



# DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

*Department Bulletin*

## VISION

TO BE A CENTRE OF EXCELLENCE IN COMPUTER SCIENCE AND ENGINEERING PROVIDING QUALITY EDUCATION AND RESEARCH FOR THE BETTERMENT OF THE SOCIETY.

## MISSION

TO IMPART SOUND KNOWLEDGE IN THEORETICAL AND APPLIED FOUNDATIONS OF COMPUTER SCIENCE AND ENGINEERING, AND TO TRAIN THE STUDENTS TO SOLVE REAL LIFE ISSUES TO EFFECTIVELY DEFINE AND SHAPE LIFE

## MOU SIGNING BETWEEN MBCET & SIMPLE LOGIC SOLUTIONS PVT. LTD.

**Mar Baselios College of Engineering and Technology (MBCET)** has signed a Memorandum of Understanding (MoU) with **Simple Logic Solutions Pvt. Ltd.** on February 3, 2025. Simple Logic Solutions, a Startup India-registered company funded by the Government of India through Nidhi Prayas, is based in

Thiruvananthapuram, Kerala. The company specializes in Research & Development, Quality Assurance, Custom Application Development, and Biomedical Solutions. Their biomedical projects are incubated at Manipal.

As part of this collaboration, a consultancy agreement has also been established between the Department of Computer Science and Engineering (CSE) and Simple Logic Solutions. Under this initiative, the Department of CSE is actively engaged in a project titled Experienced Recruitment through Campuses. This project aims to streamline recruitment processes, enhance collaboration between academia and industry, and create more opportunities for experienced professionals.

The project is being carried out by the 6<sup>th</sup> Semester students: Mr. Johann Luke John, Mr. Thriambak S., Mr. Sanjith Brijmohan, Mr. Sameer Shah S., Mr. A. V. Abhinav. The students are mentored by Ms. Prathibha S. Nair and Dr. Priya Mariam Raju, (Assistant Professors, Department of CSE).



## BOOK PUBLICATION

Ms. Vijitha Robinson & Ms. Prathibha S. Nair co-authored "Foundations of Computing: From Hardware Essentials to Web Design", ISBN: 978-93-342-1525-0, published on 27th January 2025.



## PAPER PUBLICATION

Ms. Neethi Narayanan presented "A Survey on Enhancing Cloud Data Security Using Blockchain Technology" at the IEEE CICON-2024 and was published in IEEE Xplore in January 2025.

## FACULTY DEVELOPMENT PROGRAMMES ATTENDED

- Ms. Vijitha Robinson and Ms. Gauri Shree V. K., Assistant Professors, participated in a 6-day International FDP on "Innovation, IP Management & Industry Connect" organized by the IEDC, St. Thomas College of Engineering and Technology, Chengannur from 20 to 25 Jan 2025.
- Dr. Tessy Mathew, Dr. Jisha John, Dr. Priya Mariam Raju, and Dr. Neena Raj N. R. attended a 40-hour online FDP on "Artificial Intelligence for Machine Vision and Medical Imaging Applications", sponsored by MeitY, Govt, and organized by E&ICT Academy and the ECE Dept. of NIT Warangal from 26 Dec 2024 to 6 Jan 2025.
- Ms. Gauri Shree V. K. also attended a 5-day FDP on "A Systematic Way of Research Paper Writing", conducted by the Research Foundation of India from 18 to 22 Mar 2025.
- Dr. Anne Dickson, Ms. Poorna B. R. and Ms. Prathibha S. Nair participated in a 6-day online FDP on "Generative AI Tools in Prompt Engineering", organized by CSE Dept, IIPC & ISTE MACE in association with Arrowritz from 3 to 8 Feb 2025.

# DEFINE 3.0 – 24-HOUR INTER-COLLEGE HACKATHON

The Department of Computer Science and Engineering at MBCET successfully hosted **DEFINE 3.0**, the third edition of its 24-hour inter-college hackathon, as part of HASH 2025 on March 8–9, 2025. With the tagline "**Transforming Tomorrow, Today**", this year's hackathon focused on Sustainability and drew 123 students across 33 teams.

The event was inaugurated by Dr. S. Viswanatha Rao (Principal) and Dr. Jisha John (HoD, CSE), alongside faculty coordinators Ms. Asha S and Mr. V. S. Shibu. Keynote speeches were delivered by Dr. Jayanarayanan (State Program Manager, AYUSH) and Mr. Gilroy Mathew (SVP, Global Head of Engineering, UST), who emphasized AI's transformative potential.

Organized by Sam Peter (S8 CS1) and Rhon S George (S8 CS2), with 28 volunteers, the hackathon featured industry-sponsored problem statements across four tracks:

- Sustainability (Open Track) – Innovative environmental/social solutions
- AI in AYUSH – Healthcare with National AYUSH Mission Kerala
- AI in Airline Operations – Efficiency solutions (IBS Software)
- AI in FinTech – Financial tech innovation (Ahura Research & Innovation Labs)

Judges included alumni from IBS and AYUSH experts. The Tensorz Club, led by Sanna (CSE), Faizan (EEE), and Rithika (EEE), evaluated presentation skills under Dr. Veena Nair's coordination.

## Sponsors:

- Title: National AYUSH Mission Kerala
- Platinum: UST
- Gold: Ahura Research & Innovation Labs, IBS Software
- Silver: OpsVerse.io, Federal Bank
- Partners: MBCET Alumni Association, Devfolio, CSI MBCET

## Prize Winners:

- Sustainability – Grand Prize (₹20,000): Team Eureka – Amrita Vishwa Vidyapeetham, Kollam
- First Runner-Up (₹10,000): Team Beyond Bytes – Government Engineering College Barton Hill
- Second Runner-Up (₹5,000): Team BBC – Amrita Vishwa Vidyapeetham, Kollam
- Freshers Prize (₹5,000): Team Eureka – Amrita Vishwa Vidyapeetham, Amritapuri

- AI in AYUSH (₹10,000): Team Neural Nexus – SIES GST College, Mumbai
- AI in Airline Operations (₹10,000): Team Tesseract – MBCET
- AI in FinTech – Special Prize (₹5,000): Team Big Brown Coders – Amrita Vishwa Vidyapeetham, Kollam

DEFINE 3.0 reaffirmed MBCET's commitment to real-world innovation and collaborative learning. The department thanks Rev. Fr. John Varghese Palanilkunnathil (Director), Dr. Viswanatha Rao (Principal), Dr. Jisha John (HoD, CSE), faculty, student volunteers, and sponsors for making it a resounding success.

## EVENTS AND TALKS

### **Nexttera – Blochub Event**

The Blochub club at MBCET successfully conducted Nexttera on February 8, 2025, at James Watt Hall. Coordinated by Mr. Krishna Prasanth and Mr. Kiran Biju (S6 CS1), under the guidance of Mr. Praveen J.S., the event featured insightful talks on blockchain technology by Mr. Sam Peter and Mr. Adithya Krishnan (S8 CS1), exploring practical applications and challenges. A fun-filled treasure hunt added an interactive twist. The event was both informative and engaging, furthering Blochub's mission to promote innovation at MBCET.

### **Talk Session on Theoretical Computer Science**

On March 7, 2025, CSI SB MBCET, in association with the Department of CSE, organized a session on Theoretical Computer Science for S6 students. Dr. Renjith P (Assistant Professor, NIT Calicut) and Dr. Ashwin Jacob were the resource persons. Faculty coordinators: Ms. Deepthi K. Moorthy and Ms. Krishna L.

### **Knackit – LinkedIn Optimized**

An online event titled Knackit – LinkedIn Optimized was held on February 22, 2025, by CSI SB MBCET and the Department of CSE. Ms. Kesia Mary Joies, Product Engineer at UST, led the session on creating impactful LinkedIn profiles. Faculty coordinator: Ms. Deepthi K. Moorthy.



# HASH 2025 – ANNUAL TECHNICAL FEST

Held on February 27, 2025, HASH 2025 was organized by the Department of CSE in association with ACE and CSI MBCET. The fest featured a variety of competitions promoting technical expertise, strategic thinking, and teamwork.

The inaugural ceremony at Pascal Hall was led by Dr. Jisha John and Ms. Anjali S, with Mr. Amit Rajan and Mr. Steve Waltin (CSE Alumni, 2016–2020) as chief guests. Student coordinators included Amuliya Kandathil, Nikitha A.R., Anand Abraham, and Sam Peter.

## Event Highlights:

- Capture The Flag (CTF)
  - Venue: CCF | Prize Pool: ₹8,000
  - 16 teams (6 external) competed in a cybersecurity challenge.
  - Coordinators: Ms. Gaurishree V.K., Ms. Bibi Ommen
  - Student Leads: Nibil Mathew, Vinu B. Kurup, Nandu Krishna, Kiran Biju
- Eco Pitch – Sustainability Idea Presentation
  - Venue: AI Lab | Prize Pool: ₹7,000
  - 6 teams (4 external) presented to a panel of Mr. Amit Rajan, Mr. Steve Waltin, and Dr. Veena Nair
  - Faculty: Ms. Vinitha V.K., Ms. Jayalekshmi
  - Students: Anand Abraham, Ninan Varghese, Augustine Reji, Ezek Varghese
- Futsal – 3v3 Tournament
  - Venue: Volleyball Court | Prize Pool: ₹3,000
  - 16 teams (4 external) participated
  - Faculty: Mr. Anand Haridas, Mr. Ramjith R.P.
  - Students: Abhishek P.H., Afnas, Abhinav Nair, Steve Santhosh, Yedukrishnan Sureshkumar
- IPL Auction – Strategy & Analytics Challenge
  - Venue: Pascal Hall | Prize Pool: ₹8,000
  - 25 teams (17 external) participated, with finalists selected via quiz
  - Judge: Mr. Mahadevan
  - Faculty: Ms. Vijitha Robinson, Ms. Lino Zachariah
  - Students: Aman Nair, John B. Varghese





HASH 2025 was a grand success, thanks to the active participation and teamwork of students, faculty, and guests. The event reinforced the department's vision to cultivate talent through collaboration and innovation.

## **WOMEN IN CYBERSECURITY**

Cyber Security was hosted by the Women in Cyber Security Section of CDAC Thiruvananthapuram as part of the International Women's Day Celebrations 2025. CDAC is a leading research & development organisation under the ministry of electronics and information technology. The aim of the programme was to raise awareness and empower women in cybersecurity through various sessions and hands-on experiences. A group of 38 selected female students from S6 CSE, ECE, and EEE (circuit branches) visited CDAC technopark campus and participated in the event. Ms. Dhanya LK and Ms. Prathibha S Nair, Assistant Professors, CSED accompanied the students.



## **INSTITUTIONAL VISIT**

Mr. Ramjith R P, Assistant Professor in the Department of Computer Science and Engineering, Dr. Dishore S V, and Mr. Ayush Vijayan, Assistant Professor in the Department of Electrical and Electronics Engineering, attended a meeting with Mr. Krishna Kumar S, the General Manager of Smart City Thiruvananthapuram, and other officials to discuss upcoming projects and innovations on 14 th February 2025. Faculty members from various colleges also participated in the meeting.

## STUDENT ACHIEVEMENTS

### Funded Project

Mr. Ashish Mohan, Mr. Jabin James, Mr. Neil John, and Mr. Ritvik Jesse have secured financial assistance from APJAKTU–CERD for their project titled "Handwritten Text to Braille Converter", guided by Dr. Neena Raj N. R. The project addresses the accessibility needs of visually impaired individuals by providing a reliable and efficient solution for converting handwritten materials into Braille format.

### Best Project Award – SRISHTI 2025

Ms. Nandini Krishna R. S., Mr. Abhinav K., Mr. Ambu Bharath V. Nair, and Mr. Adwaith S. Jith of S6 CS2 won the Best Project Award in the Artificial Intelligence stream for their project titled "AI-Powered Waste Management System for Urban Environment" at SRISHTI 2025, held at Saintgits College of Engineering (Autonomous), Kottayam, on February 24–25, 2025.

## CAREER-ORIENTED PROGRAMS

Dr. Priya Mariam Raju and Mr. Praveen J.S., Assistant Professors, Dept. of CSE, received Google Cloud Career Launchpad Certificate for successfully facilitating students (S6 and S8) in Google Cloud Career Launchpad program at Mar Baselios College of Engineering and Technology from September 2024 to March 2025.

## FACULTY INTERACTION WITH OUTSIDE WORLD

Ms. Deepthi K. Moorthy, Assistant Professor, Department of CSE served as the Judge for the Paper Presentation hosted by Mohandas College of Engineering and Technology on 21/3/2025.



Dr. Tessy Mathew, Professor, Dept. of CSE, Mar Baselios College of Engineering and Technology chaired a session in the International Conference on Emerging Technologies for Intelligent Systems ETIS 2025) organized by APJ Abdul Kalam Technological University during 7th to 9th February 2025, at Mar Baselios College of Engineering and Technology, Thiruvananthapuram, Kerala, India.



#### **PowerTalk 2025 – International Women’s Day**

Dr. Merlin George, Assistant Professor, CSE, was a featured speaker at PowerTalk 2025, hosted by Kerala Blockchain Academy on Women’s Day. She highlighted blockchain’s transformative impact in sectors like healthcare and finance and advocated for increased women’s representation in tech. Her talk inspired deep engagement and discussion.

#### **Seminar – Blockchain in Healthcare**

On February 27, 2025, Dr. Merlin George delivered a seminar titled “When Healthcare Meets Blockchain” at Chanakya University, Bangalore, addressing PhD, PG, and UG students. The session explored how blockchain enhances healthcare security, empowers patients, and streamlines operations for smarter care.





**KNACKIT-LINKEDIN  
OPTIMIZED**



**TALK SESSION ON THEORETICAL  
COMPUTER SCIENCE**



**BEST PROJECT AWARD**



**HASH POSTER**



**NEXTTERA EVENT  
BY BLOCHUB**

**GALLERY**





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