

# DEPARTMENT BULLETIN

## Faculty Exchange Initiative



As part of the International Faculty Exchange Initiative, Dr. Abhilash Antony, Head of the Department of Electronics and Communication Engineering at MITS, visited the ESIGELEC School of Engineering, France, on 4 June 2026. During his visit, he met with the institution's academic leadership and the International Relations team, including Dr. Khemmar Redouane, Head of the AES Programme; Dr. Adriane Cabani, Head of the CEIS Programme; and Ms. Cecelia Brunel, Deputy Director of International Relations, along with members of their respective teams. The discussions centred on strengthening the academic partnership between MITS and ESIGELEC, with a focus on expanding faculty exchange opportunities, fostering collaborative teaching and research initiatives, and promoting knowledge exchange.

## Expert Talk on Fundamentals of Wi-Fi Testing and Work-Life Balance

The Department of Electronics and Communication Engineering organised an expert talk on "Fundamentals of Wi-Fi Testing and Work-Life Balance" on 16 February 2026, with Mr. Alan Sebastian George serving as the resource person. The session introduced participants to the fundamental concepts and practical aspects of Wi-Fi testing while

highlighting the importance of maintaining a healthy work-life balance in today's professional environment. The talk fostered meaningful discussions and offered practical perspectives that contributed to the overall learning experience of the attendees.

## Internal Expert Talk on FPGA Implementation

The Department of Electronics and Communication Engineering organised an internal expert talk on "FPGA Implementation" on 9 March 2026. The session was led by Ms. Divya R. S. and Ms. Amrutha M., with discussions focusing on the fundamental concepts and practical aspects of FPGA implementation, highlighting its significance in modern electronic system design and embedded applications. The expert talk served as an enriching learning opportunity, encouraging participants to explore advancements in the field of digital design and hardware development.

## Faculty Achievements

**Dr. Abhilash Antony**, Head of the Department of Electronics and Communication Engineering, participated in the International Faculty Exchange Initiative by visiting the ESIGELEC School of Engineering on 4 June 2026.



During the visit he engaged in discussions with Dr. Khemmar Redouane, Head of the AES Programme, Dr. Adriane Cabani, Head of the CEIS Programme, Ms. Cecelia Brunel, Deputy Director of International Relations, and their respective teams. The visit strengthened academic collaboration and explored opportunities for future partnerships, faculty exchange, research collaboration, and international knowledge-sharing initiatives between the two institutions.

**Dr. Dhanya S.** along with Anjali S. V., presented the paper ***“A Comprehensive Analysis of TEEN, PEGASIS, and HEED Routing Protocols for Energy-Efficient Wireless Sensor Networks in Water Quality Monitoring”*** at the 5th International Conference on Emerging Technology Trends in Electronics, Communication and Networking (ETECN 2026), hosted by SVNIT, Surat and held from 3 to 4 April 2026, which was later selected for publication in the Scopus-indexed Springer Lecture Notes in Electrical Engineering (LNEE). She also co-authored, with Anjali S. V., Alanto Noble, Vivek Thomas, and Shaahana Sherin, the paper ***“Energy-Efficient Water Quality Monitoring Network and Cluster-Based Routing Protocols”***, which was presented at the IEEE International Conference on Innovative Trends in Information Technology (ICITIIT 2026) held from 27 to 28 March 2026 and was subsequently published in the conference proceedings (pp. 1–6, IEEE, 2026). She also served as a reviewer for the papers submitted to ETECN 2026, held from 3–4 April 2026 and organised by the Department of Electronics Engineering, SVNIT Surat. Additionally, she presented the paper ***“Hybrid ESP-NOW and Cloud-assisted V2X Communication for Emergency-Aware Traffic Optimisation”*** with Dr. Arun Joy, Elizabeth James, Manu M., Nitin Rajesh, and Sayanth B. S. at the 5th International Conference on Emerging Technology Trends in Electronics, Communication and Networking (ETECN 2026), organised by the Department of Electronics Engineering, SVNIT, Surat held from 3 - 4 April 2026.



**Dr. Arun Joy** along with Dr. Dhanya S., Elizabeth James, Manu M., Nitin Rajesh, and Sayanth B. S., presented the research paper titled ***“Hybrid ESP-NOW and Cloud-assisted V2X Communication for***



***Emergency-Aware Traffic Optimisation ”*** at the 5th International Conference on Emerging Technology Trends in Electronics, Communication and Networking (ETECN 2026), organised by the Department of Electronics Engineering, SVNIT, Surat held from 3 - 4 April 2026. Along with Dr. Prathibha Sudhakaran, he organised the **STC – Silicon Trident Conclave** under the IEEE Solid-State Circuits Society (SSCS) on 23 January 2026, with funding support from IEEE SSCS, bringing together researchers, academicians, and industry professionals for technical panel discussions on semiconductor technologies. He also co-authored, with Dr. Rijo Sebastian, Afeef K. T., and Aswin T. S., the paper ***“Comparative Analysis of Energy-Efficient and Fault-Tolerant Clustering and Routing in Wireless Sensor Networks”***, presented at the 2026 International Conference on AI-Driven Solutions for Sustainable Smart Cities: Challenges and Opportunities (ADSSSC 2026), organised by Sahrdaya College of Engineering & Technology, held from 9 to 10 April 2026.

**Dr. Rijo Sebastian** participated in the Faculty Development Programme on “AI-ML Integration for Information Security”, organised by the Department of Cyber Security, MITS, from 20 to 27 April 2026. He published a research paper titled ***“Embedding-Based Item Retrieval for Recommendation: A Multi-Dataset Empirical Analysis”*** in the proceedings of the International Seminar on Digital Dreamscapes: Youth, AI and Virtual Expression (ISDD 2026), organised by BITS Pilani, held from 19 to 21 February 2026. He also presented another paper titled ***“Comparative Analysis of Energy-Efficient and Fault-Tolerant Clustering and Routing in Wireless Sensor Networks”*** co-authored with Dr. Arun Joy, Afeef K. T. and Aswin T. S. at the 2026 International Conference on AI-Driven Solutions for Sustainable Smart Cities: Challenges and Opportunities (ADSSSC 2026), organised by Sahrdaya College of Engineering & Technology, held from 9 to 10 April 2026, reflecting his continued commitment to research, collaboration, and professional growth.



**Ms. Anjali S. V.**, along with Dr. Dhanya S., presented the research paper titled ***"A Comprehensive Analysis of TEEN, PEGASIS, and HEED Routing Protocols for Energy-Efficient Wireless Sensor***



***Networks in Water Quality Monitoring"*** at the 5th International Conference on Emerging Technology Trends in Electronics, Communication and Networking (ETECN 2026), hosted by SVNIT, Surat, and held from 3 to 4 April 2026. The paper was subsequently selected for publication in the Scopus-indexed Springer Lecture Notes in Electrical Engineering (LNEE). She also co-authored, with Swarun Raj R. S., the paper ***"LEACH Routing Protocol and Its Variants: A Comprehensive Study for IoT-Enabled Smart Water Quality Monitoring"***, which was presented at the 6th International Conference on Computer Vision and Robotics, hosted by NIT Goa and held from 24 to 25 April 2026. The paper has been accepted for publication in the Scopus-indexed Springer Lecture Notes in Networks and Systems (LNNS). Ms. Anjali S. V., along with Dr. Dhanya S., Alanto Noble, Vivek Thomas, and Shaahana Sherin, presented the paper ***"Energy-Efficient Water Quality Monitoring Network and Cluster-Based Routing Protocols"*** at the IEEE International Conference on Innovative Trends in Information Technology (ICITIIT 2026), held from 27 to 28 March 2026. The paper was subsequently published in the conference proceedings (pp. 1-6, IEEE, 2026). She further enhanced her expertise by participating in the Faculty Development Programmes on "Generative AI and Agentic Systems", organised in association with SVNIT, Surat, from 16 to 21 February 2026, and "Smart Mobility: IoT and Embedded Systems in Modern Automotive Engineering", organised by the Department of Automobile Engineering, VNR VJIET, from 4 to 8 May 2026.

**Ms. Binu Manohar** along with Ms. Jisha Jacob, Prashob S. Nair, Feona Jova Varghese, Edwin I. Mathew, and Aby KuriaKose presented a research paper entitled ***"Gesture-Controlled Hospital Bed using Deep Learning IoT for Patient-***



***Centric Care"*** at the 2026 International Conference on AI-Driven Solutions for Sustainable Smart Cities: Challenges and Opportunities (ADSSSC 2026) organised by Sahrdaya College of Engineering and Technology, held from 9 to 10 April 2026.

**Dr. Arunkant A. Jose**

successfully completed the AICTE Training and Learning (ATAL) Faculty Development Programme on "Next-Generation Semiconductor Technologies: Design, Fabrication, and Applications in AI, IoT, and 5G Systems" at Sahrdaya College of Engineering held from 18 to 24 January 2026. He also completed the Faculty Development Programme on "Generative and Agentic AI Tools and Demonstrations", organised by SVNIT and sponsored by the IEEE Gujarat Section, from 16 to 21 February 2026, and the Faculty Development Programme on "Smart Mobility: IoT and Embedded Systems in Modern Automotive Engineering", organised by the Department of Automobile Engineering, VJIET, from 4 to 8 May 2026. In addition, he also successfully completed the ***Innovation Ambassador (IA) Foundation Level Training Programme*** 2025-26, conducted by the Ministry of Education's Innovation Cell (MIC) in collaboration with AICTE, on 13 March 2026.

Dr. Arunkant A. Jose served as a reviewer for the 2026 International Conference on AI-Driven Solutions for Sustainable Smart Cities: Challenges and Opportunities (ADSSSC 2026), organised by Sahrdaya College of Engineering & Technology in collaboration with the IEEE Kerala Section, held from 9-10 April 2026. In recognition of his academic service, he also received a Certificate of Appreciation from Government Model Engineering College for his valuable contribution as a reviewer for the 3rd International Conference on Trends in Engineering Systems and Technologies (ICTEST 2026) on 16 April 2026.

**Dr. Prathibha Sudhakaran,**

along with Dr. Arun Joy, organised the ***Silicon Trident Conclave (STC)*** under the IEEE Solid-State Circuits Society (IEEE SSCS) on 23 January 2026. The event was funded by IEEE SSCS and brought together



researchers, academicians, and industry professionals for technical discussions on semiconductor technologies. She also filed a design patent for "Magnetic Tongue Tracking Headset for Wheelchair Control" in February 2026, reflecting her continued commitment to research excellence, innovation, and technological advancement. In addition, she won the award for Best Oral Presentation for the paper titled **"Implementation of NOAA Satellite Image Reception System,"** which she co-authored with Abhishek Jose, Hafis Salim, and Vithul Vinu, and presented at the RADMAP 2026: Emerging Radar Meteorology Frontiers in Observations and Prediction Training Workshop and Conference, held at CUSAT, Cochin, from 16–21 March 2026. She also served as a reviewer for the 2nd IEEE International Conference on Computing, Communication and Green Engineering (CCGE 2026), organised by the IEEE Pune Section, held from 7–8 May 2026.

**Dr Ancy Joy** successfully defended her Ph.D. thesis titled **"Modelling and Simulation of SRAM and RRAM Memory Architectures for Energy-Efficient Applications"** on 18 March 2026 at MACE, Kothamangalam, under the guidance of Dr. Jinsa Kuruvilla. She also served as an evaluator at VYJYOTHI 2026: Silver Tech Odyssey, a national-level project exposition organised by Viswajyothi College of Engineering and Technology, Vazhakulam, on 24 March 2026. She also participated in the Faculty Development Programme on "AI-ML Integration for Information Security" conducted at MITS from 20–27 April 2026.



**Ms. Jisha Jacob** along with Ms. Binu Manohar, Prashob S. Nair, Feona Jova Varghese, Edwin I. Mathew and Aby Kuriakose presented the research paper titled **"Gesture-Controlled Hospital Bed using Deep Learning IoT for Patient-Centric Care"** at the 2026 International Conference on AI-Driven Solutions for Sustainable Smart Cities: Challenges and Opportunities (ADSSSC 2026),



organised by Sahrdaya College of Engineering and Technology, from 9 to 10 April 2026. She successfully completed the AICTE Training and Learning (ATAL) Faculty Development Programme on "Next-Generation Semiconductor Technologies: Design, Fabrication, and Applications in AI, IoT, and 5G Systems" at Sahrdaya College of Engineering from 18 to 24 January 2026. She also served as a reviewer for ADSSSC 2026, organised by Sahedaya College of Engineering & Technology in collaboration with the IEEE Kerala Section, and as a resource person for the two-day workshop on "Digital System Design using Verilog", organised by the IEEE CASS Kerala Chapter at MBITS, Kothamangalam, on 28 and 29 March 2026. She also participated in the Faculty Development Programme on "AI-ML Integration for Information Security" conducted at MITS from 20 to 27 April 2026, reflecting her continued commitment to research, knowledge sharing, and professional development.

**Mr. Swarun Raj R. S.** along with Anjali S. V., presented the paper **"LEACH Routing Protocol and Its Variants: A Comprehensive Study for IoT-Enabled Smart Water Quality Monitoring"** at the 6th International Conference on Computer Vision and Robotics (CVR 2026), NIT Goa held from 24 to 25 April 2026, which was selected for publication in the Scopus-indexed Springer Lecture Notes in Networks and Systems (LNNS). He also presented another paper titled **"Integrating Spectral and Functional Connectivity Features from EEG for Alzheimer's Disease Classification"** at CVR 2026, which was likewise accepted for publication in the Scopus-indexed Springer Lecture Notes in Networks and Systems (LNNS). In the month of February 2026, Mr. Swarun Raj R. S. published two research papers, **"Classifying Alzheimer's Disease Using Machine Learning: Insights from Default Mode Network Alterations"** and **"CBAM-SMK: Integrating Convolution Block Attention Module with Separable Multi-Resolution Kernels in Deep Neural Networks for Brain Tumour Classification"**, in the SCIE



(Q1) Elsevier journal, Biomedical Signal Processing and Control, Vol.112. Part C and Part A respectively. He served as a reviewer for the 3rd International Conference on Trends in Engineering Systems and Technologies (ICTEST 2026) organized by Govt. Model Engineering College, Thrikkakara and for the International Conference on Artificial Intelligence and Engineering Innovations (ICAIEI 2026) organized by the College of Engineering Cherthala, Alappuzha held from 21 to 22 February 2026. He also earned an Elite Certification in the NPTEL course "Foundations of Deep Learning: Concepts and Applications" offered by IISc Bengaluru from January to April 2026. He further participated in a Five-Day Faculty Development Programme on "Agentic AI" organised by MITS, Kochi, held from 5 to 10 February 2026 and a Six-Day Industrial Training Programme on "Cybersecurity and Ethical Hacking: Concepts, Tools and Practices" organised by Ilahia College of Engineering and Technology (ICET) in association with TechByHeart, held from 18 to 23 May 2026.

## STUDENT HIGHLIGHTS



**Aishwarya Mohanan** (S6 ECE) was selected to represent the Kerala Contingent at the NSS National Integration Camp, held at Hassan Institute of Medical Sciences, Hassan, from 5 to 11 January 2026.



**Basil Mathews, Biju, Rohn Eldho, and Adithyan A.** (S6 ECE) secured Third Place in the IEEE Open Silicon Microelectronic Bootcamp held at Sahyadri College of Engineering. As one of the top three teams, they earned the opportunity to submit their designs to Tiny Tapeout under full sponsorship



**Vasudev Reji and Kiran Alias Shaji** (S6 ECE) represented the college at the Singapore Autonomous Underwater Vehicle (SAUV) Challenge 2026, held in Sanya, China, from 28 to 31 May 2026. In the college's first participation in an international autonomous underwater robotics competition, the team secured a place among the Top 17 teams worldwide and was one of only three Indian teams to qualify for the finals.



**Irin Sarah Vinod, Basil Mathews Biju, and Fahim Faisal** (S6 ECE), as members of the MITS Motorsports team, secured All India Rank 13 and All Kerala Rank 1 in the 13th Go-Kart Design Challenge, held at Kari Motor Speedway, Coimbatore, from 20 to 24 February 2026, where they presented an EV Kart.

**Adithyan K. S., Manasa V., and Sanjana Suresh** received the Best Paper Award for their research paper, "Multispectral UAV Sensing and Deep Learning Benchmarking for Weedy Rice Detection in Precision Agriculture," at the International Conference on AI-Driven Solutions for Sustainable Smart Cities: Challenges and Opportunities (ADSSSC 2026), held on 9-10 April 2026, under the guidance of Dr. Arunkant A. Jose and Dr. Dhanya S.

**Sameera Elizabeth Paul and Malavika Pradeep** (S4 ECE), along with members of the MITS Music Club, participated in the Vande Mataram National Song Competition organised by Cochin Shipyard Limited on 8 January 2026, commemorating the 150th anniversary of Vande Mataram.

**Mathews V. Manoj, Jordan Noby Erali, George Amal Renju, and Deon Lukose Shince** (S4 ECE) were shortlisted for the project evaluation stage of IEEE Sensors Council – MYOSA 5.0 with their project, "VigilLift" – an IoT-based Elevator Emergency Detection and Safety System.

**Ashish K. Rajesh, Arjun K. A., Aldrin Joseph, and Richards Vinu Mathai** (S2 ECE) were selected as winners of the MYOSA 5.0 Travel Grant to Thailand and the USA, organised by the IEEE Sensors Council Kerala Chapter.

**Abhishek Jose, Hafis Salim, and Vithul Vinu** were awarded the Best Oral Presentation Award for their paper titled "Implementation of NOAA Satellite Image Reception System" at RADMAP 2026, held from 16 to 21 March 2026.

**Emiya Suzan John** (S4 ECE) attended the Two-Week STTP on ASIC and FPGA SoC Design, organised by CUSAT, from 1 to 12 June 2026, gaining valuable exposure to contemporary ASIC and FPGA System-on-Chip (SoC) design methodologies.

**Shone Reji and Mathews V. Manoj** (S4 ECE) successfully cleared Stage 1 of IEEE DVCon India 2026 for their FPGA-Based Object Detection project.

**Arsha R. Kumar** (S6 ECE) secured First Place in the Chess Interzone Competition, held at Nehru College of Engineering & Research Centre on 30 January 2026.

## NPTEL

The following students secured certifications in various NPTEL courses.

- **Deep Learning**

Elite Certification:

Nivea K. L. – S6

Krishna Harikumar – S6

Sania Treesa Sunny – S6

Jeslet Benny – S6

Rohn Eldho – S6

Sandra K. P. – S6

Devi Nandana R. – S6

Aiswarya Mohanan – S6

- **Waste to Energy Conservation**

Elite + Silver Certification:

Julia Sarah Korah – S6

Elite Certification:

Basil Mathews Biju – S6

- **FPGA Based Signal Processing**

Elite Certification:

Jeslet Benny – S6

Hiba Shireen A. A. – S6

Gayathri K. B. – S6

- **The Joy of Computing Using Python**

Elite Certification:

Harishankar S. – S6

- **Software Testing**

Elite Certification:

Arsha R. Kumar – S6

- **Design of Power Electronic Converters**

Elite Certification:

Jaleel P. K. – S6

- **Signals and Systems**

Certification Level 1 (52%):

Prathamesh Datray Abdar – S4

- **Introduction to C Programming**

Certification Level 1 (62%):

Meriem Abraham – S4

Certification Level 1 (53%):

Johaan A. Thomas – S4

- **MOS Transistor Modelling**

Certification Level 1 (60%):

Kevin C. Saji – S4

- **Introduction to Deep Learning**

Elite + Silver Certification:

Akash Vinod – S6

## INTERNSHIPS

- **Product Communication, Infopark**  
Herald Joe Justin – S4

- **IC Design Internship, Model Engineering College**  
Athul George Binoy – S4  
Aswin Santhosh – S4

- **Cochin Shipyard Limited**  
Sameera Elizabeth Paul – S4

- **Techmaghi, KSUM**  
George Amal Renju – S4
- **National Institute of Technology Calicut**  
Mathews V. Manoj – S4
- **Dynashin Technosoft Pvt. Ltd., Bengaluru**  
Aditya V. S. – S4
- **IEDC MITS – ESP32 IoT Internship**  
Pavithra Suresh – S4
- **National Institute of Electronics and Information Technology (NIELIT), Chennai**  
Sagarika Prasandan – S4
- **Emertxe Information Technologies, Bengaluru**  
Nandana E. – S4  
Anoshka Lal M. H.
- **Keltron**  
Shahanamol K. S. – S4  
Parvathy Vinod K. – S4  
Angel Alias – S4  
Anna Shaji – S4  
Jovin Binesh – S4  
Kevin C. Saji – S4  
Judith Jose – S4  
Joan Jose – S4  
Johaana A. Thomas – S4  
Navalurahma P. P. – S4  
Navaneeth – S4  
Aneswer Krishna – S4  
Shone Reji – S4  
Merieum Abraham – S4  
Mary Kochumon – S4  
Meria Rachel Binu – S4  
Ann Maria Jose – S4  
Ameena Fathima – S4  
Ajitt Joy – S4  
Malavika Pradeep – S4  
Meghna Pradeep – S4  
Pavithra Suresh – S4  
Adithya Radhakrishnan – S4  
Aswinkrishna Manilal – S4  
Deon Lukose Shince – S4  
Sreehari Ajith – S4
- **TKM College of Engineering**  
Ananthakrishnan R. – S4  
Abhijith Krishnan R. – S4  
Muhamad Lasim – S4  
Ebin Joseph – S4
- **CUSAT**  
Lakshmi Geeth Krishnan – S4  
Amritha Santhosh – S4  
Abhinav K. V. – S4
- **SFO Technologies (NeST)**  
Anchal Ajith – S4  
Pooja Jayanth – S4  
Helen Thankam Preeth – S4  
Ethna Joy – S4  
Elsa Bosco Jose – S4
- **BPCL, Kochi**  
Hrishikesh Anil – S4
- **IIT Bombay**  
Nicholas Siby – S4