co-Authors, 2024. published paper entitled “A survey on wireless sensor network (applications and architecture)”, Int. J. Commun. Netw. Distrib. Syst. 30, 2 (2024), 136–201. <https://doi.org/10.1504/ijcnds.2024.137085>

Dr. Ranjan Kumar Mahapatra, Dr. Gnane S Satapathi, Mr. Manjukiran B, along with other researchers, presented a Conference paper entitled “Critical review on heart disease prediction using machine learning approach” at the 2023 IEEE Fifth International Conference on Advances in Electronics, Computers and Communications (ICAECC).

Mr. Manjukiran B, Dr. Ranjan Kumar Mahapatra, and Dr. Gnane Swarnadh Satapathi have published a paper titled "Non Invasive Blood Glucose Level Detection" at the 2023 1st International Conference on Circuits, Power and Intelligent Systems (CCPIS)

Dr. Ranjan Kumar Mahapatra, Dr. Gnane Swarnadh Satapathi, and Mr. Manjukiran B have published a paper titled "Design and Analysis of Microstrip Wideband Filter" at the 2023 3rd International Conference on Intelligent Technologies, IEEE 2023 Conference.

STUDENT ACHIEVEMENTS



Karan N Bhandary and Sharan Sanil of Second Year, ECE secured first place in the Maze Solver competition held at Shree Devi Institute of Technology, Kenjar.

Adarsh, Dhanush S, Manoj B, Karthik C Nayak, and Reshma from third Year, ECE secured First Place in the Lakshman Rekha event held at Nitte Mahalinga Adyanthaya Memorial Institute of Technology (NMAMIT), Nitte Karkala.



Dhanush S, Adarsh, and Karthik C Nayak, third Year, ECE secured Second Place in the Line Follower event held at Yenepoya Institute of Technology, Moodbidri.



Manoj B secured from third Year, ECE Second Place in the Robo Soccer event held at Yenepoya Institute of Technology, Moodbidri.



STUDENT ACHIEVEMENTS

SL.No	Date	Student Name	Sem	Venue	Event Name	Award
1	04-01-2024 - 05-01-2024	Karan N Bhandary	3	SDIT ,Kenjar	Maze Solver	First Place
2	04-01-2024 - 05-01-2024	Sharan Sanil	3	SDIT ,Kenjar	Maze Solver	First Place
3	12-01-2024	Shreya D K	5	VTU, Mysuru	Group Dance (Classical)	First Place
4	22-02-2024 - 24-02-2024	Adarsh	5	NMAM Institute of Technology, Nitte	Lakshman Rekha	First Place
5	22-02-2024 - 24-02-2024	Dhanush S	5	NMAM Institute of Technology, Nitte	Lakshman Rekha	First Place
6	22-02-2024 - 24-02-2024	Manoj B	5	NMAM Institute of Technology, Nitte	Lakshman Rekha	First Place

PROJECT DETAILS

Sl. No	PROJECT TITLE	NAME OF THE STUDENT	NAME OF THE GUIDE	AMOUNT	FUNDING AGENCY
1	Energy Efficient Street Lighting with Real time data Monitoring	Seema J Rai Athmiya Raj A G Durgesh Hardik Rai	Mr. Ganesh U G	5,500	Karnataka State Council for Science and Technology
2	Wireless ECG Monitoring	Vishnu Santhosh Sandesh Mathai Sourav A S Sujan D B	Mr. Ganesh U G	75,000	Laxmi Memorial Education Trust
3	Neonatal Health Monitoring System	Sumanth Shravan Kumar Shetty Tejas Gatty Vaishnavi	Mr. Suhandas	75,000	Laxmi Memorial Education Trust
4	Boroscope for Cancer Treatment	Thejas J P Sharan Karan Bhandary Nesar Shetty	Mr. Manjukiran B	75,000	Laxmi Education Memorial Trust

PLACEMENT DETAILS

1. Ms. Hitaishini C U and Ms. Navya B R Got placed in Ed Vedha

A. J. INSTITUTE OF ENGINEERING & TECHNOLOGY
A Unit of Laxmi Memorial Education Trust ®
Kottara Chowki, Mangalore – 575 006 Karnataka – INDIA



CONGRATULATIONS...!
Department of Electronics & communication engineering
to be placed with
EdVedha



Hitaishinin C.U
CTC-6.00 LPA
Batch-2023-24



Navya B.R
CTC-6.00 LPA
Batch-2023-24

Management, Principal, Faculty & Staff
www.ajiet.edu.in

PLACEMENT DETAILS



Athmiya Raj A G
Placed in Teachnook
4-6 LPA



Geetha D P
Placed in Jaro Education
4 LPA



Hitaishini C U
Placed in EdVedha
1.80 LPA



Navya B R
Placed in EdVedha
1.80 LPA



Prajwal Gowda
Placed in Teachnook
4-6 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

Contact us:

AJ Institute of Engineering & Technology,
NH-66, Kottara Chowki,
Mangaluru – 575006, Karnataka, India



+91 9483026503
+91 0824 2862200
+91 0824 2455048



admissions@ajiet.edu.in