

# DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING

In an era where technology is reshaping the world, the Department of Electronics and Communication Engineering at Bishop Jerome Institute is dedicated to provide a nurturing and enriching learning environment. We take great pride in shaping the next generation of engineers, equipping them with the knowledge, skills and ethical values needed to contribute meaningfully to society and drive technological advancements. With a deep commitment to both academic excellence and personal growth, we strive to empower our students to become not only skilled professionals, but visionary pioneers who will shape the future of communication and electronics.

## **Department Vision**

To nurture skilled and ethical Electronics & Communication Engineering professionals who can lead positive change for a better world.

# **Department Mission**

- 1. To deliver top-notch academic programs that mirror international standards, emphasizing both academic excellence and professional proficiency.
  - 2. To empower the students with vital industry and research skills, encouraging teamwork and clear communication to promote responsible practices in Electronics & Communication Engineering.



Mr. Roy.S

Dean & HOD,

Dept. of Electronics &

Communication Engineering

Bishop Jerome Institute

Kollam

# HoD's Message

It is with great pleasure that we present the 2024-25 edition of the department newsletter. This platform is dedicated to share educational insights, departmental activities and achievements. As we reflect on the past semesters, I am proud to share some of the exciting developments and accomplishments within our department. As we celebrate our achievements, let's remember that our commitment to excellence is what propels us forward, semester after semester. From engaging educational activities to impactful events, our commitment to excellence in education and research has remained steadfast. This is a collaborative space. I encourage everyone to share their thoughts, experiences and contributions to enrich our community. I am proud of our dynamic faculty, dedicated students and supportive staff. Together, we continue to excel in academic, research and extracurricular endeavors. Congratulations to our staff and students on their achievements. Your hard work and determination inspire us all. Looking forward to a successful journey ahead!

#### **FDP Attended**

## Roy S., Associate Professor

- Attended FDP on Quality Technical Education based on Universal Human Values from 8/7/24 to 12/7/24 at Bishop Jerome Institute.
- Attended FDP on Generative AI and Prompt Engineering from 9/12/24 to 24/12/24.

## Anju D.S., Associate Professor

- Attended FDP on Quality Technical Education based on Universal Human Values from 8/7/24 to 12/7/24 at Bishop Jerome Institute.
- Attended a 6-day FDP on Next Generation Wireless Communication and Hands-on Session in HFSS for RF and Microwave, organized by Centre for Antenna Design (CAD) at Adi Shankara Institute of Engineering and Technology from 29/6/24 to 5/7/24.

## Blessy Babu, Assistant Professor

- Attended FDP on 5G Communication Networks: Key Enabling Technologies at TKM College of Engineering from 18/11/24 to 23/11/24.
- Attended FDP on Artificial Intelligence and Machine Learning in Signal Processing from 11/3/24 to 15/3/24 at SCMS School of Engineering and Technology.
- Attended FDP on Quality Technical Education based on Universal Human Values from 8/7/24 to 12/7/24 at Bishop Jerome Institute.

## Deepthi Felix, Assistant Professor

- Attended FDP on 5G Communication Networks: Key Enabling Technologies at TKM College of Engineering from 18/11/24 to 23/11/24.
- Attended FDP on Artificial Intelligence and Machine Learning in Signal Processing from 11/3/24 to 15/3/24 at SCMS School of Engineering and Technology.

 Attended FDP on Quality Technical Education based on Universal Human Values from 8/7/24 to 12/7/24 at Bishop Jerome Institute.

## Mahesh Sankar, Assistant Professor

- Attended FDP on 5G Communication Networks: Key Enabling Technologies at TKM College of Engineering from 18/11/24 to 23/11/24.
- Attended Teachers Workshop at Liquid Propulsion Systems Centre and IIST, Valiamala, Trivandrum.
- Attended FDP on Quality Technical Education based on Universal Human Values from 8/7/24 to 12/7/24 at Bishop Jerome Institute.

## Sreeja V, Assistant Professor

- Attended FDP on Quality Technical Education based on Universal Human Values from 8/7/24 to 12/7/24 at Bishop Jerome Institute.
- Attended Webinar on The Process and Challenges of Environmental, Social Activities and its Compliance for Vizhinjam Port Development on 23/11/24
- Attended FDP on Smart Sensor Systems: IoT-based Sensor Design, Development, and Applications in Electrical Engineering from 18/11/24 to 22/11/24 at Mangalam College of Engineering.

# Neethu Mary Raju, Assistant Professor

- Attended Teachers Workshop at Liquid Propulsion Systems Centre and IIST, Valiamala, Trivandrum.
- Attended FDP on Quality Technical Education based on Universal Human Values from 8/7/24 to 12/7/24 at Bishop Jerome Institute.

#### MOOC/NPTEL COURSE COMPLETION

Several students from the Department of Electronics and Communication Engineering at Bishop Jerome have successfully completed various Institute MOOC/NPTEL courses, showcasing their commitment to learning and skill enhancement. continuous Aiswarya S. Pai completed a 12-week course on Soft Skills, passing with 66% marks. Ananya J. successfully completed a 12-week Software Engineering course, while Arathi S. Pillai earned an Elite Gold certification in the Education for Sustainable Development course. In the field of Product Engineering & Design Thinking, Arjun B passed with 70% marks, Arnold Peter achieved an Elite Silver certification and Catherine J completed the course. Dominic Harison successfully completed the Software Engineering course, while Fathima A. S. and Josna Joseph passed the Design, Technology & Innovation course. Raveena B completed the Software Engineering course and Vignesh Kumar completed an 8-week course on Innovation Design and Technology, passing with 64% marks. Anjana Sajeev completed an NPTEL online course on Programming in Java, while Ancy Maria Edwin completed an NPTEL online course on System Design through Verilog, securing 72% and earning an Elite certificate. Additionally, Abhijith Premji completed a Swayam online course on Programming in Python. These achievements reflect the dedication of the students toward acquiring new knowledge and staying updated with industry-relevant skills

# **Memorandum of Understanding**

A Memorandum of Understanding (MoU) was signed with PhiScape Robotics Pvt. Ltd., Kollam, on 27 March 2024. The collaboration aims to promote joint research, training, and development in the field of robotics and related technologies. This partnership is expected to create new opportunities for academic and industrial cooperation.

### **STAFF ACHIEVEMENTS**

- The NPTEL Elite Gold Certification has been awarded to Blessy Babu for Successfully completing the course Fundamentals of MIMO wireless Communication and was recognized among the Top 2% performers.
- This 8-week course, conducted from January to March 2024, was offered by Indian Institute of Technology Kharagpur under the SWAYAM platform, funded by the Ministry of Education, Government of India.
- The NPTEL Elite Certification has been awarded to Neethu Mary Raju for successfully completing the Digital circuits course. This 12-week course, conducted from July to October 2024, was offered by Indian Institute of Technology Kharagpur under the SWAYAM platform, funded by the Ministry of Education, Government of India.

#### **EXPERT TALKS**

As part of the maiden National Space Day Celebration, TRACES, the Students' Association of the ECE Department, organized a technical talk on 'Rocketry and Space' by Scientist Kurian John from Vikram Sarabhai Space Centre (VSSC), Thiruvananthapuram on 23/08/2024. He delivered an insightful talk on "Introduction to Rocketry and Space", covering the fundamentals of space technology and rocketry, their applications and the scope for young engineers in the field of space exploration. The event took place in the seminar hall on the sixth floor.

Key highlights from the talk included the basics of rocket science and space exploration, current advancements in India's space missions, their global relevance and career opportunities in space science for aspiring engineers. This interactive session left the students motivated and inspired to pursue careers in aerospace technology and research.





## INDUSTRIAL VISITS

Students of 2021-2025 batch visited United Electricals Limited Kollam on March 12th 2024.



#### **INTERNSHIPS**

Lidiya Leslie of 2020-2024 batch got internship at Electronics Corporation of India Limited, Hyderabad. Abhijith Premji successfully completed an internship on Hotel Management System using Python in January 2024

### **TECHNICAL EVENTS**

The BSNL Exhibition at Bishop Jerome Institute on 21/02/2025, aimed to educate students on modern telecommunications. It featured demonstrations on broadband services, fiber-optic communication, mobile networks, and satellite communication, along with live sessions on telecom infrastructure and emerging trends like 5G.

Students actively participated, gaining hands-on experience with telecom equipment and networking setups. The event received positive feedback from students and faculty, who appreciated the practical exposure. The exhibition was a resounding success, fostering interest in telecom careers and bridging the gap between theory and practice.









The ALOKA ROBOEXPO 2025, held on February 21st at Bishop Jerome Institute, Kollam, was part of the Technical Fest COGNIZ 2025 and organized by the Department of Electronics and Communication. The event aimed to introduce students to robotics and its impact on various industries. Over 534 students and 19 faculty members from 8 schools attended. The event featured a speech and live demonstrations by Mr. Akhil, showcasing robotic tools like electric smart balance wheels, drones and a Robo-dance show. Hands-on demonstrations explored scientific concepts such as centre of mass, Bernoulli's theorem and plasma ball experiments. A Q&A session encouraged active student participation, followed by a quiz. The event received positive feedback, with students expressing increased interest in research, technology and innovation.







A two-day workshop titled "IoT & App Development Essentials" was held on the 6th and 7th of May 2025, with the objective of enhancing the technical knowledge and practical skills of higher secondary students. The event saw enthusiastic participation from 43 learners eager to explore emerging technologies. The inaugural session on Day 1 commenced with a warm welcome and presidential addresses by Prof. Roy S, Dean of Academics and Head of the Department of ECE and Rev. Fr. Benjamine Palliyadiyil, Manager of BJI, respectively. This was followed by an inspiring keynote address by Mr. Athul Mohan, CEO of Neovent Innovations. who hiahliahted real-world applications and promising career prospects in IoT and app development. Dr. Anil A.R, Principal of BJI, offered his felicitations, and Prof. Blessy Babu, the workshop coordinator, concluded the session with a vote of thanks. The day continued with an intensive hands-on session focused on IoT. On Day 2, participants delved into Android development through practical training, followed by a project-based soldering workshop led by Prof. Anju D.S. In the afternoon, Prof. Roy S. delivered an engaging Career and Innovation Talk, providing valuable insights into current industry trends and innovative pathways. The event concluded with the distribution of certificates. The workshop was a resounding success, providing students with hands-on experience and inspiring them to explore the dynamic domains of IoT and Android development.



## **STUDENT ACHIEVEMENTS**

Several students have brought laurels to the institution through their remarkable achievements in placements, sports, and extracurricular activities. Aiswarya S Pai has been successfully placed at Sutherland, while Ananya J, Dominic Harison, Josna Joseph, Raveena B, Sojiya S, and Vignesh Kumar have secured placements at Q Spiders, reflecting the growing industry readiness among our graduates. In the field of sports, S.S. Neelrishy of S2 ECE clinched a gold medal in the below 50 kg category at the National Astudu Akada Championship held in Nagpur, Maharashtra, from February 1 to 3, 2025. Adding to this, Adham K. Alex achieved an international FIDE rating of 1448 by participating in the FIDE International Ratings Below 1700 Chess Tournament held from November 8 to 10, 2024. The students also excelled in technical and extracurricular domains: Sandra C S secured the third position in ENIGMA 2025 - The Ideathon Challenge, themed "Kollam Reimagined: Transforming an Unplanned Citv Enhancing Sustainability, Infrastructure, and Livability", and also won first place in the English Debate competition, showcasing her creativity and communication skills.

Furthermore, Abhijith Premji contributed to academic research by publishing a paper titled "Intelligent Traffic Management System for India", emphasizing innovative approaches to urban traffic issues. These accomplishments highlight the diverse talents and holistic development of our student



# **Upcoming events**

The Department of Electronics and Communication Engineering is organizing a two-day workshop titled "Python for Everyone" on June 4 and 5, 2025. Featuring interactive sessions, hands-on coding challenges and a certificate of participation.