In Altum...
The MBCET News Letter
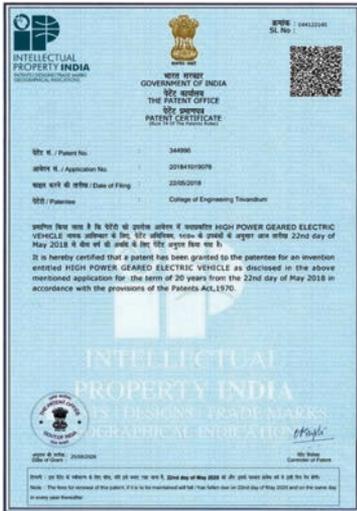
Mar Baselios College of Engineering and Technology [Autonomous]

Mar Ivanios Vidyanagar, Nalanchira, Thiruvananthapuram – 695 015.

College code : MBT

Accredited by
NAAC
with 'A' Grade
since 2016

All B Tech
Programmes
Accredited by
NBA
since 2016

Patent (No. 344 996) Certificate won by
Dr. Ushakumari A.S. Dept. of EEE

MBCET won National Green Ranking Certificate (A-Grade)

Prof. David UiTM Mara Malaysia on the occasion of MoU Renewal

Dr. Jayakumari J, HoD, ECE, winner of Outstanding Women Researcher Award

MoU Signing with INTEL and AUK for Intel ® UnnatiLab on AI/ IoT

| Pranav P Nair KTU Table Tennis Champion | Ms. Kesia Mary Joies (Alumna) receives the 'Sunny Diamond Award' | Bhavya Suseelan, S7CS1, APJ AKTU Chess Champion | Ms. Sona S, S3 EC1 University Lawn Tennis (W) |

Message from the Bursar

Our future is at hand which is the Reflections of today. Generally, Education is the process of the acquisition of knowledge, skills, values, beliefs and habits through which we prepare people to face the challenges of the times. In fact it inspires the young minds to learn and use their talents and skills in every walks of life.

As we know, after schooling, the student enters a world of competitions and challenges which opens a plethora of opportunities. Professional courses like Engineering, Medicine and allied endeavours are not mere knowledge acquiring programmes but formation of the individuals into professionalism and skill development which need more dedication and life orientation. But the present trend in Education and the world of knowledge makes us rather sceptical. Reasons are many for this kind of a scepticism. The most important one is the corrosion of values in society, among Nations and its leaders, in individuals both in public and personal lives. This leads to artificiality in relationships, crumbling of the institution of family, the corner stone of a society. Again, there is the possibility of it making life mechanical and artificial removing altogether the concept of value from life. Such a system has, obviously, the danger of transforming individuals into thinking machines. Hatred, cruelty, enmity and indifference reign supreme today. It is in this context that we realize the role of Institutions such as ours which focus on value based education and total development of the individual..

- Fr. John Varghese

Principal's Desk

The graduation of the 2018-2022 B.Tech batch (Exodos 2022), the first Convocation of the batch under Autonomy (M. Tech 2020-2022), the NBA Peer Team visit, the starting of the new UG and PG Programmes in the emerging areas etc. have been the highlights of the year. Five B.Tech Programmes got accredited. The involvement of alumni in guiding and supporting the Departments to establish high-tech labs with Industry involvement with the emerging technologies like AI/ML, IoT, Electric Vehicles led to the establishment of the EV Skill Lab by Vydhyuthi Energy Services, EV Charging Station on campus by Kerala EV, the Intel® Unnati Lab, and the guidance for setting up of the AI Lab from M/s UST Global. There were visits by some Experts from the MNCs like BMW, dSPACE etc.

The academic tie-up with the University of Technology Malaysia is moving to forge a research collaboration in the 6G domain. The student mobility envisaged through the connections with Ajman University or University of Technology Mara, Malaysia is expected to materialise. The industrial internship by M/s Tata Elxsi and other industries has been a boon for the students to "earn while they learn". The campus placement also has been encouraging. The College is poised to grow further and garner more international attention through the academic excellence and the active linkages.

- Dr. Abraham T Mathew

Editor's Note…….

El Nino and La Nina are active again! Droughts, hurricanes and wildfires! Water sources are getting dried up. Meanwhile, on the other side of the globe, landscape gets frozened in ice. In China the strange rain of worms! The callous human indifference made a city into a stinking waste-hill. Poisonous fumes and gases containing dioxin form a pall over Kochi. It imperils a generation. After a year of Russia-Ukraine war millions got sacrificed by ego, orphaning a generation, the greed of big war-business grows stranger than ever. On the one side treaties and on the other war. Human selfishness knows no boundaries and it turns to human trafficking even… Racism, famine, drought terrorism and oppression cause increased flow of migration and refugees. Merciless human exploitation continues unabated.

Use-and-throw-away culture rules human relationship in which human beings are treated as mere commodities. Yet another generation moves out of the campus. Let them march ahead, prompted by the magical formula, "data, dayadvam, damyatha"!

- Dr. George Zacharia

Vision	**:**	To be an Institution moulding globally competent Professionals as epitomes of Noble Values
Mission	**:**	To transform the Youth as technically competent, ethically sound and socially committed Professionals by providing a vibrant learning ambience.

NBA Accreditation

The NBA accorded accreditation to 5 B. Tech Programmes which is valid till June 2025.

National Green Ranking Certificate for MBCET

MBCET won Certificate of Excellence with 'A' Grade towards practicing sustainable Education. The proposal submitted by the college was prepared under the co-ordination of Dr. Nidhi MB, Assoc. Prof. in ME and a Team of Teachers. (Certificate on Cover).

Dean Corporate Relations

Dr. Ushakumari S, Prof. Dept. of EEE has been appointed the new Dean, Corporate Relations. (Patent Certificate see Photo in cover).

New Heads of Department (HoDs)
(w.e.f. March 2023)

| Dr. Jisha S.V. Dept. of CE | Dr. Remil George Thomas, Dept. of ME | Dr. Jisha John Dept. of CSE | Dr. Archana P Das Dept. of S & H | Dr. Deepak Raj, Dept. of Phy. Edn. |

New Assistant Heads (AHoDs)

| Dr. Anne Dickson, Dept. of CSE | Dr. Jaya S Pillai, Dept. of CE | Ms. Manju Sreekumar, Dept. of EEE. |

SUNNY DIAMONDS OUTSPARKLE AWARD

The "Sunny Diamonds Outsparkle Award" consisting of one Diamond ring and citation was presented to **Ms. Kesia Mary Joies** (Alumnus 2018 -2022) Department of Computer Science and Engineering, during the 'Parodos 2022', held on 20 October 2022, by the officials of M/s Sunny Diamonds. (Photo on Cover)

INDUSTRY - INSTITUTE COLLABORATION INITIATIVES

- **MoUs Signed**
- ○ **MoU signed with INTEL and AUK Computing**: MoU was signed with Intel India Ltd and AUK Computing on November 1st, 2022 to set up the Intel ® Unnati AI IoT Lab. **Mr. Ashok R** and **Mr. Arun Shankar,** Directors of AUK Computing, **Fr. John Varghese,** Bursar, **Dr. Abraham T. Mathew,** Principal, **Dr. Viswanatha Rao,** Vice Principal, **Mr. Sanju Mathew,**

CEO, Code of Duty Innovations, Heads of various departments, Deans and faculty members were present during the MoU signing ceremony.

- ○ **MoU Signed with SCTIMST- TIMed**: MBCET signed an MoU with TIMed of Sree Chithira Thirunal Institute of Medical Science and Technology on 9 January 2023, in the presence of **Mr. Balram S.,** Scientist G, Founder CEO of SCTIMST-TIMed and HoD of Department of Technology and Quality Management, and **Mr. Sarath S. Nair,** Scientist/ Engineer F, Department of Medical Devices Engineering, SCTIMST. The MoU will pave the way for enabling students interested in biomedical-based Engineering startups and medical device development.

MoU Renewal

MoU with UiTM Mara Malaysia was renewed on 14 Nov 2022. **Prof David**, appreciated the ongoing initiatives and activities that were implemented during the first tenure.

MoU with Skill Academy

A MOU was signed between Mar Baselios College of Engineering and Technology & Skill Academy to facilitate Professional Skills Development and End to End Job Preparation of students on November 08, 2022. The initiative of MED CGPU Team is led by **Dr Nidhi MB**.

Faculty Achievements

Dr Jayakumari J, HOD, Dept. of ECE received the "Outstanding Woman Researcher in Wireless Communication" Award from Venus International Foundation during the Annual Women Meet held on 4th March 23 at Hotel Green Park, Chennai (See Photo on Cover).

● **Catalyst- Mar Baselios IEDC**

● **IEDC- Highlights**

1. SOUTH ZONE IEDC MEETUP

IPL launch and Aspire meetup was conducted on 26 October 2022 at Travancore Hall, Technopark. 8 students attended the event. IPL launch was done by **A N Shamseer**, Hon'ble Speaker, Kerala Legislative Assembly after the launch he talked about the differences that happened in colleges and appreciated the efforts of KSUM in providing various opportunities for students. The event was then engaged by **Mr. Anoop Ambika**, CEO of KSUM, **Prof. Achyuth Sankar**, **Mr. Deepu S Nath**, Managing Director of Faya, **Ms. Sreekutty**, an alumna of MBCET and co-founder of Mashi Creatives delivered a talk in which she mentioned about the role of IEDC in molding her career. **Mr. Sanju Mathew**, an alumnus of MBCET and CEO of Code of Duty Innovations shared his experience in the field of startup and how he was able to reach to the level he is at today.

2. Workshop on Entrepreneurship 101

Sanna Pramod S7 CS, the current CEO handled the workshop on Entrepreneurship 101 in the Amenity Hall. There were 80 participants in this Entrepreneurship workshop. The points discussed were problems and opportunities of entrepreneurs, solutions mapping, customer segment identification, and revenue generation.

3. Workshop on Innovation 101

On November 9 and 10, a two-day workshop on Innovation was handled by **Mr. Arun J S**, Nodal Officer of Catalyst IEDC. 82 students participated in the event.

4. Annual General Meeting 2022 on 1st December 2022

Catalyst Mar Baselios IEDC organized the Annual General Meeting for the year 2022 on 1st December at Senatus Hall. The Annual report was presented by the current CEO, **Sanna Pramod**. The Nodal Officer congratulated the previous Executive Committee for their contributions and achievements. **Dr. Abraham T Mathew,** Principal, **Dr. Vishwanatha Rao**, Vice principal and **Fr. John Varghese Palanilkunnathil**, Bursar handed over the memento and certificates to the current and previous executive committee Members. The event ended with the logo launch of Tribe, the design community of Catalyst IEDC.

5. IDEAVERSE idea pitching competition

The Catalyst IEDC MBCET conducted an idea pitching competition from 17 to 21 December 2022. 35 students registered for the competition. There was an offline pitching event after a screening round of video pitching.

6. Session on "INNOVATIVE PROJECT SELECTION AND PATENTING"

Catalyst IEDC MBCET, conducted a session on Innovative project selection and patenting on 17 December 2022. The session was handled by **Prof. Pradeep Raj**, Head of Innovation Centre, MCET. 80 participants actively took advantage of the session.

7. "CONVERGE" hackathon

Catalyst Mar Baselios IEDC organized a hackathon from 18 to 19 December and 14 teams registered for the hackathon with 49 students across different branches and years.

8. INCEPTRA WORKSHOP Idea Generation to Product Market Fit

The Catalyst Mar Baselios IEDC conducted an Innovation workshop on Idea Generation to Product Market Fit on 14 Jan 2023. The workshop was handled by **Mr. Ajay Basil Varghese,** Nodal Officer, Adi Sankara TBI.

9. INCEPTRA workshop

The workshop by **Prof. Sarju S** elucidated how one could launch one's own start-up in a nutshell.

10. INCEPTRA iTalk-2

Mar Baselios IEDC conducted a italk on Progress Mindset and Perseverance on 15 Jan 2023. The speaker for the session was **Mr. Gopikrishnan**, CEO of Builnext.

11. INCEPTRA iTalk

Mr. Vishal B Kadam the Technical officer, KSUM gave an enlightening talk on how the IEDC Incubation Centers help a student to turn his dream start-up into reality. **Mr. Vishal** gave a brief summary of how the leading executives and investors think and how we could replicate it through persistent hard work and seeking every ounce of knowledge that comes your way.

12. WE HAVE A DREAM

"We have a dream" the women-exclusive workshop and idea competition was conducted by Catalyst IEDC and eNIX MBCET. The resource person was **Ms. Akshaya Sita Rajesh,** Consultant at Kerala Development and Innovation Strategic Council.

IEEE SB ACTIVITIES

- IEEE WIE SB MBCET conducted "**The Great Indian Women**"- A Quiz competition. The event was held on 21 October 2022. 76 participants attended.

- IEEE SPS SB MBCET conducted '**IRIDESCENT**' an online photography competition during 22 - 25 October 2022.

- IEEE SB MBCET conducted 'shrIEEEk' which was a flagship event organized for first year students on 3rd December 2022. 90 participants attended.

- IEEE PES SB MBCET organized a talk session on 16 December 2022 about Energy Conservation Building Code (ECBC) and Eco Niwas Samhita (ENS) awareness programs -an initiative by the Energy Management Centre. The event was held in association with ASCE MBCET. 120 students attended.

- IEEE SB MBCET conducted Annual General Meeting (AGM) on 15 February 2023. The new execom of the year 2023-24 were handed over the duty and responsibility by the ex-execom under the guidance of branch councilor **Mr. Jinu Baby,** Asst. Professor, Dept. of ECE.

ACTIVITES OF IEEE POWER AND ENERGY SOCIETY (PES) STUDENT BRANCH CHAPTER

WORLD ENGINEERING DAY

The Department of EEE and IEEE PES SBC MBCET in association with Institution of Engineers (India) Kerala Section celebrated World Engineering Day on 4 March 2023. A lecture was arranged in connection with this on "Engineering Innovation for a more Resilient World". The speaker was **Prof. K. P. Sudheer** (Ex Officio Principal Secretary, Department of Science and Technology, Govt. of Kerala, and Exe. Vice President, KSCSTE). Around 100 students attended the programme.

NATIONAL SEMINAR ON "ELECTRIC VEHICLES"

The Department of EEE in association with IEEE PES MBCET organised a National Seminar on "Electric Vehicles" on **17 February 2023**. The Resource Persons were **Shri J. Manoharan** (Head, E-Mobility cell and Technical Manager, ANERT), **Dr. Sooraj Varikkottil** (Specialist, TATA Elxsi), **Shri. Pradeep Kumar Keloth** (Adjunct Professor of Practice at Amrita School of Engineering, Coimbatore and Mar Baselios College of Engineering and Technology, Trivandrum, Former HoE, Electrification at Bosch) and **Ms. Bhavya Y U** (Scientist-E, CDAC).

The seminar was conducted in Hybrid mode. Around 80 participants attended. Copordinators: **Ms. Sandhya P.** and **Mr. Anil J**, Asst. Professors, EED.

Illumina MBCET, IEEE PES SBC MBCET in association with Global Study Link conducted a seminar on "Higher Education prospects in UK" for the students of EEE on 23 January 2023. The speaker discussed about the various higher studies and job opportunities in UK. The session was very productive and interactive. The talk was attended by almost 60 students. It was for around 1 hour.

- IEEE PES in association with EV Research Cell conducted a One-day Electric Vehicle Workshop for the staff and third year students of Jayamatha ITI on 27 January 2023.

- In association with ASCE MBCET, IEEE PES SBC MBCET organised a talk session on **Energy Conservation Building Code (ECBC) & Eco Niwas Samhita (ENS) Awareness Program** - An initiative by Energy Management Centre on 16 December 2022. The talk was delivered by **Mr. V Jayaprakash**. The talk was attended by almost 120 students.

- As a part of IEEE Day Celebrations, IEEE PES MBCET conducted "UNLEASH" – a poster making competition. The theme was – "Leveraging Technologies for a better tomorrow".

- **Soorya Redhnakaran** (S7 EE1, MBCET), **Krishnan Gopakumar** (S7 ME2, MBCET), **Mayoorika Venu** (S7 EE2, MBCET) secured the first, second and third prizes respectively.

IEEE Annual General Meeting

Dr. Nisha G K, HOD and Professor, EED, attended the Annual General Meeting and Award ceremony of the IEEE Kerala Section held on 14 Jan 2023 at Quilon Beach Hotel & Convention Centre, Kollam.

IET PROFESSIONAL BODY ACTIVITIES

- **Ms. Soumya A. V**. attended the 8th AGM of the IET KKLN Network on 17 December 2022. The event was organized by IET MBCET On-Campus.

- **She** attended also the 9th installation ceremony on IET KKLN NETWORK and delivered a felicitation address at Mar Ephrem College of Engineering and Technology on 27 January 2023.

- **Ms. Soumya A. V**., Faculty advisor, IET MBCET On Campus has been elected as **the Joint Treasurer of the IET Kanyakumari Local Network** (KKLN) in the election that was conducted in the 8th Annual General Body Meeting on 17 December 2022.

IGNIET

The introductory event for college freshmen on 26 January 2023, was an engaging experience for the participants. With a total of 51 enthusiastic participants, the event aimed to break the ice and help the newcomers get to know each other better. The event was organized by the IET Working Committee and Coordinated by the IET Core team.

One of the highlights of the event was the Dreamcatcher making session conducted by **Ms. Samyuktha Syam**, EEE Department. Participants learned the art of creating beautiful dreamcatchers and took home a unique handmade souvenir. This session helped participants to tap into their inner artist.

DOODLE

IET MBCET On Campus conducted DOODLE, a drawing competition on 13 Jan 2023, for the students of MBCET, on the topic of 'Geometric Arts'. The event coordinators: **Jovan Mathew Thomas** (ME) and **Arunesh J B** (EE).

REC THE TRICK

Rec the Trick is a Logical Quiz conducted on 6 January 2023, for Faculty & students of MBCET in Faraday Hall, and was coordinated by **Aparna S** (EEE) and **Abhiram Krishna R S** (ECE).

IET Future Tech Congress

Ms. Soumya A V, Asst. Prof, EED along with 15 volunteers attended the IET Future Tech Congress on 22 and 23 November 2022 at The Lalit, Bangalore. The 2-day

Conference, attended by over 500 attendees (in-person and virtual), 70+ speakers, 13 partners, 10 supporting associations and 15 exhibitors, featured 40+ engaging and stimulating sessions.

Ms. Jomole Joseph P (Asst. Prof, EED), Secretary, IET KKLN and **Mr. Aditya S**, IET KKLN YP Secretary (EEE Alumnus 2014-18 Batch) also attended the Conference as delegates.

ANNUAL GENERAL MEET & IET KKLN AWARDS 2022

The 6th Annual General Meeting & IET KKLN Award Function held on 17 December 2022. The Chapter was awarded the **IET KKLN Premier On Campus Award.** The award is a recognition of the efforts made by the IET-MBCET On Campus Chapter to provide a platform for students to develop their skills, knowledge, and professional networks.

Ms. Soumya A V, the Faculty Advisor of IET MBCET-On Campus, was presented the **Best Faculty Advisor Award.** The Chief Guest of the IET KKLN was **Dr. Abraham T Mathew,** Principal, Mar Baselios College of Engineering and Technology.

INSIET

INSIET is an event organized by the IET MBCET On Campus Chapter to raise awareness of the Institution of Engineering and Technology (IET) among students on 16 December 2022. The event featured a talk session led by **Varsha Kothari** (Communities Manager for IET South Asia), **Gigin Duarai**, (IET YP Chairman for the KKLN region), and **Harshal Rajesh** (IET YP Secretary of the Chennai Local Network).

IET YOUNG PROFESSIONALS SUMMIT 2022

Ms. Soumya A V, Asst. Prof, EED attended the IET Young Professionals Summit 2022 at London recently.

Her travel was fully supported by the Institution of Engineering and Technology (IET).

IET PATW 2022

Present Around The World (PATW) is a global competition for young professionals and students in Engineering to develop and showcase presentation skills.

The PATW events conducted on October 26, 2022, in Aryabhata Hall were evaluated based on their presentation skills and technical knowledge. The judges were **Rev. Fr. Bitty Mathew**, **Dr. Shobha Theresa George**, **Dr. Veena Nair** and **Mr. Jobby Johnson.** These students presented several socially relevant technical topics, from which two winners were selected - **Faizan Ahammed** and **Josipha Sebastian** from S7 EC.

IET Skill X 2022

Skill-X is a practical hands-on session which mainly focuses on developing technical skills of the students and improving their employability skills.

The 7-day hands-on workshop on Getting started with Python was conducted from 10 to 16 November 2022. The workshop was handled by the Product Engineer in UST - **Ms. Kesia Mary Joies** (Alumni, CSE Dept.). The Faculty Coordinator: **Ms. Soumya A V** from the EEE Department. Student coordinators: **Shivani Shivaram** (S7, CE) and **Malavika** (S5, CE).

COMPUTER SOCIETY OF INDIA (CSI) ACTIVITIES

● **WORKSHOP ON JAVA OBJECT ORIENTED DESIGN - AN INDUSTRY ORIENTED APPROACH**

The Department in association with CSI SB MBCET organized a one-day workshop on "Java Object Oriented

Design- An Industry Oriented Approach" on 4 Feb 2023 at Pascal Hall, for the second year students of CSE Department. **Mr. Biju S**, Principal Engineering Lead, Travanleo Info Solutions India Pvt Ltd handled the sessions.

Faculty Co-ordinators: **Ms. Dhanya L. K**. & **Ms. Vijitha Robinson**. Student Coordinators: **Prajwal** (S3 CS2) & **Sam Peter** (S3 CS1).

● HANDS-ON SESSION ON MONGODB

A hands-on session on MONGODB, a NoSQL database, was organized by the Department in association with CSI SB MBCET on 4 February 2023 at Shannon Hall. The Resource Person for the session was **Mr. Kevin Jacob**, S8 CS, Intern, React JS Developer, ACCUBITS Pvt ltd. Through this session, the students got familiarized with the different CRUD operations used in MONGODB. About 120 students from S5(CS1 and CS2) participated in the session. Faculty Coordinators: **Ms. Deepthy K. Moorthy** and **Ms. Sreeja S. R**. Student Co-ordinators: **Varsha Renjith**, **Gopal.S**, **Noel John Robert** and **Yoosuf Mohammed**.

● LIFE AND CAREER PERSPECTIVES

The Department in association with ACE & Computer Society of India MBCET Student Chapter organized an expert talk on "*Life and Career Perspectives*" for third and fifth Semester B. Tech CSE students on 05 January 2023 at the Senatus hall. **Ms. Manju Abraham** (VP of Engineering, Primary Storage at Hewlett-Packard Enterprises., California, US) took the session. Faculty Coordinator: **Ms. Lino Zachariah**. Students Coordinators: **Varsha Renjith** (S5 CS) & **Christa Maria Joby** (S5 CS).
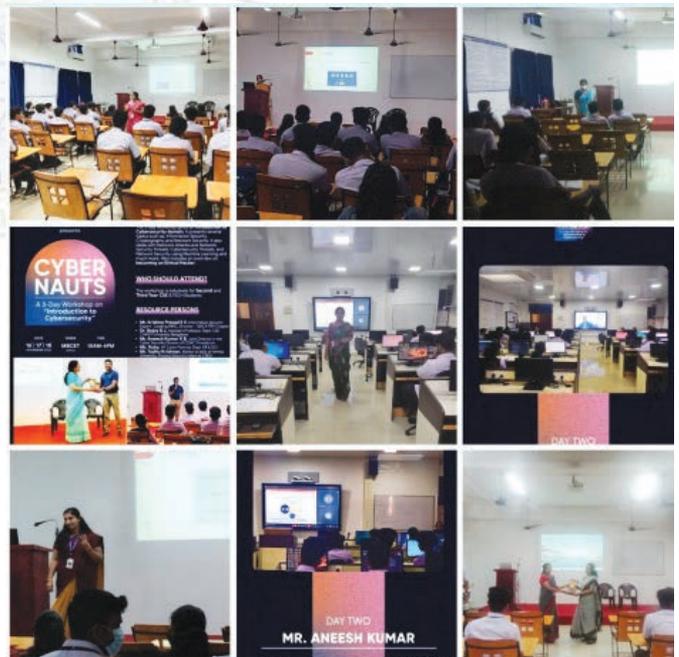
ROAD TO BEING A PRODUCT PERSON

The Department in association with CSI MBCET organized a career enhancement session on the topic, **"Road to being a Product Person",** on 21 December 2022. The resource person was **Ms. Fausya Amalh**, Product Manager, Spotify, London.

Faculty Coordinator: **Ms. Deepthi K Moorthy**. Student Coordinator: **Varsha Renjith**.

● A THREE-DAY WORKSHOP ON "INTRODUCTION TO CYBER SECURITY"

The Department in association with CSI MBCET Student Chapter and NetSec Research Group, MBCET organized a three-day workshop on "*Introduction to Cyber security"* for third and fifth Semester B. Tech CSE students from 16 to 18 November 2022. Resource Persons were Mr. **Krishna Prasad S. V**. (Information Security Expert-Leading MNC, Director-ISACA TRV), **Mr. Aneesh Kumar K. B**., (Joint Director in Cyber Security Division, CDAC), **Dr. Bejoy B. J**. (AP, Dept of CSE, Christ (Deemed to be University) Bangalore), **Ms. Ruby K. R**, (AP, Cyber Forensic Dept, ER & DCI), **Mr. Yadhu Krishnan**, (Mentor, bi0s, Amrita University), **Dr. Jisha John** (Asso. Prof**.), Dr. Jesna Mohan**, **Ms. Anne Dickson**, **Ms. Deepthi K Moorthy**, **Ms Lino Zachariah** & **Ms. Vishagini V** (Asst. Professors, Dept. of CSE, MBCET) Faculty Coordinator- **Ms. Deepthi K Moorthy**. Students Coordinators. **Varsha Renjith** (S5 CS) & **Mr. Chris Dylan John** (S5 CS).

● ROAD TO OPPORTUNITIES

'Road to Opportunities', the first session of the newly launched Career Hack series was hosted by CSI SB MBCET on 13 October 2022. **Mr. Prajwal Pramod**, Product Intern and Design Lead was the speaker for the session.

ENTREPRENEURSHIP JOURNEY

'Entrepreneurship Journey', the first session of the newly launched Power Talk series was hosted by CSI SB MBCET on 8 October 2022. **Mr. Don Kora**, S8 CSE Chief Executive Officer TATOS Technologies was the speaker for the session.

ISTE Student Chapter Highlights

ANNUAL GENERAL BODY MEETING (AGM) 2022

The Annual General Body Meeting (AGM) of ISTE-MBCET Student Chapter was conducted on the 3rd of November 2022 at the Senatus hall. The meeting started off with the welcome address by the Faculty Coordinator **Dr. Deepak G Dilip**. The Best Faculty Chapter National Award was handed over to Bursar, Principal and ISTE MBCET had won the Best Faculty Chapter in the year 2021. The award was handed over to **Dr. Abraham T Mathew,** Principal, **Rev.Fr. John Varghese,** Bursar and **Dr. S. Viswanatha Rao,** Vice Principal by **Ms. Asha,** Chairman, **Dr. Nidhi,** National Executive Committee Member ISTE and **Mr. Melvin Jacob**. The Annual report for the year 2021-2022 was presented by **Ms. Akshita Venkatesan,** the outgoing Chairperson. This was followed by certificate distribution to the winners of ISTE Flagship Event Best Engineer. and to the Executive Committee members of the year 2021-2022 as well.
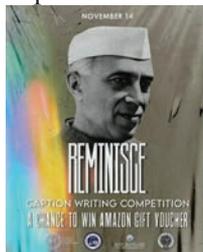
JUNIOR EXECOM SELECTION 2022

ISTE-MBCET Chapter held a Junior Executive Committee selection specifically for MBCET freshmen from 9 to 12 November 2022. The selection procedure was divided into three phases, each of which was designed to put the participants' skills to the test.

The following representatives were selected from each branch: Kiran Biju S1 CS1, Salin Shain S1 CS2, Jenna Sheik S1 CS-AI, Haeba Sara S1 EC1, Niranjan Raj S1 CE2 and Aaron K Shibu S1 ME1

REMINISCE-Caption Writing competition

ISTE MBCET held a caption writing competition named Reminisce to commemorate Children's Day on 14 November 2022. 39 participants in total took part in the competition. From S1ME1, **Aaron K. Shibu** was chosen as the winner. The winner received a Rs. 100 Amazon gift card as their reward.

NOVATOS 2023

ISTE- MBCET Student Chapter conducted Novatos on 12, 13, and 14 of January 2023. The session was exclusively conducted for first-year students of MBCET. The offline session took place on the third day and involved a workshop on Blender software. The participants were able to learn about 3D modeling and were given the opportunity to create their own 3D models.

ISTEch Talk 2023

ISTE-MBCET Student Chapter conducted ISTEch Talk On - "Bioinspired surfaces for biomedical applications" on February 10th with the Chiefguest/Speaker: **Dr. Deepak Patil,** Department of Production Engineering, NIT Tiruchirappalli. The programme was held under the guidance of **Mr. Melvin Jacob** (Faculty Coordinator-ISTE MBCET; MED), **Ms. Nandana S Krishnan** (Content Team Sub-head, ISTE MBCET), **Ms. Nikitha AR** (Design Team Sub-head, ISTE MBCET). Total registrations : 67. The session was interactive and thoughtful for all students. On behalf of the Institution and ISTE MBCET, **Dr. Deepak Patil** was awarded with a memento.

HIGHER STUDIES ABROAD

On 23, February 2023, a webinar on the subject of "Higher Education Overseas" was held. The keynote speaker was **Mrs. Aiswarya Sasidharan,** Branch Manager of IDP Education TVM. **Dr. Nidhi M.B.** (National Executive Council Member, ISTE), **Ms. Soumya A.V.** (Faculty in Charge, ISTE MBCET), **Mr. Melvin Jacob** (Faculty in Charge, ISTE MBCET), **Ms. Nandana T. S.** (Treasurer, ISTE MBCET), and **Ms. Christa M.J.** oversaw the program's execution (SHE Head ISTE MBCET). No of participants: 50.

NUEVA

21st ISTE Annual State Student Convention, Nueva, was organized at Government Engineering College, Thrissur on 25 and 26 March. 15 students from Mar Baselios College of Engineering participated in the event. **Akshita Venkitasan,** S8 CS1 was presented the Best Student Award during the ceremony.

SHE ISTE

A talk session named "Perspective" was conducted on 8 March 2023 in the Senatus Hall. by WSU, SHE ISTE and

IIC. The speaker was **Ms. Hema Gopalakrishnan**, is the Founder & CEO of Insight for innovation – a pedagogy consultancy - that helps children identify and nurture their core competencies. The event was attended by 60+ students. The talk was followed by a Q and A session. **Dr. Tessy Mathew** (WSU), **Ms. Sowmya A.V.** (ISTE SHE) and **Ms. Anila A.V**. (IIC) were the Co-ordinators.

1. WSU MBCET Reports of Events

Perspective

A talk session named Perspective was conducted on **17 January 2023** in the Senatus hall, MBCET. The event was conducted by SHE ISTE in collaboration with WSU and IIC. The speaker was **Ms Priya Roy**, Owner of Saturday Night Diner, Founder of Vathsalyam, The Kids Place. She spoke about her journey and the huddles she had to overcome to become a woman entrepreneur. The event was attended by 100+ students.

Women's Day Celebrations

PERSPECTIVE

A talk session named "Perspective" was conducted on **8 March 2023** in the Senatus hall, MBCET, by WSU, SHE ISTE and IIC. The speaker was **Ms Hema Gopalakrishnan**, the Founder & CEO of Insight for innovation – a pedagogy consultancy. Her Organization "Insight for Innovation" works closely with over 15 schools on various personality development programs and organizational skill development for children. The event was attended by 60+ students. **Dr Tessy Mathew** (WSU), **Ms Sowmya A.V.** (ISTE SHE) and **Ms Anila A.V.** (IIC) were the coordinators.
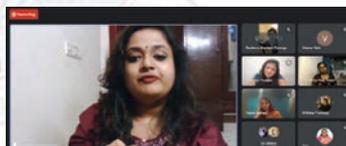

Talk on "Gender Equity and Law"

Internal Complaints Committee (ICC) in association with the Women's Studies Unit (WSU) of MBCET hosted an invited talk on 'Gender Equity and Law' as a part of Women's day

celebrations on 8 **March 2023** for the Staff Members. The guest speaker was **Adv. Reeya Susan John**, Assistant Professor, Mar Gregorios College of Law, Nalanchira. The session began with a welcome speech by **Dr. Elizabeth C. Kuruvilla**, Chairperson, ICC followed by an address by Principal **Dr. Abraham T. Mathew**. **Adv. Reeya** explained how the terms equity and equality are different. She introduced the faculty of MBCET to the various provisions available in the Constitution for women. **Dr. Jayashree M. J.**, President of WSU, MBCET, proposed the Vote of Thanks. **Dr Elizabeth C. Kuruvilla** (ICC), **Ms Manju Sreekumar** (WSU) and **Ms Asha S.**(WSU) were the coordinators.

Alumnae Interaction

The interaction was on **8 March 2023** (online). We had **Ms. Parvathy Nair Patel** (CE), **Ms. Sreethu Thulasi** (CS), **Ms. Sajna Samad** (EC**), Ms. Niranjana J.N** (EE), and **Ms. Reshma M George** (ME) as panelists.

It was a very inspiring and entertaining session. The Let's Chat session generated their response of this year's theme 'Gender Equity'. **Dr. Sakuntala S. Pillai,** Former Dean R&D, faculty members and the students made the session eventful. 45 members attended the session. The session was coordinated by the Faculty Members of Women's Studies Unit: **Ms. Surasmi N.L**, Asst. Prof., Dept. of EEE and **Dr. Swapna P. S.**, Asst. Prof., Dept. of ECE; and the student coordinators were **Rithika, Anakha** and **Brigita.** Moderator: **Dr. Veena Nair**, Asst. Prof., Dept. of S & H.

Shalom Special School Visit

Five Faculty Members of Women's Studies Unit (WSU), MBCET visited Shalom Special School and distributed Caps, Stationery items and Sweets on 9

March 2023 on behalf of Women's day Celebrations. Coordinators: **Dr Nisha G.K** and **Ms Teena Rajan**

DEPARTMENT OF CIVIL ENGINEERING

DEPARTMENT ACTIVITIES

Consultancy Works

1) Soil investigation Study and Topographic Survey (DGPS) for KIIFB works in Alappuzha District

The Department of Civil Engineering conducted a Soil Investigation Study and Topographical Survey for the Construction of road from Mundackal Palam- Chavara Bhavan- C Block in Alappuzha District from 11 to 13 Oct 2022. **Staff Members**: **Dr. Jayasree S** (HoD), **Shijin Kumar R V** (Lab Staff), **Edwin Roy** (Lab Staff), **Sarath Kumar** (Lab Staff), **Arun** (Lab Staff)

2) GNSS Topographic Survey as part of KIIFB work for Pallathuruthy Kizhakkan Byepass and Adoor started on 28 November 2022.
Staff members: **Dr. S Jayasree** (HOD), **Mr. Nitin S**, **Mr. Amal Raj**, **Mr. Sreeju Nair S B**, **Mr. U P Govind** (Assistant Professor), **Mr. Anand**, **Mr. Shijin Kumar R V**, **Mr. Vijin V J**, **Mr. Edwin Roy**, **Mr. Johnson George** (Technical staff).

UTBHAV 2023

Utbhav, the annual Technical Festival of the Department was conducted on 17 February 2023. **Er. Ajith Kumar S**, Chief Engineer, PWD Roads Trivandrum inaugurated the Technical Fest. The Technical Fest showcased various Technical events such as workshops on GIS and Revit, wrapped retaining wall construction competition Retainit, idea presentation competition Smart City Hackathon and various fun events like Buildings and Tunnels, Treasure Hunt etc. The event was conducted by the Civil Engineering Students Association (CESA), coordinated by Faculty Co-ordinators **Ms. Lekshmi Chandran M** and **Ms. Nimisha Anna Jacob** and student coordinators **Bharath B L**, **Rahul S** and **Arjun S** of S8 Civil Engineering.

Industrial Visit

1. The ASCE Student Chapter organized a visit to the Water Treatment Plant of KWA at Aruvikkara on 21 January 2023 for 3rd year B. Tech (CE) students. Fraculty Co-ordinators: **Dr. Anupama Krishnan** and **Mr. Nitin** (Assistant Professor).

2. S8 CE students at Idukki Dam

The S8 CE students visited the Idukki Dam on 18 February 2023 under the supervision of Faculty Members

Faculty Achievement

Dr. Jisha S V, Asso. Prof., Dept. of CE got approval for her project titled "SEISMIC PERFORMANCE OF POST-FIRE RETROFITTED REINFORCED CONCRETE BEAM-COLUMN JOINTS" by the Science and Engineering Research Board (SERB), DST for funding under the scheme of **Teachers Associateship for Research Excellence (TARE)**. A Research fellowship of Rs. 60,000/- per year will be provided, subject to completion of minimum 90 days' research work per year in the host institution. Research grant of Rs. 5 lakhs per annum (50% each to host and parent institution) and overheads (as per SERB norms) will be provided. The fellowship period is three years. The mentor of this project is **Dr. S. SuriyaPrakash**, Professor and Head Department of Civil Engineering, Indian Institute of Technology Hyderabad.

Skill Enhancement Workshop for Technical Staff

Three days Skill Enhancement Workshop was organized by the Department for the Technical Staff from 14 to 16 March 2023 to make them familiar with the various Labs.
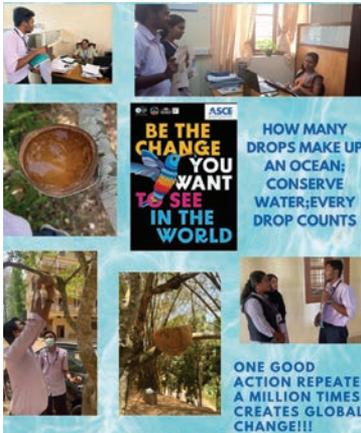
Faculty interaction with outside world

Dr. M. Satyakumar, Professor, chaired a session and was in the the Advisory Committee for the International Conference on Innovative Methods and Practical Applications for Cognizant Transport Systems (IMPACTS2023) organised by Transportation Engineering Research Center (TRC) College of Engineering Trivandrum during 20-22 March 2023.

World Water Day

On 22 March World Water Day, the Water Management Cell in association with the Nature Club (Prakruthi), MBCET organised a Talk session based on the global campaign theme of this year, ACCELERATING CHANGE: The Speaker for the session was **Dr. V. Subhash Chandra Bose**, Former Director, Water Resources Department, Govt. of Kerala. **Dr. Elizabeth C. Kuruvila** and **Dr. Jaya S. Pillai** were the Coordinators of the event.

ASCE MBCET- World Water Day 2023

ASCE MBCET has celebrated the World Water Day 2023 with the active participation of the students. The theme of this year is "ACCELERATING CHANGE, be the change you want to see in the world."

FDPs attended by Faculty

1. **Ms. Lekshmi Chandran M**, **Ms. Diana Alice Sugunan** and **Ms. Radhika P** attended the Online Faculty Development Programme organized by the Department of Civil Engineering, LBS Institute of Technology for Women, in association with Indian Geotechnical Society, Thiruvananthapuram Chapter from 10 to 14 Oct, 2022.

2. **Dr. Anupama Krishna D**, **Dr. Archana J Satheesh**, **Ms. Radhika P**, **Mr. Nitin S**, **Mr. Sreeju Nair** SB and **Mr. U P Govind** Dept. of CE attended KTU FDP on " **Recent Advances in Precast and prefabricated Constructions**" from 20 February to 24 February 2023, organised by the Department of Civil Engineering, Marian Engineering College, Trivandrum.

3. **Dr. Jaya S Pillai**, **Dr. Anupama Krishna D** and **Ms. Nimisha Anna Jacob** attended FDP conducted by the College of Engineering Trivandrum, from 9 to 14 January 2023.

Paper Presentation

1. **Ms. Lekshmi Chandran M** presented a paper on Effectiveness of Ground vibration isolation using Needle Felt Coir Latex Composite (NFCLC) barriers in International Conference on Recent Developments in Civil Engineering during Oct 20,21 2022 organized by Department of Civil Engineering, Motilal Nehru National Institute of Technology Allahabad, Prayagraj, India.

Symposium Attended by M-Tech Structural Engineering Students

The Structural Engineering Division of IIT Madras, organized a two-day symposium titled "Structural Engineering: The Way Forward", on 9 and 10 February, 2023 at IIT Madras. M-Tech Structural Engineering Students (2022-2024), attended the symposium.

Newly Joined Faculty Members

Mr. Sreeju Nair S B

He did his B. Tech from P R S College of Engineering and M. Tech from AmalJyothi College of Engineering.

Mr. U P Govind

He completed her B. Tech at Mar Baselios College of Engineering and Technology and M. Tech from NIT, Raipur in Structural Engineering.

Dr. Amal Raj

He completed B. Tech (Civil Engineering) from Sree Buddha College of Engineering, Alappuzha, and M. Tech (Transportation Engineering) from CSIR-Central Road Research Institute, New Delhi. He completed PhD in 2022 from National Institute of Technology Calicut.

Mr. Nitin S

He completed his Bachelors in Engineering, from Sun College of Engineering, Tamil Nadu and completed M. Tech in Structural Engineering and Construction Management, with distinction from AmalJyothi College of Engineering.

Ms. Rakhi J.H

She completed B. Tech in Civil Engineering from CET and M. Tech in Structural Engineering, from Anna University.

Ms. Indhu Luke

She completed her B. Tech (Civil Engineering) from Mar Baselios College of Engineering and Technology and M. Tech (Geotechnical Engineering) with Fifth Rank from Cochin University of Science and Technology.

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

DEPARTMENT ACTIVITIES

● **INTERNSHIP TRAINING ON MACHINE LEARNING AND DEEP LEARNING**

A 5 days' internship training on Machine Learning and Deep Learning was given by the Department of Computer Science & Engineering for the students from Mahendra College of Engineering, Salem from 20 to 25 February 2023. The sessions were handled by the faculties of the Department of CSE. The groups were provided with different projects for which a demo presentation was done. Faculty Coordinator: **Ms. Vishagini V.**

SEMINAR ON STUDY ABROAD OPPORTUNITIES

The Department organized a seminar on 'Overseas Education, on 15 February 2023 in Pascal Hall. **Ms. Shubamol Rajan,** International Consultant, KC Overseas Education, was the Resource Person. Faculty Coordinator: **Ms. Gaurishree V. K.**

● **DEPARTMENT-STAKEHOLDERS INTERACTION**

An interaction with the parents of Third Year and Second Year students of the Department of CSE were held at the Pascal Hall on 14 and 21 January 2023, respectively. The Head of the Department, **Dr. Tessy Mathew,** addressed the gathering and parents interacted with the faculty members of the Department.

● **A SESSION ON 'CAREER OPPORTUNITIES AFTER ENGINEERING'**

The Department organized a one-hour career guidance session on '**Career Opportunities after Engineering**' for S5 CSE students on 18 January 2023 by **Mr. Rakesh Rajeev**, Director, T.I.M.E, Trivandrum.
Faculty coordinator: **Mr. Ramjith R.P**, Assistant Professor, Dept. of CSE.

INDUSTRY INSTITUTE COLLABORATION

● **COLLABORATIVE RESEARCH WORK**

The Department initiated a Collaborative research work with the Strategic Electronics group of CDAC. **Prof. Raju K Gopal, Dr. Tessy Mathew, Dr. Jesna Mohan and Ms. Prathibha S. Nair** visited CDAC campus and discussed the feasibility and scope of the solution development with the peer team from CDAC.

● **NVIDIA CAMPUS CONNECT 2022**

The Department conducted a one-day program **"NVIDIA CAMPUS CONNECT 2022"** to enhance the student awareness on the latest technology trends and NVIDIA Technology – GeForce RTX. **Dr. Tessy Mathew**, HoD, spoke on the occasion. Faculty Coordinators: **Mr. Robin Joseph & Ms. Lino Zachariah** (Asst. Professors, Dept. of CSE)

INDUSTRIAL VISIT

The Department organized a one-day Industrial visit to the UST Global for the Third year CSE students on 20 January 2023.

UST Global -D3code HACKATHON TEAM VISIT

A team led by **Mr Sthanu Kumar Ramakrishnan Thambi**, Delivery Manager, UST Global, Trivandrum visited the College on 10 November 2022. UST launches the 2nd edition of d3code as D3 2022, its annual Developer Conference through University Hackathon which will be open for students currently pursuing Bachelor's or Master's Technology Degree. The 24- hour hackathon at UST campus in Trivandrum.

ASSOCIATION OF COMPUTER ENGINEERS ACTIVITIES

● **Technical Fest" HASH 2022" on 5 and 6 November 2022.**

The Department of Computer Science and Engineering in association with ACE organized a Technical Fest "HASH 2022". The events included Valorant: (Valorant is a multiplayer Online Shooting game), Battle of Codes: (competitive coding), Spark: (idea presentation), Experia: (project expo), Tech hunter: (treasure hunt contest), Kick-off: (football tournament), Gaming Arena and Define '22 which was a 24-hour free offline hackathon, aimed to build solutions for the real world and go above and beyond the verticals. There were a total of 26 teams and 111 participants from various institutions, across and beyond Kerala. The project submissions were on three major verticals - design, software and hardware. The jury consisted of prominent judges such as **Mr. Niyas V**, Product Designer at EntriApp, **Mr. Aravind Panicker**, Application Engineer at Google and Judges from UST, Carestack, GTech MuLearn, KDISC etc., ClusterDev, UST, Devfolio, Polygon and other prominent companies supported the event. **Sera Mariam George**, **Amal Joe, Kashyap Sanal**, **Nithin T A, Melvin Joseph K**, **Adinath Naik Ajith**, **Amrutha Lakshmi S**, **Jayasoorya**, **A R Karthik**, **Litto** were the student's coordinators of the event HASH 22. **Mr. Praveen J S** and **Ms. Deepthi K Moorthy** were the Faculty Coordinators.

TALK ON "HOW TO PURSUE MASTERS IN GERMANY"

A one-day talk on "How to Pursue Masters in Germany" was organized by the Association of Computer Engineers (ACE) and Corporate Relations MBCET in association with **Mr. Arun Alex**, Coordinator-Industry Attachment Cell KTU at the Senatus Hall on

Tuesday, 18 October 2022. **Ms. Suganya Tamalapadi** was the Resource Person. **Dr. Abraham T Mathew**, Principal and **Dr. S. Vishwanatha Rao**, Vice Principal spoke on the occasion.

KTU SPONSORED FDP ON "SECURITY IN COMPUTING"

Department of Computer Science & Engineering organized a Five-day Faculty Development Programme on "Security In Computing", from 20 to 24 February 2023. There were 24 participants. Resource Persons**: Dr. Hiran V Nath**, Asst. Prof., Department of Computer Science and Engineering, NIT, Calicut**, Rev. (Dr.) Gigi Thomas**, Asso. Prof. & Head, Department of Mathematics, Mar Ivanios College, **Dr. Dittin Andrews**, Scientist E, Cyber Security Group of CDAC, and **Ms. Dija S**, Scientist F, Cyber Security Group of CDAC.
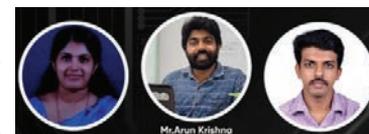
CYBER SECURITY AWARENESS MONTH TALK SERIES

Network Research Group, Department of Computer Science & Engineering organized a talk series as part of Cyber Security Awareness Month "**See Yourself in Cyber**" on 11 Oct 2022. **Ms. Indu V**, Engineer SWG- QA, Keltron was the speaker. Faculty Coordinator: **Mr. Shon J Das**, **Mr. Praveen J S.**

THREE-DAY ARDUINO PROGRAMMING WORKSHOP

A 3-day Arduino Progra-mming workshop was organized by the Depart-ment in association with Network Research Group and IEEE. **Mr. Arun Krishna**, Senior Product Engineer, Techforce, **Ms. Jisha Jose**, Asst. Prof., MBCET and **Mr. Shon J Das**, Asst. Prof., MBCET handled the sessions.

Openlabs.ai ACTIVITIES

● **NEW STUDENT AMBASSADOR**

The Open Lab AI club has been reconstituted with new Student Ambassador **Ann Shiny**, S7CS1 in October 2022. This year's club activity was officially inaugurated by **Mr. Bharat T U**, Engineer, TCS. He gave a brief introduction about Final year projects.

● STUDENT TALK SERIES

Openlabs.ai organized a Student Talk series. The first session was handled by **Riya P Mathew**, S7CS1 on 16 November 2022. She explained her path and topic was "My Dive into Machine Learning". The second session was on 23rd November 2022, session was on topic "Introduction to Figma". The speaker was **Rhea Merin**, S7 CS1.The last session was on 30 November 2022. **Kevin Jacob** S7 CS1 gave a brief introduction about "Web 3.0".

ALUMNI GROUP ACTIVITIES

ALUMNI ACHIEVEMENT

Ms. Parvathy S. Prakash (Alumna 2014 -2018) Department of Computer Science & Engineering received the prestigious Asianet Television Award for Best Dubbing artist 2022.

PAPER PRESENTATION

- **Ashwin Abraham, Bhavya Suseelan, Jesin Mathew,** and **Sabarinath P** presented paper in the 7th International Conference On Computing Methodologies and Communication (ICCMC 2023) online the paper will be published in IEEE XPLORE the project is being guided by **Mr. Arun K,** Asst. Prof., Dept. of CSE.

- **Ms. Jisha Jose**, Asst. Prof., Dept. of CSE, presented a paper in the International Conference organized by the Baselios Mathews II College of Engineering held on 18 November 2022.

- **Ms. Anjali S** (Asst. Prof., Dept. of CSE), Ms Vinny Pious, Joel J Sebastian, Krishnanunni J, Joveal K Johnson, and Ashik Mujeeb presented a paper in the Springer International Conference on Inventive systems and Control (ICISC 2023), held at JCT college of Engineering, Coimbatore during 30-31 Jan 2023.

FACULTY ACHIEVEMENTS

● PhD AWARDED

Ms. Anne Dickson, Asst. Prof., Dept. of CSE was awarded PhD in Computer Science & Engineering from the University of Kerala in the topic "Optimization of Intrusion Detection over false alerts using Swarm Intelligence", from Research Centre, College of Engineering, Trivandrum under the guidance of **Dr. Ciza Thomas** (Vice Chancellor, KTU).

● BEST PAPER AWARD

Ms. Anne Dickson, Asst. Prof., Dept. of CSE, received BEST PAPER AWARD for paper presentation in the First International conference on ComputationaL Paradigms held at NIT-Thiruchirapally on 9 December 2022.

PARTICIPATION IN CONFERENCES/ SYMPOSIA/ WORKSHOPS/ SEMINARS

● AICTE UHV II COURSE

Ms. Dhanya L. K. & **Ms. Vijitha Robinson**, Asst. Professors, Dept. of Computer Science and Engineering completed the 5 day Face-to-face UHV II FDP organized by AICTE from 29 August to 2 September 2022.

● FDP ATTENDED

- **Ms. Gayathri K. S**. and **Ms. Prathibha S. Nair**, Asst.Professors, Dept. of CSE, have participated in in the Online Faculty Development Programme on, "Distributed Computing", organized by Department of Computer Science and Engineering at Sree Narayana Gurukulam College of Engineering from 30 January to 1 February 2023.

- **Ms. Asha S**, Asso. Prof., **Mr. Shibu V S** and **Mr. Praveen J S** and **Ms. Anjali S**. Asst. Professors, attended FDP's organized by different Institutions.

- **Mr Arun K**, Asst. Prof., Dept of CSE attended FDP on different topics organized by various Institutions.

- **Ms. Prathibha S Nair**, **Ms. Deepthi K Moorthy** and **Ms. Vishagini V**, Asst. Professors, Dept. of CSE participated in two FDPs organized by different Institutions

FACULTY INTERACTION WITH OUTSIDE WORLD

● CHIEF GUEST

Dr. Tessy Mathew, Professor, Dept. of CSE, served as the Chief Guest at the Valedictory function of Computing Fest at Sarvodaya Vidyalaya, Thiruvananthapuram, on 3 March 2023.

FACULTY AS RESOURCE PERSON

- **Mr Shibu V. S**., Asst. Prof., Dept. of CSE, served as the Resource Person for the session on "Wireshark" at TKM College of Engineering, Kollam for the S6 Students, on 28 February 2023.

- **Mr. Ramjith R. P**., Asst. Prof., Dept. of CSE handled a session on "Telecommunication in the Modern Era" on 23 February 2023, conducted by the Kerala Police Telecommunication Department.

- **Ms. Dhanya L. K**., Asst. Prof., Dept. of CSE handled a session on "Neural Machine Translation" on 14 February 2023, in the 12-day training programme on "Winter School for Women 2023", organized by the International Centre for Free and Open Source Solutions (ICFOSS). She was a reviewer at the International Conference on FOSS approaches.

- **Ms. Sreeja S. R**., Asst. Prof., Dept. of CSE, handled a session on "Reinforcement Learning - An integration of Artificial Intelligence and Neuroscience" organized by the Department of Computer Science and Engineering, Amrita School of Engineering and Technology, on 16 January 2023.

PUBLICATIONS

- **PAPER PUBLICATION**

- **Ms. Devi Priya V. S**., (Asst. Professor, Dept. of CSE) and Mr. S. Sibi Chakkaravarthy published a paper entitled "Containerized cloud-based honeypot deception for tracking attackers." in *Scientific Reports* 13.1 (2023): 1437.

- Mr. Adil A. P., Mr. Anandhu M. G., Mr. Jeovan Elsa Joy, Ms. Twinkle S. Karethara (Alumni 2018-2022 CSE Batch), **Ms. Anjali.S** (Asst. Professor, Dept. of CSE) and **Ms. Poorna B. R**. (Asst. Professor, Dept. of CSE) published a paper entitled "Accident Detection in Surveillance Camera" in the Springer book series 'Engineering Cyber-Physical Systems and Critical Infrastructures'.

- **Dr. Jesna Mohan**, Asst. Prof., Dept. of CSE published a paper entitled "A Novel LightWeight CNN framework integrated with Marine Predator Optimization for the assessment of Tear Film-Lipid layer" in CMES-Computer Modelling in Engineering & Sciences Volume 136, Number 1, 2023. (SCI Expanded 2.027)

- **Ms. Sreeja S.R,** Asst. Prof., Dept. of CSE published her work "Prediction of Parkinson's Disease from Voice signals using Machine Learning "in the scopus indexed Journal "Journal of Pharmaceutical Negative Results" |Volume 13|2022.

- **ACCOLADES WON BY STUDENTS**

TOP CONTRIBUTOR AWARD

Salman Faariz, S7 CSE MBCET received the "**Top Contributor Award**" for his invaluable contributions towards **µLearn**.

- **PARTICIPATED IN RESIDENTIAL CAMP IN "MACHINE LEARNING THROUGH PYTHON"**

Angel T. John, Feba Mariyam Jacob, Nandana K. and **Nandini K.** of S3, Computer Science and Engineering participated and presented their project in the three days' Residential camp **on "Machine Learning through Python"**, organized and conducted by International Centre for Free and Open Source Software (ICFOSS), as a part of Gender & Technology programme, held from 14 to 16 October 2022.

INTERNSHIP

123 students did internships in various companies and organizations including UST Global, Keltron, Speridian Technologies, TCS, Cognetry Labs, Tata Elxsi etc during October 2022- March 2023.

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

CONFERENCES/SYMPOSIA/WORKSHOPS/SEMINARS/WEBINARS/TRAINING/INTERNSHIP ORGANIZED

- **Hands on Session:** The Communication Research Group in association with Biomedical Research Group of the Dept. organized a hands on session titled, "Simulink based Electronic Circuit Design and Hardware Integration", on 29 November 2022, by **Mr. Rakshith B S**, Senior Application Engineer for Mathworks products, CoreEL, Bangalore, for the 5th Semester students of ECED, as part of their Skill Development Program (SDP). ECED Faculty members, **Dr. Lani Mathew, Ms. Deepa P L and Dr. Ancy S. Anselam** coordinated the session.

- **Career Guidance Talk:** The Department of ECE organized a one-hour career guidance session on 'Career Opportunities after Engineering' for S5 ECE

students on 5th December 2022 by **Mr. Rakesh Rajeev**, Director, T.I.M.E, Trivandrum. **Mr. Niyas. K. Haneefa**, Asst. Professor, ECED, coordinated the session.

- **Hands-on Session:** The VLSI and Embedded Systems Group in association with the Biomedical Research Group organized a hands-on session titled, "PCB Design using KiCAD", on 16 December 2022, by **Mr. Hari Sankar**, Deputy Manager, Hardware Division, Vinvish Technologies Pvt. Ltd., for the 5th-semester students of ECED, as part of their Skill Development Program (SDP). The session was coordinated by **Dr. Lani Rachel Mathew,** Asst. Professor, ECED, and **Dr. Sreedevi P,** Associate Professor, ECED. 86 students participated in the session.

- **Faculty Training:** A three-day Faculty Training Programme was organized by the Signal Processing Research and Communication Research group of the Department of ECE on 6, 7 December 2022, and 12 January, 2023. The sessions were led by Mathworks and CoreEL Technologies resource personnel. Around twenty faculty members Coordinator: **Ms. Deepa P.L** Asst. Professor, ECED.

- **Talk session:** IEEE EMBS MBCET, in association with IIC and ECED, organized a talk on Biomedical Engineering - Is it for you? handled by **Mr. Sarath S Nair**, Scientist/Engineer F, BMT, SCTIMST, on Advances in Biomedical Engineering and **Mr. Balram Sankaran**, Scientist - G, Founder CEO, SCTIMST-TIMed on Creating Values from your Medtech Ideas on the 9 January, 2023. 66 students from various Departments participated. Coordinators: **Dr. Lani Rachel Mathew** and **Ms. Teena Rajan,** Asst. Professors, ECED.

- **INHOUSE WORKSHOP:** The Department ECE organized a two day inhouse workshop on AI with Computer Vision in order to develop a core faculty group to drive Intel (R) Unnati Lab setting up in our college. The workshop sessions were led by **Mr. Ramaiah Chidambaram**, Head of IT and Industry 4.0, CIIC, Crescent University, Chennai on 31 January and 4 February 2023. 28 participants attended the sessions. The session was coordinated by **Dr. Swapna P.S,** Associate Professor, ECED, and **Mr. Jijo Jose,** Asst. Professor, ECED.

- **STARTUP CONCLAVE:** Catalyst Mar Baselios IEDC organized a 2-day startup conclave INCEPTRA 2023 on 14, and 15 January 2023. **Prof. Ajay Basil Varghese**, Incubation Manager Adi Sankara TBI, **Mr. Visham B Kadam**, Technical Officer KSUM, **Mr. Sarju S, Manager** SJCET TBI and **Mr. Gopikrishnan**, Founder Buildnext interacted with students who participated from various colleges. The event was supported by AICTE SPICES Scheme.

- **WORKSHOP ON ANSYS:** A one-day offline workshop on ANSYS for High Frequency Electromagnetics and 5G Technology was organized by the Department of ECE in association with ARK Infosolutions Pvt. Ltd. on 27 February 2023. The session was handled by **Mr. Vivek Ashokan,** Senior Application Engineer – HF, ARK Infosolutions Pvt. Ltd and **Mr. Shiv Sankar Nair,** Manager – Engineering Simulation Services, Dimension Design Analysis (ANSYS Channel Partner). 30 participants attended. Staff Coordinators: **Dr. Luxy Mathews, Mr. Sherry Varghese George.**

- **Lab Visit: Ms. Teena Rajan** and **Dr. Lani Rachel Mathew**, Asst. Professors, Dept. of ECE visited the SCTIMST Biomedical Technology Wing at Poojapura, Trivandrum on 16 November 2022, in order to discuss product development related to biomedical devices.

- **MBCET Team Visited Intel Unnati lab, Crescent University, Chennai:** A team of Faculty Members and Technical Staff from the Department of Electronics and Communication Engineering visited the Intel Unnati Lab at the B.S. Abdur Rahman Crescent Institute of Science & Technology, Chennai as part of the establishment of the Intel Unnati AI IoT Lab on our campus. The team included **Mr. Anoop K Johnson,**

Mr. Jijo Jose, Asst. Professors, ECED, Mr. Ajith Kumar S M, Lab Instructor, ECED, The Crescent Innovation and Incubation Council (CIIC) team along with Mr. Ramaiah Chidambaram, Head of Industry 4.0 & IT, interacted with the team.

- **KELTRON VISIT:** A team of six people from Keltron visited the IEDC and 3D printing facilities provided by the College on 25 November 2022. The team members were Mr. Hemachandran, Executive Director, Mr. Vijeesh V, Deputy Manager and Division Head, Traffic Signals Division, Mr. Srijith C S, Senior Executive and Head QA, Mr. Anoop G S, Engineer, Head Production Mr. Bijoy S, Engineer, Head Testing, Ms. Revathy Sivanandan, Engineer, Engineering and Student Projects. Dr. Abraham T Mathew, Principal, Dr. S Viswanatha Rao, Vice Principal, Head of various departments and faculty coordinators were present during the visit.

- **Dr. Lani Rachel Mathew**, Asst. Professor, ECED, was part of the delegation from APJAKTU to Tata Consultancy Services (TCS), Trivandrum, on 15 February 2023, to discuss possibilities of promotion of Assistive Technology related activities in the Engineering community.

PROGRAMMES CONDUCTED BY THE DEPARTMENT

eNiX – Department Association Activities

- **Adharva'23**

Adharva'23, the annual Technical Fest of the ECE Dept., was held on 10 February 2023, at the college campus. The fest was inaugurated by Mr. Jithin Krishnan, Sree Chitra Tirunal Institute for Medical Sciences and Technology (SCTIMST), who gave an inspiring talk on the latest advancements in the field of medical technology.

Among the well-received events was "DIY with Arduino," which provided participants with the opportunity to construct their own electronic gadgets using the Arduino platform.

The festival also included "We have a dream", an event conducted in association with Catalyst IEDC, that urged students to develop innovative solutions for real-world problems.

The "Learning Station" in association with GTech Mulearn, offered an Engaging platform for Engineering aspirants to explore and learn about diverse fields of interest. Faculty Coordinator: **Mr Shiras S N**, Asst Prof., Dept. of ECE. Student Coordinators: **Faizan Ahamed Dawood Majahar**, & **Sruthi N A**.

GOOGLE DEVELOPERS CLUB ACTIVITIES

- A two-week long study jam '**COMPOSE CAMP**' was organized on 5 October 2022 to provide an opportunity to familiarize the app building using Jetpack compose. The native android app building session was led by facilitator **Mr. Ben George Netto**.

- GDSC MBCET conducted '**Get Set Git**' on 23 October 2002 as a part of the Hacktoberfest'22. A brief overview of Github was given to the participants by **Mr. Aditya S.**

- **Cloud 9**, Google Cloud Career Practitioners Campaign (GCCP) was a month-long campaign focused on Google Cloud Technologies. Its first session was held on 15th November 2022. **Mr. Aditya Krishna,** a Cloud Digital Leader, provided students with step-by-step instructions on how to crack the cloud pathways.

- GDSC MBCET hosted a week-long Python boot camp '**Hack.py**' 23 December 2022. The boot camp focused on basics of Python, GUI with Python Tkinter and making scripts using some public API.

- GDSC MBCET hosted a talk-session on the 29 December 2022 featuring **Ms. Maria Viji George**, a SWE Intern at Google. This session showed students the different strategies for getting into internships and coding interviews.

- **SEMICOLON** was a segway from the Road to Success session held on 19 January 2023. This first session was hosted by **Mr. Shravan and Mr. Jaysoorya**.

COMMUNITY OUTREACH PROGRAMMES
SPANDANAM ACTIVITIES

- As part of Spandanam (Social Service wing of Dept. of ECE, MBCET) activity, a mobile phone was donated

to **Kumari. Siva Ganga**, Priya Nivas, Punchakkari, Thiruvalla who is a nursing student in Good Shepherd College on 12th November 2022.

FACULTY ACHIEVEMENTS

Ph.D Awarded

● Ms. **Luxy Mathews**, Assoc. Prof., Dept. of ECE, was awarded the Ph.D. degree on the topic "Investigations to improve the performance of MIMO OFDM in LTE" by the University of Kerala, under the guidance of **Dr. Sakuntala S. Pillai** (Former Dean R&D, MBCET) and **Dr. N Vijayakumar,** Principal (Rtd), Govt. Engineering College, Bartonhill.

● **Dr. Jayakumari J**, HOD, Dept. of ECE, chaired a Technical Session for the 2022 4th International Conference on Circuits and Systems (ICCS 2022), Chengdu, CHINA, on 25 September 2022.

● **Dr. M. J. Jayashree**, Professor, Dept. of **ECE** and IQAC Coordinator has been selected as the Chair of Women in Biomedical Engineering (WIBE), a newly formed sub-organizational unit of IEEE EMBS Kerala. The unit aims to help advance women in Biomedical Engineering and areas relevant to IEEE EMBS Kerala. She coordinated the Annual event "Ignium 2022" for the student members of IEEE EMBS Kerala Chapter in online mode on 29 and 30 December 2022.

● **Dr. S Viswanatha Rao**, Professor, Vice Principal & Dean (Academic Affairs - UG), was the Moderator for the Industry Roundtable panel discussion for the 5G Technology domain, held on 16 December 2022, in Trivandrum, hosted by ASAP Kerala in association with the Kerala Knowledge Economy Mission.

● **Ms. Deepa P.L.**, Asst. Professor, Dept. of ECE was awarded the certificate of Best Paper for her paper titled **"DarkNet for Brain Tumor Detection and Classification"** in the International Conference on Recent Trends in Infor-mation Technology and its Application (ICRTITA'22), 29-30 August 2022. The conference was organized by the Department of Information technology, Vel Tech Rangarajan Dr. Sagunthala R&D Institute of Science and Technology, Chennai, Tamil Nadu.

● **Mr. Arun J. S**, Asst. Professor, Dept. of ECE, and Nodal officer of CATALYST got nominated into the State level IEDC Advisory Committee by Kerala Startup Mission.

RESOURCE PERSONS FOR WORKSHOPS/ CONFERENCES/EXPERT LECTURES

RESOURCE PERSON

● **Dr. M.J. Jayashree**, Professor, Dept. of ECE, and IQAC Coordinator:

○ Delivered an online talk on the "Benefits of IEEE EMBS" as a part of the events organized with the inauguration of IEEE EMBS MCC Student Branch Chapter in Musaliar College of Engineering, Chirayinkeezhu on 30 November 2022.

○ Presented the Mission, Vision, Principles and Activities of IRCS and YRC during the Seminar on "Indian Red Cross Society (IRCS) and its Activities" to the MSW students of IGNOU on 8th February 2023 at IMA hall, Thiruvananthapuram.

○ Delivered an online talk on "Awareness on IEEE EMBS WIBE" on 27th February 2023 to the EMBS student members of Kerala.

● **Dr. S Viswanatha Rao**, Professor, Dept. of ECE, and Vice Principal & Dean (Academic Affairs - UG), delivered a talk on "An overview of NBA Accreditation Process" in an FDP program at Lourdes Matha College of Science and Technology, Trivandrum on 18 January 2023.

● **Mr Arun J. S.**, Asst. Professor, Dept. of ECE

○ Delivered the session "Catalyst Mar Baselios IEDC-The Impact Creation" as a part of the event Meet the Kerala Startup Mission CEO, a one-day meetup of Nodal officers from IEDCs accredited by KSUM as TBI, at Marian Engineering College, Trivandrum on 30 September 2022.

○ Spoke in the one-day entrepreneurship workshop on 'VENTURE PLANNING & PITCH DECK PREPARATION' organized as part of Innovator's Premier League II, at Sree Buddha College of Engineering, Pattoor on 29 November 2022.

○ Contributed as facilitator in the YIP 5.0 Intern training session and workshop of representatives from Government Departments organized jointly by KDISC

and KSUM from 6 to 9 February 2023. The event was organized at Technopark Trivandrum and Appolo Dimora Trivandrum.

PUBLICATIONS

- Revathy Sivanandan and **Jayakumari J**, published papers in (1) *Springer Multimedia Tools and Applications* (2023), https://doi.org/10.1007/s11042-023-14468-0 (**SCI Indexed Journal**) and (2) The Imaging Science Journal, 68:5-8, 251-258, DOI: 10.1080/13682199.2022.2141866 (**SCI Indexed Journal**).

- Devika S. S, Haleema Nizar, Jessno Oommen Jose, Mahima Abhilash, **Ann Mary Alex**, Smart Canteen Management System Based On Assistive Technology, IOSR Journal of Engineering (IOSRJEN), Vol. 12, Issue 12, December 2022.

- Abin Abraham, Arjun Sajeev , Deepak P Menon , Sreehari J, **Lani Rachel Mathew**, Transportation Aiding System for the Visually Impaired, International Journal of Engineering Research & Technology (IJERT) Volume 11, Issue 10 October 2022.

- P. Prathap and **J. Jayakumari**, "Saliency Detection From 4D Light Field Images Using an Optimized CNN-based Hybrid Model," *2022 IEEE 19th India Council International Conference (INDICON)*, Kochi, India, 2022, pp. 1-5.

- Sreena V G, Narain Ponraj D and **Deepa P L**,"Comparative Analysis of Deep Learning Models for Covid-19 Detection from Chest X-rays," *International Conference on Disruptive Technologies for Multi-Disciplinary Research and Applications (CENTCON)*, Bengaluru, India, December 2022.

- **Anu Susan Philip**, Ananthu Suresh S L,"Multiple Botnet and Keylogger Attack Detection using CNN in IoT Networks," *2022 International Conference Futuristic Technologies (INCOFT)*, Karnataka, India, November, 2022.

PARTICIPATION IN CONFERENCES WORKSHOPS/FDPs /SEMINARS/ WEBINARS

FDPs/STTPs/WORKSHOPS/CONFERENCE

- Dr **S Viswanatha Rao**, Professor, Mr **Jijo Jose and Mr Arun J S**, Asst. Professors, Dept. of ECE attended the two-day capacity building workshop

for Technology Business Incubation Managers organized by Kerala Startup Mission on 2 and 3 December 2022 at the Technology Innovation Zone Cochin.

- **Intel Unnati Program :** IoT Train the Trainer Workshop: As part of Intel Unnati Program, faculty members from MBCET attended Internet of Things (IoT) Train the Trainer workshop at the Indian Institute of Science (IISc), Bengaluru from 5 to 7 December 2022. The Faculty Members were **Dr. Swapna P. S.,** Asso. Prof., ECE**, Mr. Arun J. S,** Asst. Prof., ECE**, Mr. Shibu V.S.,** Asst. Prof., CSE**, Mr. Jijo Jose,** Asst. Prof., ECE and **Mr. Ajith Ashok,** Asst. Prof., EEE**.

- **Ms. Teena Rajan**, Asst. Prof., Dept. of ECE completed the FDP from 20 to 24 February 2023, organized by the Department of ECE, College of Engineering, Trivandrum.

- **Ms. Deepa PL** and **Dr. Lani Rachel Mathew,** Asst. Professors, Dept. of ECE attended a one-day Orientation Program on AICTE Technical Translation on 22-12-2022 at Digital University Kerala(DUK) Technocity Campus, Thiruvananthapuram.

- **Mr. Arun J S,** Asst. Prof., Dept. of ECE participated in the symposium organized by Gtech Mulearn followed by the Industry Summit and launch of Kerala Skills Express by Kerala Knowledge Economy Mission on 23 January 2023 at Hotel Hycinth, Thiruvananthapuram.

- **Ms. Salga Ann Jacob**, Asst. Professor, Dept. of ECE participated in the following:

○ three-day online workshop on conducted from 28th to 30th December 2022 organized by the Centre for Skill Development & Innovative Research.

○ the five days online FDP organized by School of Electronics Engineering from 5-9 January 2023 at VIT, Chennai.

○ IP Awareness/Training program under NATIONAL INTELLECTUAL PROPERTY AWARENESS MISSION on February 09, 2023 jointly organized by Intellectual Property Office and MoE's Innovation Cell, India.

○ one-day offline workshop organized by Mar Baselios College of Engineering and Technology (Autonomous), Trivandrum and ARK Infosolutions Pvt. Ltd., Bangalore on February 27, 2023.

● **Dr. Emy Mariam George**, Asst. professor, Dept. of ECE:

○ Participated in a one-day online workshop conducted by ARK Infosolutions Pvt. Ltd., Bangalore on December 7, 2022.

○ **C**ompleted the two week FDP from 27th February to 10th March 2023, organized by the Department of ECE, Amal Jyothi College of Engineering, Kanjirapally.

● **Ms. Merin Philip,** Asst. Professor, Dept. of ECE, completed the FDP from 9 to 13 of January 2023 organized by Saintgits College of Engineering in association with CoreEL, ENTUPLE and Anritsu.

● **Ms. Vineetha Mathai**, Asst. Professor of ECE attended one-week National level FDP from 01-05 November 22 organized at Shri Vishnu Engineering College for Women.

ACCOLADES WON BY STUDENTS AND STUDENT ACHIEVEMENTS

B.Tech Internship: Eben Tom Thomas, Sruthi N.A., S. Hershni Raj, Jayadevan V., G. Niranjan and Gautham G.B, (**Fifth-semester** students of the **Department of ECE)**
have undergone internship at Vinvish Technologies Pvt. Ltd., Technopark, Trivandrum, from 6 to 15 October 2022.

● Abhiram Krishna RS (S5EC2), Sruthi N A (S5EC2), and Vignesh Kailas (S5ME1) secured the second position in the Vegathon '22 National Level 30 hours' hardware hackathon organized by CDAC with Rajagiri School of Engineering and Technology. The Team was mentored by **Mr. Jijo Jose**, Asst. Professor, ECE.

● **MBCET Team got funding support of 1.5 Lakh in KWA Hackathon:** The MBCET Team has been shortlisted for funding support in Kerala Water Authority (KWA) Hackathon Programme organized in association with Kerala Startup Mission (KSUM) for the development, installation, and trial of smart pumping stations in KWA. The idea submitted by the team was reviewed at various levels by KWA & KSUM and finalized in the offline meeting with KWA - KSUM experts on 27-06-2022 and the Expert Committee has recommended for a funding support of 1.5 Lakhs for the product development. Team Members: **Mr. Vishnu P Kumar**, Alumni ECED, **Mr. Souraf N F**, S7EC2, **Ms. Jyothsna B**, S5 EE1, **Aparna S**, S5 EE1 and **Ms. Parvathy S Thampi** S7 CS2, Team is guided by **Mr. Jijo Jose**, Assistant Professor, ECED and supported by **Mr. Ajithkumar S**. **M**, Lab Instructor, ECED and **Mr. Nobert A Varghese**, Lab Instructor, ECED for the concept development.

ALUMNI ACHIEVEMENTS

● **Namukk Kettan Pattumo-** a Malayalam short film, directed and acted by MBCET alumni, was released on 17 December 2022. Writer, Director, and Actor- **Mr. Jevin Jaison** - Dept. of MED and **Mr. Jyothis Philip-** Dept. of ECE.

DEPARTMENT OF ELECTRICAL & ELECTRONICS ENGINEERING

DEPARTMENT ACTIVITIES

New Faculty Joined

Five new faculty members, **Dr. Sheryl Arulini. A**, **Ms. Vrinda Prasad**, **Dr. Dishore S V**, **Mr. Anil J**, and **Ms. Rose Raphy Pallikunnan** joined EED in October 2022.

EV Research Group Activities

▪ IEEE PES in association with EV Research Cell conducted a One-day Electric Vehicle Workshop for

Fig. 1: EV Research Cell Activity

the staff and third year students of Jayamatha ITI on 27 January 2023.

- The EV Research Group in association with Illumina, the Association of the Department of Electrical and Electronics Engineering, organized an Online Expert Talk on "Overview of EV environment and Opportunities" on 25 November 2022. The Resource Person was **Mr. Ramesh G**, Consultant, Manatec E-Drive. 40 participants attended the session. The programme was coordinated by **Mr. Aswin R B** and **Dr. Dishore S. V**., Assistant Professors, EED.

POWER ELECTRONICS RESEARCH GROUP ACTIVITIES

- The Power Electronics Research Group, EED, organized an Expert talk on "Indian Power Challenges and Way forward" for the final year students of EED on 24 Feb 2023. The Resource Person was **Mr. Shine Raj** (Assistant Engineer, TRAC, KSEBL). Coordinator: **Mr. Anil J**, Asst. Prof., EED.

Fig. 2: Power Electronics Research Group Activity

- The Power Electronics Research Group, EED, organized a Webinar on "Energy Management" for

the final year students of EED on 13 Feb 2023. The Resource Person was **Mr. Jose Philip** (Building Energy Efficiency Expert, GRIHA Certified Professional, BEE Certified Energy Manager, Certified Resource person of ANERT). 70 students participated for the Webinar.

Coordinators: **Ms. Revathy K P** and **Ms. Anila A V**, Assistant Professors, EED.

- The Power Electronic Research Group of the Department organized an Expert talk for the final year students on Electrical Safety Aspects, on 14 October 2022 in Faraday Hall. The Resource Person for the webinar was **Sri. Suresh Kumar S**., Nodal Officer Litigation (AEE), KSEB, Electrical Circle, Kattakada. The session was coordinated by **Ms. Vandana P**. and **Mr. Aswin R B**, Assistant Professors, EED. Around 70 students attended the session.

VISIT TO EMC

- A team of faculty from EED comprising of **Dr. S. Ushakumari**, **Dr. Nisha G.K**., **Mr. Aswin R.B.** and **Dr. Dishore S.V.** paid a visit to the Energy Management Centre (EMC), Trivandrum on 24 November 2022. The team submitted a proposal to EMC for setting up a retrofitting facility on campus.

VISIT TO NISH

- **Dr. Shalu George K**., Associate Professor, EED and **Ms. Soumya A V**., Assistant Professor, EED, along with a group of students of S8 EE visited the National Institute of Speech and Hearing (NISH) on 01 March 2023, as part of the discussion of their project entitled "Smart Ergonomic Office Chair".

ILLUMINA ACTIVITIES

Illumina - the Association of Department of Electrical and Electronics Engineering and IEEE PES MBCET in association with Global Study Link conducted a session on "Higher Education prospects in UK" for the students of Department of Electrical and Electronics Engineering on 23 January 2023.

Illumina conducted the Technical Fest TRYDAN '22 on 17 December 2022. The Technical Fest was officially inaugurated by

Bursar **Fr. John Varghese** and Vice Principal **Dr. S Viswanatha Rao** by releasing the logo of TRYDAN and Illumina.

TRYDAN '22 was co-ordinated by the Illumina Core Team under the guidance of Staff Coordinators **Ms. Manju Sree-kumar and Ms. Shilpa Susan Peter**, Assistant Professors, EED.

FACULTY CONTRIBUTIONS

EXPERT TALK

- **Dr. Dishore S. V**., Assistant Professor, EED gave an expert talk on "Revolution and Advances in e-vehicles" on **28 February 2023**, as part of National Science Day Celebration Activity of IIC, MBCET.

ONE-DAY MENTOR SENSITIZATION PROGRAMME AT NISH

- **Dr. Shalu George K**., Asso. Prof., EED and **Ms. Soumya A V**., Asst. Prof., EED, **Dr. Nidhi M B**., Asso. Prof., MED, **Dr. Alice Thomas**, Asst. Prof., CED, and **Ms. Amritha B J**, Asst. Prof., ECED attended the one-day Mentor Sensitization Programme conducted as part of the 2-day Camp, 'Huddle – 2' of the project "Innovation by Youth with Disabilities (I-YwD)" at the National Institute of Speech and Hearing (NISH) on 24 February 2023.

Courses / Workshops / Webinars attended by Faculty

- **Ms. Elizabeth Varghese, Ms. Soumya A. V., Ms. Manju Sreekumar, Ms. Surasmi N L** attended TEQIP-II Sponsored FDP from 27 February 2023 to 4 March 2023 organised by Department of Electrical and Electronics Engineering, TKMCE, Kollam.

- **Dr. Dishore S. V.** attended a Five-Day Online Faculty Development Programme from 19-12-2022 to 23-12-2022, organized by Department of Electrical and Electronics Engineering, Sasi Institute of Technology & Engineering, Tadepalligudem, West Godavari district, Andhra Pradesh, India and the Workshop on 14 December 2022, conducted by EMC (Energy Management Centre), Thiruvananthapuram.

- **Dr. Nisha G. K.** attended a Workshop session on Energy Efficiency and Energy Conservation on 10 December 2022 organised by Energy Management Centre Kerala in association with Global Institute for Design Engineering.

- **Ms. Anila A. V.** attended 3-days National online workshop on Data Exploration through Python from 09 to 11 December 2022, organised by PES Institute of Technology & Management in association with Hi Learn Edutech Institute.

- **Mr. Ajish Ashok** attended 3-days IOT training session from 5 to 7 December 2022 for Unnati Lab held at IISC Bangalore in association with Intel.

Conference

Dr. Dishore S. V., Asst. Prof., EED attended and **presented a paper** at the *International Conference on Sustainable Technology and Advanced Computing in Electrical Engineering* held on 19 and 20 January, 2023, hosted by the Department of Electrical Engineering, Sardar Vallabhbhai National Institute of Technology, Surat, Gujarat.

Ms. Sandhya P., Asst. Prof, EED attended and **presented a paper** in the *2022 IEEE International Power and Renewable Energy Conference* (IPRECON), an IEEE IAS Club of 6 Technical Paper Conference on 16, 17 and 18 December 2022 organised by the IEEE Student branch of College of Engineering Karunagappally.
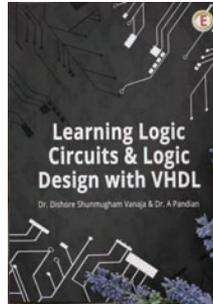
Research Papers/Publications

- Jasmine Gnanamalar, R. Bhavani, **Sheryl Arulini. A,** Sai Veerraju. M, in the *Journal of Electrical Engineering and Technology*, Springer, 2023.

- **Dr. Dishore S V** has published an article - Raj, Devesh, Thiyagarajan Venkatraman, Muthuselvan Balasubramanian, and Dishore Shunmugham Vanaja, *Electric Power Components and Systems* (2022), *Taylor and Francis Group*, pp: 1-20.

- **A. V. Soumya** and J. B. Edward, in Int J Intell Syst Appl Eng, vol. 10, no. 3, pp. 256–264, Oct. 2022.

- **A. V. Soumya** and J. B. Edward, in NeuroQuantology, Vol. 20, Issue 10, pp 11054-11062, October 2022.

- **Revathy K P** and **Anila A V**, in International Journal for Research in Applied Science & Engineering Technology (IJRASET), Volume 10, Issue IX, September 2022.

BOOK PUBLISHED

- **Dr. Dishore S V** published a textbook "Learning Logic Circuits and Logic Design with VHDL (2023)" in association with Dr. A Pandian, 978-93-5673-100-4, Book Published by Evincepub Publishing.

TRAINING ATTENDED BY LAB STAFF

- **Ms. Prabha S., Ms. Shabina N.** and **Ms. Smiji R S** participated in the 5-day workshop on "Python Programming" from 4 to 8 April 2022, organised by the Department of Computer Science and Engineering, MBCET.

DEPARTMENT OF MECHANICAL ENGINEERING

Workshop on ROBOTICS for students

A 5-day workshop on Robotics was given to Second Year Mechanical Engineering students from 7 to 11 Nov 2022. It was organised by Dept of Mechanical Engineering in association with Catalyst, Mar Baselios IEDC and Automata, ME dept.

Workshop on CFD for students

A 5-day workshop on "Application of Computational Fluid Dynamics in Fluid Flow Analysis" was given to Second year Mechanical Engineering Students from Nov 14 to 18, 2022. It was organised by the Dept. in association with ASME and Automata, ME Dept. The workshop was part of 'Energon' Series and the sessions were handled by **Mr. Vaisakh S. Nair**, Asst Professor, MED.

Session on Career Opportunities

A Session on Career Opportunities was organised by the Dept. of Mechanical Engineering on 30 November 2022. The session was handled by **Mr. Jayaram V**, HR Head & Advisor to CGP Career Avenues.

Participation in Huddle Global

Dr. Nidhi M. B., Asso. Prof., ME Dept and following students of S3 Mechanical (Aaron Koshy Boby, Ananth P Nampoothiri, Bharath Suresh Appukuttan Nair, John Sony Kurian) and S5 Mechanical (Akash Sreejith Chandra, Ashwin Mathew, Muhammed Sufiyan Al Basith) attended as delegates at the Huddle Global, a Tech Startup event organised by Kerala Startup Mission (KSUM) at the Raviz Kovalam on December 15 & 16, 2022.

Faculty as office bearer

Mr. Mobin M Mathew, Asst. Prof., ME Dept. has been nominated as Treasurer SAE (Society of Automotive Engineers) International - Southern Cochin Division for 2022-2024.

Faculty as Trainer

Dr. Nidhi M. B., Asso. Prof, ME Dept has been selected as Trainer for 'Train the Trainer' program to drive innovation and design thinking in schools and colleges as a part of YIP Sasthrapadam Program by KDISC. She delivered session on 'Digital Green and Sustainable Supply Chain:

Modeling and Analysis using Case study' in a Faculty Development Programme on "Trends

in Modeling Supply Chains - Analytical and Simulation Perspective" at College of Engineering Trivandrum on December 3, 2022. She delivered another talk at the Design Thinking Workshop organised by YIP Sasthrapadham in BRC Nedumangad, Trivandrum on February 14, 2023.

Faculty as Panelist

Dr. Nidhi M. B., Asso. Prof., ME Dept was a Panellist in Bridge the Gap Symposium: Fostering Future Skills in Education, as part of SKILLEXPRESS Launch on January 23, 2023 in Trivandrum organised by Kerala Knowledge Economy Mission and GTech MuLearn.

Faculty attended FDP

Dr Rajesh T. N. and Dr. Nidhi M. B., Associate Professors, ME Dept attended a 5 days Faculty Development Program on 'An insight into EV Design & Development' sponsored by Directorate of Technical Education, Kerala on 30th January – 3rd February, 2023 at Government Engineering College, Barton Hill, Thiruvananthapuram.

Dr. Nidhi M.B., Asso. Prof., ME Dept participated in "Incubation Management Virtual Training Program (2nd Edition)" conducted by Entrepreneurship Development Institute of India Ahmedabad (under the CrAdLE initiative) from December 1 to 4, 2022.

Expert Talk

(1) A talk was organised by the Placement cell, ME Dept for the final year students by a team from Air India on 'Opportunities in Aviation Industry' on February 13, 2023.

(2) There was a student interaction with an Industry Expert about the scope of Mechanical Engineers on February 08 2023. **Mr Sumesh Sasikumar**, Engineer, IOT & Digital Engineering business unit, Tata Consultancy Services (TCS) was the resource person. Faculty Coordinator: **Dr Rajesh T. N.**

Faculty as Session Moderator

Dr. Nidhi M. B., Asso. Prof., ME Dept served as moderator for sessions organised by the Indian Society for Training & Development (ISTD) Thiruvananthapuram Chapter as part of Women's Day celebration on 8 March 2023.

PUBLICATION

Vinod V, **Bipin Balaram**, in Communications in Nonlinear Science and Numerical Simulation– Elsevier, Volume 117, February 2023, 106944; Impact factor 4.186; Q1 Journal, ISSN: 1878-7274

Arjun, P.N.J.; **Sankar, B.**; Shankar, K.V.; Kulkarni, N.V.; Sivasankaran, S.; Shankar, B. Silver and Silver Nanoparticles for the Potential Treatment of COVID-19: A Review. Coatings 2022, 12, 1679. https://doi.org/10.3390/coatings12111679

L. Deepak, A. Ganesh, R. S. Dit, S. H. Sreehari, **Vinod V** & **G. P. Krishnamohan**, Molecular Dynamics of Carbon Capture from the Emissions of an IC Engine Using ZSM-7, Lecture notes in Mechanical Engineering, Springer pp.237-240, September 2022, "ISBN 978-981-19-3938-9"

Premchand V P, Bipin Balaram, Narayanan M D, Sajith A S., A Cluster Based Algorithm Coupled with Shooting Method for Estimation of Parametric Clusters Yielding Optimal Stable Periodic Solutions in Nonlinear Vibrating Systems. J. Computational and Nonlinear Dynamics, SCI, CND-22-1025 https://doi.org/10.1115/1.4054456

Dr. Nidhi M. B., Dr P V Unnikrishnan, Arjun Nair, " Int. Conference in Industrial Engineering and Management (ICAEM 2022), in association with CETSOM, IIST, IMK, 18-20 March 2022 (Best presenter Award)"

Dr. Nidhi M.B and Chandra vadhana, -A study on Gender, Gender role orientation and Perfectionist Self - Presentation style, ISBN-13 979-8887330273

Dr. Nidhi M.B and Chandra Vadhana, Promoting Gendered Innovation in Indian Technical Education Institutions- Challenges and Oppurtunities, ISTE journal - UGC approved- Vol44-No3-2021

STUDENT ACHIEVEMENT

Team Mech boys comprising of Mr Henry Christudas Isaac, Gokul R S Nair, A Muhammad Siddique, Saran Deny, Sarath S and Rahul B of Mechanical ME1 (2018-22 Batch) mentored by **Dr. Deepak G Dilip**, Assistant Professor, Mechanical Engineering, MBCET has been selected for funding for their idea "BICYCLE TRACTOR" at the recently concluded IDEA FEST 2022 conducted by Kerala Startup Mission

FACULTY TURNS AUTHOR

Dr. Nidhi M. B., Asso. Prof. in the ME Department, co-authored the book "Technology Management" with Kailas Sree Chandran, Assistant Professor at Bartonhill Engineering College in Trivandrum.

SAE Lecture meet

A talk was organised by Society of Automotive Engineers (SAE India) MBCET Chapter to final year Mechanical students by **Mr. S. Shanmugam** (Ex Chairman, SAE Chennai Division) in the topic 'Careers and Competencies' on 29 March 2023. Faculty Advisor: **Mr. Mobin M. Mathew.**

Industry expert talk – Technology Management

A talk was organised by ME association AUTOMATA to final year Mechanical students by **Mr. Vishnu B. Valsan** (Senior Consultant at Ernst & Young) in the topic 'Fraud Detection and Application' on 27 March 2023 at Pascal Hall. Faculty Advisor: **Dr. Nidhi M. B.**

Industry expert talk

A talk was organised by ME association AUTOMATA to final year Mechanical students by **Mr. Sai Ganesh** (Business Consultant at Accenture) in the topic 'Data Analytics' on March 15, 2023. Faculty Advisor **Dr. Nidhi M. B**. coordinated the event..

DEPT. OF SCIENCE & HUMANITIES

Publications of Faculty Members

- **Renjini M Nair**, B Bindhu, R S Rimal Isaac; in Polymer Bulletin. (2023).https://doi.org/10.1007/s00289-023-04673-0 (SCI Indexed/ Scopus indexed) [Impact Factor 2.87], Springer

- **Vidya Vilas**, **Archana P. Das** & Daizy Philip, In: Baskar, C., Ramakrishna, S., Daniela La Rosa, A. (eds) Encyclopedia of Green Materials (2023). Springer, Singapore.

  https://doi.org/10.1007/978-981-16-4921-9_3-1

FDP and Conferences attended by Faculty Members

- **Ms. Anaswara Johny** and **Ms. Syama S. Mohan,** Asst. Profs. (S & H) participated in the National Conference held from 23rd to 25th March 2023 at Mohandas College of Engineering and Technology, Trivandrum.

- **Ms. Sabitha S Nair**, Asst. Prof. (S & H) participated in the National Conference (NCAMN 2022) held on 8th to 10th March 2023 at Mar Ivanios College, Trivandrum.

- **Ms. Sabitha S Nair**, Asst. Prof. (S & H) participated and presented a paper *in* the National Conference on Operations research, Differential Equations, Numerical analysis, Computing and Applications held from 23rd to 25th March 2023 at Mohandas College of Engineering and Technology, Trivandrum.

- **Ms. Syama S Mohan** Asst. Prof. (S & H) attended a three days online (March 8-10, 2023) National Conference on Applied Mathematics and Numerics organized by Post Graduate and Research Department of Mathematics Mar Ivanios College (Autonomous) Trivandrum and Department of Mathematics Indian Institute of Space Science and Technology (IIST) Trivandrum.

- **Ms. Anaswara Johny** Asst. Prof. (S & H) attended a 5 days online (Feb 20-24, 2023) Orientation program organized by Centre for Skill Development and Innovative Research.

- **Ms. Uma M.**, Asst. Prof. (S & H) presented a paper titled 'Energy of Cayley Graph' in the 2nd International Conference on Advanced Information Science and Computing Systems (ICAISCS) organized by the Department of Computer Science and Applications, Christ Nagar College, Maranallor, Trivandrum on 28 January 2023. She presented another paper at the International Virtual Conference on Progress in Mathematics towards Industrial Applications (PMTIA-2022) held at SRM Institute of Science and Technology (October 28-29,2022).

- **Ms. Jisha J.J,** Asst. Prof. (S & H) presented a paper in the 2nd International Conference on Advanced Informatin Science and Computing Systems (ICAISCS) organized by the Department of Computer Science and Applications, Christ Nagar College, Maranallor, Trivandrum on 28 January 2023. She presented another at the International Virtual Conference on Progress in Mathematics towards Industrial Applications (PMTIA-2022) held at SRM Institute of Science and Technology (October 28-29,2022).

Faculty as Resourse Person

Dr. George Zachariah Prof. & Dean (SA), NAAC Advisor, interacted with the Faculty Members at the Mohandas College of Engineering on the process of NAAC Reaccreditation on 16 March 2023.

New Faculty

- **Ms. Aleesha P. J**, Asst. Prof. (Mathematics), joined the Department (pursuing Ph. D).

- **Ms. Devika S. Mohan**, Asst. Prof. (Physics), joined the Department (pursuing Ph. D).

- **Ms. Ammu Maria Ashok**, Asst. Prof. (English), joined the Department (pursuing Ph. D).

- **Ms. Syama S. Mohan**, Asst. Prof. (Mathematics), M.Sc. (Mathematics) joined the department.

- **Dr. Renjini M. Nair**, Asst. Prof. (Physics), Ph. D (Physics) joined the Department.

- **Ms. Reshma, Tutor** (Physics), M. Phil, joined the Department.

DEPARTMENT OF PHYSICAL EDUCATION

Rohan Geo Chacko, S5EC1 receiving the best Football Coach award of Pathanamthtta District from the Honourable Sports Minister **Sri. Abdurahiman. Siddhi Sekar** (S5 EC2) and It was a Government Program called 'One Million Goal' for School students at the time of Qatar World Cup Football.

Diya Vijayan (S1EC2) got selected to the University Women Netball team which is going to participate in the All India Inter University Championship going to be held at Central University, Haryana from 14 to 17 Feb 2023.

Alen Cyriac Joseph (S5 CS2), **Aaron Johnson** (S5 CE1), **Anand Pillai** (S1CS2) got selected in the University Netball Team going to be held at Soundarya College of Law, Banglore organized by Karnataka State Law University.

University All Kerala Netball Championship was organized by the Department of Physical Education,

MBCET on 6 Feb 2023 at Amenity Center. MBCET Men team bagged Runners trophy and Women team bagged the Third position. Our beloved Bursar Fr. John Varghese distributed the prizes to the winners.

Diya Vijayan V D of S1EC2 got selected to the University Women's Basketball Team Tournaments held at Madras University from 4 to 8 January 2023.

MBCET Chess Men Team secured 5th position in the All Kerala Inter Zone Chess Competition held at Jawahar College of Engineering and Technology, Lakkadi, Ottapalam, Palakad on 20 and 21 December 22

G J Anuja, S7 EE2 secured Third position in the APJ AKTU All - Kerala Inter Collegiate Karate Championship held at M A College of Engineering and Technology, Kothamangalam on 19 December 2022.

Vineeth Roshan, S5 CE got selected to the University Volleyball Team. Inter University is going to be held at SRM University, Chennai from 23-27 December. University camp will start from 18 - 22 Dec at Kozencheri.

Bhavya Suseelan, S7 CS1 is the Individual Champion of the APJ AKTU All- Kerala Inter- Collegiate Chess Tournament and also got selected to participate in the South Zone Inter-University Tournament at Jain University, Bangalore from 15 to 17 December 2022.

Our College Chess Men and Women Team secured Runner Up position in APJ AKTU A-Zone Tournament conducted at MBCET on 8 December 2022

The MBCET Men Volleyball Team lifted the A Zone Volleyball Trophy. The team has qualified for the All Kerala Inter-Zone Championship held at Muthoot Institute of Science and Technology, Varikoli, Kochi on 16 and 17 December 2022.

MBCET Men Basketball Team secured Runner up position in the All Kerala Inter Zone Basketball Tournament held at Illahia Engineering College, Muvattupuza.

Fr. Thomas Mukalampurathu, (Asst. Bursar) Inaugurating the Senior District Throwball, Men and Women Championship

Our College Kho Kho Women team secured Third position in the APJ AKTU A-Zone Inter - Collegiate tournament held at CET, Trivandrum on 28 November 2022.

The Basketball Women's Team became the Runners in the A Zone, Basketball Tournament held at CET. Team participated in the All Kerala Inter Zone, Tournament held at St. Thomas Institute of Science and Technology.

MBCET hosted the Baselian Premier League, a Football Tournament from 22 to 28 March 2023. The following were the winners – REAL VN Team, Runner Up – NEXUS FC Team, Best Player – Pranav P S, S8 ME1, Best Goalkeeper – Nirmal Sabu Issac, Emerging Player – Muhammad Nihal, Promising Players – Abhinanth S

MUSIC CLUB ACTIVITIES

66th KERALA PIRAVI CELEBRATIONS

The 66th Kerala Piravi was celebrated by the College Senate. The programme started with a song by the faculty members of Ragam followed by the student members who presented their talents in music during the celebrations.

The following members participated.

1. Angeline P Baiju (S3 CS2)
2. Gauri Sanal (S3 CS2)
3. Nandhana M (S3 ME)
4. Adlu Rahman (S3 CS1)
5. Joshua Sam Jacob (S3 CS1)
6. Ann Santhosh (S3 EC2)
7. Devasurya S (S3 EC1)

CHRISTMAS CELEBRATIONS 2022

Ragam MBCET in association with MBCET Senate conducted a Christmas programme in the College campus on 23 December 2022.

MUSICON

Ragam MBCET conducted a fun event, MUSICON on 20 January 2023. The event was basically a quizzical programme based on film songs. The participants were divided into 4 teams. There were three rounds of questions. The members who coordinated the event were **Sophy Maria Joy** (S3 EE), **Jyothsna B** (S5 EE1), **Remya Krishnan** (S5 EE1) and **Rohan U S** (S5 EE2).

The participants consisted of the following students:

Team 1: **Nandakishore S** (S3 ME), **Mohammed Adil Syedali** (S3 CS1), **Aaron Thomas** (S3 EC1)

Team 2: **Ganesh G S** (S5 CE1), **Anupama Siby** (S5 CE1), **Athena S** (S5 CE1), **Bharath S Nair** (S53 EC1)

Team 3: **Adlu Rahman M** (S3 CS1), **Joshua Sam Jacob** (S3 CS1), **Abhishek Raman** (S3 CS1), **Jobin P.N.** (S3 CE2)

Team 4: G **Niranjan, Gautham G B, Diya Narayanan, Bharath Chandran** (S5 EC2).

Library

As part of the Student Induction Programme (**SIP-2022**), MBCET Library conducted a Seminar **'Know Your Library – Effective Utilization of the Library and E-Resources'** from 02 to 10 November 2022 for all batches of first year **B.Tech** students at their respective class rooms.. **Mr. Binu K John**, Librarian was the Resource person and **Mr. Sambhu B K** coordinated the sessions. A Seminar on the same topic was held by him for all batches of 1st year M. Tech Students at the Senatus Hall on 29 November 2022.

MBCET Library conducted a **'Book Exhibition-cum-Sale'** programme for first year B. Tech students on 25 and 26 November 2022 at the Amenity Centre.

MBCET STAFF CLUB SPORTS 2023

Women's Individual Champion: **Dr. Minu Ann Peter**

Overall Champion Civil Engineering Department

Training and Placement Unit

Name of the Industry	Offers
EY Global Delivery Services	8
Aurionpro Solutions Limited	8
QBurst	43
H&R Block	10
Cognizant	60
Speridian Technologies	22
IBS	15
Experion Technologies	15
Quest Global	13
HCL	13
TCS	15
NeST Digital	3
BlueBinaries	12
Envestnet	4
Federal Bank	8
Terrific Minds	5
Total Offers	**254**

COURSES OFFERED
College code : MBT

B. Tech

Courses	Number of seats
Computer Science and Engineering	126
Electronics & Communication Engineering	126
Civil Engineering	126
Electrical and Electronics Engineering	63
Mechanical Engineering	63
Computer Science and Engineering (AI)	60
Electrical and Computer Engineering	60

M. Tech

Courses	Number of seats
Structural Engineering	18
Computer Science and Engineering	18
Power Control and Drive	18
Telecommunication Engineering	18
Machine Design	18
Transportation Engineering	18
IOT and Sensor Systems	18

Duc In Altum.. To the Heights of Excellence
Decipherers of Techno-dreams Since 2002

The founder conceived it. We build it. Posterity sustains it.