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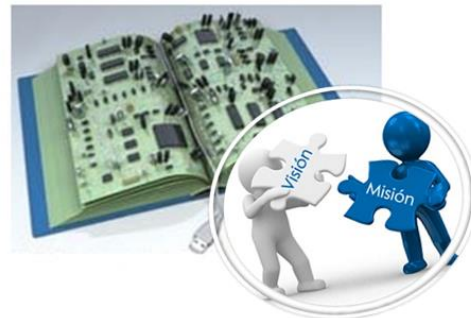➢ **Training & Placement**

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VISION

To evolve into a Holistic Learning Hub that moulds technologically proficient engineers in the field of Electronics and Computer Science; contributing to the global industry and society with Integrity, Ethics and Professionalism as envisaged by Don Bosco

MISSION

- To impart quality education abreast with advances in technology and transform students into competent professionals.
- To promote innovation, research and entrepreneurship through collaboration and networking.
- To encourage various skill enhancing activities and extra-curricular activities to foster high levels of work ethics and responsibility for a better society.

DEPARTMENTAL DETAILS

Electronics and Computer Science is a cross-discipline integrated program that explores the exciting interface between Electronics and Computer Science (ECS). The fields to be explored are Robotics, Augmented and Virtual Reality, Internet of Things, VLSI Technology, Database Management system, Computer Vision, Cyber Security, Artificial Intelligence and Machine Learning.

The department has been organizing various programs to enhance the Industry -Institute interaction through field visit and workshops. The students are also provided an opportunity to choose specialization electives to focus on their identified areas of interest.

Department has 11 fully functional Laboratories as listed below, along with the different Software.

- Signal Processing Laboratory
- EDA tools Laboratory
- e-Yantra Robotics Lab

➢ LABORATORIES
- Basic Electronics Engineering Laboratory
- Microwave Engineering Laboratory
- Analog Electronics Laboratory
- Digital Electronics and Instrumentation Laboratory
- Communication Engineering Laboratory
- Embedded system laboratory supported by Cypress
- Project laboratory
- Control and automation Laboratory

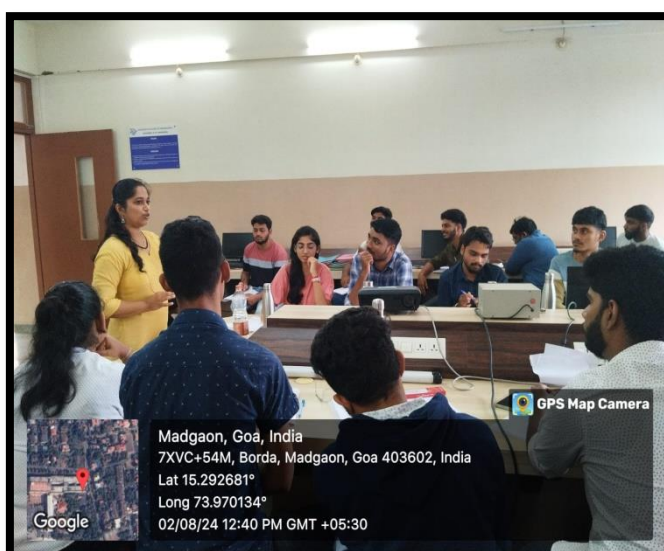| SOFTWARES	KITS
MATLAB	8051 kits
Xilinx 14 Version	ARM kits
OSCAD	PIC kits
MAGIC	PLC kits
LabVIEW	LAN Trainer kits
OCTAVE	OFC Kits
POlSARPro	PSoC ARM Cortex Kits

Finishing School 2024- PLC, VFD and HMI

The Electronics and Computer Science Department (formerly known as Electronics and Telecommunication Department), of Don Bosco College of Engineering (DBCE), Fatorda, conducted a Finishing School, in association with Autotech Technologies on Industrial Automation Training. It was an 18 day course, which went on from 10th July to 2nd August 2024, and was based on Programmable logic controller (PLC), Variable-frequency drive (VFD) and the Human-Machine Interface (HMI) module of Industrial Automation.

The resource persons for this finishing school were Mr. Sandip Mone, Proprietor and Trainer of Autotech Technologies, and Ms. Sanjita Nadkarni, Project in-charge and Trainer of Autotech Technologies.

The Finishing School this year was organized for the Electronics and Telecommunication and Mechanical students of DBCE. Students from other colleges like Goa Engineering College, Agnel Polytechnic and Curchorem Polytechnic, also participated.

The different brands that were covered under this course were DELTA VFD, ALLEN BRADLEY PLC, DELTA HMI.

The course started with a brief introduction on DELTA VFD which included introduction to motor and explanation on motor name plate and some basic information on VFD, its advantages, and uses. Later students were shown to program a VFD by putting different VFD parameters. Reverse and forward motion of the motor was shown using the VFD. The other important concepts which were covered in the VFD module were Braking, multistep speed command, relay triggering, external input wiring, sensor wiring, and Load connection.

The second topic was on Programmable Logic Controller. The PLC that was covered for the students was Allen Bradley Micrologix 1000. Initially students were introduced to Allen Bradley PLC, its softwares and basics of Ladder Diagram Programming with different Industrial examples. The topics covered in PLC were Basic gates (AND, OR, XOR), One Shot Rising, Latching, Interlocking, Binary bit concept, Up counter, down counter, ON and OFF delay timer, and some basic and advance programs with Industrial examples. This was followed by wiring of the PLC. Students were taught to wire inputs as well as output such as Indicators and Relays.

The final topic that was covered was Delta HMI. In the initial introduction to HMI, the students were taught to handle a touch screen HMI and different communication ports of HMI to communicate with PLC. The concepts covered here were Page generation, Tag generation and Downloading pages to PC, including communication between the PLC and HMI. This included turning ON a PLC output via HMI keys.

The students were awarded certificates for the course during the Valedictory function which was held on 2nd August 2024, after which the students shared valuable feedback, emphasizing how enriching and fruitful the course was in preparing them for the industry. The faculty coordinator for the Finishing School was Prof. Flavia Leitao.

National Space Day 2024

The National Space Day 2024 event, organized by the DBCE Astronomy Club in collaboration with the Student Satellite Club-Parikrama, was held on August 23rd, 2024, at Seminar Hall 1. The program commenced at 9:15 a.m. and was attended by a large number of enthusiastic students from Kings High school, Bhatikar high school, St. Joseph High School, Govt High school Balli and Manovikas High school along with the student members of the DBCE Astronomy Club and Student Satellite Club-Parikrama.

The inaugural function began with a warm welcome to the dignitaries, setting an enthusiastic tone for the event. This was followed by a heartfelt floral tribute, honoring key figures in the field of astronomy. After the inaugural function, the event featured a series of engaging activities, insightful presentations, and interactive workshops designed to spark curiosity and foster a deeper understanding of space science.

The 1st expert talk was given by Dr. Vithal Tilvi, a renowned astrophysicist associated with NASA and an expert in observational cosmology. Dr. Tilvi began by sharing his journey into the world of astronomy, highlighting his passion for understanding the cosmos and the many challenges and opportunities he encountered along the way. He emphasized the importance of perseverance and curiosity in scientific research, and how his association with NASA allowed him to contribute to some of the most significant discoveries in modern astrophysics.

Dr. Tilvi delved into his research on the Epoch of Reionization, a pivotal phase in history of universe when the first stars and galaxies formed and began to ionize the neutral hydrogen in the universe. He discussed the discovery of distant galaxies, some of the earliest known to humankind, and the impact these findings have on our understanding of the universe's formation and evolution. He discussed the complexities and advancements of moon missions, elaborated on the intricacies involved in launching satellites, and shared his expertise on current and future space missions. Dr. Tilvi also highlighted the critical roles that doctors, scientists, and engineers play in advancing the field of astronomy. He pointed out that astronomy is inherently interdisciplinary, requiring expertise in areas such as physics, engineering, biology, and even medicine to solve complex cosmic puzzles and drive technological innovation in space exploration.

In the second session of the event, the campus welcomed a distinguished team from the Goa Radio Amateur Society. Mr. Amey Pandit led an engaging session on amateur radio, commonly known as ham radio, explaining its significance, importance, and various aspects such as transmission and reception. He highlighted how ham radio plays a crucial role in communication, especially in emergency situations and remote areas. The session included a practical demonstration where the team showcased a live ham radio setup, allowing attendees to witness first-hand the technology and operations involved in amateur radio communication.

The day concluded with a sense of achievement and excitement, as students left with a greater appreciation for the mysteries of the universe and the potential of space exploration. The Event was co-ordinated by Prof.Mohini Naik, Prof. Aniket Naik and Dr. Shreyas Simu.

MESH and DBEATS Council 2024-25 Inaugural

The Mechanical Engineering Students' Council (MESH) and the Electronics and Computer Science Engineering Students' Council (DBEATS) of Don Bosco College of Engineering held the installation ceremony for their respective committees for the academic year 2024-25 on August 30, 2024. The Chief Guest was Ms. Hortencia Fernandes, HR Supervisor at Helmerich and Payne Ltd. (H&P). The ceremony was also graced by Mr. Noel Farria, HR recruiter, H&P, Fr. Kinley D'Cruz (Director), Dr. Neena Panandikar (Principal), Dr. Pravin Verekar (Head of the Mechanical Engineering Department), and Dr. D.S. Vidya (Head of the Electronics and Computer Science Department).

Mr. Nimish Noronha summarized the past year's achievements under the MESH council, while Mr. Lenoy Mendes highlighted DBEATS' activities from the previous year. In his welcome speech, Dr. Verekar emphasized that leadership goes beyond holding a title—it is about positively influencing others. He encouraged students to actively engage in activities and step outside their comfort zones. Dr. Vidya underscored the value of interdisciplinary collaboration between both departments, and Dr. Panandikar discussed the newly introduced multidisciplinary postgraduate course, urging students to take full advantage of this opportunity. She also encouraged the newly appointed committee members to draft a strategic plan for the upcoming events. Fr. Kinley congratulated the outgoing committee for their excellent work. Quoting Einstein, he remarked, "Curiosity keeps leading us down new paths, the important thing is not to stop questioning," and challenged students to push their boundaries and broaden their horizons.

Ms. Fernandes spoke about H&P's latest technological advancements, highlighting its dedication to empowering and promoting women into leadership positions. She encouraged students to explore career opportunities in the petroleum industry and highlighted the attractive job prospects in remote operations within the sector, which garnered significant interest from the audience.

The newly elected DBEATS President, Mr. Loxley Dias delivered the vote of thanks.

Tech Talks 2024: Edging towards a connected future

The Institute Industry Cell (IIC) of Don Bosco college of Engineering, Fatorda, organized Tech Talks 2024 – Edging towards a connected future, for the Electronics and Computer Science department on 18th September 2024, along with Engineer's Day Celebration.

The Institute Industry Cell in 2017 was a pivotal decision aimed at nurturing a mutually beneficial relationship between academia and industry. The key objectives of this initiative included fostering continuous collaboration, narrowing the gap between theoretical learning and practical implementation, thus ensuring that educational programs align with evolving industry needs. **Tech talks - edging towards a connected future**, was an initiative started by Don Bosco College of engineering in the year 2022, so that students are abreast with cutting edge technology thereby empowering them to stay updated and competitive in the field.

Our first speaker Mr. Carmelito Jose Andrade, DGCA Certified Drone Pilot and Trainer, gave a talk on, "Drone Technology - the past, present and future. Mr. Andrade began by explaining the growing use of Drone technology in modern ceremonies, highlighting its versatility and visual appeal. He then briefly explained the anatomy of drones, highlighting key components such as propellers, the flight controller, battery, motors, their operating frequency, etc. He also discussed the DGCA license rules for drone operations, emphasizing the regulatory framework governing their use, and concluded with a few exciting research project ideas, including Edge AI, UAV swarms, underwater ROVs, and advancements in battery technology.

Our second speaker Dr. Sudeep Baudha, Assistant Professor- E&EE, BITS Pilani, gave a talk on, "Unlocking the Future: Advancements in 5G and 6G Antenna Technology". Mr. Baudha began by discussing the various applications of wireless technology, including movable devices like smartphones and tablets, medical treatment through remote monitoring and telemedicine, transportation systems as well as WiFi and GPS for location tracking and navigation. He

highlighted the importance of antennas as an integral component for both receiving and transmitting electromagnetic signals (waves). Mr. Baudha mentioned that the world's largest antenna, located in China and completed in 2016, boasts a range of 500 meters and has a massive diameter, reflecting its high cost. This antenna can potentially serve defense purposes, including the capability to disrupt or destroy satellite systems of neighboring countries using a focused beam and micro weapons.

He concluded by addressing the effects of radiation on living beings, which can be lethal and associated with health issues such as cardiovascular problems, fatigue, ear warming, and different types of cancers. Both the sessions proved highly informative, with students gaining a wealth of knowledge on the subject matter. The Event coordinators were Prof. Flavia Leitao and Prof. Samantha Cardoso.

Inaugural of Robotics Club of DBCE- ROBOCOM

The Robotics Club of Don Bosco College of Engineering, ROBOCOM, held its Inaugural ceremony with great enthusiasm and pride, for the academic year 2024-25 on October 26, 2024. The Chief Guest was Dr. T. Veerakumar, Associate Professor and head, ECE department, NIT, Goa and the Guest of Honor was Mr. Gilferd Gonsalves, Project Engineer, Sierra Circuits (India) Pvt. Ltd. The ceremony was also graced by Rev. Fr. Kinley D'Cruz, Director-DBCE and Dr. Neena Panandikar, Principal-DBCE, along with Robotics Faculty coordinator, Prof. Flavia Leitao.

The event commenced with the traditional Lighting of the Lamp ceremony, followed by a Robocom Video, which beautifully showcased the vision and achievements of the Robotics Club.

Then was the Inauguration of the Robocom, which formally introduced the dedicated council members who will lead and drive the club's initiatives forward. To honor contributions and recognize excellence, the winners of Technical Events were felicitated, for their skills and dedication.

The Robotics Club's inaugural ceremony thus ended on a high note, igniting excitement and inspiration among all present, and setting a promising foundation for future endeavours.

STUDENT'S CORNER

Workshops/Seminars/In-house Trainings/ Competitions

Hands-on Workshop on "Building AI based Applications"

The IEEE Student Branch of Don Bosco College of Engineering hosted a skill development hands-on workshop on "Building AI based Applications" on July 27, 2024. This one-day event provided participants with a deep dive into AI technologies and their real-world applications, equipping them with both knowledge and hands-on experience. The speakers for the event were the IEEE Student Members, Mr. Piyush Suthar and Mr. Yash Kocherkar.
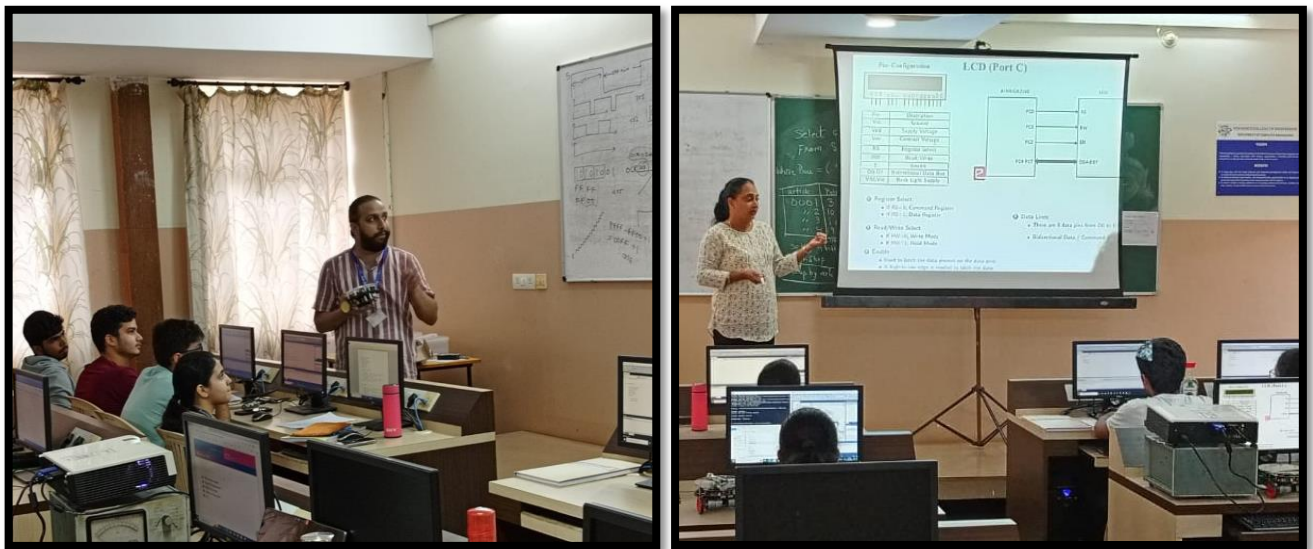

The workshop began with an engaging opening address that framed AI as a pivotal technology shaping the future. The resource persons then went on to give a hands on experience to the participants to build their first AI model beginning with a short crash course on the python programming language and then diving into deeper aspects like creating their own API key and working with manual prompts.

The afternoon session was primarily focused on building a model without using libraries. The event was organized and supported by Prof. Yeshudas Muttu – IEEE DBCE SB Counselor and Mr. Sherwin Dias & Mr. Luke Fernandes – IEEE DBCE SB Members.

Hands-on workshop on "e- Yantra Robotics"

The e-Yantra Robotics Faculty Team of Electronics & Telecommunication Department of DBCE organized a Workshop on Firebird V Robot for the students of SE ECS, SE COMP and SE MECH, on 23rd August and 24th August 2024. The purpose of the workshop was to spread education in Embedded systems and Robotics. The resource persons for the workshop were Prof. Deron Rodrigues, Prof. Flavia Leitao and Prof. Mathilda Colaco.

The first session on 23rd August 2024 was taken up by Prof. Deron Rodrigues on Introduction to Robotics that included major components such as Sensors, Actuators, Control system, Intelligence, Power supply, Communication, Indicating Devices of a Robot and Introduction to Firebird V ATmega 2560. The students were also introduced to the various Input-Output Ports and Registers in ATmega 2560 and how they can be accessed.
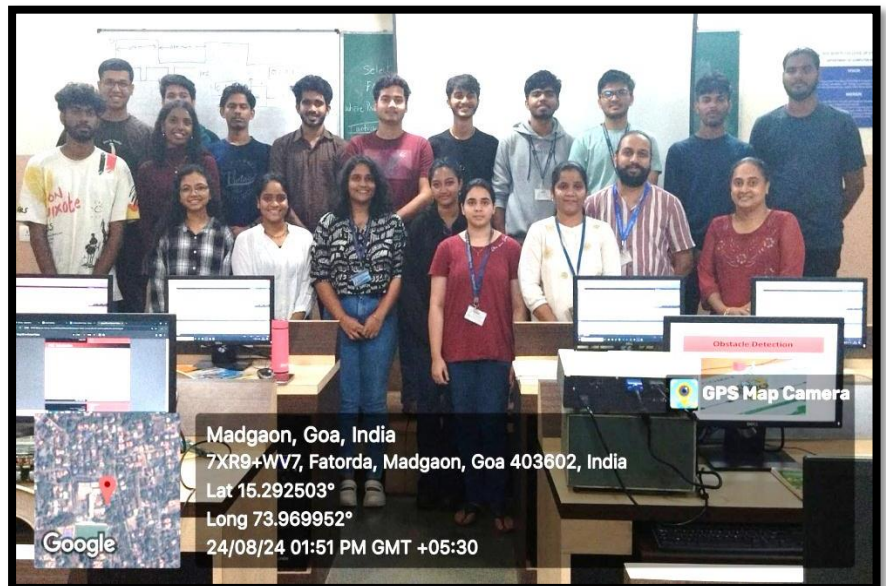

The second session was taken by Prof. Flavia Leitao, where the students were given hands-on exposure in Embedded C programming for interfacing the Buzzer, Bar-graph LED, Boot Switch with the Firebird V Robot, using the Atmel-6 Studio. The Students were briefed on the LCD operation and were then asked to interface the LCD and the Boot Switch for a given application. This was followed by interfacing of the Motors. The students were explained the Motor Driver IC L293D and the different Motions and were then given a small task of how to interface the Motors and device an application to make the Robot move in a defined direction.

The session on 24th August 2024 was taken by Prof. Deron Rodrigues. It included introduction to counters and timers in ATmega 2560 for calculating time delays for various applications. Subsequently Pulse Width Modulation (PWM) was introduced followed by hands-on program to control the Velocity of the Motors. In the second session, the students were also taught analog sensor interfacing using Analog to Digital conversion (ADC). The session included overview on the sensors like Sharp IR sensors, Proximity Sensor, etc., interfaced to the different channels of ATmega2560 followed by ADC initialization and programming.

The last session was delivered by Prof. Mathilda Colaco, which included use of the sensors for object detection and white line sensing. Thereafter the students were guided to program the robot for object detection using the Sharp IR sensor and indicating whether it is near or far. This was followed by introduction to line follower algorithm with different conditions to be considered for the same. With the knowledge of ADC interfacing & line follower logic, the students were finally able to code to make the robot follow a line.

The Students had an enriching learning experience and showed great enthusiasm executing the given challenges. Many of them participated in the annual e-yantra competition organized by IITB.

Reinforcement learning: Shaping the future of Gaming and Robotics

The NDLI Club of DBCE in collaboration with the Department of Electronics and Computer Science conducted a session on "Reinforcement learning: Shaping the future of Gaming and Robotics" on 30th August 2024. The session was delivered by Ms. Mathilda Colaco, Assistant Professor in Electronics and Computer Science. The NDLI session was organised by Ms. Trima P. Fernandes e Fizardo, Assistant Professor in Electronics and Computer Science.

The presentation focused on the applications of this cutting-edge technology, emphasizing its transformative impact on these fields. The session commenced by introducing the core concepts of reinforcement learning, such as action, state, reward, agent, and environment. She illustrated these concepts through engaging examples like the "Mouse and Cheese" game and the "Frozen Lake" game, helping attendees grasp the basic mathematics involved in reward optimization.

The session also delved into the balance between exploration and exploitation, exploring new possibilities and utilizing known strategies, using relatable analogies like choosing dishes at a restaurant to explain decision-making in reinforcement learning. The presentation highlighted real-world applications, including the AlphaGo AI that famously defeated a world champion Go player, demonstrating the power of reinforcement learning in complex decision-making scenarios.

In the context of robotics, the applications of reinforcement learning in tasks like robotic locomotion and autonomous driving was discussed, showcasing examples like an ant robot learning to walk and self-driving cars, illustrating the potential of this technology to revolutionize robotics.

The session was both informative and engaging, providing attendees with a comprehensive understanding of reinforcement learning and its future implications in gaming and robotics.

IEEE DBCE SB Organizes GeoBrainiacs Quiz Competition

The IEEE GRSS Club of IEEE DBCE Student Chapter celebrated International IEEE Day with an exciting quiz event titled GeoBrainiacs, focused on Geoscience and Remote Sensing on 1st October 2024. Coordinated by Prof. Yeshudas Muttu and Prof. Mohini Naik, the event brought together students to test their knowledge in a competitive and engaging format.

Prof. Mohini acted as the quizmaster, steering the teams through the rounds, while Prof. Yeshudas served as the scorekeeper, ensuring accuracy in scoring. Eight teams participated in the quiz, which was structured into three rounds.

The first round consisted of a written test with 30 questions to be answered in 20 minutes, from which five teams advanced to the next stages.

The second round featured a rapid-fire segment where teams had to answer as many questions as possible within 60 seconds, putting their quick thinking and knowledge to the test. In the third and final round, teams faced questions on geoscience terminologies and pictorial prompts, adding a visual challenge to the competition.

At the conclusion of these intense rounds, Mr. Rohit and Mr. Ritesh from TE COMP were declared the winners. Their excellent performance secured them the top spot in the quiz. GeoBrainiacs was a great success, adding to the International IEEE Day celebrations and promoting technical learning through fun, interactive activities.

Through this event, students significantly enhanced their knowledge in the technical body of IEEE Geoscience and Remote Sensing Society (GRSS).

As part of the IEEE Day celebrations, the IEEE Student Branch at Don Bosco College of Engineering, Goa organized IEEE Paper Quest 2024 on October 4th, 2024. Themed Journey Through Technical Innovation, the event aimed to enhance participants' skills in research methodologies, paper analysis, and presentation techniques by working with research papers sourced from IEEE Xplore. With over 60 students participating, the event featured four technical tracks: Digital Systems and VLSI, Remote Sensing and GIS, Robotics and Control Systems, and Machine Learning, Cloud, and Data Analytics, providing a comprehensive platform for students to learn and showcase their expertise.

The hosts opened the event by emphasizing the significance of IEEE Day, which celebrates advancements in technology that contribute to the progress of humanity. They also underscored the event's core goal—equipping students with the skills to effectively analyze, present, and discuss research papers, fostering a deeper understanding of technical innovations.

Track Summaries

1. Digital Systems and VLSI Track: The Digital Systems and VLSI track kicked off with presentations on the latest advancements in the accelerators, computations, testing & testability. The participants engaged the audience with their knowledge and were further enriched by insightful question-and-answer sessions with the judges, Dr. Vidhya D. S and Prof. Maria Christina Barretto.

2. Remote Sensing and GIS Track: This track delved into the real-world applications of GIS and Remote Sensing in areas like urban planning, disaster management, and environmental monitoring. The research presented explored the practical implications of these technologies, and

the session was evaluated by Dr. Shweta Prasanna and Prof. Melba D'Souza, who provided thought-provoking feedback to the participants.

3. Machine Learning and Data Analytics Track: Focusing on innovative approaches in data analysis, machine learning, and artificial intelligence, this track featured eight teams who presented their research across various applications. The judges, Dr. Gaurang Patkar and Prof. Deron Rodrigues, engaged in stimulating discussions with the participants, offering valuable feedback that enhanced the learning experience for all.

4. Robotics and Control Systems Track:The Robotics and Control Systems track showcased cutting-edge research, with topics ranging from Robust Wireless Control of a Six-Wheeled All-Terrain Vehicle to Object-Aware and Precision Grasping for Robotic Arms and RFID-Based Semi-Autonomous Robotics Library Management Systems. Judges Dr. Shreyas Simu and Prof. Flavia Leitao commended the participants for their creativity and technical prowess, offering guidance for further improvement.

Prof. Yeshudas Muttu, the IEEE DBCE SB Counselor, presented tokens of appreciation to the judges at the end of each session.
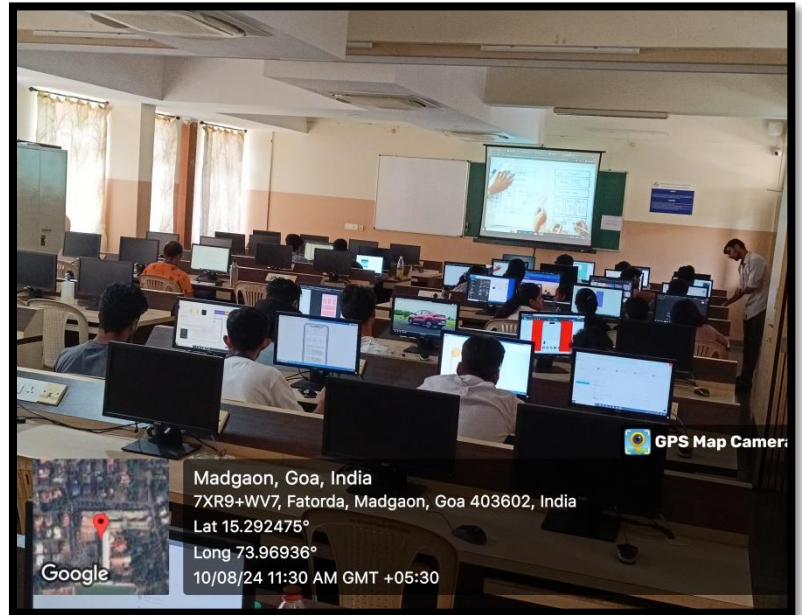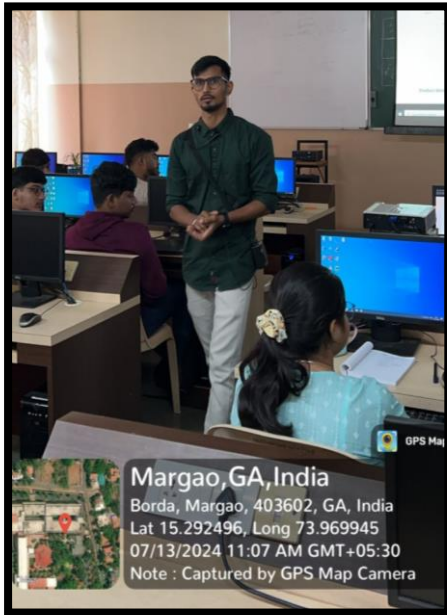
BIS Stakeholders Conclave

On 8th October 2024, the BIS Club members, accompanied by Co-ordinator of BIS Club Prof. Mohini Naik, attended the BIS Stakeholders Conclave at Taj Vivanta, Panaji, Goa. Organized by the Bureau of Indian Standards (BIS) Hubli Branch Office, the conclave featured a series of talks from government officials, industry leaders, and academics, focusing on BIS standards, licenses, and sustainability initiatives.

Workshop on UI/UX Design using Figma

The Department of Electronics and Computer Science, in association with DBEATS, organized a 3-day hands-on workshop on UI/UX Design using Figma on July 13, July 27, and August 10, 2024. The workshop aimed to introduce participants to fundamental principles of user interface (UI) and user experience (UX) design, including usability, accessibility, and user-centered design. It provided an overview of Figma, its features, and its benefits as a collaborative design tool, along with practical, hands-on sessions for creating wireframes, prototypes, and design elements using Figma. The resource person for the workshop was Mr. Parshuram Lamani, Lead UX Designer at Mediyum UX Design Agency, Panjim, Goa.

In the "Prototyping in Figma" segment, participants created interactive prototypes to bring designs to life. They explored techniques for adding animations and transitions, enhancing the user experience by making interfaces more dynamic and engaging. The session also covered the use of overlays and interactive states, enabling designers to simulate real-world interactions within their prototypes and provide a comprehensive view of the final product. The workshop, attended by 35 participants, was a resounding success, leaving them with valuable skills and a deeper understanding of design principles, thanks to the insightful direction of coordinators Prof. Deron Rodrigues and Prof. Mathilda Colaco.

How Incubators support startup ecosystem

CII-IWN DBCE Student's Chapter of Don Bosco College of Engineering organized a visit to FiiRE, Goa followed by a Session on "How Incubators support startup ecosystem" on 7th November 2024 for CII IWN Members, Goa.The session was delivered by Mr. Thejus Joseph, Interim CEO, FiiRE, Goa. The event was attended by Dr. Nimisha Saraswat, CII Executive officer Ms. Shraddha Divkar, CII-IWN DBCE Student's Chapter Faculty coordinator Ms. Melba D'Souza and CII IWN Members.

During the session Mr Thejus spoke about FiiRE – (Forum for Innovation Incubation Research & Entrepreneurship), their powerful partner network, FiiRE Mentors, their Business units and gave statistics that 51 startups are funded and 18 Patents are filed.

CII IWN, Goa Members had a great experience visiting FiiRE and attending the session and gave very positive feedback.

Annual Conclave on "Tech4Society: Leveraging Technology for Sustainable Development

The 2nd Annual Conclave on "Tech4Society: Leveraging Technology for Sustainable Development", held on November 22, 2024, at the Goa Institute of Management, was attended by Dr. Mohini Naik, Assistant Professor in the Electronics and Computer Science (ECS) Department, and Dr. Vivek Jog, Associate Professor in the Computer Engineering Department, from Don Bosco College of Engineering.

The conclave provided an excellent platform for learning, networking, and exploring collaborative opportunities in leveraging technology for societal impact. This engagement aligns with the college's commitment to fostering interdisciplinary collaboration and staying abreast of advancements in technology and societal applications.

FIELD VISITS

Field visit at "Finolex Company"

On 26th August 2024, the Bureau of Indian Standards (BIS) organized an exposure visit to Finolex Company, a renowned manufacturer of electrical and electronics cables. The visit was attended by a group of 16 students, who were accompanied by Prof. Mohini Naik, Co-ordinator of the BIS Club. The visit was aimed at providing students with insights into the manufacturing processes of various types of cables and understanding the quality standards upheld by the company. The entire visit was explained by Mr. Madhu Babu, AGM QA, and Mr. Maharajawade, Sr. Manager Production.

The visit provided valuable insights into the stringent quality control measures implemented at every stage of the manufacturing process. Finolex's commitment to maintaining high standards was evident in their state-of-the-art facilities and adherence to BIS norms. The exposure to advanced machinery and technology used in cable production was particularly enlightening, demonstrating how innovation is integral to maintaining product quality.

Field visit at "Syntegon"

On 3rd September 2024 the students of TE ECS were taken on a technical field trip to the Syntegon. A total of 45 students were present. Syntegon provides processing and packaging solutions in the pharmaceutical and food industries.

Field visit at "National institute of Oceanography"

On 3rd September 2024 the students of SE ECS were taken on a technical field trip to the national institute of oceanography Dona Paula Goa. A total of 53 students were present. The National Institute of Oceanography, a premier research institution under the Council of Scientific and Industrial Research (CSIR), is renowned for its contributions to their understanding of ocean sciences. On arrival to the venue the students were taken to screening and were give a overview of all the activities done at the institute, the innovations that they have made and the research which they are working on. Students learned about advanced research instruments used in oceanography, such as submersibles and oceanographic buoys, which help collect data on various oceanic phenomena. The field trip to the National Institute of Oceanography in Goa was highly informative and provided a comprehensive overview of oceanographic research and its applications.

The visit highlighted the importance of understanding and protecting marine environments in the face of global challenges. The experience underscored the critical role that institutions like NIO play in advancing scientific knowledge and addressing environmental issues. Dr. D.S. Vidhya along with Ms. Mathilda Colaco accompanied the students. The fieldtrip was coordinated by Ms. Kimberly Morais.

Field visit at "Eurostampa site"

CII-IWN DBCE Student Chapter of Don Bosco College of Engineering, Fatorda organized a fieldtrip to Eurostampa site, Verna on 1st October 2024. The fieldtrip was attended by Civil Engineering students of CII IWN Student's Chapter and the ME students of Computer Aided Structural Engineering. They were also accompanied by Dr. Neena Panandikar and Prof. Kaushik Pai Fondekar. The work at Eurostampa site is for Sapscon company and Consultancy work is carried out by Mr. Shekhar Panandikar and Associates.

During the site visit the students got an opportunity to witness the post-tensioning design principles along with detailed information provided by the Company MD Mr. Satish Nair, Er. Fredrick Dais and Er. Naman Choudhary.

The students were able to observe the post-tensioning process which involved placing of tendons into ducts, followed by grouting. The tendons were anchored at one end, while the other end was jacked to achieve the desired tensioning effect. This method helped to improve the structural performance by efficiently counteracting the bending moments.
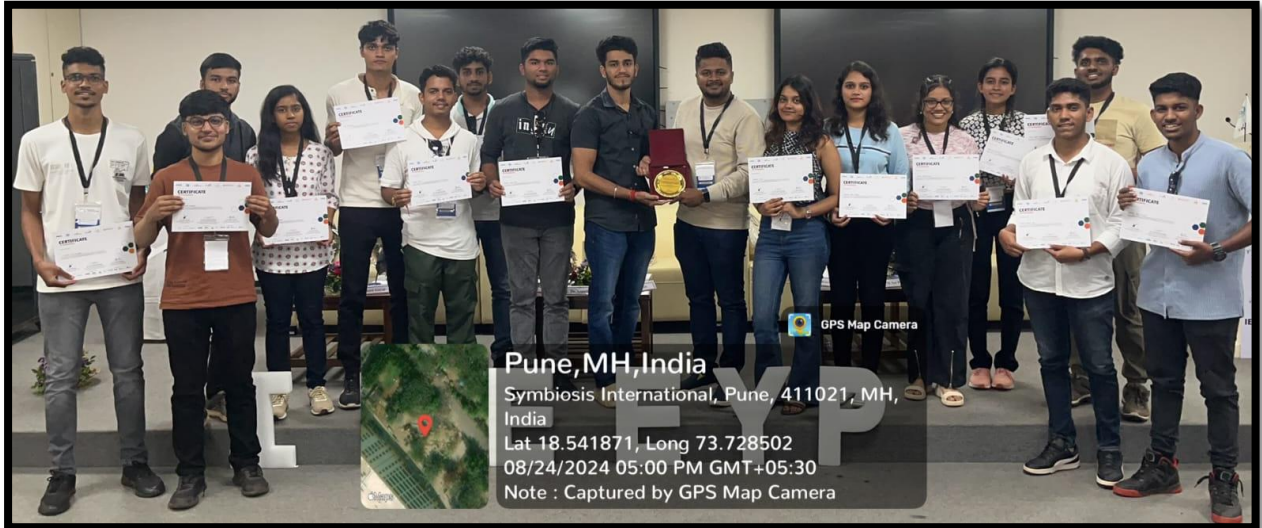

The structural system in use consisted of post-tensioned beams and flat slabs. The columns had a height of approximately 10 meters, while the depth of the beams was around 900 mm, and the dimensions of the columns were nearly 1 meter. This configuration ensures greater load-bearing capacity and reduces the amount of material required compared to conventional designs.

The students were truly grateful for this experience and for all the insights and practical knowledge they gained during the site visit.

STUDENT'S ACHIEVEMENTS & FELICITATION

➢ The IEEE Student Branch of Don Bosco College of Engineering, Goa, actively participated in the IEEE Engineering Education Student & Young Professional Congress 2024, held from 22nd to 24th August 2024 at Symbiosis Institute of Technology, Pune.
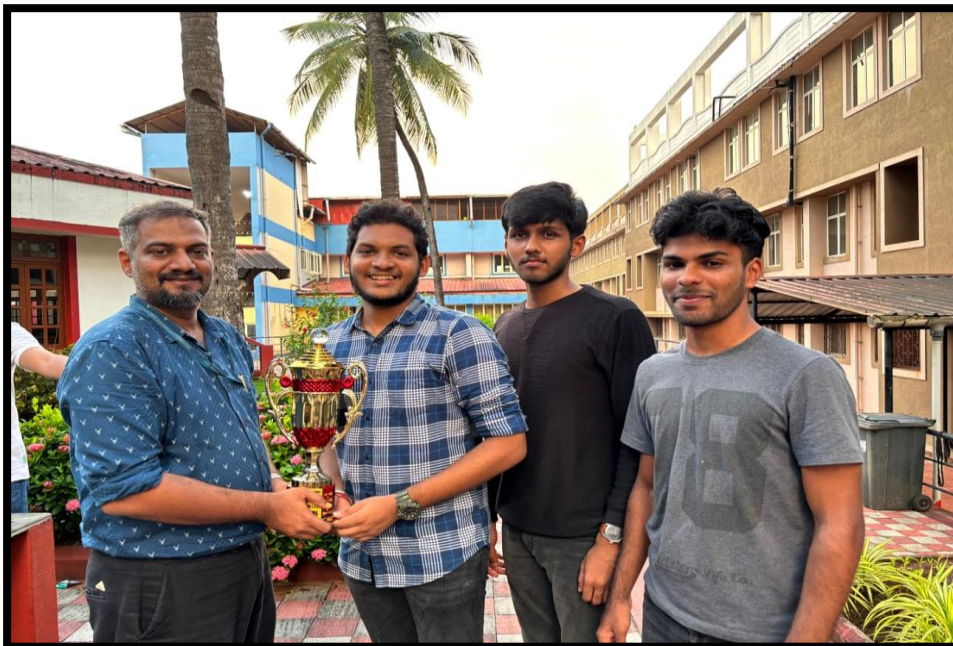

➢ Ms. Shravani Ubale from BE ETC, participated in 37th national games and won silver medal at State weightlifting, bronze medal at Goa University powerlifting, Silver medal at Intercollegiate weightlifting, and also won the DBCE fittest woman title.

➢ Ms. Rucha Sawant got the 1st place for elocution competition organised by master control facility ISRO on 26th July 2024. She also got the 1st place for cube painting at Sankriti, organized by Civil department, DBCE.

- Mr. Vraj Porob, Mr. Ayush Nagarsekar and Mr. Tabrej Agasnali won the 1st place in Interclass Chess Tournament held on 4th November 2024 in DBCE.

- Mr. Vraj R. Porob and Ayush Nagarsekar, won the third place for CHESS MIX TEAM, at DSPMS, on 23rd to 24th July 2024.
- A number of students certified for NPTEL courses like Business to Business Marketing (B2B), E-Business, Ethical Hacking, Public Speaking, Strategic Management, Introduction to Internet of Thing, Ethics in Engineering Practice, Cyber Security and Privacy, Cloud Computing, Social Networks, Project Management for Managers, Entrepreneurship, Introduction to Machine Learning, Management Information System, Enclosure Design of Electronics Equipment, Developing Soft Skills and Personality, Data Base Management System, Python for Data Science, Organization Development and Change in 21st Century, Distributed Systems, etc, and passed with Elite and Elite+Silver.

TRAINING AND PLACEMENTS

Placements

- Ms. Karen Mendes has been placed in IFB as Graduate Engineer Trainee (GET).
- Ms. Diana Esterberio has been placed in Siemens.
- Mr. Sagar Thato and Mr. Shivprasad Naik has been placed in Conexao Tech.

Internships

The students of BE ETC (VIIth Semester) underwent a two month long internship in various companies in and around Goa. The internship commenced on 1st July 2024 till the 24th August 2024. All the students completed their internship in the physical mode both in hardware and software areas. The different companies that were selected for internship were Digisol, MeaVita, National Institute of Oceanography, Medispray laboratories private limited, IFB, Commscope, NIT, Siemens, Elin, Optel, Electrocontrols, Syntgon, Siva Group, Dhristi Works, Infinity 3D, etc.

A total of 57 students completed their internship successfully within the stipulated time. It was great learning experience for the students who were exposed to the industry environment and made aware of industry expectations. Companies also expressed their happiness to see the eagerness and willingness of our students to learn. They also commended their discipline and punctuality.

The entire Internship activity is coordinated by Prof. Samantha Cardoso.

FACULTY INITIATIVES

CERTIFICATIONS/ AWARDS/ ACHIEVEMENTS

- Dr. Mohini Naik Successfully defended PhD in Smart Antenna systems on 22nd Oct 24
- Completed 4 National Institute of Technical Teachers' Training and Research Courses
- Reviewer for IEEE International Conference on Interdisciplinary Approaches in Technology and Management for Social Innovation (IATMSI)
- Reviewer for the 2024 IEEE North Karnataka Subsection Flagship International Conference
- Reviewer for the 2024 IEEE Workshop on (MTTW).
- Invited as a panel member for a workshop to disseminate the results of an ICSSR funded research study conducted on Atal Innovations Mission's ATLs and AICs, at IIT Bombay on 2nd march 2024.

- Prof. Yeshudas Muttu completed NPTEL 12 week course on Digital Circuits as a topper (top 5%)
- Completed NPTEL 8 week course on System Design Through Verilog with 87% (Elite + Silver)
- Completed NPTEL 12 week course on VLSI Design Flow: RTL to GDS with 73% (Elite)
- Received an award for the excellent performance in the contests at the IEEE Engineering Education Student & Young Professional Congress 2024, SIT – Pune

- Prof. Trima Fizardo completed 12 weeks NPTEL course (FDP) in "Introduction to Internet of Things" - with a consolidated score of 82% (Elite+Silver) from July-October 2024.

- Mr. Alosius Baptista, Lab Assistant of ECS department, DBCE, was awarded the **Gold Award** for his CNC PCB Engraving Machine at **INEX** (India International Innovation And Invention EXPO 2024), held on 13th-15th November 2024.

- Prof. Deron Rodrigues completed two 8 weeks NITTT Courses, "Technology Enabled Learning & Life Long Self Learning" and "Creative Problem Solving , Innovation and Meaningful R & D"

- Prof. Mathilda Colaco was invited as Resource person for NDLI at DBCE, to give a talk on "Reinforcement Learning: Shaping the Future of Gaming and Robotics" on 30th August 2024

WORKSHOPS/SEMINARS/EXPERT TALKS ATTENDED

- Dr. Shreyas Simu attended Training Program at Garuda Aerospace, Chennai from 1st July to 5th July 2024, on Robotics.

- Prof. Mathilda Colaco, attended two weeks Industrial Training on Internet of things with AWS organized by Edu Lakes from 2nd sept 24 to 13th sept 24
- Mr. Jayprakash Fadte Gaonkar, attended a two day workshop on Electrical Fire Safety requiements, in Goa Engineering College, Farmagudi, on 19th and 20th September 2024.

CONFERENCE PAPER/ JOURNAL PUBLICATIONS

- Prof. Yeshudas Muttu presented technical Paper titled "Implementation and Performance Analysis of 8-bit Digital Parallel Array Multipliers" at IEEE International Conference on Intelligent Computing and Sustainable Innovation in Technology (IC-SIT) 2024

UPCOMING EVENTS

- IEEE WIE Event in January 2025
- Robocom Workshop in February 2025
- IEEE Educational tour in February 2025
- BE ETC Fieldtrip in March 2025
- DBCE TekFest in April 2025
- Technix in May 2025

COMMUNITY OUTREACH

➢ Prof. Deron Rodrigues, gave a session on "Virtual Labs " at Don Bosco Panjim on 24th Oct 2024

➢ Prof. Mathilda Colaco, delivered a session on "Redefining the Future Through Innovations for Sustainable Development" at Perpetual Succour Convent High School on 16th July 2024. She also delivered a session on "Innovation and Start up" on 22nd Oct 2024 at Government Polytechnic Bicholim Goa