



You Choose, We Do It

St. JOSEPH'S COLLEGE OF ENGINEERING

(An Autonomous Institution)

St. Joseph's Group of Institutions

OMR, CHENNAI - 119



DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING

Newsletter

May 2025



26th and 27th Graduation Day



St. JOSEPH'S
GROUP OF INSTITUTIONS

OMR, CHENNAI - 119



The Choice of
Disciplined Toppers



VISION

To become a world class renowned department where dissemination and application of knowledge in design and analysis of electronic circuits in the field of communication is delivered and to synergistically balance through relentless pursuit of student success towards the economic prosperity of the society and the world at large.

MISSION

Professionalism: Achieve excellence in teaching, learning, and educational activities which ensure that each student has the opportunity to attain his or her fullest potential

Core Competence: Inculcate innovative skills, research aptitude, team-work, ethical practices in students so as to meet expectations of the industry as well as society.

Research: Provide research and intellectual resources that address problems facing the industry and the world, while advancing the boundaries of disciplinary and multidisciplinary research and its applications.

Industrial Interaction: Provide professional development opportunities for all by creating an open and accessible learning environment and incorporating appropriate technology through collaboration with industry

PROGRAM OUTCOMES

- 1. Engineering Knowledge:** Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution complex engineering problems.
- 2. Problem analysis:** Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences and engineering sciences.
- 3. Design/development of solutions:** Design solutions for complex engineering problems and design system components or process that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal and environmental considerations.



4. Conduct investigations of complex problems: Use research based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to proceed valid conclusions.
5. Modern tool usage: create, select and apply appropriate techniques, resources and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.
6. The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.
7. Environment and sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of and need for sustainable development.
8. Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
9. Individual and team work: Function effectively as an individual and as a member or leader in diverse teams, and in multidisciplinary settings.
10. Communication: Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.
11. Project management and finance: Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.
12. Life-long learning: Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

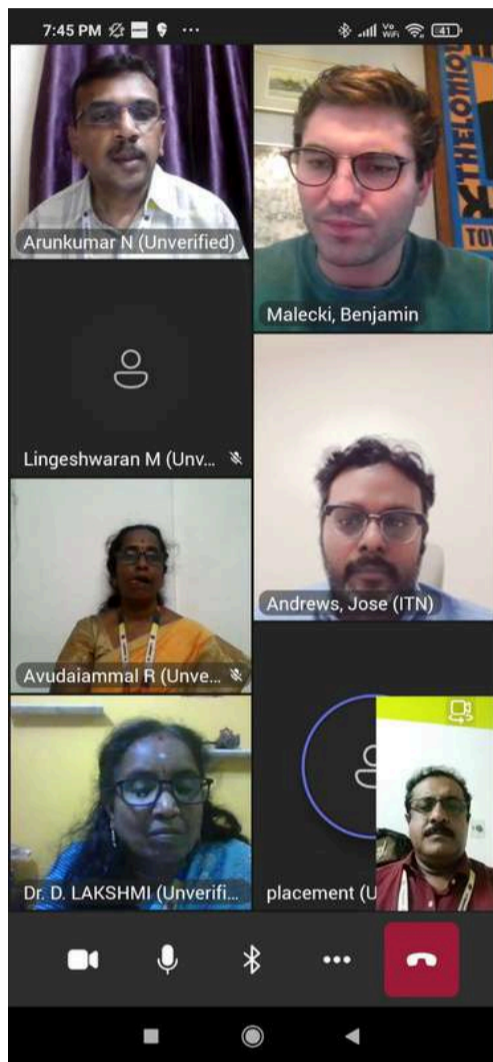
PROGRAM EDUCATIONAL OBJECTIVES

1. To enable graduates to pursue research, or have a successful career in academia or industries associated with Electronics and Communication Engineering, or as entrepreneurs.
2. To provide students with strong foundational concepts and also advanced techniques and tools in order to enable them to build solutions or systems of varying complexity.
3. To prepare students to critically analyze existing literature in an area of specialization and ethically develop innovative and research oriented methodologies to solve the problems identified.

EVENTS OF MAY-2025

- **Industry Interaction**
- **NPTEL Achievements**
- **Student Project Scheme**
- **Niral Thiruvizha 2.0**
- **Graduation Day**
- **Students Achievements**
- **Staff Achievements**

INDUSTRY INTERACTION



ECE Department Partnership with Global Satellite Leader INTELSAT

In a significant stride for industry engagement, ECE Department recently hosted a successful pitch deck presentation with INTELSAT, a global leader in satellite communications. The presentation effectively showcased the institution's robust infrastructure, academic excellence, and vibrant research culture, leading to a fruitful collaboration. Representing St. Joseph's were Dr. N. Arunkumar, Dr. Diwan, Dr. Merin, Dr. S. Rajesh Kannan, Dr. D. Lakshmi, Dr. R. Avudaiammal, and Mr. M. Lingeswaran. INTELSAT was represented by Mr. Jose Andrew and Mr. Benjamin Malecki. As a key outcome of this productive session, INTELSAT has generously agreed to establish a Centre of Excellence at St. Joseph's and offer 10-month paid internships to our students, providing a monthly stipend of ₹30,000. These internships hold the promising prospect of full-time placement opportunities at INTELSAT upon satisfactory performance, marking a remarkable opportunity for our students to launch their careers with a leading global company.

NPTEL ACHIEVEMENTS



Congratulations to Our Achievers! – NPTEL SILVER Certificate Holders

We are proud to announce that several students from the 2021–2025 batch of Electronics and Communication Engineering (ECE) have excelled in various NPTEL (National Programme on Technology Enhanced Learning) courses and have been awarded SILVER Certificates, a recognition given to learners who score above 60% in NPTEL examinations.

Their dedication to learning beyond the classroom and commitment to academic excellence have set a remarkable example for their peers. These achievements reflect the high standards of our department and the enthusiasm of our students in embracing online learning platforms to enhance their technical knowledge.

NPTEL ACHIEVEMENTS

4 QUALITY EDUCATION

NPTEL - ELITE SILVER

Batch 2021-25

9 HIGHEST ACHIEVEMENT AND INNOVATION

AGNES MENESA M

BENITA JAEL J

EDITH PRAISELIN P

FESLIN SHERINA S

JENFA JOY A B

MATHIVATHANA S R

MOHAMED ASLAM S M

PRAVEEN N

RAJESHWAR N

SHREEKANTH M

SUNIL SELVENDRAN M

VADIVU NANDHINI M

NPTEL ACHIEVEMENTS



STUDENT PROJECT SCHEME



TAMILNADU STATE COUNCIL FOR SCIENCE AND TECHNOLOGY
தமிழ்நாடு அறிவியல் தொழில்நுட்ப மாநில மன்றம்



Madhumitha M Keerthna Priya C J
Enhancing Image Segmentation using GAN
for Autonomous vehicles and Traffic Safety

Mentor - Mrs P. Elaveni
FUND - RS 7500



Ancy Joe J Dharaneeswari S
Automated Tree Detection from satellite
Imagery using Machine Learning

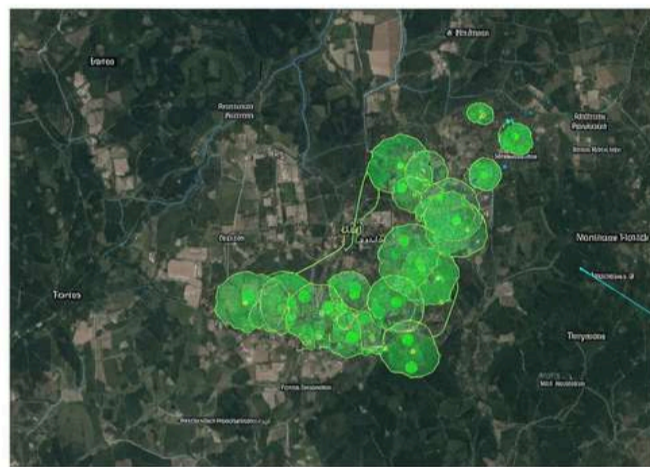
Mentor - Dr S. Shirley Selvan
FUND - RS 7000

Our students from the Department of Electronics and Communication Engineering (ECE)! Their projects have been officially approved under the highly competitive Student Project Scheme by the Tamil Nadu State Council for Science and Technology. This significant milestone is a testament to the dedication, ingenuity, and hard work of our budding engineers, profoundly supported by the expert guidance of their faculty mentors.

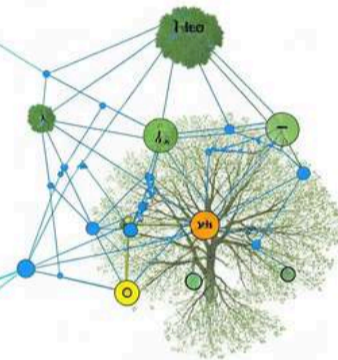
STUDENT PROJECT SCHEME



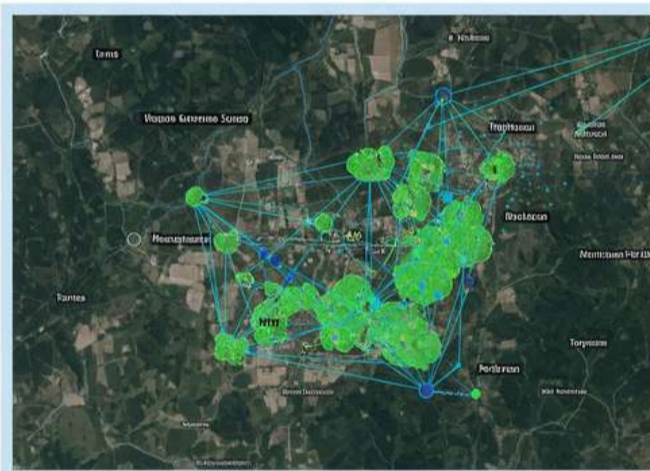
TAMILNADU STATE COUNCIL FOR SCIENCE AND TECHNOLOGY
தமிழ்நாடு அறிவியல் தொழில்நுட்ப மாநில மன்றம்



Training Data



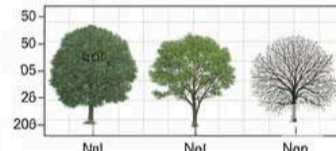
Automated Tree Learning Model



Non-Trees



Training Data



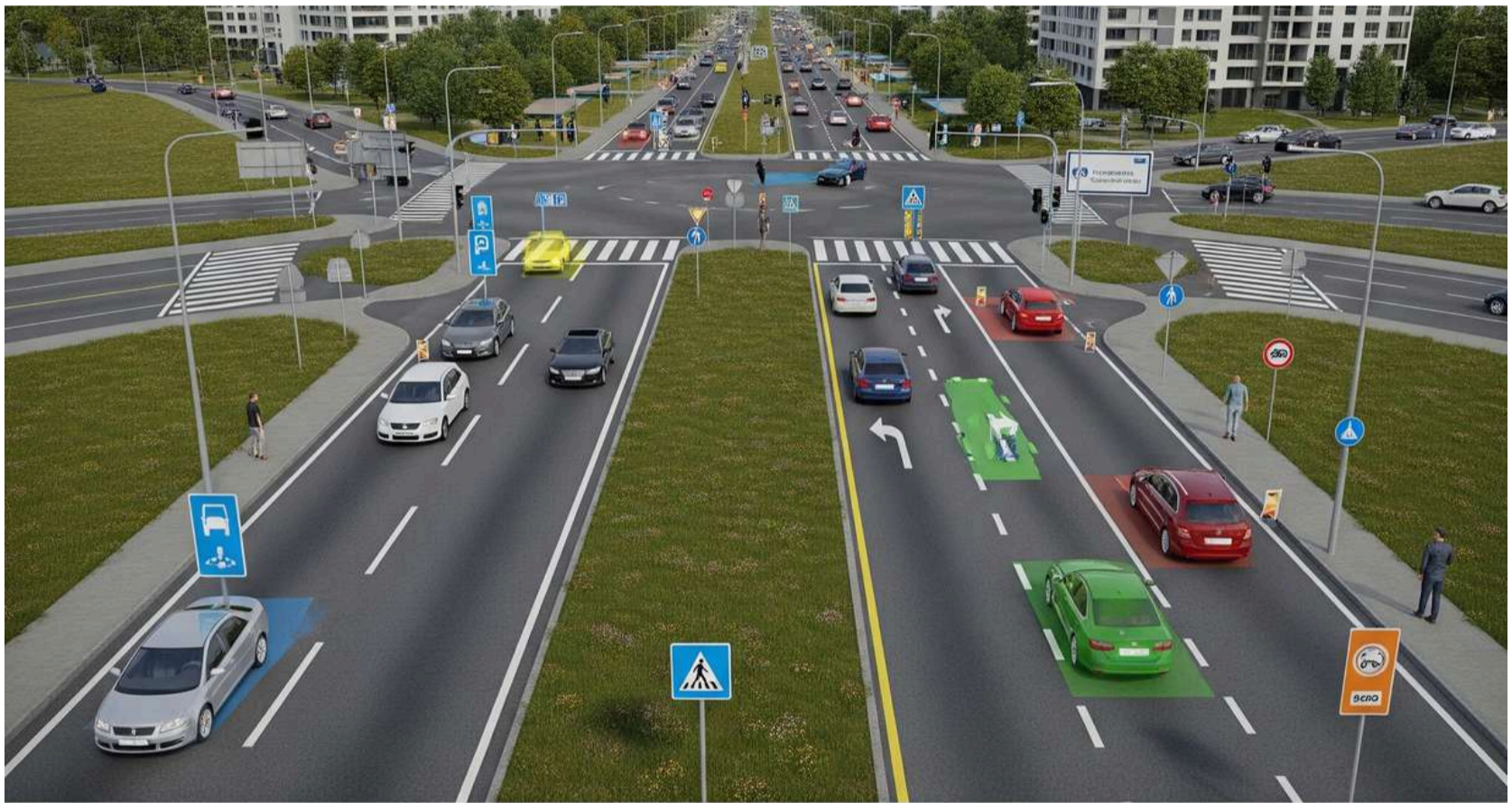
Spotlight: Pioneering Environmental Monitoring

Students Ancy Joe J and Dharaneeswari S, guided by Dr. S. Shirley Selvan, have been granted Rs. 7000 for their innovative project: "Automated Tree Detection from Satellite Imagery using Machine Learning." This initiative showcases the power of machine learning in addressing real-world environmental challenges. By developing an automated system for identifying trees from satellite images, their project offers immense potential for applications in critical areas like deforestation monitoring, urban green space management, and ecological surveys, demonstrating a forward-thinking approach to sustainable development.

STUDENT PROJECT SCHEME



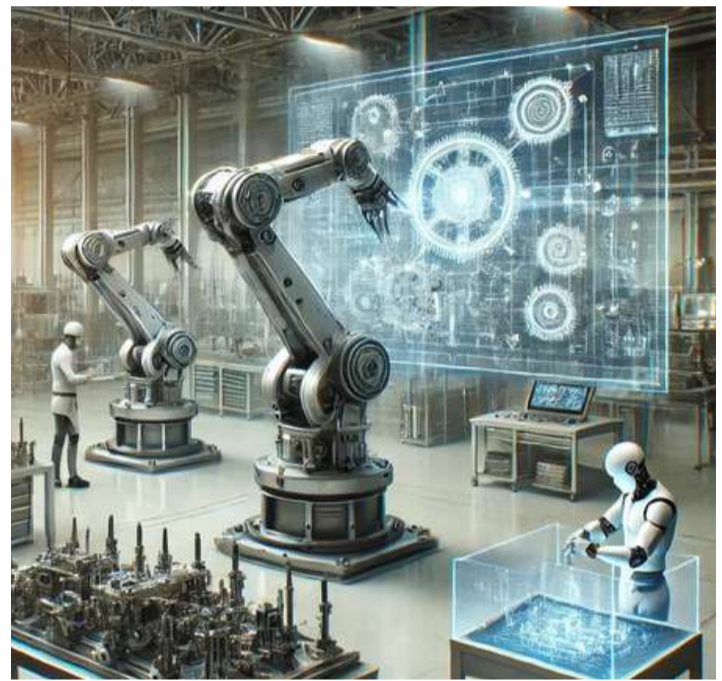
TAMILNADU STATE COUNCIL FOR SCIENCE AND TECHNOLOGY
தமிழ்நாடு அறிவியல் தொழில்நுட்ப மாநில மன்றம்



Spotlight: Advancing Autonomous Technology

Students Madhumitha M and Keerthana Priya C J, under the skilled mentorship of Mrs. P. Elaveni, have secured Rs. 7500 in funding for their groundbreaking project: "Enhancing Image Segmentation using GAN for Autonomous Vehicles and Traffic Safety." This cutting-edge research is vital for the future of smart transportation, focusing on leveraging Generative Adversarial Networks (GANs) to refine image segmentation. Their work is poised to play a crucial role in improving the perceptual capabilities of autonomous vehicles, thereby significantly enhancing overall traffic safety and paving the way for more intelligent and secure transportation systems.

NIRAL THIRUVIZHA 2.0



Five innovative projects under three themes from Department of ECE have been selected for the prestigious Naan Mudhalvan Niral Thiruvizha 2.0! These projects, spanning critical areas from rural and urban development to information technology and agriculture, showcase the exceptional talent and problem-solving capabilities of our students and the dedicated mentorship of our faculty. Each selected project addresses significant real-world challenges, demonstrating our institution's commitment to fostering impactful technological solutions and contributing to societal advancement.

NIRAL THIRUVIZHA 2.0



Water Supply Monitoring System



This project aims to develop a comprehensive system for identifying water leakage, detecting unauthorized connections, preventing illegal water siphoning through motors, and monitoring pressure levels at the tail end of water supply distribution mains. Led by VISHALSANKER SV, GOVARDHINE K, and EBI MANUEL SR from the ECE Department, under the guidance of Dr. S. Rajeshkannan, this initiative addresses critical issues in urban and rural water management, promising to enhance efficiency and prevent resource wastage.

NIRAL THIRUVIZHA 2.0



Wild Animal Threat Detection System for Tribal Communities



Focused on the theme of Information/Communication technology, this team is designing and implementing a reliable, cost-effective safety system for tribal communities in remote mountainous regions to detect wild animal threats. Saravanadinesh E and Winston Joshua M from the ECE Department are leading this project, with Dr. S. VINAYAGAPRIYA as their faculty guide, aiming to provide a vital security solution for vulnerable populations.

NIRAL THIRUVIZHA 2.0



Coir Moisture Removal and Groundwater Seepage Prevention



This project, falling under the Agriculture theme, focuses on designing a device to efficiently remove moisture from coir while also preventing groundwater seepage and minimizing environmental impact. Ujesh. S, Prithivraj. S, and Rohan. S from the ECE Department are working on this solution under the mentorship of Dr. A. Simon Prabu, offering an innovative approach to agricultural processing and environmental sustainability

NIRAL THIRUVIZHA 2.0



AI for Efficient Fish Shoal Detection at Sea



This innovative project, led by ECE students T. Abishek and Dhivakar. R under Assistant Professor Mrs. M. Angelin Ponrani, harnesses Artificial Intelligence to accurately identify fish resources and shoals at sea. The aim is to empower fishermen by minimizing manpower and cost, reducing fuel consumption, and ultimately boosting catch rates. This initiative exemplifies our commitment to creating practical, impactful solutions that benefit the community.

NIRAL THIRUVIZHA 2.0



GPS-Based Tracking System for Government Buses



Under the theme of Information/Communication Technology, this project is developing a GPS-based tracking system for government buses. This system will provide passengers with real-time arrival updates, seat availability, and route information (starting and ending points), ensuring clarity, safety, and convenience. The team includes VIMALI S, SHREYA SR, SOWJANYA S, and SWETHA T from the ECE Department, guided by Mr. M. Lingeswaran and Dr. S. Rajeshkannan, with the goal of significantly enhancing the public transportation experience.

GRADUATION DAY



Delighted to share that St. Joseph's College of Engineering successfully celebrated its 26th and 27th Graduation Day on May 10, 2025. The memorable occasion was graced by the esteemed presence of Prof. Dr. T.G. Sitharam, Chairman, AICTE, who honored us as the Chief Guest. Our heartfelt congratulations go out to all our graduates who have now embarked on their professional journeys, securing placements in prominent positions across the globe.

GRADUATION DAY



Delighted to announce and congratulate Mr. Tharun Prasath J and Ms. Jaswanthika R, who were recognized as the Best Outgoing Students for the 2019-2023 and 2020-2024 batches, respectively. Their exemplary academic performance, leadership, and contributions during their time at St. Joseph's College of Engineering were celebrated as they received their well-deserved awards during the recent graduation ceremony.

STUDENT ACHIEVEMENTS

REMARKABLE CORE
PLACEMENTS
BATCH **2022-26**

CTC*
Rs. 19 LAKH
PER ANNUM
*on conversion

DURING INTERNSHIP
Rs. 40,000 STIPEND
PER MONTH

RAJA PRIYA DHARSHINI
DEPT OF ECE

IN A TOP CORE COMPANY SPECIALISED IN
ELECTRONIC DESIGN AUTOMATION (EDA)

Happy to celebrate the outstanding achievement of Raja Priyadharshini from the 2022-2026 batch of our Electronics and Communication Engineering (ECE) Department! She has secured a prestigious internship offer with a top core company specializing in Electronic Design Automation (EDA), featuring a remarkable stipend of Rs. 40,000 per month. This incredible opportunity also includes a potential CTC of Rs. 19 lakhs upon conversion, underscoring her exceptional talent and the quality of education provided by our department in preparing students for high-impact roles in the core electronics industry.

STUDENT ACHIEVEMENTS



Nandha Kumar B, from the Department of Electronics and Communication Engineering (Batch 2021-2025) has successfully completed a 3-month internship with Barry-Wehmiller and secured a placement with a 4 LPA package. Barry-Wehmiller is a global supplier of manufacturing technology and services, with a strong focus on engineering consulting and industrial automation for various industries, including packaging. During his internship, Nandha Kumar B likely gained valuable hands-on experience in areas such as control systems, PLC programming, HMI/SCADA development, and potentially contributed to projects involving smart and connected industrial automation equipment, leveraging his ECE background to provide innovative solutions. Congratulations to Nandha Kumar B on this remarkable achievement!

STUDENT ACHIEVEMENTS

**DEPARTMENT OF ELECTRONICS AND COMMUNICATION
ENGINEERING**

Congratulations

SRINITHI R

**Graduate Engineer
Trainee**



4.25 LPA

We extend our hearty congratulations to Srinithi R, an accomplished student from our ECE department, who has successfully secured a position as a Graduate Engineer Trainee at HCL Technologies, a globally recognized leader in IT services. This fantastic achievement comes with a highly competitive package of 4.25 LPA. As a Graduate Engineer Trainee at HCL Technologies, Srinithi will embark on a dynamic career path, likely engaging in cutting-edge software development, system integration, or other specialized technology projects, further honing her engineering skills and contributing to innovative solutions within the IT landscape. This success is a testament to Srinithi's hard work and the comprehensive education provided by our institution.

STUDENT ACHIEVEMENTS



Vishal R S from the Department of Electronics and Communication Engineering (ECE), Batch 2021-2025 has secured a prestigious 12-month internship at Cadence, a globally recognized leader in electronic design automation (EDA) software and intellectual property. This highly competitive opportunity includes a substantial stipend of Rs 40,000 per month and carries the potential for a full-time offer ranging from an impressive 17-21 LPA upon successful completion. Vishal's role at Cadence will undoubtedly provide invaluable practical experience in advanced semiconductor design, verification methodologies, or digital circuit design, placing him at the forefront of innovation in the electronics industry. This achievement underscores Vishal's talent and the robust educational foundation provided by our ECE program.

STAFF ACHIEVEMENTS

PUBLICATIONS

Dr. Latha P , Associate Professor, Department of ECE has published a project titled “Multicast On-Route cluster propagation to detect network intrusion detection systems on MANET using Deep Operator Neural networks” in Expert Systems With Applications.

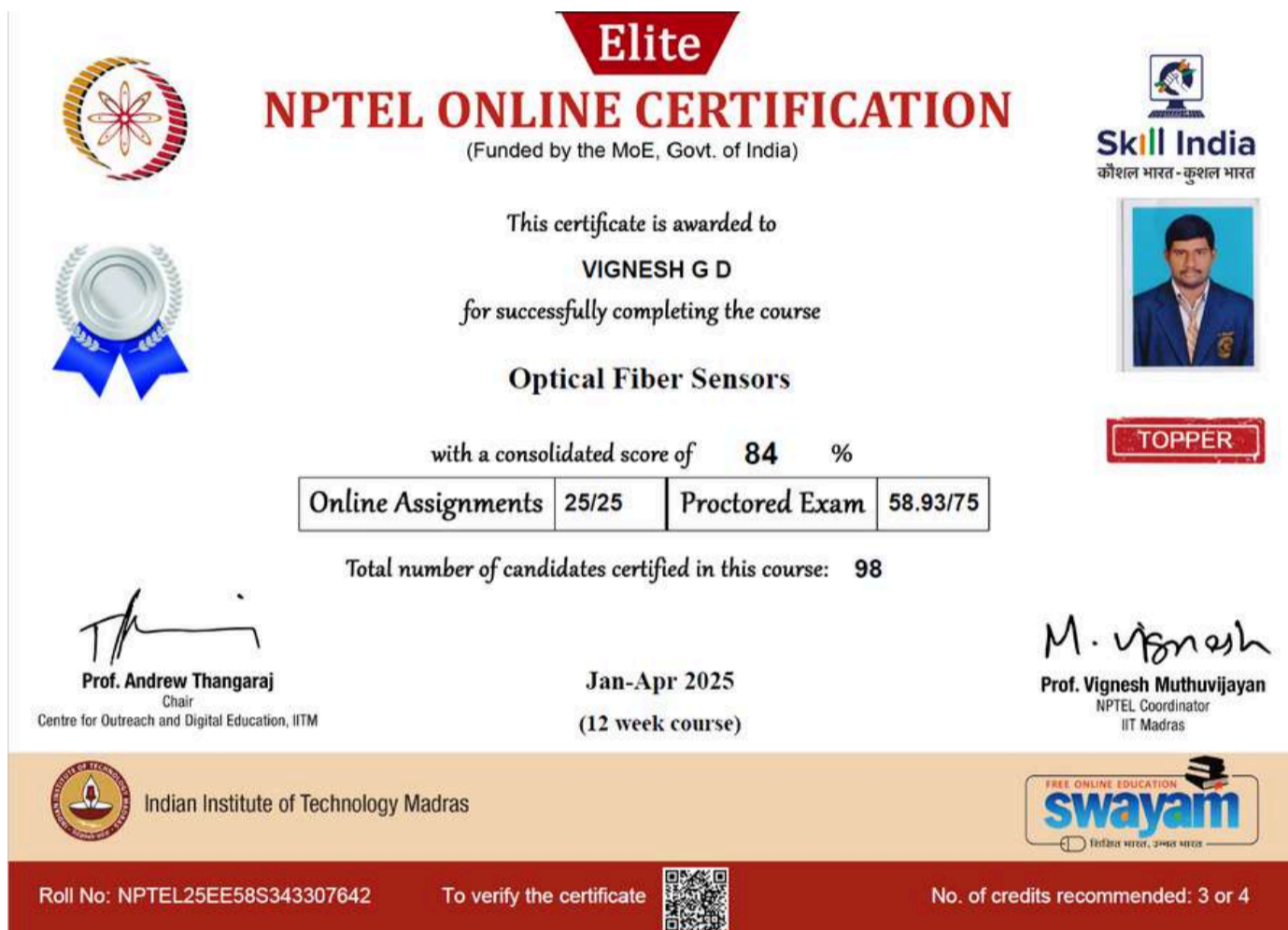
Mrs.Anitha G , Assistant Professor , Department of ECE has Presented a paper titled “Travel Mate: A Comprehensive Travel Assistance Platform” in 2025 Emerging Technologies for Intelligent Systems (ETIS).

Avudaiammal Ramalingam, Professor, Department of ECE has Presented a paper titled “Cost-Effective Multiclass Model: Unveiling The Legacy of Tamil Nadu’s Iconic Temples” in International Conference on Intelligent and Innovative Technologies in Computing, Electrical and Electronics, Bangalore, India.

Dr. Balamurugan A M, Associate Professor, Department of ECE has published a project titled “Theoretical Investigation of Sensitivity Enhanced Surface Plasmon Resonance Sensor Using BP-HfSe₂-WS₂ Heterostructure” in Plasmonics.

STAFF ACHIEVEMENTS

NPTEL CERTIFICATION



The image shows a certificate for NPTEL Online Certification. At the top, it says "Elite NPTEL ONLINE CERTIFICATION" and "(Funded by the MoE, Govt. of India)". The certificate is awarded to Vignesh G D for successfully completing the course "Optical Fiber Sensors" with a consolidated score of 84%. The certificate also mentions that the total number of candidates certified in this course is 98. The certificate is signed by Prof. Andrew Thangaraj, Chair, Centre for Outreach and Digital Education, IITM, and Prof. Vignesh Muthuvijayan, NPTEL Coordinator, IIT Madras. The course was held from Jan-Apr 2025 (12 week course). The certificate includes a table with the following data:

Online Assignments	25/25	Proctored Exam	58.93/75
Total number of candidates certified in this course: 98			

The certificate also features logos for Skill India, IIT Madras, and Swayam. The roll number is NPTEL25EE58S343307642. To verify the certificate, a QR code is provided. The number of credits recommended is 3 or 4.

Happy to celebrate the exceptional achievement of Mr. Vignesh GD, Assistant Professor, Department of ECE who has successfully completed the "Optical Fiber Sensors" course through NPTEL Online Certification with an impressive consolidated score of 84%. This 12-week course, funded by the Ministry of Education, Govt. of India, highlights Vignesh's dedication and academic prowess in a specialized field. His accomplishment, marked by an "Elite" certification and being a "Topper" in the course, exemplifies the commitment to continuous learning and excellence fostered at our institution.

STAFF ACHIEVEMENTS

PATENT PUBLISHED

Dr. R. Avudaiammal has published Patent titled “ Internet of Things (IoT) based face recognition system and method for secure and remote authentication”.

Dr. R. Avudaiammal has published Patent titled “ IoT-Based Agricultural Monitoring and Automation System”.

TO KNOW MORE ABOUT DEPARTMENT ACTIVITIES

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***For Admissions: Visit www.stjosephs.ac.in or Contact +91 9940104881/+91 9940104882**