



# Vel Tech

Rangarajan Dr. Sagunthala  
R&D Institute of Science and Technology  
(Deemed to be University)



# ANNUAL REPORT 2024-25 (Volume 04)

**School of Electrical & Communication**

**Department of Electronics and Communication Engineering**



# FOUNDERS



*Col. Prof. Vel. Dr. R. Rangarajan*  
*B.E.(Elec.), B.E.(Mech.), M.S.(Auto.),*  
*D.Sc.*  
*President & Chancellor*



*In the fond memory of*  
*Dr. Mrs. Sagunthala Rangarajan*  
*M.B.B.S.*  
*Foundress President*

# FOREWORD



*Col. Prof. Dr. Vel. R. Rangarajan*  
*B.E. (Elec), B.E. (Mech), M.S.*  
*(Auto), D.Sc.,*  
*President & Chancellor*

The past year has undoubtedly been one of the most challenging periods since the inception of Vel Tech Rangarajan Dr. Sagunthala R&D Institute of Science and Technology, nearly 26 years ago. Faced with unforeseen global and local disruptions, our university was compelled to evolve rapidly and reimagine the way we deliver education. Amidst these challenges, I am proud to witness how the institution has adapted with resilience, innovation and an unwavering commitment to academic excellence. In the face of these challenges, I am immensely proud to see that the Department of Electronics and Communication Engineering has upheld and demonstrated the highest standards in teaching, learning and research. The resilience, commitment and collaborative spirit displayed by the faculty, staff and students are truly commendable. I extend my heartfelt congratulations to the entire department for its continued excellence and achievements. The ECE department remains a cornerstone of innovation, shaping the future through its focus on emerging technologies such as Artificial Intelligence, Machine Learning, VLSI Design 5G and beyond, Internet of Things (IoT), Embedded Systems, Robotics and Quantum Communication. These fields are not only transforming industries but also creating a new digital society that is more connected, sustainable and intelligent.

# FOREWORD



*Mrs. Rangarajan Mahalakshmi Kishore*  
*Chairperson & Managing Trustee Vel Tech*

For over two decades, Vel Tech Rangarajan Dr. Sagunthala R&D Institute of Science and Technology has made a meaningful contribution to society by imparting value-based, forward-thinking education that aligns with the evolving demands of the modern academic and professional world. The Department of Electronics and Communication Engineering (ECE), in particular, continues to play a pivotal role in this journey by empowering young minds with a future-ready technological mindset. With a strong focus on emerging domains such as Artificial Intelligence, Machine Learning, Internet of Things (IoT), 5G Technologies, VLSI Design, Embedded Systems, Robotics and Quantum Computing, the department ensures that its students are equipped with the skills required to thrive in today's highly competitive and fast-paced digital era. Through hands-on training and industry-relevant curricula, ECE students are not only made technologically proficient but are also encouraged to innovate and solve real-world problems. The department's high-tech laboratories, centers of excellence and advanced research infrastructure create an environment that fosters deep learning and professional discipline. This infrastructure, combined with a progressive academic approach, enables students to seamlessly adapt to modern work cultures and emerge as industry-ready professionals. To support and enhance teaching practices, initiatives such as the Connected Learning Hub have been introduced—providing faculty with enriched digital curriculum resources and promoting collaborative, learner-centered instruction across all levels.

# FOREWORD



***Prof. Dr. Rajat Gupta***

*Vice Chancellor*

*Vel Tech Rangarajan Dr. Sagunthala R&D  
Institute of Science and Technology*

I am delighted to present my warm greetings and heartfelt appreciation to the Department of Electronics and Communication Engineering (ECE) for the publication of this insightful and inspiring departmental annual report. This edition is a commendable reflection of the intellectual vigor, creativity and innovative spirit that thrive within the ECE department. It encapsulates the remarkable journey of students and faculty members as they engage in research, projects, academic excellence and community outreach. Through its pages, we witness the evolving landscape of electronics and communication technologies and the critical role our students and scholars play in shaping that future. At Vel Tech Rangarajan Dr. Sagunthala R&D Institute of Science and Technology, we believe in fostering a research-driven and industry-aligned academic environment. The ECE department continues to exemplify this vision by embracing emerging technologies such as Artificial Intelligence, VLSI, 5G, IoT and Embedded Systems and integrating them into both curriculum and research pursuits. I commend the department for creating this platform that not only celebrates achievements but also encourages a culture of sharing knowledge and inspiring innovation. My sincere appreciation goes to the editorial team, faculty and students who have contributed to this edition. May this annual report continue to serve as a source of motivation for our learners and an enduring record of the department's continued excellence.

# FOREWORD



***Dr. R. S. Valarmathi***

*Professor & Dean SoEC*

*Vel Tech Rangarajan Dr. Sagunthala R&D  
Institute of Science and Technology*

The Department of Electronics and Communication Engineering (ECE), under the School of Electrical and Communication Engineering (SoEC), at Vel Tech Rangarajan Dr. Sagunthala R&D Institute of Science and Technology, is committed to nurturing graduates who emerge as innovative problem solvers, responsible leaders, lifelong learners and conscientious global citizens. Our mission is to foster an educational environment that blends academic rigor with cutting-edge technological exposure to prepare students for the evolving demands of the global industry. We take pride in offering a robust academic ecosystem backed by world-class infrastructure, state-of-the-art laboratories and access to intellectual and technological resources from leading educational and research institutions. The ECE curriculum is thoughtfully structured to strike a balance between theoretical depth and practical experience. In line with the current technological advancements, we offer four specialized tracks such as Artificial Intelligence & Data Science, Artificial Intelligence & Machine Learning, Cybersecurity and the Internet of Things (IoT), which ensure our students are well-equipped to navigate and contribute to a rapidly transforming digital landscape. It gives me great pleasure to present the Annual Report 2024–25 of the ECE Department. This report is a comprehensive account of the department's achievements, including faculty and student recognitions, collaborative initiatives, funded research, patents, publications and active participation in prestigious national and international events. The department has also made significant progress in adopting and integrating emerging technologies such as 5G & 6G Communications, VLSI Design, Robotics, Quantum Computing and Embedded AI, keeping pace with the global engineering ecosystem.

# FOREWORD



***Dr. A Selwin Mich Priyadharson***

*Professor & Head*

*Department of ECE*

*Vel Tech Rangarajan Dr. Sagunthala R&D*

*Institute of Science and Technology*

The Department of Electronics and Communication Engineering (ECE) at Vel Tech Rangarajan Dr. Sagunthala R&D Institute of Science and Technology was established in the year 1997 with an initial sanctioned intake of 60 students. Over the past 27 years, the department has witnessed remarkable growth in academic strength, infrastructure and research expertise. Today, with a sanctioned intake of 480 students, the B.Tech. ECE program proudly holds NBA Tier-I accreditation, reflecting our continued commitment to academic excellence and quality education. Our curriculum is designed with a strong emphasis on Outcome-Based Education (OBE) and Active Learning Methodologies (ALM), aiming to provide students not only with technical proficiency but also to enhance their problem-solving, critical thinking and innovation skills. The department offers specialized mandates in Automotive Electronics, Network and Cybersecurity, Artificial Intelligence, Machine Learning, Antenna and Communication Systems, Embedded Systems, VLSI Design, Small Satellites and Unmanned Aerial Vehicles (UAVs/ Drones) in the areas that are at the forefront of global technological advancement. With a team of 120 dedicated and qualified faculty members, the department fosters a research-driven environment supported by advanced laboratories. Our research infrastructure is further strengthened through active collaborations with industries in fields such as Internet of Things (IoT), Signal Processing, Embedded System Design, RF Communication and Quantum Technologies. In line with modern engineering education trends, we have established an exclusive CDIO (Conceive–Design– Implement–Operate)lab to cultivate students' capabilities in design thinking, implementation and project management, including financial and entrepreneurial planning. To enrich the student learning experience, we encourage active participation in departmental clubs such as the ACE Club, Programming Club, Robotics Club and EWS Club, where students engage in interdisciplinary projects and innovation challenges.

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# DEPARTMENT AT A GLANCE

The Department of Electronics and Communication Engineering was established in 1997, since the inception of the institution. Over the time, the department has emerged in diverse dimensions and affords a spellbound ambience for teaching and learning. The department offers B.Tech. in Electronics and Communication Engineering. M.Tech. in Embedded Systems and Technologies and Ph.D. in ECE degree programs with technology- oriented courses that creates industry ready personnel in the prudent fields of ECE. All the programs are approved by AICTE and the B.Tech. ECE program has received Tier I NBA accreditation for 3 years in the year 2018 and accreditation valid upto June 2025. The department has been strengthened by its erudite faculty members from reputed Universities and organizations. The key areas of research and academic activities in the department are VLSI Design, RF and Microwave Antenna Design, Signal Processing, Image and Video Processing, Embedded Systems Design, Wireless Sensor Networks, Unmanned Aerial Vehicles and Small Satellites. etc. Y. Venkat Sai (VTU 23741), Third Year Student has been selected to receive Prestigious Richard E. Merwin Scholarship Award worth of 1,000 USD (Rs. 85,059/-) for the Fall 2024 season, presented by the IEEE Computer Society. This recognition is awarded for his active volunteering in IEEE professional activities, exceptional academic performance with 9.55 CGPA and significant contributions to academic excellence. The department is well- equipped with curriculum based laboratories like Texas Instruments powered IoT & Signal Processing labs, Xilinx powered System on Chip lab, EYantra Embedded Systems and several initiatives in alliance with International Universities and Core Electronics Industries.



23  
PROFESSORS

34  
ASSOCIATE  
PROFESSORS

63  
ASSISTANT  
PROFESSORS





## Department Vision

“To be a Centre of Academic Excellence through quality education and cutting-edge research in diversified fields of Electronics and Communication Engineering to meet the global challenges and produce high quality professionals.”

## Department Mission



**M1**

To enrich the knowledge of graduate engineers for global requirements by promoting quality education through innovative pedagogical practice.

**M2**

To create an ambience for academic excellence by engaging in cutting-edge research and undertaking collaborative projects with academia and industry.

**M3**

To develop competence by inculcating human and moral values with leadership and professional skills

1. Outcome Based Education
2. Active Teaching & Learning
3. Project Learning
4. Integrated Courses

1. CDIO Projects.
2. Funded Projects
3. Consultancy Projects

1. Soft Skill Training
2. Value Education Electives
3. Career Ready Practices

# DEPARTMENT PROGRAM EDUCATIONAL OBJECTIVES

**PEO**

**1**

**Our graduates will solve contemporary problems in the analysis and design of Electronics and Communication Devices and Systems**

**PEO**

**2**

**Our graduates will conceive ideas for the societal issues and will design, implement and operate the Engineering products for the ideas conceived.**

**PEO**

**3**

**Our graduates will perform in various roles with adequate Technical and Managerial Skills in Design, Development, Production and Support areas of Electronics and Communication and Allied Industries.**

**PEO**

**4**

**Our graduates will pursue higher education and will be lifelong learners in their profession, effectively communicate the technical information and work in multidisciplinary teams.**

**PEO**

**5**

**Our graduates will be ethical, environmental, health and safety concerned in their profession.**

## ABOUT THE PROGRAM (B.TECH - ECE)

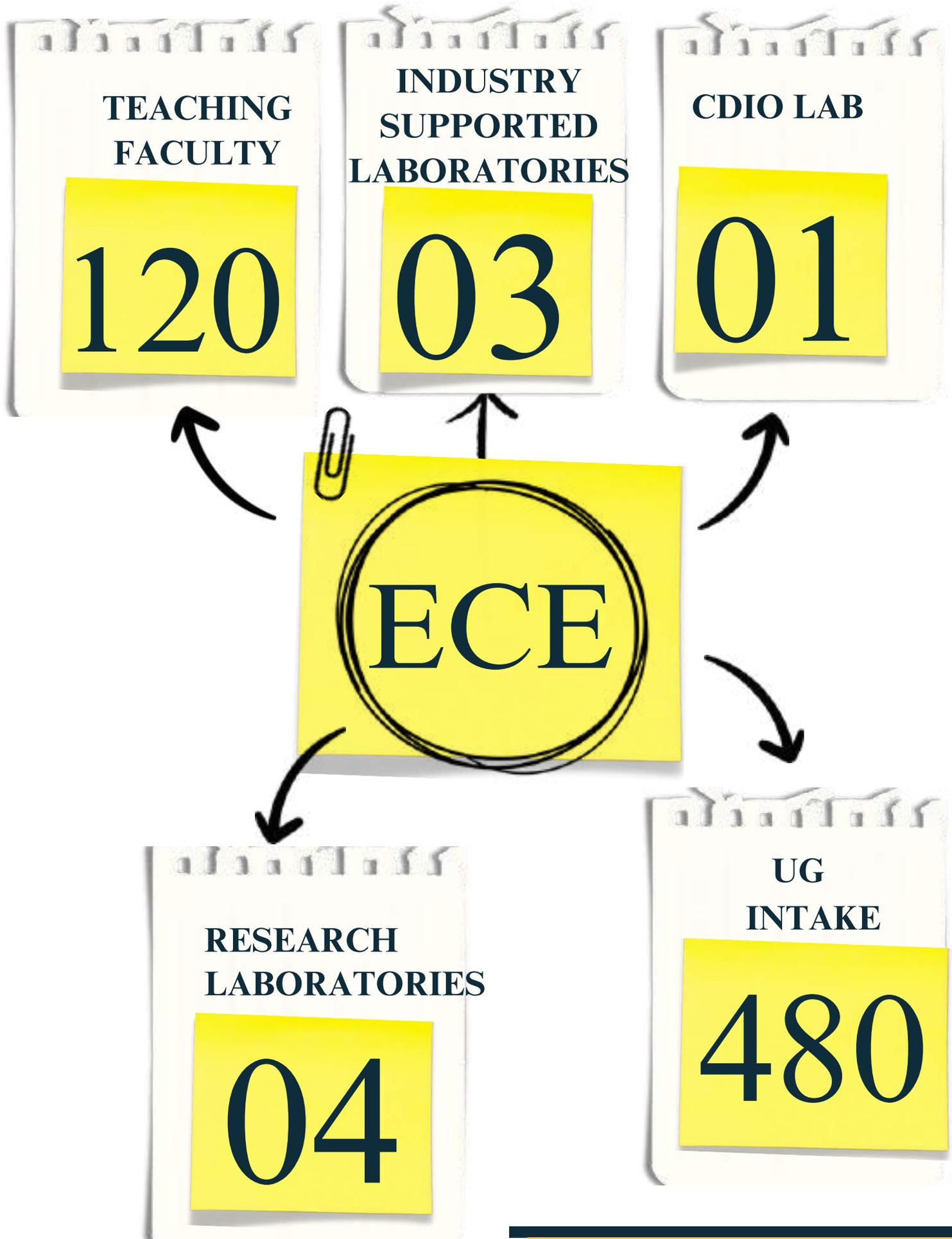
The program follows Outcome Based Education (OBE), which primarily focuses on knowledge, skill and attitude of the graduates. From the academic year 2015-16 onwards, the academic regulation of the program follows Choice Based Credit System (CBCS) with academic flexibilities like (i) Course Choice within the program (ii) Faculty Choice (iii) Department /School level course choice (iv) MOOC course choice. The program curriculum (VTU R15) consists of various course categories (Foundation, Program Core, Program Elective, Allied Elective, University Elective, Value Education Elective, Independent Learning, Industry/Higher Learning Institute Interaction and Complementary Skill Courses) to provide the depth and breadth required for the program and for the attainment of student outcomes of the program. Program electives on contemporary technologies such as Software Defined Networking, Software Defined Radio, Next Generation Mobile Networks, Nano Photonics, Radio over Fiber Systems, System on Chip, Internet of Things were included in the curriculum based on the recommendations from Board of Studies (BOS) and further approved by the Academic Council Members. Faculty and Industry- Experts from top QS ranking institutes from USA, Germany and Taiwan and reputed organizations delivered one credit courses on contemporary technologies for the students of B.Tech. ECE program. In the program, faculty members have been facilitating students towards collaborative and cooperative learning through Jig-Saw, Think-Pair- Share, Peer Instruction, Mud Card Flipped Classroom and Problem / Project Based Methods. Since 2018, the program facilitates interested final year students who have completed all courses except project work to undergo nine months internships/project work in Industries or International Universities. Students admitted from the academic year 2021- 22 follows the new curriculum “VTRUGE21” (Foundation, Program Core, Program Elective/Specialization Elective, Open Elective, Independent Learning, Industry/Higher Learning Interaction and Professional Proficiency Courses). In addition to the various course categories offered in previous regulation; the new curriculum has the option of obtaining B.Tech. Degree in ECE with specialization in Artificial Intelligence & Data Science, Artificial Intelligence & Machine Learning, Cybersecurity and Internet of Things.



Lead Society for ECE



# DEPARTMENT HIGHLIGHTS



# PROGRAMME HIGHLIGHTS



Department of Electronics and Communication is an extremely exciting, challenging and rewarding area of study. It incorporates an excellent combination of theoretical and logical content on the one hand, practical application and societal importance on the other.

**Choice Based Credit System**  
Programmes are based on Choice Based Credit System (CBCS) instead of Fixed Credit System

**Flexible Timings**  
Students can prepare their own timetable (choosing course, faculty, timings)

**Student Centric Approaches**  
are involved in Teaching and Learning process

**Use Case Approach**  
are added in course delivery of the programmes

**Tracks in Emerging Areas**  
More specialized emerging relevant areas (AIDS, AIML, IoT, Cyber Security)

**Flexibility for Fast Learners**  
Programmes has the flexibility for fast learners to enhance their skills

**Exposure in Research**  
Involving students in the research projects

**Student Internship**  
Provides an opportunity to do full time internship in India and Abroad

**Entrepreneurship**  
Start-up facility for the students through Vel Tech TBI funded by DST

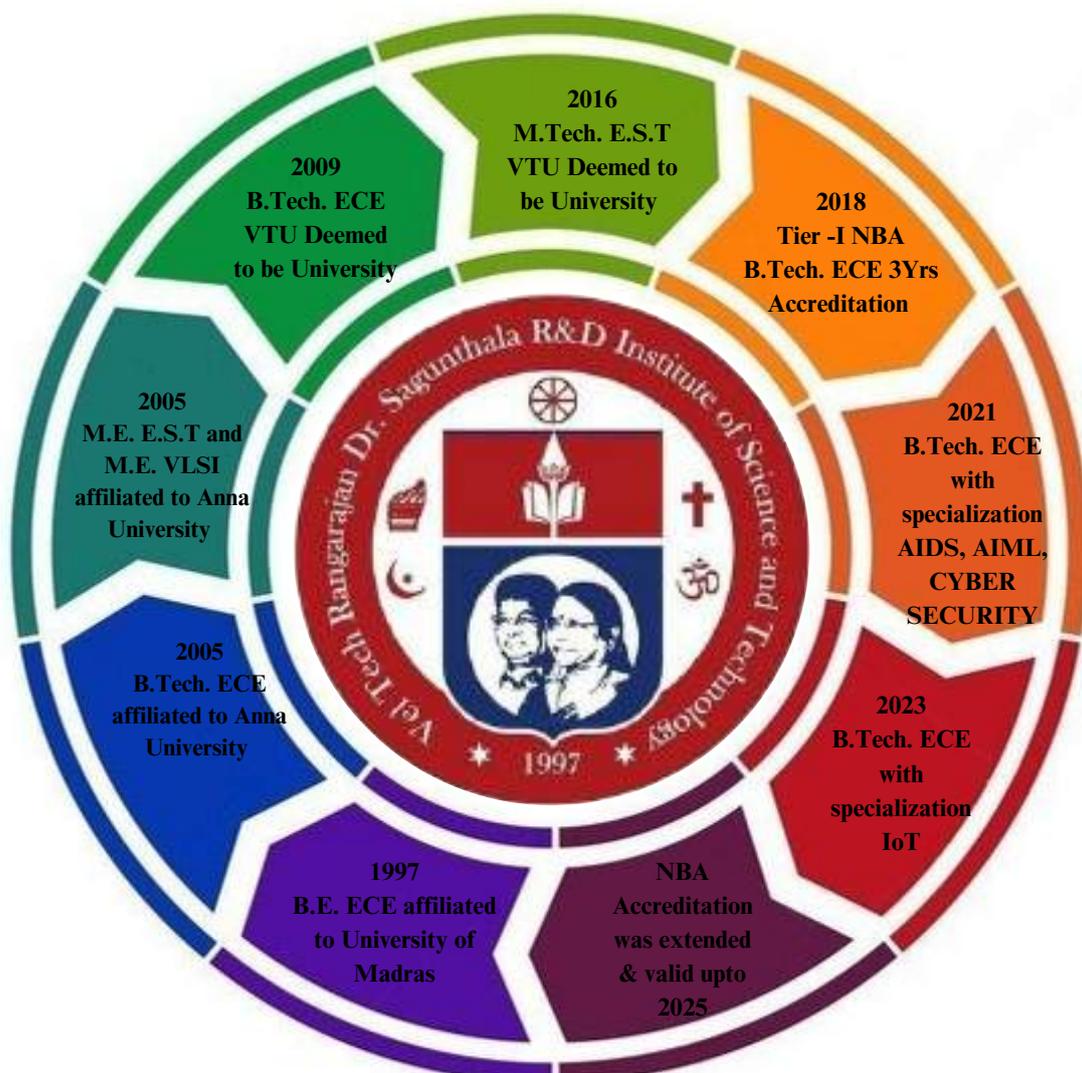
**Additional Learning**  
Additional learning Honours, Minor, along with B.Tech. Degree

**Self-Learning & Extracurricular participation**  
Free time for Self-Learning (20-30 hours/week) & Extra Curricular participation



# HISTORICAL HIGHLIGHTS

- Our ECE Department with B.E-ECE was affiliated with the University of Madras in the year of 1997.
- B.E- ECE was affiliated to Anna University, Chennai since 2005.
- M.E.-Embedded System Technologies and M.E-VLSI Design had been affiliated to the Anna University, Chennai since 2005.
- B.Tech- ECE has become part of Deemed to be University in the year of 2009.
- M.Tech- ECE with Embedded System Technologies was added under Deemed to be university in the year of 2016.
- Tier -I NBA B.Tech- ECE 3 years Accreditation in the year of 2018.
- B.Tech-ECE with specialization 1.AIDS 2.AIML 3.CYBER SECURITY in the year 2021. B.Tech -ECE with specialization in IoT was started in the year 2023.
- NBA accreditation was extended and is valid until June 2025.



# VALUE CREATION MODEL

In the value creation model, our department focuses on understanding the needs of students, faculty, researchers and industry partners and delivers a curriculum that aligns with those needs and goals.



## People

Faculty,  
Students



## Infrastructure

Physical Classes, Smart Classes,  
Laboratories, Library and Gallery Hall



## Network

Academic alliances,  
Industry Linkages

## Teaching and learning

Faculty & Students





## Publication Count

S. No.	Category	Count
1	Scopus - Conference/ Book Chapter	151
2	SCOPUS -Articles	56
3	WoS - Conference	6
4	WoS -Articles	71
TOTAL		284

## IPR Details

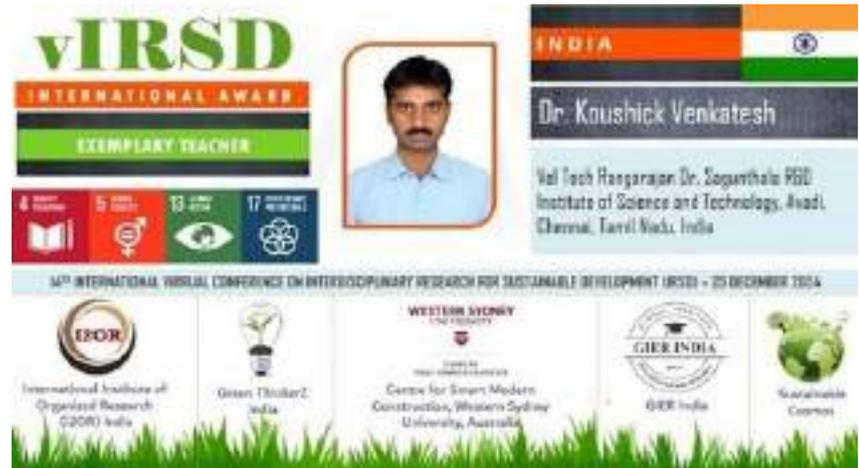
S. No.	Category	Count
1	Filed	24
2	Published	21
3	Granted	1

# FACULTY ACHIEVEMENTS (2024-25)



Dr. J. Arun Kumar, Assistant Professor / ECE, has secured top 5% rank with consolidated score of 90% in NPTEL online certification entitled “Technical Communication for Engineers” during July to August 2024 organized by IIT, Roorkee.

Dr. Koushick Venkatesh, Assistant Professor / ECE, has received the International Award for Exemplary Teacher 2024 in 14<sup>th</sup> International Virtual Conference on Interdisciplinary Research for Sustainable Development held on 25<sup>th</sup> December 2024, organized by International Institute of Organized Research (I2OR) in association with Centre for Smart Modern Construction, Western Sydney University, Australia.



Dr. David Neels Ponkumar, Professor / ECE, has received the Teaching Excellence Award 2024 on the occasion of National Education Day 2024 (11 November 2024), in recognition of his outstanding dedication and invaluable contribution to advancing education and inspiring future generations.





# FACULTY ACHIEVEMENTS (2024-25)

Dr. G. Uganya, Associate Professor ECE, has received Data Science (Computer Science) Domain Certification from Swayam NPTEL in the period April 2025.



Dr. M. Sahaya Sheela, Associate Professor / ECE, has received Data Science (Computer Science) Domain Certification from Swayam NPTEL in the period April 2025.

Dr. C. Ezhilazhagan, Associate Professor / ECE, has received Elite Gold Certificate to the Course “Effective Engineering Teaching in Practice” from Swayam NPTEL in the period Jan – Feb 2025 organized by IIT, Madras.



# FACULTY ACHIEVEMENTS (2024-25)



Dr. D. David Neels Ponkumar, Professor / ECE, has received the patent grant for 10 years entitled “5G Based Wireless Sensor Network Device for Environment Monitoring” on 13.01.2025 by Indian Patent Office.

- ECE department in association with IEEE Sensor Council received fund approval of 2952 USD (Rs. 2,54,000) under the IEEE Seasonal School to organize a FDP on “Photonics and RF Based Sensor Technology for Healthcare, Industry and Defence Applications”. The above event is scheduled in the month of July 2025.
- ECE department in association with IEEE SPAX received fund approval of 120 USD (Rs. 10,300) to organize a workshop on “5G/6G Communication and its Research Challenges”. The above event is scheduled in the month of June 2025.
- Dr. G. Sasikala, Professor / ECE, has delivered the physical mode 2 hours Research Talk on "Publication in Journals" at the University of Wollongong (UOW), Malaysia on 22.01.2025.



# FACULTY ACHIEVEMENTS (2024-25)



Dr. P. Kalpana Devi, Professor / ECE has received a Grant of Rs. 3.00 Lakh to setup the startup under the Entrepreneurship Development and Innovation Institute, Government of Tamilnadu (EDII-TN).

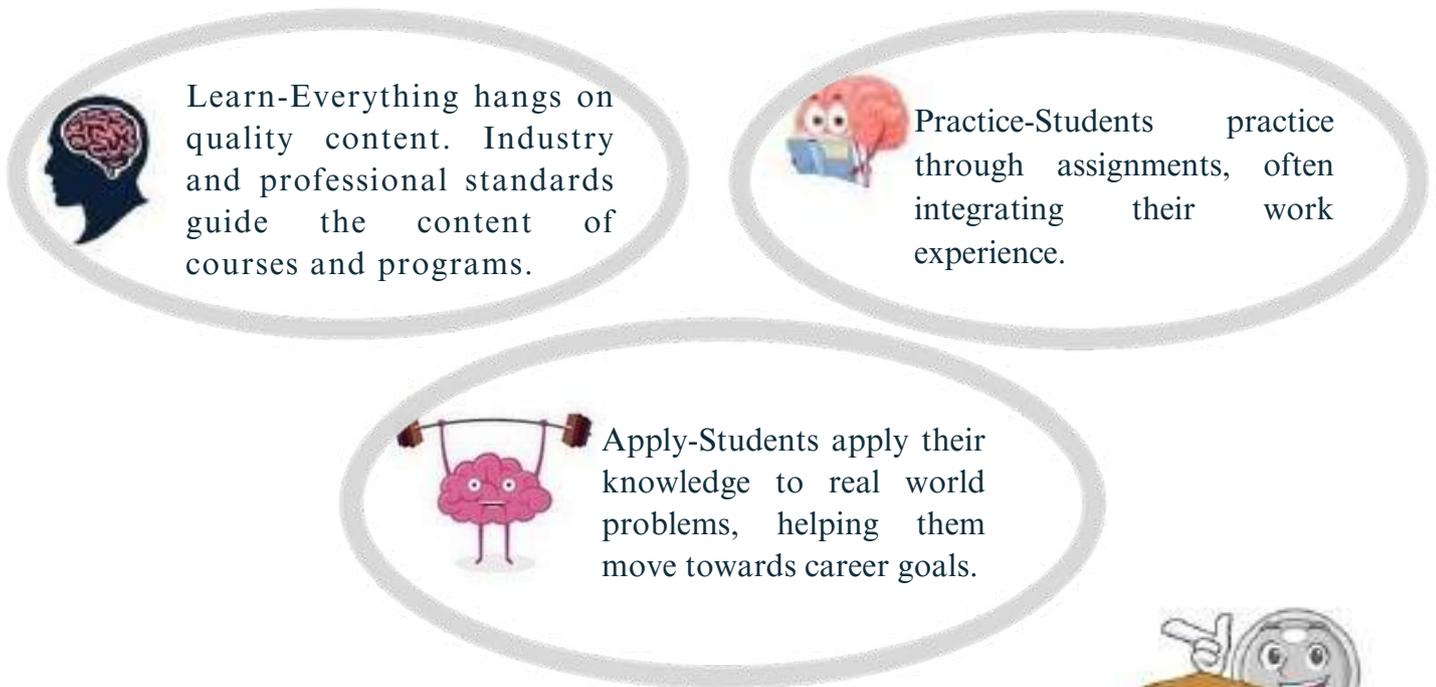
Dr. N. Gnana Prakash, Assistant Professor / ECE, has secured top 1% rank with consolidated score of 100% in NPTEL online certification entitled “Principle of Communication Systems – I” during Jan to Apr 2025 organized by IIT, Kanpur.



Dr. Helina Rajini Suresh, Associate Professor / ECE, has secured top 2% rank with consolidated score of 83% in NPTEL online certification entitled “Natural Language Processing” during Jan to Apr 2025 organized by IIT, Kharagpur

# Student Learning Experience - Modern Learning Approaches

Our focus is to enhance students-learning and overall experiences by implementing interconnect pillars within our educational framework. We achieve this by continuously improving o curriculum and adopting student-centric teaching and learning methods. We offer tutoring an academic counselling services to support students in their academic journey. Additionally, w provide tools and resources that assist students in effectively managing their goals and progre Our commitment is to empower students and guide them towards achieving their academ aspirations.



OUR KEY IS  
“TRANSFORMING  
ENGINEERING  
EDUCATION”



# Student Learning Path



The Department of Electronics and Communication Engineering empowers all students to access and compete equally rigorous pathways that enable exploration of career interests while gaining the knowledge and skills necessary for success in workforce and higher studies. Opportunities such as project-based learning, internships and experiential learning activities are paired with support to address achievement gaps and ensure that every student can advance to deeper levels of mastery regardless of their starting place.



1st  
Year

Foundations in Mathematics,  
Science and Engineering

2nd  
Year

Circuit Theory, Signals & Systems,  
Digital Electronics, Analog Electronics  
and Discrete Time signal Processing



3rd  
Year

Skills required for Projects, Emerging areas  
and Employment



4th  
Year

Innovative Project development, Industry  
ready and Career Guarantees

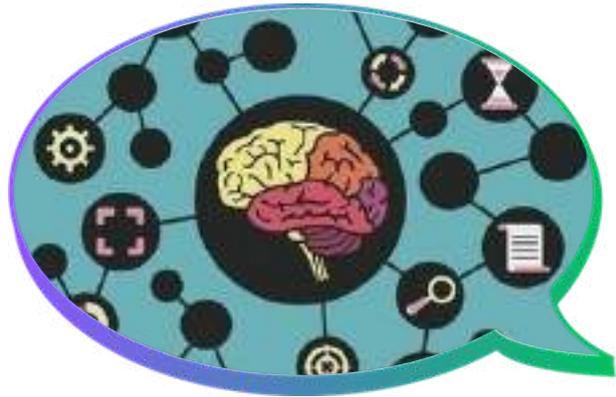


# Student Centric Methods - Modern Learning Approaches

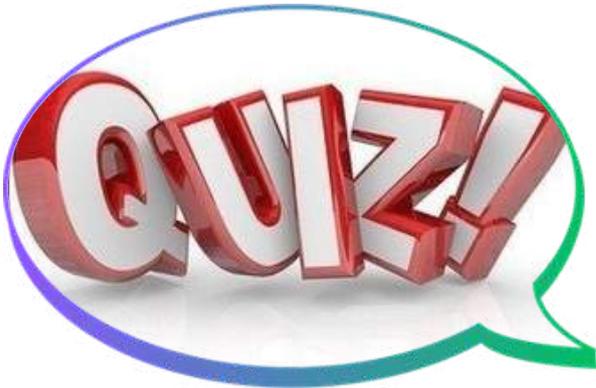
The Department of Electronics and Communication Engineering employs a teaching methodology centered around students, where education is imparted through an active and engaging approach. This methodology aims to shift students from passive recipients of knowledge to active participants in their own learning.



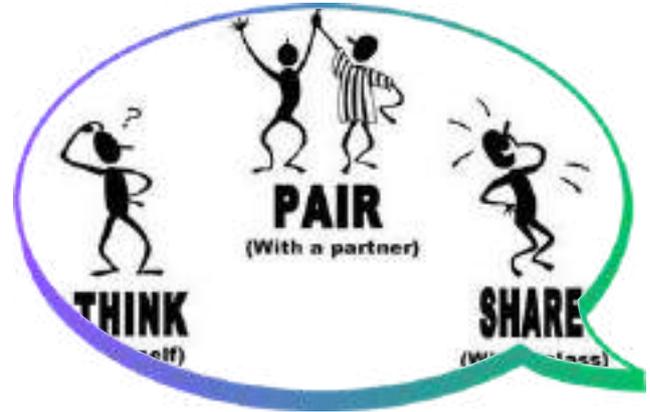
JIGSAW PUZZLE



MIND MAPPING



QUIZ



THINK PAIR SHARE



GROUP PEER LEARNING



MINUTE A PAPER

# Student's Achievements (2024-25)

A student team from third year of B.Tech ECE has participated in the final round of 36 Hours Smart India Hackathon "SIH 2024", which was held at Rungta College of Engineering, Bilai, Chhattisgarh, during 11th December to 12th December 2024. The team presented a project entitled "Bharat Vaayu Rakshak" under the category Clean and Green Technology problem statement given by Government of National Capital Territory of Delhi with the supervision of Dr. Koushick Venkatesh, Asst. Prof. / ECE and Dr. S. Aswath, Asst. Prof. / ECE Student

Student Team:

- Tharun E (VTU 23764)
- Eniya S (VTU 23916)
- Yeshmitaa R J (VTU 23874)
- Mukesh R (VTU 23568)
- Haarish U (VTU 23768)
- Udhaya Prasath M (VTU 23579)



## STUDENT ACHIEVEMENTS (2024-25)



Y. Venkat Sai (VTU 23741), third year has been selected to receive Prestigious Richard E. Merwin Scholarship Award worth 1,000 USD (Rs. 85,059/-) for the Fall 2024 season, presented by the IEEE Computer Society. This recognition is awarded for his active volunteering in IEEE professional activities, exceptional academic performance with 9.55 CGPA and significant contributions to academic excellence.

# Student's Achievements (2024-25)



·ECE final year students along with CSE final year student (3 – ECE & 1 – CSE) has participated & won First Prize with cash amount of Rs. 30000 in Pragyan Ingenium Hackathon 2025 at National Institute of Technology (NIT), Trichy under the Green Energy theme entitled “Aquaponics”.

Team Members:

- B. Vishnu Vardhan Reddy (VTU 21140 / IVECE)
- K. Vamsi Krishna (VTU 21125 / IV ECE)
- K. Vyshnavi (VTU 21123 / IV ECE)
- K. Sai Srujan (VTU 20155 / IV CSE)



Second year students has won second Prize with the cash amount of Rs. 6000 in International Hackathon VISAI 2025 at Vel Tech University.

Team Members:

- Rakshitha V (VTU 24320 / II ECE)
- Natarajan V (VTU 24340 / II ECE)
- Kaleel Ahamed A (VTU 24394 / II ECE)

# Student's Achievements (2024-25)

Selvaraj M (VTU24613) with his team of second year students has participated & won First Prize the cash amount of Rs.8000 in the International Hackathon VISAI 2025 at Vel Tech University Chennai, held on 24th Feb 2025. The problem statement was given by Ashok Leyland for the project entitled "ML Based supermarket monitoring system for food quality and waste reduction".



A Venkata Sai Rohith (VTU26981), K Sai Kumar (VTU27112), M Sai Sravan Kumar (VTU27344) of third year has participated & won Second Prize with cash amount of Rs. 3,000 in the event competition entitled MedCode Quest: Healing with Algorithms – EUPHORIA 2025 organized by the Department of Biomedical Engineering, Kalasalingam Academy of Research and Education on 13.03.2025.

Third year students of B.Tech-ECE has participated in Pragyan Ingenium Hackathon 2025 at National Institute of Technology (NIT), under the Industrial automation theme entitled “5G Network Components Interface and Verification Approach”.

Team Members:

- Yeswanth. H (VTU 23733 / III ECE)
- Lakshmi Prasanna. M (VTU 23711 / III ECE)
- Sri Krishna. P (VTU 23784 / III ECE)
- Thrishanth Kumar. K (VTU 23665 / III ECE)
- Abhinay Srinivas. U (VTU 23699 / III ECE)



# Events Organized (2024 - 25)

## Faculty Development Program on “Revolutionizing Millimeter-Wave Communication Through THz Photonics Integration”



Faculty Development Programme on Revolutionizing Millimeter-Wave Communication Through THz Photonics Integration was organized by the Department of Electronics and Communication Engineering, with the support of the Human Resource Development Centre from the 17th to 22nd of February, 2025. The FDP commenced with insightful sessions on cutting-edge wireless technologies in the mm Wave and THz domain by Mr. Cherukuru Sridharan, Co-founder & COO, BLUNAV Technologies Pvt. Ltd., followed by an engaging discussion on microwave photonics for next generation networks by Dr. S. Piramasubramanian, Associate Professor, MIT, Chennai. On the second day, Dr. S. Esther Florence, Associate Professor, CEG, Anna University, provided valuable insights into Reconfigurable Intelligent Surfaces (RIS) for mm-Wave communication and Dr. M. Ganesh Madhan, Professor, MIT, Chennai, elaborated on Terahertz photoconductive antennas.

# Events Organized (2024 - 25)

## Skill Enrichment Program on “ROBOCRAFT: Building IoT Service Robot”



School of Electrical and Communication  
Department of Electronics and Communication Engineering  
in association with  
IEEE IES & IEEE SPS Student Branch Chapters, Vel Tech  
Organizes  
Skill Enrichment Programme  
on  
“ROBOCRAFT: Building IoT Service Robot”

Date(s): 22.08.24 to 24.08.24  
Venue: Design Space

The Department of Electronics and Communication Engineering, in association with the IEEE Industrial Electronics Society Student Branch Chapter, Vel Tech, and IEEE Signal Processing Society Student Branch Chapter, Vel Tech successfully organized a Skill Enrichment Programme on “ROBOCRAFT: Building IoT Service Robot”. The Resource Persons are Mr. Dinesh Manikkam, Founder & CEO, READ Automation and Ms. Angel, Trainer.



Chennai, TN, India  
Maze, Chennai, 600095, TN, India  
Lat: 13.177480, Long: 80.157961  
Pin Code: 704293260-35  
081212931 01:41 PM GMT+05:30  
Note: Created by GPS Map Camera



Chennai, TN, India  
Maze, Chennai, 600095, TN, India  
Lat: 13.177480, Long: 80.157961  
Pin Code: 704293260-35  
081212931 01:41 PM GMT+05:30  
Note: Created by GPS Map Camera



Chennai, TN, India  
Maze, Chennai, 600095, TN, India  
Lat: 13.177480, Long: 80.157961  
Pin Code: 704293260-35  
081212931 01:41 PM GMT+05:30  
Note: Created by GPS Map Camera

Department of Electronics and Communication Engineering, in association with the IEEE Industrial Electronics Society Student Branch Chapter, Vel Tech and IEEE Signal Processing Society Student Branch Chapter, a Skill Enrichment Programme on “ROBOCRAFT: Building IoT Service Robot” was organized from 22/08/2024 to 24/08/2024. The Resource Persons are Mr. Dinesh Manikkam, Founder & CEO, READ Automation and Ms. Angel, Trainer.

## Lecture Program on “Closed Loop Precision Medicine – From Smart Bandages to Ingestible Diagnostics”

IEEE Vel Tech CAS

School of Electrical and Communication Engineering  
Department of Electronics and Communication Engineering  
Office of International Relations  
IEEE Circuits and Systems Society, Madras Section Chapter  
IEEE Student Branch, Vel Tech  
IEEE Circuits and Systems Society SBC, Vel Tech  
Distinguished Lecturer Program

**Closed Loop Precision Medicine - From Smart Bandages to Ingestible Diagnostics**

27<sup>th</sup> Aug 2024 (9:00 GALLERY HALL) | 10:00 AM

**Dr. Sameer Sonkusale,**  
Professor  
Tufts University, USA

With the blessings of  
Col. Prof. ValDr. R. Rangarajan  
Teacher, President & Chancellor  
Dr. Sagarintha Rangarajan  
Business President  
Prof. S. Sathyaheeran  
Vice-Chancellor

It is happy to share that we have received an approval for the conduction of DLP (Distinguished Lecturer's Program) in the month of August 2024 in ECE department, Vel Tech. The resource person is Prof. Sameer Sonkusale, Professor, Tufts University, USA deputed by IEEE Circuits and Systems Society, Headquarters. The IEEE CAS Society has approved to reimburse the expenses of Distinguished Lecturer's up to 2,000 USD. So, in this regard, the Department of ECE had organized an One Day DLP on "Closed Loop Precision Medicine: From Smart Bandages to Ingestible Diagnostics" on August 27, 2024. This DLP is organized with an objective of enriching knowledge on fast evolving trends in biomedical devices circuits and systems to the faculty, Research scholars and students to upgrade their skills.

We are delighted to extend our heartfelt thanks to all 106 participants of Undergraduate students and Full Time Research scholars who participated in this IEEE CAS Distinguished Lecture Program, jointly organized by the IEEE CAS and the Department of Electronics and Communication Engineering on 27-08-2024 in ECE Gallery Hall at 10:00AM.

The event featured an enlightening lecture on "Closed Loop Precision - From Smart Bandages to Ingestible Diagnostics," delivered by our esteemed resource person, Professor Dr. Sameer Sonkusale from Tufts University, USA. His insights into the revolutionary advancements in closed-loop systems and their applications in medical technology provided a compelling perspective on the future of healthcare.

Moreover, he took the time to clarify the doubts raised by our department's students, ensuring a comprehensive understanding of the topics discussed.

In addition to the main lecture, Professor also conducted a special session exclusively for the faculty of the Electronics and Communication Engineering Department. This session provided our faculty with deeper insights into the latest research trends and opportunities for collaboration, further enhancing our department's academic and research capabilities.



Our department have received an approval for the conduction of DLP (Distinguished Lecturer's Program) in the month of August 2024. The resource person is Prof. Sameer Sonkusale, Professor, Tufts University, USA deputed by IEEE Circuits and Systems Society, Headquarters. The IEEE CAS Society has approved to reimburse the expenses of Distinguished Lecturer's up to 2,000 USD. So, in this regard, the Department of ECE had organized an one Day DLP on "Closed Loop Precision Medicine from Smart Bandages to Ingestible Diagnostics" on August 27, 2024. This DLP is organized with an objective of enriching knowledge on fast evolving trends in biomedical devices circuits and system to the faculty, Research scholars and students to upgrade their skills



## 30 Hour Value Added Course on “LabVIEW for Engineering Applications”



30-Hour Value Added Course on “LabVIEW for Engineering Applications” was conducted on 26–27 July 2024 and 09–10 August 2024 in our department of Electronics and Communication to enhance students’ practical knowledge in graphical programming and virtual instrumentation using LabVIEW. The course was designed to provide participants with a strong foundation in developing engineering applications using LabVIEW, a widely used software for data acquisition, instrument control and system automation. During the program, students were introduced to key concepts such as graphical programming, front panel and block diagram design, data acquisition techniques, signal processing and real-time monitoring systems.

## Three days' Workshop on "AI-Powered Image Processing: Techniques and Applications"



Our page write up -- "About the programme"

**AI - Powered Image Processing: Techniques and Applications**  
The Department of Electronics & Communication Engineering, School of Electrical and Communication of VIT Tech Ranganjan Dr. Sagunthala R&D Institute of Science and Technology, Chennai, in association with Biovision Medical Systems, Chennai, organized a three-day workshop titled "AI Powered Image Processing: Techniques and Applications" from 08.08.2024 to 10.08.2024. The workshop was designed to provide both theoretical knowledge and practical hands-on experience in the latest image processing techniques using AI and machine learning.  
**Inauguration and Sessions**  
The workshop commenced with a warm welcome address by Dr. Selwin Mich Priyadarshan. Dr. Diana Eashia introduced the chief guest, followed by a vote of thanks by Dr. Remya. The resource person for the workshop was Dr. K. Venkatarman, Technical Manager at Biovision Medical Systems, Chennai, who shared his expertise through detailed lectures and practical demonstrations.  
Over the course of three days, the participants were introduced to various aspects of image processing:  

- **Day 1** focused on the fundamentals of image processing, including steps in image processing and pre-processing techniques. A hands-on session allowed students to practice image reading, sharpening, smoothing, and other pre-processing techniques.
- **Day 2** delved into image segmentation and feature extraction/selection, followed by hands-on activities that included machine learning and deep learning techniques.
- **Day 3** covered image compression and clustering basics, with a final hands-on session involving AI-based approaches.

**Special Recognition for Outstanding Performers**  
Each day, special student performers were identified based on their active participation, creativity, and practical skills. These students were recognized and awarded gifts as a token of appreciation. This initiative not only motivated the participants but also encouraged a competitive and interactive learning environment throughout the workshop.  
**Concluding Session**  
On the third day, a demonstration was given by the resource person using a simulated ECG machine, showcasing real-world applications of image processing. The event concluded with a feedback session and valedictory function, where the contributions of both participants and organizers were acknowledged. Feedback from the students and resource person highlighted the success of the workshop in enhancing knowledge and skills in AI-driven image processing techniques.  
The workshop provided an excellent platform for students and faculty members to explore the advancements in image processing and its applications in various fields, leaving participants better equipped with cutting-edge tools and techniques.



Department of Electronics and Communication Engineering in association with Biovision Medical Systems, Chennai, organized a three-day workshop titled "AI-Powered Image Processing: Techniques and Applications" from 08.08.2024 to 10.08.2024. The workshop was designed to provide both theoretical knowledge and practical hands-on experience in the latest image processing techniques using AI and machine learning. Each day, special student performers were identified based on their active participation, creativity and practical skills. These students were recognized and awarded gifts as a token of appreciation. This initiative not only motivated the participants but also encouraged a competitive and interactive learning environment throughout the workshop.

## Three days' Workshop on “Recent Advances and Future Trends in Natural Language Processing”



From August 22<sup>nd</sup> to 24<sup>th</sup>, 2024, a three-day hands-on workshop titled "Recent Advances and Future Trends in Natural Language Processing" took place, offering 15 attendees a comprehensive overview of key tools vital in the field of NLP. The workshop provided a comprehensive overview of key tools vital in the field of NLP. Through the workshop, attendees engaged in practical exercises and real-world case studies, allowing them to apply the theoretical concepts they learned in practical scenarios.

Participants delved into practical exercises focusing on Python for NLP as well as exploring NLTK and SPACY. Through interactive learning modules, attendees gained valuable insights into hands-on exercises, equipping them with the essential skills required to tackle real-world NLP tasks.

Guided by experienced instructors, the workshop fostered an environment conducive to learning, encouraging active participation and collaboration among participants. From lectures to advanced labs, attendees were empowered to enhance their proficiency in solving their current work-related tasks.

Beyond technical skills, the workshop also emphasized the importance of critical thinking and problem-solving abilities. ANLP Participants were encouraged to approach NLP challenges creatively and innovatively, bringing a unique perspective to innovation and solutions.

By the workshop's conclusion, participants had gained a comprehensive understanding of the developed practical skills applicable to real-world scenarios. The "Recent Advances and Future Trends in Natural Language Processing" workshop served as a valuable learning experience, equipping attendees with the essential skills and knowledge needed to excel in the field of NLP.



Three days' Workshop was conducted in the title “Recent Advances and Future Trends in Natural Language Processing” was from 22.08.2024 to 24.08.2024. Participants were introduced to the core tools utilized in NLP projects, with a particular focus on Python for NLP, with advanced NLP tool kits including NLTK and SPACY. The workshop provided a comprehensive overview of key tools vital in the field of NLP.

# Events Organized (2024 - 25)

## International Symposium on AI for Sustainable Development - “AI FUSION 2024”



Event 18  
School of Electrical & Communication Engineering,  
Department of Electronics and Communication Engineering,  
in association with  
IEEE Circuits and Systems Society Madras Chapter,  
IEEE Circuits and Systems Society Student Branch Chapter, Vel Tech  
organize  
International Symposium on AI for Sustainable Development - “AI FUSION 2024”  
Event/Activity with Photos

28/08/24 and 29/08/24

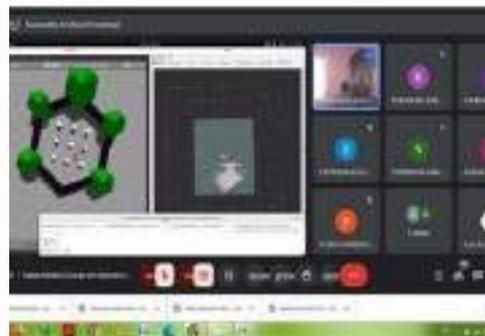
The Department of Electronics and Communication Engineering, School of Electrical & Communication Engineering in association with IEEE Circuits and Systems Society Madras Chapter and IEEE Circuits and Systems Society Student Branch Chapter, Vel Tech organized an International Symposium on AI for Sustainable Development - “AI FUSION 2024” on 28<sup>th</sup> and 29<sup>th</sup> August 2024.



Department of Electronics and Communication Engineering in association with IEEE Circuits and Systems Society Madras Chapter and IEEE Circuits and Systems Society Student Branch Chapter, Vel Tech organized an International Symposium on AI for Sustainable Development - “AI FUSION 2024” on 28th and 29th August 2024. The symposium aimed to explore the transformative role of Artificial Intelligence in promoting sustainable development across various sectors such as healthcare, agriculture, environmental monitoring, smart cities and energy management.

# Events Organized (2024 - 25)

## Value Added Course on “Autonomous Navigation and SLAM using ROS2”



Value Added Course on “Autonomous Navigation and SLAM using ROS2” was conducted from 25–28 September 2024 to provide students with practical knowledge and hands-on experience in modern robotic technologies. The course focused on the fundamentals of robot navigation, mapping and localization using Robot Operating System 2 (ROS2). Participants were introduced to key concepts such as robot kinematics, sensor integration, environment mapping and path planning. Special emphasis was given to Simultaneous Localization and Mapping (SLAM), which enables robots to build a map of an unknown environment while determining their own position within it. The course also covered the use of sensors, simulation environments and algorithms that support real-time robotic decision-making and movement.

# Events Organized (2024 - 25)

## Four days' Value-Added Course on “LTE & 5G Testing”



### About the Value-added course: LTE & 5G Testing

The Communication domain, Department of Electronics and Communication Engineering organized a 4-day value-added course on LTE & 5G Testing from 28-08-2024 to 31-08-2024. Dr. D. Chakraborty, In-charge Manager, 5G Test Solution, Hyderabad was the resource person for the course. The objective of the course was to provide additional skills and knowledge that complement the core curriculum of a student's primary field of study and to make students more versatile, competent, and ready to meet the demands of the job market. The resource person covered Introduction to 5G Technology, 5G Spectrum and Frequency Bands, 5G Network Components, 5G Testing Methodologies, 5G RF Testing, 5G Device Testing, Network Slicing, and Virtualization Testing during the course. About 51 students from 2<sup>nd</sup> and 4<sup>th</sup> year B.TECH ECE students attended the course.



Four Days Value-Added Course on “LTE & 5G Testing” was conducted from 28 August 2024 to 31 August 2024 on objective of providing students with practical knowledge of modern wireless communication technologies and testing methodologies. The course focused on the fundamentals and advanced concepts of 4G LTE and 5G network technologies, enabling participants to understand the architecture, protocols and performance parameters used in modern mobile communication systems. Students were introduced to concepts related to network configuration, signal analysis, performance testing and troubleshooting techniques used in telecom industries. During the program, participants gained exposure to testing procedures and tools used for analyzing network performance, signal quality and data transmission efficiency. The sessions also highlighted the importance of wireless testing in ensuring reliable communication, high- speed connectivity and efficient network operation.

# Events Organized (2024 - 25)

## Contest for Students on “PYTHON FEST 24” (Python Programming Contest)



A Contest for Students on “PYTHON FEST 24” (Python Programming Contest) was successfully conducted on 14.08.2024. The objective of this contest was to encourage students to enhance their programming skills and logical thinking through practical problem-solving using the Python programming language. The event witnessed enthusiastic participation from students who showcased their coding skills and creativity in solving real-time programming problems. The contest also helped students gain hands-on experience and improved their confidence in applying Python for various computational tasks. Overall, “PYTHON FEST 24” served as an engaging and intellectually stimulating event that promoted programming excellence, strengthened students’ technical competencies and encouraged them to explore advanced areas in software development and coding practices.



# Events Organized (2024 - 25)

## Contest for Students on “FUNTECH 2K24”



Contest for Students on “FUNTECH 2K24” was conducted on 30 August 2024 to encourage students to showcase their technical knowledge, creativity and innovative thinking in a fun and engaging environment. The event provided a platform for students to participate in various technology-based activities and competitions, allowing them to explore new ideas and strengthen their problem-solving abilities. FUNTECH 2K24 aimed to promote interest in science and technology among students by organizing interactive contests that combined learning with entertainment. Participants engaged in activities that tested their technical skills, teamwork, logical thinking and creativity. The event also encouraged students to collaborate, share ideas and develop confidence while presenting their talents.

# Events Organized (2024 - 25)

## Four days' Value-Added Course on “Tools for cyber security”



Four Days Value-Added Course on “Tools for Cyber Security” was conducted on 13.09.2024, 14.09.2024, 24.09.2024 and 03.10.2024 with the objective of equipping students with essential knowledge and practical exposure to modern cybersecurity practices and tools. The course provided a comprehensive introduction to Cybersecurity, focusing on the protection of computer systems, networks and digital data from potential cyber threats and vulnerabilities. The sessions covered important topics such as network security, threat identification, vulnerability assessment, ethical hacking concepts and risk mitigation strategies. Participants were introduced to a range of industry-relevant cybersecurity tools used for monitoring network activities, detecting security breaches and safeguarding digital infrastructures.

## Short Term Training Program on “Effective Utilization of Laboratory Equipments”



### One page write up – “ About the programme”

During Summer Semester 2024- 2025, we organized the Short Term Training for Lab Instructors on “Effective Utilization of Laboratory Equipments”. The event was well-Conducted and received registration from participants ECE and Biomedical department Lab Instructors. This Short Term Training was scheduled for Lab instructors of ECE and Biomedical department. This Short Term Training scheduled at Room No: 1431 on 20<sup>th</sup> September 2024. The resource person is A. Karthikeyan ,Senior Engineer - Customer support, Advantech Instruments and Services, Chennai. The Topics covered under this Short Term Training for Lab Instructors is to: troubleshoot and maintenance of ECE Lab Measuring Instruments. Also , the hands on training and get expertise on following Instruments. Regulated Power Supply, Digital Storage Oscilloscope and Function Generators. This training programme helps the staffs to improve their skills by hands on training and gives them an opportunity to show their troubleshooting skills by participating in the Short Term Training for Lab Instructors on “Effective Utilization of Laboratory Equipments”. Which was scheduled on 20.09 2024 and all the active participants were received their participation certificates.



“Effective Utilization of Laboratory Equipments” was organized on 20 September 2024. The event aimed to enhance students’ practical knowledge and awareness regarding the proper use of laboratory instruments and equipment commonly used in electronics and communication engineering laboratories. The program focused on guiding students in the correct handling, operation and maintenance of laboratory equipment, enabling them to perform experiments more effectively and safely. Experts and faculty members demonstrated the working principles of various instruments such as oscilloscopes, signal generators, power supplies and measurement devices, helping students understand their real-time applications in engineering experiments.



# Events Organized (2024 - 25)

## Seminar on “VLSI Industry - An Overview (Insights, Trends & Opportunities)”



### Program Report: Seminar on VLSI Industry - An Overview (Insights, Trends & Opportunities)

A seminar titled “VLSI Industry - An Overview (Insights, Trends & Opportunities)” was successfully conducted on 19/12/2024 at VIT-VEL, Vellore. The seminar was organized by the Department of Electronics and Communication Engineering, in line with its mission to provide quality education and industry exposure to its students. The seminar was held in the auditorium of the VIT-VEL, Vellore campus, with a total of 100 students and faculty members attending the event.

#### Objective of the Program

The main objective of the program was to:

- 1. Introduce students to the fundamentals and applications of VLSI technology.
- 2. Highlight the career growth opportunities available in the VLSI industry.
- 3. Provide insights into the current trends and challenges in the VLSI industry.
- 4. Motivate students to pursue higher studies and research in the VLSI domain.

#### Keynote Highlights

The seminar was attended by several notable speakers and dignitaries, who shared their knowledge and experience in the VLSI industry. The key highlights of the seminar were:

- 1. The role of VLSI technology in modern electronic systems and devices.
- 2. Current trends and challenges in the VLSI industry, including AI, IoT, and 5G.
- 3. Career growth opportunities available in the VLSI domain.



Seminar on “VLSI Industry – An Overview (Insights, Trends & Opportunities)” was conducted on 19 December 2024 with the objective of providing students with a comprehensive understanding of the rapidly evolving Very Large Scale Integration (VLSI) industry and its career prospects. The seminar focused on introducing participants to the fundamentals of Very Large Scale Integration (VLSI), which plays a crucial role in the design and development of modern electronic systems and semiconductor devices. The session highlighted key aspects such as VLSI design flow, semiconductor fabrication, chip design methodologies and emerging industry trends. During the seminar, experts shared valuable insights into the current growth of the semiconductor industry, technological advancements and employment opportunities available in the VLSI domain.

# Events Organized (2024 - 25)

## Five Days Seasonal School on “The Next-Gen Semiconductor Devices with collaboration of IoT Enabled Sensor Technology for Industry 6.0”



IEEE Sensors Council Sponsored 5 Days Seasonal School on “The Next-Gen Semiconductor Devices with Collaboration of IoT Enabled Sensor Technology for Industry 6.0” was organized from 02 December 2024 to 06 December 2024. This program aimed to provide participants with advanced knowledge about emerging semiconductor technologies and their integration with IoT-enabled sensor systems for future industrial applications. The seasonal school brought together experts, researchers and students to explore the latest developments in semiconductor devices, smart sensors and intelligent connectivity that support the evolution toward Industry 6.0. Through technical lectures, demonstrations and interactive discussions, participants gained insights into how advanced semiconductor devices and sensor technologies can enhance industrial efficiency, automation and intelligent decision-making. The program also highlighted the importance of innovation, interdisciplinary collaboration and research in building smart and sustainable industrial systems.

## Seminar on “Beyond Efficiency: The Latest Trends in Sustainable and Cost-Effective Solar Cell Solutions”



The Department of Electronics and Communication Engineering organized a one-Day Seminar titled “Beyond Efficiency: The Latest Trends in Sustainable and Cost-Effective Solar Cell Solutions” on 06.01.2025 in association with the IEEE Student Branch and the IEEE Society on Social Implications of Technology (SSIT) Student Branch Chapter. The keynote address by Dr. Murthy Polavarapu highlighted the role of IEEE SSIT and the societal implications of technology. Mr. Vino John S, Managing Director of Klymate Technologies LLP, discussed the transformative impact of solar energy adoption in reducing carbon footprints, improving energy accessibility. Mr. Venkatesan S, Director – Technical Sales at Solar Edge Technologies, elaborated on advanced power optimizers.

# Events Organized (2024 - 25)

## Four days Value-Added Course on “RF and Antenna Design using ANSYS HFSS”

**RF and Antenna Design using ANSYS HFSS**

**21<sup>st</sup> – 24<sup>th</sup>**  
January 2025

9:45 AM – 02:30 PM (IST)

ECE Gallery Hall (M11)

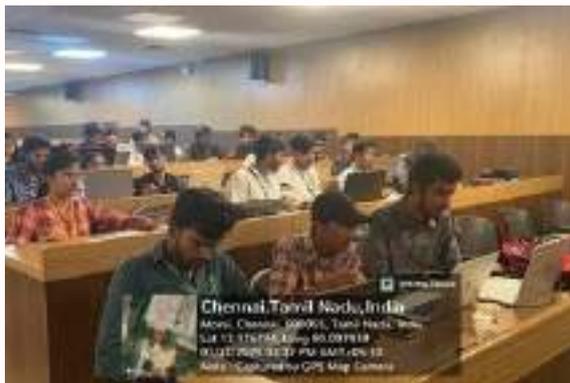
**Resource Person**  
Ms. Kasturi Sudam Patil  
Application Engineer, Ansys HF

With the Blessings of  
Col. Prof. Vel Dr. R. Ranganathan  
Founder President & Chancellor  
Dr. Sagarithala Ranganathan  
Academics President  
Prof. Rajat Gupta  
Vice-Chancellor

**ABOUT THE VALUE-ADDED COURSE**

The 20-hour Value Added Course on “RF and Antenna Design using ANSYS HFSS” organized by the Department of Electronics and Communication Engineering (ECE) from 21.01.2025 to 24.01.2025, provides students with a comprehensive understanding of RF and antenna design using advanced simulation tools. Led by Ms. Kasturi Sudam Patil, an Application Engineer at ANSYS (HF) with extensive research and industry experience, the course covers both fundamental and advanced topics in RF and microwave engineering. Topics included the design of waveguides (rectangular and circular), microstrip lines, hybrid couplers, Wilkinson power dividers, patch antennas, flexible antennas, and 5G antenna arrays using the Domain Decomposition Method (DDM). The course was highly practical and application-oriented, equipping students with industry-relevant skills and preparing them for academic research, industry roles, and project development.

The course has significantly benefited students by providing hands-on experience in designing and simulating various antennas, hybrid couplers, and waveguide structures. The application of 3D, 2D, and 1D models in wireless communication systems, as they apply their learning to their projects, they will gain deeper insights into practical RF and antenna design. For their project, students will continue to develop expertise in 3D and 2D antenna arrays, 3D driven RF optimization, and real-world antenna. The practical training and short lecture applications. The expertise in ANSYS HFSS will further enhance their understanding of 3D-driven performance optimization in RF and antenna structures. The hands-on sessions have helped bridge the gap between theoretical concepts and real-world applications, and as students progress in their academic and professional journeys, they will become industry-ready for roles in RF design, wireless communication, and related systems. The knowledge and skills acquired in this course will serve as a strong foundation for their future endeavors in higher studies, research, and competitive career opportunities in RF and antenna engineering.



The Department of Electronics and Communication Engineering organized a 4-day Value Added Course on “RF and Antenna Design using ANSYS HFSS” from 21.01.2025 to 24.01.2025. Ms. Kasturi Sudam Patil, Application Engineer at ANSYS (HF), served as the resource person for the programme. The objective of the course was to provide students with in-depth knowledge and practical skills in RF and microwave engineering using advanced simulation tools. The sessions covered fundamental and advanced topics including design of rectangular and circular waveguides, microstrip lines, hybrid couplers, Wilkinson power dividers, microstrip patch antennas, flexible antennas and 5G antenna arrays using the Domain Decomposition Method (DDM).

## ARTIVISM: DESIGN THAT SPEAKS



Department of Electronics and Communication Engineering with the support of the Human Resource Development Centre, this event was conducted on 28 February 2025. The program aims to encourage students to use design as a powerful tool for expression, awareness and social change. Through posters, digital art, visual storytelling and innovative design concepts, participants explore important themes such as environmental sustainability, social justice, technology ethics, equality and community development. The event provides a platform for students to creatively express their ideas while highlighting real-world issues that require attention and action.

# Events Organized (2024 - 25)

## Four days Value-Added Course on “RTL Design and Verification: An Interactive Workshop on Verilog, PCIE and AXI Protocols”



Department of Electronics and Communication Engineering organized a value-added course on “RTL Design and Verification with FPGA Implementation” with the objective of enhancing student’s knowledge in RTL design and verification through hands-on training in design and testing methodologies. The course was structured to provide both theoretical understanding and practical exposure to industry- relevant concepts, including logic verification using Verilog simulation, FPGA design and verification and insights into high-speed communication protocols such as PCIe and AXI. The course utilized Xilinx Vivado SDK 2017.4 for design implementation and simulation, enabling students to gain practical experience in FPGA-based system design.

# Events Organized (2024 - 25)

## Three days Workshop on “Future Ready Antenna Design for 5G mm-wave Communication”



The Department of Electronics and Communication Engineering organized a three-day workshop titled “Future Ready Antenna Design for 5G mm-wave Communication” aimed at providing a strong foundation in microwave and antenna engineering. The programme was designed to deliver fundamental knowledge of antenna principles while highlighting recent advancements and research outcomes related to 5G implementations. The workshop featured expert-led discussions on emerging technologies, advanced techniques and real-time applications, fostering meaningful exchange of ideas among participants. Serving as an excellent platform for students and research scholars, the programme enhanced their theoretical understanding and practical design skills, particularly for those aspiring to pursue research in RF systems and antenna design.

# Events Organized (2024 - 25)

## Four days' Value-Added Course on “AI for Dynamic Drone - Hands on Experience”



**Change to the eye: “About the program”**

**“AI for Dynamic Drone - Hands on Experience”**

The Department of Electronics & Communication Engineering, School of Electrical and Communication of VIT-TRICHY, organized a 30-hour value-added course titled “AI for Dynamic Drone - Hands on Experience” during 03.03.2025, 04.03.2025, 05.03.2025 and 06.03.2025. The value-added course was designed to provide both theoretical knowledge and practical hands-on experience in the Dynamic Drone.

**Inauguration and Overview**

The value-added course commenced with a warm welcome address by Dr. Dattaj Rajat Suresh, the headmaster of VIT-TRICHY and by the resource person for the value-added course, Dr. ANANDHARAMAN, ECE, Dynamic Drone, Chennai, who shared his experience through detailed lecture and practical demonstrations.

Over the course of four days, the participants were introduced to various aspects of Drone technology.

**Day 1** focused on introduction to Drone Technology & Basic Drone System & its control (Flywing mode).

- Introduction to Drone Technology
- Drone Model Overview
- Drone Configuration & Calibration
- Introduction to Programming & Software Setup
- Hands-on: UAV Operations & Ground Control

**Day 2** addressed Wireless Communication & Sensor Integration which included the following topics:

- Wireless Drone Communication
- Remote Model Control over Wireless Network
- Drone Control SW/Custom (Autonomous & User-defined)
- How to Setup a Drone?
- Hands-on: Wireless Data Acquisition & Calibration
- Monitoring the Drone

**Day 3** focused on Drone Application & AI-based Application which covered the following topics:

- Setting Up a Drone Camera Feed
- Recording Video from Drone to Web Portal
- Introduction to AI-based Application
- Setting and using customized program

**Day 4** emphasized AI for Dynamic Drone & Application which consisted of the following topics:

- Object Detection
- AI-based Drone control system supporting user-defined (pre-set, multi-point, autonomous, Real-time) tasks etc.

**Concluding Remarks**

The event concluded with a feedback session and certificate issuance, where the active participation and engagement was acknowledged. Feedback from the students highlighted the relevance of the value-added course in enhancing knowledge and skills in the area of Dynamic Drone.



The Department of Electronics and Communication Engineering organized a 30-hour value-added course titled “AI for Dynamic Drone – Hands-on Experience” during 03.03.2025 to 06.03.2025. The value-added course was designed to provide both theoretical knowledge and practical hands-on training in dynamic drone technology, control systems, wireless communication, sensor integration, camera interfacing and AI-based drone applications. Hands-on sessions enabled participants to perform real-time drone stabilization, wireless communication setup and AI-based object detection experiments.

## Five Days Faculty Development Program on “IoT Future Connectivity - Insights, Implementation and Security”



Five Days Faculty Development Program on “IoT Future Connectivity - Insights, Implementation and Security” was organized from 03/03/2025 to 07/03/2025. The FDP “IoT Future Connectivity – Insights, Implementation and Security” brought together academicians, researchers and industry experts to gain comprehensive exposure to emerging IoT technologies, secure connectivity frameworks and intelligent automation systems. The FDP enabled participants to understand the end-to-end IoT ecosystem encompassing architecture, cloud platforms, data analytics, security threats and real-world industrial implementations. Critical discussions on IoT security vulnerabilities, secure communication protocols, cloud data protection and industry standards addressed the growing challenges in deploying large-scale IoT systems.

# Events Organized (2024 - 25)

## Four days' Value-Added Course on “Java Programming: From Fundamentals to Applications”



The Department of Electronics and Communication Engineering organized a value-added course titled “Java Programming: From Fundamentals to Applications.” The value-added course was designed to provide comprehensive theoretical knowledge and practical hands-on experience in Java programming, covering fundamental concepts, syntax and key features of the language. Practical applications including a Student Grade System and ATM Console Application were implemented to reinforce learning. Through structured sessions and hands-on practice, students gained confidence in developing robust Java applications and strengthened their readiness for advanced programming, academic projects and industry requirements.

# Events Organized (2024 - 25)

## Four days' Value-Added Course on “Learn and Start building, Verification of Test Benches in System Verilog and UVM methodology”



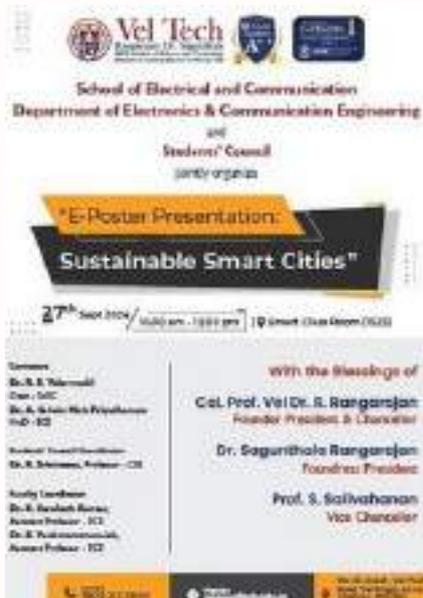
The Department of Electronics and Communication Engineering organized a four-day value-added course titled “Learn and Start building, Verification of Test Benches in System Verilog and UVM methodology”. The training was delivered by Mr. Venkatesh Rajakutti, Senior Design Engineer, Chennai, who shared his industry expertise through detailed lectures and live practical demonstrations using the Cadence tool. The programme focused on VLSI design flow, revised digital design concepts, Verilog programming and RTL design and verification methodologies. The programme emphasized strong fundamentals, modern industry practices and real-time design and verification examples. The training enabled students to gain essential skills in hardware design and verification, develop confidence in programming and implementing digital circuits using Verilog.

## Three days Workshop on “Digital Forensic Tools”



The Department of Electronics and Communication Engineering organized a three-day workshop on “Digital Forensics Tools” to provide participants with comprehensive theoretical knowledge and practical exposure to modern digital investigation methodologies. The programme was structured to enhance participants understanding of evidence acquisition, analysis and reporting using industry- standard forensic tools. Throughout the workshop, active participants demonstrating strong analytical skills and practical engagement were recognized and appreciated, fostering an interactive and motivating learning atmosphere. The workshop served as an excellent platform for students to develop foundational and applied knowledge in digital forensic investigation.

# Events Organized (2024 - 25)



Contest for Students on “E-Poster Presentation: Sustainable Smart Cities”

Contest for Students on “E-waste art Challenge”



IEEE Communications Society Sponsored Distinguished Lecturer Program on “5G/6G Communication”



# Major Project (2024 – 25)



**Communication  
Domain**



**Embedded  
Domain**



**Networking  
Domain**



**Signal processing  
Domain**



**VLSI  
Domain**

## TOP PROJECTS:

**STUDENTS NAME:** SHANKAR SUBHASH CHOWDARY, MAHAMMAD SHEEBA THABASUM, PAVAN KALYAN REDDY

**PROJECT TITLE:** DEVELOPMENT OF AN AMC-BASED ANTENNA IN KU- BAND FOR SATELLITE APPLICATION

**STUDENTS NAME:** J. MANINDRA, J. ESWARA VENKATA SAI, N. YASWANTH SAI

**PROJECT TITLE:** MINIATURIZED HIGH-GAIN ANTENNA DESIGN FOR 5G APPLICATIONS

**STUDENTS NAME:** N GOPI KRISHNA REDDY, S VISAWANAT, L NAGA VENKAT

**PROJECT TITLE:** DRIVER BEHAVIOUR CLASSIFICATION USING ARTIFICIAL INTELLIGENCE APPROACHES

**STUDENTS NAME:** P. GURAVAMMA, M. PURNA KISHORE, G. MALLIKARJUNA

**PROJECT TITLE:** SMART IRRIGATION SYSTEM FOR PRECISION FARMING USING IOT

**STUDENTS NAME:** S. DURGA SRINIVAS, P. SURYA, M. MURALI SAI KUMAR

**PROJECT TITLE:** VEHICLE COLLISION DETECTION USING EMERGENCY ALERT SYSTEM

**STUDENTS NAME:** G. PRANAY KUMAR REDDY, CH. PRIYA REDDY M. RAGHU VAMSI

**PROJECT TITLE:** AUTONOMOUS CAR DASHBOARD SYSTEM



# Major Project (2024 – 25)



**Communication  
Domain**



**Embedded  
Domain**



**Networking  
Domain**



**Signal processing  
Domain**



**VLSI  
Domain**

## TOP PROJECTS:

**STUDENTS NAME:** B.DHARMA SAI TEJA,A. HEMANTH,G.SAI BABU

**PROJECT TITLE:**IOT-INTEGRATED FIRE SAFETY SYSTEM FOR INDUSTRIAL APPLICATIONS

**STUDENTS NAME:** B. ANAND JAGAN MOHAN RAO,K V HEMANTH,K V K S PAVAN

**PROJECT TITLE:**FPGA-BASED REAL-TIME AI ACCELERATOR FOR OBJECT DETECTION

**STUDENTS NAME:** M. HEMANTH KUMAR REDDY,A V HITESH KUMARREDDY,  
A SAKETH SAI

**PROJECT TITLE:**DESIGN A CHARGE PUMPFOR PLL APPLICATIONS

**STUDENTS NAME:** M.HRUSHIKESH BHARADWAJ,G. NAGENDRABABU,DIVIJESH REDDY

**PROJECT TITLE:**DARKNET TRAFFIC ANALYSIS AND CLASSIFICATION SYSTEM USING ENSEMBLE LEARNING ALGORITHMS



# Minor Project (2024-25)



## TOP PROJECTS:

**STUDENTSNAME:**VEMIREDDY VENKATA REDDY,YADAGINI SRINIVAS,SHAIK AFZAL

**PROJECT TITLE:**IOT BASED WEATHER MONITORING USING FPGA

**STUDENTS NAME:** B. SAGAR,M. PRASANTH KUMAR,S. GANESH

**PROJECT TITLE:**DESIGN OF MULTIPLIER-LESS FILTER ARCHITECTURE FOR RF TRANSCEIVERS

**STUDENTS NAME:** MOHAN K,SIVA UPENDRA REDDY P,MAHESWARAN M

**PROJECT TITLE:**5G NR WAVEFORM GENERATION AND OVER THE AIR TESTING WITH MATLAB

**STUDENTS NAME:** HEMADHANUSH B,HEMA SUNDAR A,AGARAM HARIKA

**PROJECT TITLE:**METAMATERIAL BASED MIMO ANTENNA FOR MILLIMETRE -WAVE WIRELESS APPLICATIONS

**STUDENTS NAME:** K.SAARABEE,P. NEHA REDDY,S.SABEERULLA

**PROJECT TITLE:**DRIVER AUTHENTICATION AND ASSISTANCE SYSTEM

**STUDENTS NAME:** Y. UPENDRA,K YASWANTH,U. HARITEJA

**PROJECT TITLE:**SMART CHARGER MONITORING SYSTEM USING ARDUINO

**STUDENTS NAME:** BHATRAJU JAGADEESH,RAMAN SUVARNA PAUL REDDY,GUNJA JITHENDRA

**PROJECT TITLE:**AI DIET CONSULTANT MANAGEMENT SYSTEM

**STUDENTS NAME:** Y.SASIDHARA,M.LAKSHMI PRASANNA,K.SAI TEJA

**PROJECT TITLE:**IMAGE CAPTIONING WITH ATTENTION MECHANISM FOR BETTER CONTEXT UNDERSTANDING

**STUDENTS NAME:** P. HARIKA,P. DEEPTHI,A. VENKATA SAI ROHITH

**PROJECT TITLE:**TEXT TO SPEECH SYNTHESIS WITH EMOTION RECOGNITION USING NLP



# Abroad Internship Project (2024-25)

## ABROAD PROJECTS

**STUDENTS NAME:** N CHAITANYA, T SUJEEVAN

**PROJECT TITLE:** A CLOUD-BASED CARBON EMISSION ANALYSIS SYSTEM FOR HEAVY-DUTY CLE

**NAME OF THE UNIVERSITY & COUNTRY:** SOUTHERN TAIWAN UNIVERSITY, TAIWAN

**STUDENTS NAME:** V KARTHIK

**PROJECT TITLE:** ENHANCED FRAME WORK FOR FOR DETECTING LOW AND HIGH RATE DDOS ATTACKS AND CLASSIFYING FLASH CROWD IN IOT ENVIRONMENTS USING STATISTICAL APPROACHES

**NAME OF THE UNIVERSITY & COUNTRY:** ASIA UNIVERSITY, TAIWAN

**STUDENTS NAME:** G BHARATH

**PROJECT TITLE:** REAL-TIME DETECTION AND PREDICTION AGAINST DDOS ATTACKS IN IOT ENVIRONMENT USING ANOMALY-BASED DL TECHNIQUES

**NAME OF THE UNIVERSITY & COUNTRY:** ASIA UNIVERSITY, TAIWAN

**STUDENTS NAME:** S HEMANTH KUMAR RAJU

**PROJECT TITLE:** AUTONOMOUS PATH PLANNING IN UNKNOWN ENVIRONMENT USING ALPHABOT2-AR

**NAME OF THE UNIVERSITY & COUNTRY:** SELAMAT DATANG, MALAYSIA

**STUDENTS NAME:** P GOWRI SAI SANKAR

**PROJECT TITLE:** A CAN BUS J1939 SIGNAL GENERATOR

**NAME OF THE UNIVERSITY & COUNTRY:** SOUTHERN TAIWAN UNIVERSITY, TAIWAN

**STUDENTS NAME:** RISHYENDRA LAKSHMANA SAI EDURESI

**PROJECT TITLE:** DEVELOPING A LOCAL LLM USING LLAMA AND FINETUNING IT USING RAG AND LORA

**NAME OF THE UNIVERSITY & COUNTRY:** YUAN ZE UNIVERSITY (TEEP), TAIWAN

**STUDENTS NAME:** J SANDEEP

**PROJECT TITLE:** ML OPTIMIZATION IN THE INTERNET OF METAMATERIAL THINGS

**NAME OF THE UNIVERSITY & COUNTRY:** NATIONAL SUN YAT SEN UNIVERSITY (IIPP)

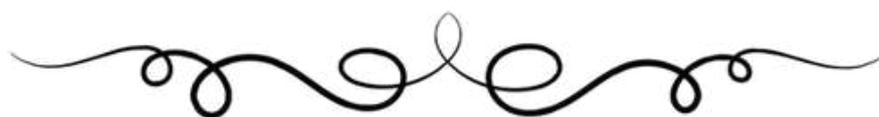


# ONE CREDIT COURSES



S.NO	Course Code	Course Name	LTPC	Number of Credits	Number of Hours	Regulation	Semester	Professor Details
1.	10215EC926	Medical Coding for Healthcare Analysis	1-0-0-1	1	15	VTURUG21	SS24-25	Dr. Sujatha Krishamoorthy, Assistant Professor, Wenzhou-Kean University, China
2.	10215EC927	Gamification in Healthcare	1-0-0-1	1	15	VTURUG21	SS24-25	Dr. Sujatha Krishamoorthy, Assistant Professor, Wenzhou-Kean University, China
3.	10215EC928	Smart Materials for Electronics Applications	1-0-0-1	1	15	VTURUG21	SS24-25	Dr. Shuichi Torri, Kumamoto University, Japan
4.	10215EC921	Innovation through Design Thinking	1-0-0-1	1	15	VTURUG21	SS24-25	Dr. Chockalingam Aravind Vaithilingam, Taylors University, Malaysia
5.	10215EC930	RF Energy Harvesting system	1-0-0-1	1	15	VTURUG21	SS24-25	Dr. Manee Sangaran Diagarajan, Taylors University, Malaysia
6.	10215EC917	Digital Forensics and incident Response	1-0-0-1	1	15	VTURUG21	SS24-25	Prof. Dr. Sunderesan Perumal, Universiti Sains Islam Malaysia, Malaysia
7.	10215EC931	Sensor Integration with IoT	1-0-0-1	1	15	VTURUG21	SS24-25	Prof. Dr. Thennarasan Sabapathy, Universiti Malaysia Perlis (UnMAP), Malaysia
8.	10215EC932	Advanced Antenna Design and Measurement Techniques	1-0-0-1	1	15	VTURUG21	SS24-25	Prof. Dr. Thennarasan Sabapathy, Universiti Malaysia Perlis (UnMAP), Malaysia
9.	10215EC914	Next Generation of Wired and Wireless Networks	1-0-0-1	1	15	VTURUG21	WS24-25	Dr. Pascal Lorenz, Professor, University of Haute Alsace, France
10.	10215EC915	Fieldbus architectures	1-0-0-1	1	15	VTURUG21	WS24-25	Dr. Pascal Lorenz, Professor, University of Haute Alsace, France
11.	10215EC937	IoT: Architecture, Applications and Challenges	2-0-0-2	2	30	VTURUG21	WS24- 25	Ts. Dr. Sumendra Yogarayan, Lecturer & Deputy Chairperson, Centre of Intelligent Cloud Computing, Multimedia University (MMU), Malaysia
12.	10215EC936	Introduction and Practice of 5G/B5G Core Networks	1-0-0-1	1	15	VTURUG21	WS24-25	Dr. Hui-Kai Su, Director of Computer Center & Professor, National Formosa University, Taiwan
13.	10215EC935	Technologies and Practice of the Internet of Thing	1-0-0-1	1	15	VTURUG21	WS24-25	Dr. Hui-Kai Su, Director of Computer Center & Professor, National Formosa University, Taiwan

14	10215EC942	RF Energy Harvesting: Fundamentals, Design and Simulation	1-0-0-1	1	15	VTURUG21	WS24-25	Dr. Manee Sangaran Diagarajan, Lecturer, Taylor's University, Malaysia
15	10215EC932	Advanced Antenna Design and Measurement Techniques	1-0-0-1	1	15	VTURUG21	WS24-25	Prof. Dr. Thennarasan Sabapathy, Associate Professor, Universiti Malaysia Perlis (UniMAP), Perlis, Malaysia
16	10215EC931	Sensor Integration with Internet of Things	1-0-0-1	1	15	VTURUG21	WS24-25	Prof. Dr. Thennarasan Sabapathy, Associate Professor, Universiti Malaysia Perlis (UniMAP), Perlis, Malaysia
17	10215EC917	Digital Forensics and Incident Response	1-0-0-1	1	15	VTURUG21	WS24-25	Prof. Dr. Sundresan Perumal, Professor, Universiti Sains Islam Malaysia, Malaysia



## ONE CREDIT COURSES

### **Radar System in Space Applications**

31.08.24, 21.09.24 & 02.10.24

#### **Expert Details**

Dr. Aravind,

DGM -Project Planning,

Ashok Leyland,

Egmore, Chennai.



Morai, Tamil Nadu, India  
AI Lab 1713, Department of ECE, Veltech, Tamil Nadu 600055, India

# ONE CREDIT COURSES



## Generative AI in Action - 25/07/24 to 27/07/24

### Expert Details

Mr. Muhamed Iliyas

Technical Trainer

TripleM Infotech Solutions Private Limited

Chennai.



## Application of Sensors in Wearable Devices

- 01/08/24 to 03/08/24

### Expert Details

Dr.S. Athena Milagi Pandian,

Founder & CEO

M/s. Athenapandian Private Limited,

Chennai.



# ONE CREDIT COURSES



## Penetration Testing and Cybersecurity

-29/08/24 to 31/08/24

### Expert Details

Mr. Arul Kirubaharan,  
Manager IT,  
NTC Logistics Pvt Ltd,  
Chennai.



## Radar System in Space Applications

-30.07.24,20.08.24,28.08.24,01.10.24 &  
04.10.24

### Expert Details

Ms. Vijayalakshmi  
Ex ISRO Scientist  
Real Time C-Band Tracking  
Radar of ISRO Project  
Chennai.



# ONE CREDIT COURSES



# Professional Body



The students are encouraged to undertake various academic and non-academic activities through Professional Bodies and different clubs associated with the department and the Institute. In the department level we have the actively functioning “IEEE Signal Processing Society”, “IEEE Circuits and Systems Society”, “IEEE communication society”, “IEEE industrial society and IEEE Society on Social Implications of Technology.

The department of Electronics and Communication Engineering successfully inaugurated the IEEE Signal Processing Society on 13.05.2022, IEEE Circuits and Systems Student Branch Chapter on 25.04.2023, IEEE communication society” on 11.03.2022, “IEEE industrial society on 09.01.2024 and IEEE Society on Social Implications of Technology on 04.10.2024. IEEE Membership offers access to technical innovation, up-to-date information, networking opportunities, and member benefits. IEEE members enjoy reduced costs on many products and services like IEEE books, funding for projects, journals, conferences, society memberships, and continuing education courses.

## IEEE SIGNAL PROCESSING SOCIETY



**Faculty Coordinator**  
**Dr. Rahul S G**  
Assistant Professor

### Office Bearers:



**Student Chair**  
T. Sri Sai Lakshmi Revathi  
(VTU21287)  
2021-2025 Batch



**Vice Chair**  
K. Harshitha  
(VTU20403)  
2021-2025 Batch

# Professional Bodies



**Secretary**  
B. Sahaja Chowdary  
(VTU20673)  
2021-2025 Batch



**Joint Secretary**  
Shaik Zaheer  
(VTU21705)  
2022-2026 Batch



**Treasurer**  
N. Lakshmi Prasanna  
(VTU21310)  
2021-2025 Batch



**Joint Treasurer**  
M. Charan  
(VTU23416)  
2022-2026



**Joint Web Master**  
Bora Gowtham  
(VTU20807)  
2021-2025 Batch



**Web Master**  
M. Ram Charan  
(VTU20795)  
2021-2025 Batch



**Joint Web Master**  
V. Ganeswar  
(VTU21711)  
2022-2026 Batch



**Event Coordinator**  
G. Venkata Seshagiri  
(VTU20841)  
2021-2025 Batch



**Event Coordinator**  
Sk. Khaleel  
(VTU20731)  
2021-2025 Batch

# Professional Body



## IEEE CIRCUITS AND SYSTEMS SOCIETY

### Faculty Coordinators



**Dr. G. Sasikala**  
Professor



**Secretary**  
**Dr. P. Kalpana Devi**  
Professor

### Office Bearers

S.No.	Role	Name of the students
1	CHAIRMAN	A. VENKAT SAI
2	VICE CHAIRMAN	R. RAKSHITHA
3	SECRETARY	MADHUMITHA S
4	WEBMASTER	R. RAAGHAV
5	TREASURER	MOKSHITHA
6	EVENT COORDINATOR	S.V. NAVEEN
7	EVENT COORDINATOR	THARUN. K
8	EVENT COORDINATOR	JERRY LORDSON

# Professional Body



## IEEE INDUSTRIAL ELECTRONICS SOCIETY



**Faculty Advisor**  
Dr. R. Rajkumar  
Associate Professor

### Office Bearers



**Student Chair**  
Y. Ranjith Kumar  
(VTU23961)  
2021-2025 Batch



**Vice Chair**  
M. Siva Chandra Lekha  
(VTU23960)  
2021-2025 Batch



**Secretary**  
E. Rishyendra  
Lakshmana Sai  
(VTU19388)  
2021-2025 Batch



**Joint Secretary V.**  
Rushi Kesava Reddy  
(VTU22589)  
2022-2026 Batch



**Web Master**  
K. Poojitha Reddy  
(VTU24010)  
2021-2025 Batch



**Web Master**  
Jinde Shreya  
(VTU20249)  
2021-2025 Batch



**Treasurer**  
V. N. K. Aakash Kumar  
(VTU19710)  
2021-2025 Batch



**Event Coordinator**  
Rohit Kumar  
(VTU21129)  
2021-2025 Batch



## IEEE COMMUNICATION SOCIETY



**Faculty Advisor**  
Dr. C Kanmani Pappa  
Associate Professor

### Office Bearers:



**Student Chair**  
T Mohith Nag (VTU21000)  
2021-2025 Batch



**Vice Chair**  
P Anji Reddy (VTU20945)  
2021-2025 Batch



**Secretary**  
D Pavan Sriram (VTU0998)  
2021-2025 Batch



**Joint Secretary G**  
Srinivasulu (VTU27016)  
2022-2026 Batch



**Treasurer B**  
Simhadhari  
(VTU21009)  
2021-2025 Batch



**Joint Treasurer T**  
Vaishnavi  
(VTU23599)  
2022-2026 Batch

# Professional Body



**Web Master**  
M Sri Vaishnavi (VTU20117)  
2021-2025 Batch



**Web Master**  
P Naveen(VTU20300)  
2021-2025 Batch



**Joint Web Master**  
G Jeshwanth Reddy (VTU20761)  
2021-2025 Batch



**Joint Web Master**  
P Vinay (VTU23567)  
2022-2026 Batch



**Joint Web Master**  
K Swathi (VTU23327)  
2022 – 2026 BATCH



**Event Coordinator**  
P Mokshitha (VTU20938)  
2021-2025 Batch



**Event Coordinator**  
H Sarath (VTU23624)  
2022-2026 Batch



**Event Coordinator**  
V Ram Dheeraj (VTU20983)  
2021 - 2025 Batch



**Event Coordinator**  
P Lakshmi Narasimha (VTU20987)  
2021-2025 Batch

# Professional Body



## IEEE SOCIETY ON SOCIAL IMPLICATIONS OF TECHNOLOGY



**Faculty Advisor**  
Dr. B. Sathyasri  
Associate Professor

### Office Bearers



**STUDENT CHAIR**  
D.Sai siva Ganesh  
2020-2024 Batch



**VICE CHAIR**  
OBILI SETTY SAI NAGA  
TEJESH  
2021-2025 Batch



**SECRETARY**  
B. RISHIKESH  
2020-2024 Batch



**JOINT SECRETARY**  
KONAI AH GARI  
NARENDRA  
2021-2025 Batch



**TREASURER**  
K. NAGA NEELIMA  
2020-2024 Batch



**JOINT TREASURER**  
J. MANIKANTA  
REDDY  
2021-2025 Batch



**WEBMASTER**  
S. INDIRA  
NARAYANAMMA  
2020-2024 Batch



**JOINT WEBMASTER**  
SAPPAM MURALI  
KRISHNA  
2021-2025 Batch

# Professional Body



**EVENT COORDINATOR**  
SHAIK KHALEEL  
2020-2024 Batch



**EVENT COORDINATOR**  
P. VARUN KUMAR REDDY  
2021-2024 Batch



**EVENT COORDINATOR**  
TAMARAPALLI GANESH  
2021-2024 Batch



# Professional Body

## Engineers Without Borders - India Vel Tech Student Chapter

The students are encouraged to undertake various academic and nonacademic activities through Professional Bodies associated with the department and the Institute. We have “Engineer Without Borders (EWB) - India Veltech Student Chapter” at department level, builds a better world through engineering projects that empower communities to meet their basic human needs. Our highly skilled volunteers work with communities to find appropriate solutions for their infrastructure needs. The EWB Student Chapter was inaugurated in our department on 12th September, 2020.

EWB India is an Evolving Network of Humanitarian Engineers and the Professional in India. The vision of EWB Student Chapter is to nurture and motivate student and professionals to undertake real life sustainable social projects and create Global Leaders. The Mission of EWB Student Chapter is to partner with corporate & social organizations, involve students and professionals and offer sustainable solutions in the areas of Water Sanitation, Energy, Health & Education to improve the quality of life for common people. EWB Student Chapter provides members with opportunities to connect with experts locally and abroad while staying up to date on technology and trends. The student members get a chance to develop their interpersonal skills, leadership skills and teamwork, skills by making themselves involved in various event organizations and management.



### Faculty Coordinator

Dr. S. Vijayalakshmi  
Assistant Professor

# Department Club Activities



## Association of Communication Engineers

The Association of Communication Engineers (ACE) club of ECE department was inaugurated in the year 2015. The club organizes periodically non-technical events, outreach programs so as to enhance the professional and psychological development of student engineers and acts as platform for the students to showcase their literary skills and creativity. It promotes fine arts, art appreciation and interactive events. It also provide opportunities for the development of management and communication skills. The club focuses on both personal and professional growth of an individual as well as the growth of the club.



### Faculty Coordinator

Dr. V. Diana Earshia  
Assistant Professor

## Programming Club



### Club Coordinator Head



Dr. M. Anandan  
Professor / ECE

### Programming Club Coordinator



Dr. Shahnaz. K. V  
Associate Professor

# Department Club Activities

## ROBOTICS CLUB

Robotics club has organized a series of events with the aim of providing a platform for students that strives to stimulate interest in robotics among undergraduate students in the department. During the Summer Semester, we conducted the first event “FUN TECH 2024” from Robotics club for the Summer semester. This contest include some fun activities followed by robotic coding skills.(50) round 2 - 7. The top performing two students were rewarded with a winner and runner certificates with prizes, whereas the other remaining students were given a participation certificates. Robotion2024 was the second event from Robotics club for the Summer semester. Robotion 2025 was the first event from Robotics club for the 2024-2025 Winter semester. In this competition, short listed students can develop a mini robotic bug within a set period of time. The contest aims to create awareness among young students with similar interests who will lead to create their own ideas in Robotics, as well as helps to advanced engineering concepts in theme of Robotics. Finally, the contest titled 48 Hour ROBOTIC Software Hackathon 2025, we organized this contest from february 19<sup>th</sup> to 21<sup>st</sup> 2025.

### Office Bearers



#### Faculty Coordinator

Dr. M. Anandan  
Associate Professor



NARWADE  
YOGESH (VTU21041)  
Secretary  
2022-2026 Batch



C.LINGESHWAR REDDY  
(VTU23397)  
Treasurer  
2022-2026 Batch



T. MOHANA SUNDARAM  
(VTU21132)  
Executive Member  
2022-2026 Batch

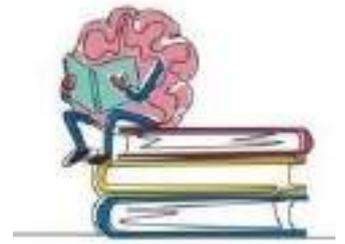


M.UDHAYA PRASATH  
(VTU23579)  
Executive Member  
2022-2026 Batch



V.RATHI (VTU24544)  
Executive Member  
2023-2027 Batch

## 2021-2025 Batch Students- Internship International University



Mr. Rishyendra Lakshmana Sai Eduresi  
"Developing a Localized Private Large Language Model with Llama"  
Yuan ze University (TEEP), Taiwan



Jukuri Sandeep  
"Machine Learning Optimization in Internet of Meta Materials  
thing's with Integrated Sensing and Communication"  
National Sun Yat Sen University (IIPP), Taiwan



M. Sri Vaishnavi  
"Multi model AI chatbot system"  
Cardiff Metropolitan University, United Kingdom



Hemanth Kuamar Raju  
"Autonomous Path Planning and Obstacle Avoidance Using Alphabot2-AR Robot"  
Universiti Teknologi Petronas, United Kingdom



Chaitanya Velakaturi  
"Enhancing Defense With Machine Learning In CyberSecurity"  
National Formosa University, Taiwan



# INDUSTRY PROJECTS

Rohith Kumar

“Nxtra Data Centres Operational Excellence And Sustainability Powered By Ai”  
Airtel India Ltd, Ncr Delhi

S. Abishek Kumar

“Generating A Square Wave And Rotating Step-Up Motor Using Microcontroller Atmel  
At89S8253 In Elnece Programmer Pg4Uw Software “  
Excel Rf Hyderabad

Lakshna Ms

“Llm-Based Automation For Extracting Clinical Insights From The  
Unstructured Medical Record”  
Buddi Ai, Madurai

Priyansi

“Implementation Of In-Vehicle Communication For Multi-Ecu Coordination In Electric Vehicle”  
Hinduja Tech, Chennai

S Lokesh Reddy, Ch Satish

“Iot Based Industrial Equipment Monitoring System”  
Sagar Cement Pvt Ltd, Mattampalli, Hyd

Abhiraj Kumar Singh

“Adaptive Ai Pipeline For Image-Based Video Synthesis”  
Nyxify Technology Pvt Ltd, Bengaluru

M Sanmukha Mani

“Iot Based Alohonus Robot”  
Roboram Technologies, Chennai

Yashaswini C, P Anjali, Tss Lakshmi Revathi

“Paw Track Real-Time Smart Pet Collar”  
Purple Technologies, Vijayawada

M Eshwar

“Development Of A Real-Time Workforce Tracking System”  
Tavago Tech Pvt Ltd, Chennai

# PLACEMENTS

S. n0	Name of the Company	Number of students placed	CTC
1	Fujitsu	01	3.6LPA
2	Genpact	01	7.9LPA
3	Turing	01	4.2LPA
4	Trans Technology	01	3.25LPA
5	L&T Technology	15	4LPA
6	MU Sigma	04	5LPA
7	Sasken Technologies	01	10LPA
8	Mahindra	01	3.7LPA
9	K Lite	01	3.75LPA
10	Hinduja Tech	01	4.5LPA
11	CGI	01	3.92LPA
12	BNP Paribas	01	6LPA
13	Altruist	01	2.8LPA
14	Learnflu	02	3.2LPA
15	Tech Mahindra	02	4LPA
16	Pothigai Power	02	4.05LPA
17	Infosys	02	3.6LPA
18	Airtel	02	5.5LPA

# PLACEMENTS

19	Qbotica	03	3LPA
20	Movate	03	3.2LPA
21	LTIMindtree	03	4.05LPA
22	Infinite Computer Solutions	03	3.5LPA
23	W3Global	05	3.6LPA
24	Capgemini VLSI	06	5.75LPA
25	Accenture	06	4.5LPA
26	Wipro	07	3.5LPA
27	Face Prep	07	5LPA
28	Cognizant	08	6.75LPA
29	Capgemini	09	4.25LPA
30	ASM Technologies	11	3.5LPA
31	HCL	13	4.25LPA
32	Concentrix	15	3LPA
33	TCS	39	3.45LPA
34	Yuzhan Technology	53	3LPA
35	Sansirong	69	3LPA
36	Cognizant	08	6.75LPA
37	Ascendion	01	4LPA
38	Artech infosystems	01	4.68LPA



# PLACEMENTS

S.No	STUDENT PLACEMENT DETAILS	COUNT
1	Number of Students admitted	609
2	Number of Eligible Students for Placement	434
3	Number of Students Placed	310
4	Number of Students Placed in Core Companies	144
5	Number of Students Placed in IT Companies	166
6	Number of Companies Visited	39
7	Minimum Package Offered	2.8 LPA
8	Average Package Offered	5.75 LPA
9	Maximum Package Offered	11.5LPA

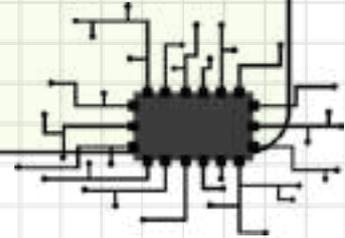
# PLACEMENTS



# SKILLS IMPARTED THROUGH PROGRAM ELECTIVE

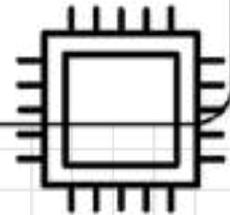
## COMMUNICATION DOMAIN

Antenna Design Techniques  
EMI/EMC  
MIMO Wireless Communication  
Software Defined Radio



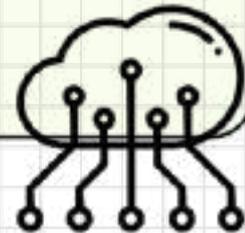
## EMBEDDED DOMAIN

Virtual Instrumentation  
Real Time Operating System  
Embedded System and Robotics  
Embedded C Programming  
ECS and PCB Design



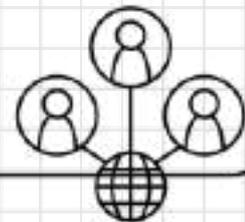
## NETWORKING DOMAIN

Internet Of Things  
Wireless Adhoc and Sensor Networks  
Software-Defined Networking  
Cognitive Radio Networks



## SIGNAL PROCESSING DOMAIN

Basics of Python Programming  
Professional Python Programming  
Digital Image Processing  
Fundamentals of Machine Learning  
Machine Learning



## VLSI DOMAIN

Reconfigurable Computing with FPGA  
Physical Design of CMOS  
Analog VLSI Design



# EDITORIAL BOARD

## FACULTY TEAM

**Dr.R.S.VALARMATHI**

Dean - SoEC

**Dr.A.SELWIN MICH PRIYADHARSON**

Professor and Head - ECE

**Dr.D.DAVID NEELS PONKUMAR**

Professor - ECE

**Dr. BERAKHAH.F.STANLEY**

Assistant Professor - ECE

## STUDENT TEAM

**RAJESH R (VTU24353)**

**PRAVEEN KUMAR M(VTU24381)**

**MALEPATI GNANENDRA(VTU24760)**

**RAGAV (VTU24319)**

**RAVIVARMA (VTU24548)**

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deansoe@veltech.edu.in

hodece@veltech.edu.in



**Tollfree**  
**1800 212 7669**



Website  
**www.veltech.edu.in**



**No: 42, Avadi - Vel Tech**  
**Road, Vel Nagar, Avadi,**  
**Chennai - 600 062**

