

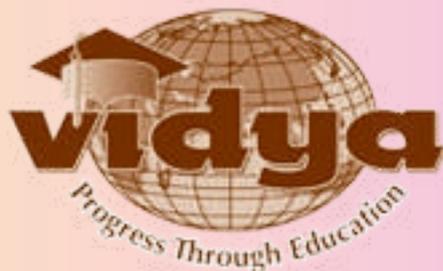


# Encircle XII

JULY '25



DEPARTMENT OF  
ELECTRONICS & COMMUNICATION



VIDYA ACADEMY OF SCIENCE AND TECHNOLOGY  
THALAKKOTTUKARA, THRISSUR, KERALA



## **Vision**

**"To be a centre of excellence in Electronics and Communication Engineering through value-based education and research"**

## **Mission**

**M1: To provide students state-of-the-art academic ambience for quality education.**

**M2: Facilitate interdisciplinary learning, industry interactions and research initiatives for long-term career development goals.**

**M3: To educate and mentor students on professional responsibilities, ethical values, and lifelong learning.**

## From Principal's Desk

Vidya education system strives to integrate the culture of quality education with moral and ethical values. In line with the vision of the institution, the department of ECE has made tremendous progress in all areas including academic, non-academic, skill development of staff and students. It is a matter of great pride and satisfaction to see that the department is bringing out another edition of the Newsletter "EnCircle". The Newsletter also reflects the achievements of the department.

My special appreciation to HoD-ECE, the staff members, and the department's Students for their fruitful effort.

With Best Wishes!!

Dr. Sunitha C

Principal- VAST



## From HoD's Desk

The Department of Electronics and Communication Engineering always initiates to inculcate the qualities that are required and acceptable by engineering society. Dept. is fortunate to have dedicated teachers, committed technical staff, and young budding students who yield the best outcomes. Moreover, the dept. improves its academic, placement, and value systems to meet the changing demand of the industry as well as of the stakeholders. It gives me great pleasure to congratulate ECE students, teachers, and staff who contributed to the publication of an other volume of the "EnCircle XII" newsletter. I appreciate the newsletter drafting team for their meticulous drafting. The enthusiasm of every individual shall continue to strive for further heights.

We are thankful to our Management and Principal for their support and encouragement.

Regards,

Dr. S. Swapna Kumar

Professor and Head

Department of ECE



# Faculty Achievements

- Paper titled “HealthGuard: AI-Driven Remote Health Monitoring System” presented by Varundev A V authored by S Swapna Kumar, Varundev A V, Nikhil A, Sayona Mohan, Sanal T O in the 2nd International Conference on Computing and Machine Learning (CML 2025) held at Department of Computer Applications, Sikkim Manipal Institute of Technology, Sikkim Manipal University, India during March 22-23, 2025.
- Ms. Sagna L T, Dr. S. Swapna Kumar, published a paper on "Multipixel Non-Expandable Visual Cryptography with Encapsulated Shares," in the 2024 International Conference on Advancement in Renewable Energy and Intelligent Systems (AREIS), Thrissur, India, (2024), pp. 1-6, doi: 10.1109/AREIS62559.2024.10893653.
- Ms. Remya K R, Dr. S. Swapna Kumar, "A Survey of DSM Techniques for the Residence Appliance Scheduling Problem in Smart Grids," 2024 International Conference on Advancement in Renewable Energy and Intelligent Systems (AREIS), Thrissur, India, (2024), pp. 1-7, doi: 10.1109/AREIS62559.2024.10893658.
- Ms. Anju Vincent, Dr. S. Swapna Kumar, "Enhancement of Multiple Approaches for Trellis Codified Spatial Modulation," 2024 International Conference on Advancement in Renewable Energy and Intelligent Systems (AREIS), Thrissur, India, (2024), pp. 1-6, doi: 10.1109/AREIS62559.2024.10893603.
- Ms. Sona K S, Dr. S. Swapna Kumar, published a paper on "IoT-Based System for Real-Time Fall Risk Assessment and Health Monitoring," in the Journal of Electronics and Electrical Engineering, ISSN: (Print) 2972-3280 (Online), Volume 3, Issue 2, (2024), pp 514-529, DOI: <https://doi.org/10.37256/jeee.3220245472>.
- Ms. Aswathy E R, and Dr. S. Swapna Kumar published a paper on “Highly efficient 4:2 compressor using carry based approximate full adder on digital circuit design” in the Scienxt Journal of Recent Trends in VLSI Design (SJVLSID), Volume 2, Issue 2, September 3, (2024), pp 1-15, DOI: <https://doi.org/10.5281/zenodo.13637847>.

- Mr. Abhilash Krishnan A, Mr. Analram V S, Mr. Abhinav P, Ms. Archana S, Dr. S. Swapna Kumar, published the paper on "Breathe Safely with Low-Cost Portable Ventilator" in the International Journal of Engineering & Technology, ISSN 2227-524X, Vol. 13 No. 2 (2024), pp 262-271, DOI: <https://doi.org/10.14419/neh2xf65>.
- Dr. S. Swapna Kumar, Ms. Vismaya N Sasi, Ms. Vaanisha Murali, published a paper on "Alzheimer's Patient Support System Based on IoT and ML" in the Journal of Electronics and Electrical Engineering, ISSN: (Print) 2972-3280 (Online), Volume 3, Issue 1, (2024), pp 188-205, DOI: <https://doi.org/10.37256/jee.3120244607>.
- Dr. S Swapna Kumar completed NPTEL 8-week online certification course (Aug-Oct 2024) on "Google Cloud Computing Foundations" from IIT, Kharagpur with an exam held in Oct 2024.
- Dr. Abitha M A completed NPTEL 12-week online certification course (Jan-May '25) on "Deep Learning" from IIT Ropar with an exam held in April 25.
- Ms. Fetsy K Francis completed NPTEL 12-week online certification course (Jan-May '25) on "Deep Learning" from IIT Ropar with an exam held in April 25.
- Dr. S Swapna Kumar completed NPTEL 4-week online certification course (Aug-Sep 2024) on "Stress Management" from IIT, Kharagpur with an exam held in Oct 2024.
- Ms. Divya Unni completed NPTEL 12-week online certification course (Jan-May '25) on "Introduction to Machine Learning" from IIT Madras with an exam held in April 2025.
- Ms. Remya K R completed NPTEL 12-week online certification course (Jan-May '25) on "Introduction to Machine Learning" from IIT Madras with an exam held in April 2025.
- Ms. Honey Mol P K completed NPTEL 12-week online certification course (Jan-May '25) on "Introduction to Machine Learning" from IIT Madras with an exam held in April 2025.
- Ms. Ashitha P R completed NPTEL 12-week online certification course (Jan-May '25) on "Introduction to Machine Learning" from IIT Madras with an exam held in April 2025.
- Ms. Ashitha P R completed NPTEL 12-week online certification course (Jan-May '25) on "Deep Learning for Visual Computing" from IIT Kharagpur with an exam held in April 2025.

# Faculty Participation

- Ms. Divya Unni, Ms. Remya K R, Mr. Sojan Francis, Ms. Baby K A, Ms. Anju Vincent & Mr. Santumon S D attended 5 Days FDP on “Innovative Trends in VLSI, IoT, and Communication Technologies for Modern Applications” at Jyothi Engineering College Cheruthuruthy from 21/04/25 to 25/04/25.
- Ms. Honey Mol P K attended 5 Day FDP on AI and ML in Electrical Engineering conducted by Ramco Institute of Technology, Tamilnadu from 05 /05/25 to 09/05/25.
- Dr. Abitha K A attended a FDP on Advance Tools and Techniques of Research methodology, from 2-12th June 2025, Research Foundation of India.
- Ms. Divya Unni, Ms. Remya K R, Dr. S Swapna Kumar and Ms. Ashitha P R attended ATAL FDP on Artificial Intelligence as a copilot in bridging the gap between Academia & Industry.
- Mr. Sojan Francis P attended FDP on “Teaching in the AI age” held during 16-20, December 2024.
- Mr. Santumon S D attended 5 Days FDP on “Entrepreneurship Education: Bridging Academia and Industry”, from 07-11 October 2024
- Mr. Santumon S D attended 5 Days FDP on “Recent Trends in Robotics, Automation and Control ”, from 9-13 December 2024.
- Ms. Priyanka V, Ms. Shegi Prakash and Ms. Viji Vinodan attended FDP on “IOT” held from 17 March 2025 to 31 March 2025 from SkillDzire.
- Dr S Swapna Kumar attended online Faculty Development Program on "MATLAB" from 25th July 2024 to 6th August 2024 organized by SISA Research Center, Kohinoor, Kerala.
- Dr S Swapna Kumar attended a five days national workshop on 6G Communication Networks organized by department of Electronics and Communication Engineering, NIT Puducherry, Kariakal during 17.3.2025 to 22.3.2025 in association with Keysight Technologies India Pvt Ltd & Elmack Engg Services Pct. Ltd.
- Mr. Saurav Babu attended FDP on “PCB Design” held from 17 March 2025 to 31 March 2025 from SkillDzire.

# Student Achievements

## ISTE Kerala Section's Best Student Award 2024

Ms. Chaitra Prasad (S7,ECE Dept) is bestowed with 'ISTE Kerala Section's Best Student Award 2024'. Indian Society for Technical Education (ISTE) has constituted the 'Best Student Award' every year with an aim to spot the talents of students in curricular and extracurricular activities.



## State Level Winners of YIP 6.0 Competition

The students Mr. Mohammed Nidhal, Mr. Neeraj V M, Ms. Nikitha P and Mr. Nishanth Kiran P of 2020-2024 B.Tech ECE won state District Level competition with a cash price of Rs 75,000/- for their Idea Automatic Solar Panel Cleaning System (ASPCS). Mr Anil M (IEDC Nodal Officer and Asst Prof, ECE Dept) provided wholehearted support and motivation throughout the procedure.



## 'NASA International Space Apps Challenge Award 2024'

The team Solar Hex consisting of Mr. Alen M A, Mr. Adwaith E S, Ms. Afla C V, Mr. Aswin C T S, Mr. Aman Joju , Ms. Aleena Varghese of 2022-2026 B.Tech ECE nailed the challenge among the best 10 teams. The team's remarkable success was supported by Mr Anil M (IEDC Nodal Officer and Asst Prof, ECE Dept).

The award presentation was held on 24 October 2022 at Sahitya Academy, Thrissur. Dr Jose P Therattil (Principal, Jyothi Engineering College, Cheruthuruthi) presented the award. His esteemed presence of Dr Aswin Sekhar (Astrophysicist, Recipient of IAU honour Minor Planet '33928 Aswinsekhar') as Chief Guest, added significance to the event.



## GATE QUALIFIERS



**NIRANJANA T**  
**2022-2026 BATCH**



**ASHWIN ANANDH**  
**2021-25 BATCH**

## University Table Tennis Player

Sreesiva N of 2024-28 ECE batch got selected to represent APAJKTU Table Tennis (W) team in the South India Inter-University Tournament proposed to be held at AMET University, Chennai



## University Athletic Star



Abin Babu, student of M.Tech Embedded Systems batch represented the APAJKTU Athletics Team at the All India Inter-University Championship held at Kalinga Institute of Social Sciences, Odisha from 26-30 December 2024.

## Dance Battle Winner



Krishna P P of 2022-26 ECE batch brings laurels winning various dance titles throughout the years.

## NPTEL CERTIFIED STUDENTS



MINSA THOMAS



NANDHANA K U



JIDEV M SURESH



NANDANA T S



M NANDHINI



CHAITRA PRASAD



SIDDARTH P S



M SANGAMESH



GAYATRI GIREESH



EVIN FRANCIS



HANA P S



VARUNDEV A V



ADARSH K S



ANAGHA  
NANDAKUMAR



ANGEL SHAJU K



ANUPAMA  
JAGADEESAN



BHANUMATHI J  
MENON



KRISHNA A T

# Interactions with Outside World

## Workshop on Introduction to Robotics

Ms. Remya K R (Asst Prof, ECE Dept) and Ms. Baby K A (Asst Prof, ECE Dept) conducted a workshop on *Introduction to Robotics* on behalf of the Department of ECE, for the 'Little KITES' (Kerala Infrastructure and Technology for Education) students of Sree Durga Vilasam School, Peramangalam on 14 October 2024.



## Workshop on 'MATLAB & SIMULINK'



A workshop was conducted during 20- 21 June 2024 at Government Women's Polytechnic, Nedupuzha. Ms. Anju Vincent (Asst Prof, ECE Dept) and Ms Sagna L T (Asst Prof, ECE Dept) handled the session. Around 40 students attended the session. The session progressed by learning to write MATLAB coding.

## Workshop on 'Arduino and Robotics'

A workshop on "Arduino and Robotics " was conducted at Bharatiya Vidya Bhavan, Poochatty on 25 November 2024. The workshop was handled by Ms Baby K A (Asst Prof, ECE Dept), Ms Sagna L T (Asst Prof, ECE Dept) and Ms Anju Vincent (Asst Prof, ECE Dept) on behalf of the Department of ECE, handled the session. The hands-on session was attended by 35 students.



## Workshop on The Role of AI in Commercial Practice & Career Opportunities

A workshop on "the role of AI in Commercial Practice and Career Opportunities " for the Diploma students was successfully conducted on 07 December 2024 at Government Women's Polytechnic (GWPTC) Nedupuzha by ECE Dept . The program was organized by IEDC - GWPTC. Ms Baby K A (Asst Prof) and Ms Aswathy E R (Asst Prof) served as the resource persons for the workshop. More than 100 students from Govt. Women's Polytechnic Nedupuzha attended the workshop.



## Workshop on “Scientific writing using LaTeX”

A two day workshop on “Scientific writing using LaTeX” was conducted for the Diploma students of Govt. Women’s Polytechnic, Nedupuzha during 13- 14 January 2024 which was organized by the Department of Computer Science Engineering. The Workshop was handled by Dr. Swapna Kumar S (Professor & HoD) and Ms. Anju Vincent (Ass. Prof) assisted the session.



## Workshop on Automating the Future: A Hands-on Guide with Arduino

The department conducted a workshop titled “Automating the Future: A Hands-on Guide with Arduino” for ‘Little KITES’ students at St. Francis HSS, Mattom, on 20 February 2025. The session, attended by 30 students, introduced them to Arduino programming and hands-on hardware implementation.



The workshop began with a welcome speech by Mr Anto C Kakkassery (Headmaster, St. Francis HSS, Mattom) setting the stage for an engaging learning experience. Dr. S. Swapna Kumar (Prof & HoD) and Ms Remya K R (Asst. Prof) handled the technical sessions, guiding students through programming concepts and hardware interfacing. Mr Sebi Thomas K (‘Little KITES’ Co-ordinator) and Ms Sini Jose V (‘Little KITES’ Co-ordinator) expressed gratitude for the initiative, acknowledging its impact on the student’s learning journey.

## Workshop on Resume Building

The “RESUME DESIGN ” for the Diploma students was successfully conducted on 08 February 2025 at Government Women’s Polytechnic, Nedupuzha. The program was organized by the Department of ECE and IEDC, GWPTC. The resource person for the workshop was Ms Aswathy E R (Asst Prof).



## **KTU Research Seed Money Grant of Rs 2 Lakhs**

Dr. Abitha M A (Asso Prof, ECE Dept) has been awarded the KTU Research Seed Money grant for her research proposal titled “Optimal Guidance System for Quadrotor UAV Maneuvering in Rescue Operations”. This research project aims to develop an optimal guidance system for quadrotor UAVs tailored specifically for rescue operations in constrained and dynamic environments. The proposed system integrates real-time environmental feedback with advanced control algorithms to enable UAVs to navigate complex terrains efficiently and safely during emergency scenarios such as natural disasters or urban collapses.



## **Released the fifth edition of Technical Magazine Wissen 5.0**

Wissen—the annual technical magazine published by the ECE Department—serves as a platform to highlight the creativity, technical expertise, and innovative spirit of its students and faculty.



The department released the fifth edition of its technical magazine, Wissen 5.0. The release event was held on 16 April 2025 at the Principal's Office. The magazine was officially released by Dr. Sunitha C (Principal) and the first copy was received by Dr. S. Swapna Kumar (HoD, ECE Dept). Ms. Remya K. R (Staff Editor, Asst Prof, ECE Dept) and Ms. Jemy Jose Kakkassey (Dept Association Co-ordinator) successfully coordinated the event. Faculty members of the ECE Department also graced the occasion with their esteemed presence.

## APJAKTU CERD Research Seed Money Scheme

The student project proposal 'Robotic Exoskeleton for Hand Rehabilitation through Assisted Motion in Physiotherapy' has been granted financial assistance for an amount of Rs 23,000/- under the Centre for Engineering Research and Development (CERD) of APJ Abdul Kalam Technological University. The Principal Investigator is Ms. Jemy Jose Kakkassery and the Co Investigator is Dr. S. Swapna Kumar. The Student Team (S8 ECE B, 2021 Batch) are Mr. Delsen Sabu, Ms. Gayathri K S, Ms. Minna Thomas and Mr. Niranjana Das S J.



## Department released Volume 11 of 'Encircle'

Department released an annual newsletter titled 'Encircle' : Volume 11 on 15 October 2024. The first copy was handed over by Dr S Swapna Kumar (Professor, HoD, ECE Dept) to Dr Sunitha C (Principal).



# PLACEMENTS 2024-2025



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TATA ELECTRONICS



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JAI HIND INDUSTRIES PVT. LTD.



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TATA ELECTRONICS



VARUNDEV EV  
MOVATE



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POORNAM INFOVISION



PARVATHY K S  
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AKHIL N A  
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POORNAM INFOVISION



ANGEL SHAJU K  
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TECH MAHINDRA



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POORNAM INFOVISION



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VEDHIK AI



ASHIQ MUHAMMED  
SUTHERLAND



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VEDHIK AI



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TECH MAHINDRA



VARUNDEV E V  
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