SieNews BULLETIN

Year: 2022-2023

DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING

MBITS, NELLIMATTOM, KERALA, INDIA

Secretary's Message

Dear All,

I'm extremely happy to know that the college is bringing out the "MBITS Bulletin" this year also. I, on behalf of the Board of Directors congratulate the members of the editorial board and the team for their

Earnest efforts to bring out the colorful and informative bulletin. It is definitely a reflection of the prime activities taking place in our college. All of us know that the real test of engineering education is the placement record. In this respect it gives me immense pleasure to note that the campus placement offers in the current year (2021) for 138 B. Tech students.

I'm sure that our college will continue to maintain the high levels of campus placement and academic performance in the coming years.

Wishing you all, the season's greetings.

C. A. Kunjachan
Secretary

Principal's Message

Dear MBITS Community and well-wishers,

I am thrilled to extend my warmest greetings and share some exceptional achievements and future aspirations with you. As the Principal of MBITS, I am delighted to announce our recent accreditation by the National Assessment and Accreditation Council (NAAC) until 2025. This serves as a resounding testament to our unwavering commitment to academic excellence.

What's even more remarkable is that MBITS stands as the sole institute from Kerala featured in the prestigious "New Code of Education Awards in 2021 and 2022." This accolade is a clear reflection of our pioneering spirit in embracing digital practices for the future of

to river restoration projects and innovative endeavors for the Kerala State Road Transport Corporation. Our students have consistently achieved remarkable milestones, including victory twice in the AICTE Smart India Hackathon and numerous awards for our NSS and film club teams. Equally noteworthy is our consistent high pass rate over the past five years.

I extend my deepest gratitude to our dedicated faculty, supportive management, our cherished students, and their parents for their unwavering commitment and support. MBITS

education. In the face of the challenges posed by the pandemic, we swiftly implemented a Learning Management System (LMS) using Google's platform, ensuring an uninterrupted learning journey for our students. Our dedication to knowledge-sharing extended globally, with international and national webinars benefiting over eighteen thousand participants worldwide. Beyond academics, actively engaged in community service and environmental initiatives offering our institution support is more than an institution; it's a vibrant community shaping a brighter future.

I invite all stakeholders to join us on this exciting journey of knowledge, innovation, and collaboration. Your ideas and feedback are invaluable.

For further communication, please reach me at principal@mbits.ac.in or sojanlal@gmail.com.

Thank you for being an integral part of our remarkable journey.

Warm Regards,

Dr. P. Sojan Lal, M.Tech, MBA (UK), DBA (USA), PhD, FIE (India)
Principal, MBITS Engineering College

HOD's Message

"Hello Team,

As we step into a new month filled with fresh opportunities and challenges, it's time to reflect on our collective journey and celebrate our accomplishments.

Firstly, I want to extend my heartfelt appreciation to each and every one of you for your unwavering dedication and hard work. Your commitment to excellence is the driving force behind our department's success.

In the spirit of collaboration and innovation, let's continue to support each other and explore new ways to exceed expectations. Remember, our strength lies in our unity and diversity of thought.

As we move forward, let's keep communication channels open, share ideas freely, and embrace change with enthusiasm. Together, we can overcome any obstacle and achieve remarkable results.

Thank you for being an integral part of our team. Here's to a productive and fulfilling month ahead!

Best regards,

Prof. Johny Joseph, M.Tech
Professor & HoD,
Dept. of ECE, MBITS Engineering College

"CONGRATULATIONS!" - FASHION CLUB OF MBITS

MBITS Fashion Club secured First Prize in the fashion show competition held at Ilahia College of Engineering and Technology Muvattupuzha and Third Prize at Toc H Institute of Science and Technology. Ashkar M B of ECE department belongs to MBITS fashion club.

"CONGRATULATIONS!" - DANCE CLUB OF MBITS

MBITS Dance Club grabbed Third Prize in Fashion Show Competition held at Toc H Institute of Science and Technology. Haleena Jaimon, Nithya V S and Aibin Vinoy of ECE Department participated in the event.

"CONGRATULATIONS!" - MUSIC BAND OF MBITS

MBITS Music Band won Third Prize in the Music Band Competition held at Saint Gits College of Engineering. The same team also earned the Fourth Prize in the Music Band Competition held at MITS Ernakulam. Steve Manual Jomi, ECE participated the event.

TALK ON: "SLEEP HYGIENE"

IQAC MBITS in association with association of Electronics and Communication Engineering, SieHz organised a talk on "Sleep Hygiene" on 31st March 2023. Dr Liza Thomas, Consultant Paediatrician and Adolescent Physician, St Joseph's Hospital Kothamangalam handled the session.
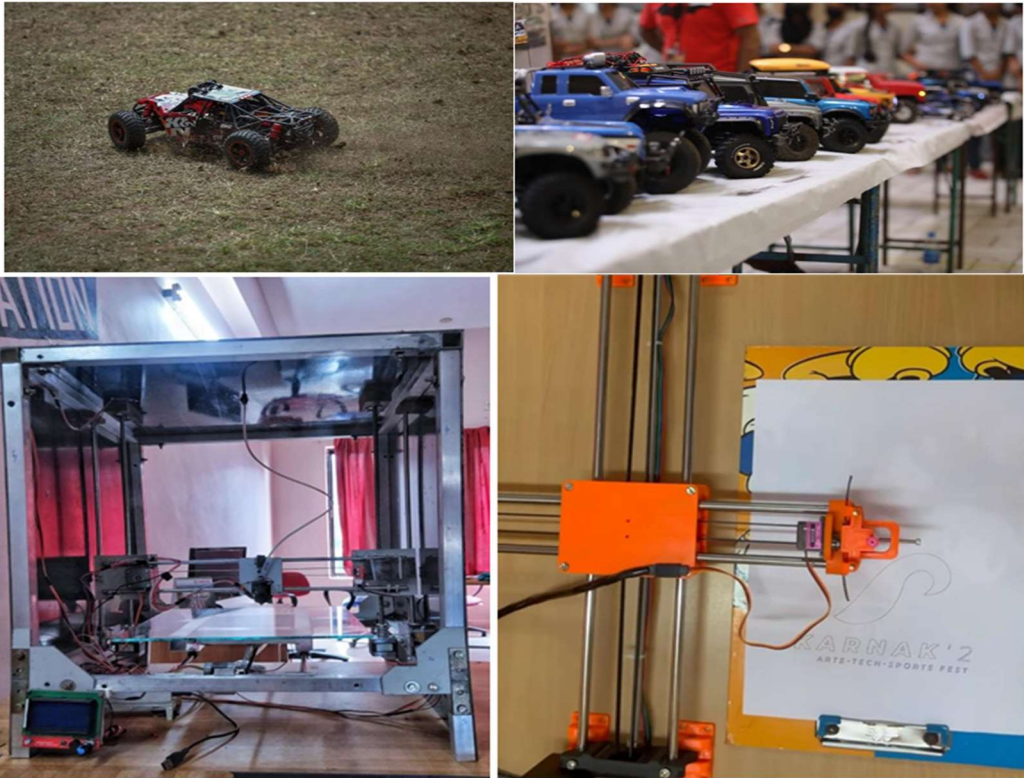

LED WORK SHOP

A two-day led workshop was well organized and conducted by IEDC, MBITS on 18th and 19th November, 2022 at Integrated Circuit lab in association with Tech Olympiad'22. It was a seminar cum interactive section which gave a brief introduction about overall aspects of Light Emitting Diodes. Asst. Prof. Robin George, Dept. of ECE, MBITS led the session.

PROJECT EXPO

As part of Tech Olympiad '22, IEDC MBITS conducted a Mega Project Expo. Students from various schools and polytechnic colleges participated the event. The programme was inaugurated by Dr. Sojan Lal, Principal, MBITS. This event provided a platform for students to exhibit their projects.

3D MAPPING

A two-day 3D mapping workshop was effectively planned and executed by IEDC, MBITS, Kothamangalam on 18th & 19th November 2022 at ECE seminar hall, MBITS as a part of Tech Olympiad'22. The programme was coordinated by Mr. Alvin Joseph and Mr. Dileep Kumar A of ECE Department. The exhibition showcased how to project a video over a solid surface by scanning and analysing the curves and vacant area.

LED STAR MAKING

IEDC MBITS in association with ECE Department & Institution Innovation Council organised a workshop on led star & Christmas products making on 9th December 2022 at product development lab of MBITS. It was a one-day session and session were handled by students themselves. The session gave a practical hands-on training on LED star making and Christmas products for students.

REAL-TIME IoT USING NodeMCU

A hands-on workshop on Real time IoT using NodeMCU was held on Monday, April 24, 2023, from 10 AM to 4:30 PM at the ECE Seminar Hall. The workshop was conducted by ECE association (SIEHZ) along with resource person Dixon Sunny and attended by 54 participants from the Electronics and Communication Engineering (ECE) department. The session provided practical insights and training on IoT applications, enabling students to gain valuable experience in utilizing NodeMCU for developing IoT projects. The interactive format of the workshop facilitated active participation and learning.

A TALK ON OVERSEAS CAREER OPPORTUNITIES

On April 13, 2023, SieHz, the ECE department association, hosted a one-day talk on overseas career opportunities. The event featured Er. Eldhose VG as the resource person and chief guest, drawing an audience of 47 participants. Er. Eldhose provided valuable insights into global job markets, strategies for securing international positions, and the benefits of pursuing a career abroad. The talk equipped attendees with

essential information and guidance to explore and navigate overseas career paths, making it a highly informative and impactful session for all participants.

A SEMINAR ON "LATEST TRENDS IN SKILLING IN ELECTRONICS HARDWARE AND ITS BENEFITS

On March 14, 2023, a seminar on "Latest Trends in Skilling in Electronics Hardware and Its Benefits" was held at 10:45 AM in the APJ Seminar Hall. The event was organized by the ECE Association and featured Mrs. Sreejeesh S G, Senior Technical Officer at the National Institute of Electronics and Information Technology, Calicut, as the resource person.

The seminar attracted an audience of 54 ECE students, who gained valuable insights into the latest advancements and practical benefits of skilling in electronics hardware.

WORKSHOP ON C PROGRAMMING

On July 12, 2022, the ECE Association, in collaboration with IEI Kochi Section and Srishti Campus, organized a hands-on workshop on Embedded Systems. Held from 10 AM to 4 PM at the ECE Seminar Hall, the workshop was led by employees from Srishti Campus. The event, attended by 62 ECE students, provided practical insights and training on embedded system technologies, enhancing participants' technical skills and knowledge in this critical area of Electronics and Communication Engineering..
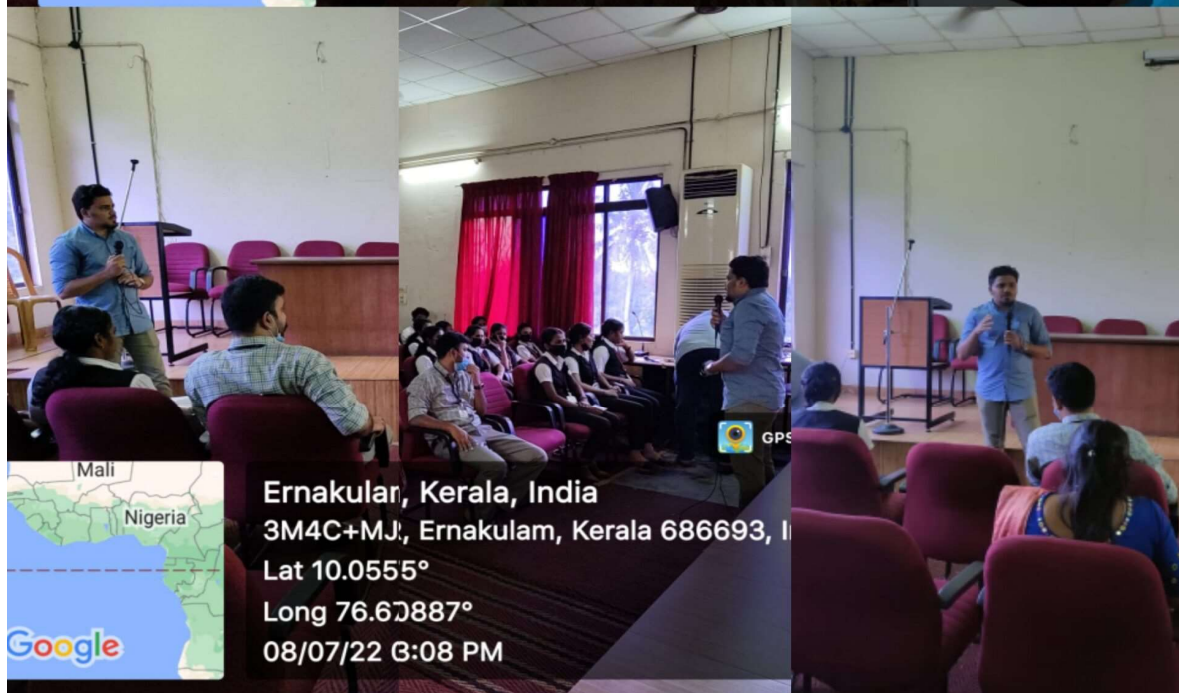
HANDS ON WORKSHOP ON BASIC CIRCUITS AND INSTRUMENTATION

The workshop was jointly coordinated by ECE Department MBITS in collaboration with NDLI club MBITS. Workshop was related to awareness about basic circuit components.

The workshop was conducted for the duration of 1 day.

MEET THE ALUMNI

The seminar was jointly coordinated by ECE Department MBITS .According to the seminar session was related to sharing the experience on industrial and job opportunities. The Alumni meet was prepared for students from ECE department.The chief guest Er .Febin George talked on various job opportunities available in the electronics field. He also shared his experience in ADAS/AD Company. The talk was taken for the duration of 1 hour from 3:00PM to 4:00 PM.

HANDS ON WORKSHOP ON EMBEDDED SYSTEM

On July 12, 2022, the ECE Association, in collaboration with IEI Kochi Section and Srishti Campus, organized a hands-on workshop on Embedded Systems. Held from 10 AM to 4 PM at the ECE Seminar Hall, the workshop was led by employees from Srishti Campus. The event, attended by 62 ECE students, provided practical insights and training on embedded system technologies, enhancing participants' technical skills and knowledge in this critical area of Electronics and Communication Engineering.

IEEE ACTIVITIES

IEEE MEMBERSHIP DEVELOPMENT PROGRAM

IEEE Membership Development Program was organized on 2nd December 2022. Er. Ruben Mathew, Founding minds Software Pvt. Ltd and Er. Thomas K Gimmy, IBS Software labs led the session.

IEEE Student Branch of MBITS started on 21st Oct 2022. The program was inaugurated by Dr. Rajesh M.V, Chairman, Kochi Subsection. Secretary, Shri. C.A Kunjachan, Principal, Dr. P Sojanlal, Deans, HOD's, Staffs and Student Representatives of MBITS attended this event. Asst. Prof. Robin George delivered the vote of thanks.

PAPER PRESENTATION COMPETITION - SEASON 1

Paper Presentation competition was organised for final year B.Tech Students on 9th December 2022 on research-oriented subject. Students from Electronics and Communication Engineering, Electrical and Electronics Engineering, Mechanical Engineering and Civil Engineering Department participated. From 120 students registered, 8 students were selected for final presentation round. Asst. Prof. Bose Joseph of S&H Department and Dr. Solly George of CE Department evaluated the presentation..

SEMINAR ON ARTICLE WRITING AND REFERENCING TOOL

A talk on developing own article with MS word or latex (for advance level writing) and different referencing tool available for citation and importance of referencing conducted on 14th December 2022. Dr. Paulose Paulose, Asso. Professor, Dept. of ME was the resource person.

INSTAGRAM REELS COMPETITION ON INTERNATIONAL THEATRE DAY

On 27th March 2023, the IEEE branch of MBITS organized an exciting Instagram Reels competition to celebrate International Theatre Day. This competition aimed to promote creativity, encourage participation, and to promote MBITS IEEE community among students through the medium of short videos in Instagram Reels Competition on International Theatre Day

FUTURE OF RENEWABLE ENERGY TECHNOLOGIES AND GLOBAL MARKETS

As a part of the World Earth Day celebration IEEE SB-MBITS in collaboration with IEEE Kochi Subsection, organised a webinar on "Future of Renewable Energy Technologies and Global Markets." The webinar was handled by Abhinav R, Junior Research Fellow, Indian Institute of Technology Palakkad, who discussed about the latest trends in the renewable energy sector. It also provided insights into how the industry will evolve in the coming years and the opportunities for businesses in this sector. The webinar was held on 22nd April 2023.

INCEPTION IDEATHON (SPS DAY)

IDEATHON, an idea pitching competition, was organized by the IEEE SPS Chapters of MACE, MBITS, SNGCE in collaboration with IEEE SPS Kerala Chapter as a part of INCEPTION. The event took place from 24th May 2023 to 4th June 2023.The competition aimed to provide a platform for participants to showcase their innovative ideas and pitch them to a panel of judges.

AR INSIGHTS

A webinar on Augmented Reality was conducted by IEEE SBC SNGCE in association with IEEE SBC MACE and IEEE SBC MBITS as a part of Inception, which is an inter-cluster event organised by IEEE SPS Kerala chapter as a part of 75th anniversary of IEEE SPS. The session was handled by Mr. Salih Yoosaf ,Meta Spark AR Developer, Virtual Events and Partnership Associate at Entri app. The event was held on 31st May 2023. During the session, Mr. Salih explained about the Augmented Reality using Meta Spark AR Studio software.

DECODE THE SIGNALS: QUIZ COMPETITION

The "Decode the Signals" technical quiz competition was organized as part of the SPS WEEK celebration, by IEEE SPS SBC MACE, IEEE SNGCE SB, and IEEE MBITS SB in collaboration with IEEE SPS Kerala Chapter. The quiz took place on 31st May 2023, utilizing the Quizzizz platform. Ashlin from MACE secured the first position, displaying an impressive understanding of the subjects. Sreevishnu S from GECT emerged as the first runner-up, while Adithyan from St. Antony's HSS Pala claimed the second runner-up position.

WEBINAR: THE BEAUTY OF MATHEMATICS IN EVERYDAY LIFE

An international webinar on The Beauty of Mathematics in Everyday Life was organized by MBITS in association with the IEEE, Kochi Subsection, and The Institution of Engineers (India), Kochi on 30th July 2022. The session was taken by Shri Jineesh George (Scientist F, NPOL, DRDO). Dr. A. Unnikrishnan (Outstanding Scientist (Rtd), NPOL, DRDO) served as the panel lead. The coordinators were Dr. P. Sojanlal (Principal MBITS) and Dr. M V Rajesh (Chairman, IEEE Kochi Subsection).

MOU WITH ConSed INTERNATIONAL COMPANY

Department of Electronics and communication Engineering, MBITS had taken an initiative to sign an MoU with ConSed International Company on 20th October 2021. The College Secretary, Principal, Dean's, HOD's and staff members attended this event. Both parties believe that close co-operation would be of major benefit to the student community and faculty to enhance their ethical values, skills, knowledge, practical exposure and to witness the challenges of industry.

PROJECTS

JIRITSU ROVER

This system is a proposed design of a mechatronics system for autonomous vehicles. The proposed design is able to memorize a route based on Global Positioning System (GPS) rather than using pre-saved maps that are in frequently updated and do not include all roads of all countries. Moreover, it can autonomously avoid obstacles and detect bumps. Experimental tests are conducted using a small-scale car equipped with the proposed mechatronics system. The results show that the proposed system operates with minor errors and slips. The proposed autonomous vehicle can serve normal, disabled, and elderly people. It can be used on roads and even inside facilities like campuses, airports, and factories to transport passengers or loads thus reducing workmanship and costs

PROJECT EXPO- ABHINAV VICHARA

The team from MBITS(Vyshnavu Santhosh, Sreyas S, Ashik Jomon, Visakh M V of S8 ECE) exhibited their project titled "Grim Reaper" in the competition 'Abhinav Vichara 2023' held at AISAT. Grim Reaper is a utility robot which can be employed on many situations, particularly in fire and rescue operations and in military applications. Different hard-to-go-through areas and areas with minor obstacles can be passed through with this robot. Many of the areas such as rescue operational areas, assessment of rescue operation areas, military application in ways of passing through obstacles, and even claustrophobic area passage as well, can be covered with this robot.

VISION & MISSION OF THE INSTITUTE

Vision of the Institute

➢ To nurture a positive campus culture and equip the younger generation to take our nation forward.

Mission of the Institute

➢ To provide graduate level technical education in the existing / conventional branches, as well as in the newly emerging fields.

➢ To build up a centre of technical excellence for post-graduate studies and research in all fields of human endeavour.

➢ To help the youth of rural agricultural background to change with times, and join the mainstream of industrial growth and information technology.

➢ To impart ethical values of our Indian tradition to the future generation.

VISSION & MISSION OF ECE DEPARTMENT

Vision of the Department

➢ To be a centre of excellence to produce globally competent technocrats who can advance our nation.

Mission of the Department

➢ To provide quality education and training through effective teaching-learning practices

➢ To solve the complex technological problems of modern society in the various fields related to Electronics & Communication Engineering

➢ To nurture students to improve their leadership and entrepreneurship skills with core values

Printed & published by Mrs. Jeena Jacob, Asst. Prof, ECE Dept. on behalf of Mar Baselios Institute of Technology & Science