

NEWS IN GENERAL

NPTEL Awareness Program 2020



A NPTEL awareness program was conducted for the students of ETC, Computer Engineering, Mechanical Engineering and Civil engineering (SE, TE, BE) students on July 15,16,20, 2020 via online mode through Google meet. A total of 400 students attended the session. The agenda for the workshop was how to enroll in the NPTEL courses and how to fill examination forms, Timeline for July-Dec 2020. Student were given an idea regarding NPTEL Certificates, fee waiver benefit for SC, ST and low-income students. The importance of Domain courses, mentor, NPTEL Stars, MOOC courses (B.E. with Honor Certificate).

Dr. Neena Panandikar (Principal-DBCE), delivered the welcome address and encouraged the students to enroll in the NPTEL courses based on their subjects. Prof. Amey K. Shet Tilve, (NPTEL coordinator for Department of Computer Engineering) gave an overview of the timeline for July-Dec 2020, how to enroll in the NPTEL Courses, examination forms, certificates, mentor, fee waiver, domain courses, NPTEL Stars. Prof. Christina Barretto delivered a session on MOOC courses for second semester Computer students.

Prof. Vidhya NPTEL SPOC gave an overview of NPTEL courses regarding enrollment, filling exam forms, Domain areas for ETC and Civil Engineering students. Prof. Michelle Araujo e Viegas delivered a session on MOOC courses for second semester ETC students.

Prof. Swaroopa Sail (NPTEL coordinator for Department of Civil Engineering) briefed regarding Domain courses for civil engineering students and Dr. Shwetha P. delivered a session on MOOC courses

for second semester Civil students.

The Awareness program was conducted on Google Meet platform and was coordinated by Prof Sanjeel Naik (NPTEL coordinator for Department of Mechanical Engineering) with the help of Prof D.S.Vidhya (SPOC) NPTEL. The BE and the TE students were informed about the various NPTEL Courses available in Mechanical, Management and Metallurgical areas. The students were made aware about the Registration process, Examination process and about the domain Courses available on the NPTEL Platform. The SE students had a separate session about how to get a BE(Honours) degree if they could complete 20 credits across their Four Years and Engineering. They were also explained about the mandatory NPTEL/Swayam Courses in their revised syllabus. NPTEL course Registration & Exam enrollment form video was shared with the students.

DEPARTMENT OF CIVIL ENGINEERING

One week Online Students/Professionals/Faculty Development Program on Quantum Geographic Information System (QGIS)

Civil Engineering Department of Don Bosco College of Engineering organized an Online Students/Professionals/Faculty Development Program on Quantum Geographic Information System (QGIS) in association with Spoken Tutorial Project IIT, Bombay from June 1-5, 2020.

The convener for the program was Dr. Shwetha Prasanna, HOD, and coordinators for the program were Asst. Prof. Swaroopa Sail, Asst. Prof. Nadya Baracho, Asst. Prof. Kaushik Pai Fondekar and Asst. Prof. Akshata A.S Kudchadker . The total number of participants enrolled for the program was 1414. The participants included Students, professionals and faculty from various states of India and other countries like UAE, Germany, Ethiopia, Nigeria and Malaysia.

The program spanned over a period of 5 days. The participants were disseminated 3 new videos on the

topic of QGIS each day and they had to answer a quiz based on these 3 videos. Participation certificate was issued to participants who successfully completed the program within the assigned duration. Additional certificate were issued to participants who scored full marks in all the quizzes.

Virtual Sendoff to BE Civil



The Civil Engineering Department of Don Bosco College of Engineering organized an online farewell function for the final year BE Civil Students Batch (2016-2020) on July 17, 2020 via Google meet. The Farewell commenced at 3:00 pm. The Director of the college, Rev Fr. Kinley D'Cruz wished the students for their future endeavor. The Principal, Dr. Neena Panandikar and HOD Civil Engineering Department, Dr. Shwetha Prasanna also conveyed her wishes to the students. Prof. B. R Anirudha (Class Teacher) and Prof. Vaishali Parakhi conveyed their good wishes to the students.

A flashback video of the last four years of memories of the BE Civil students was played, messages were conveyed by the classmates wishing their fellow mates for the future. The “Best outgoing Student” for the batch was awarded to Mr. Saiesh Karwarkar. The program continued with lots of online games and fun sessions. The event was concluded with a group screenshot. Prof. Kaushik V. Pai Fondekar and Prof. Akshata A.S Kudchadker coordinated the virtual sendoff event.

Online Session on Introduction to 3D Modeling

Department of Civil Engineering organized an interactive online session on Introduction to 3D modeling using AutoCAD and Sketch Up for the students of Third year Civil Engineering on July 28 ,

2020. The speaker for the session was Ms. Aarti Kamat from Kamat EduTech LLP, Margao. She started her session by explaining to the students the importance of 3D modeling in various branches of Engineering and specifically to Civil Engineering. She also briefed the students about the various certification courses offered by them in AutoCAD 2D, AutoCAD 3D, Rivet and Sketch Up. The session was attended by 46 TE students and was coordinated by Assistant Professor Akshata A.S Kudchadker.

Alumni Talk

The Civil Engineering Department of Don Bosco College of Engineering organized an online Alumni talk for the SE, TE and BE Civil Engineering students on July 29, 2020. The session was for an hour in which the first half was conducted by Mr. Vivekananda Dessai (Alumnus-2015) and the second half was conducted by Mr. Allabaksh Dhavaleshwar (Batch 2016). Mr. Vivek has cleared his PG CET and completed his Masters in Technology in Infrastructure and Construction Management at VTU University Bangalore. Mr. Vivek spoke about various types of careers in Civil Engineering; he also spoke of various ways of joining higher studies after completion of Bachelor's degree. In the second half of the session Mr. Allabaksh gave a talk on the life cycle phases of a construction project. Mr. Allabaksh has completed his MBA in Construction Project Management. In all, 27 students attended the talk.

DEPARTMENT OF MECHANICAL ENGINEERING

Two Week Online Internship for TE Students

A Two Week Online Internship Program was conducted by Mechanical Engineering Department for Third Year Students in “Solid Modeling, 3D Printing & Industrial Automation from July 6 – 18, 2020. The course commenced with four days of training in Solid Modelling with the use of Softwares like AutoCad and SolidWorks. Students were given online training on using the software through Google Meet. The students also had some hands on experience through the online free trial version of the software. The resources persons were Prof Sachin

Turi, Prof Saurabh Raikar, Prof Achintya Kambli, Prof Manjunath Narwate. The Coordinator of the Course was Prof Sanjeel Naik.

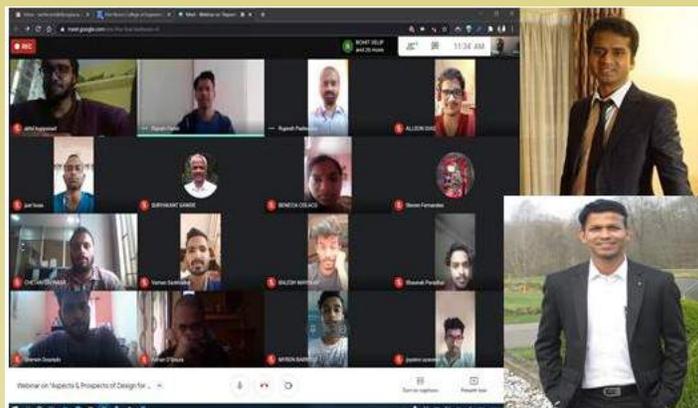
The next two days, students were introduced to 3D Printing and Rapid Prototyping technology. The resource persons were Prof. Ajit Salunke, HOD, Mechanical who explained the concept of 3D printing and its applications especially in the Medical Field, and Mr. Ryan Vaz from Infinity 3D who demonstrated some 3D Printing. The Course was coordinated by Prof Gaurish Samant and Prof. Manjunath Narwate.

The second week was dedicated to Industrial Automations. Ms Sunaya Shirodkar and her team from Asier Solutions held sessions on microcontrollers and Robotics from July 13- 15, 2020. The sessions started with introduction to microcontroller, its architecture and pin diagrams. Students were introduced to basic of embedded C programming, as well as the various basic sensors. The sessions on interfacing of sensors and motor drive with the Arduino Uno microcontroller for building various robots like line follower, obstacle detector etc. were held. Online tool, Tinkercad was used, where the students could virtually develop and program electronics circuits using sensors, drives and microcontroller. The sessions on July 16-17, 2020 were engaged by Prof. Devendra Sutar, Assistant Professor, Department of Electronics and Tele-Communication, GEC, on Programmable Logic Controllers. Prof Sutar illustrated the salient characteristics and wide industrial applications of PLCs. The students were introduced to the basic programming on PLC using various contacts switches, relays, timers and counters, memory bits etc. Exercises on various Industrial automation applications were undertaken to develop suitable PLC ladder program for each. The course on Industrial Automation was coordinated by Prof Tanay Rege and Prof Ramnath P Bam.

The two week online internship concluded with the Principal Dr Neena Panadikar and Head of Mechanical Department, Prof Ajit Salunke, addressing the students with regard to the importance of such a course and appreciating them for their active participation and undying enthusiasm

in making the most of the course to add value and skills to their academic profiles.

WEBCHAT



On July 11, 2020, The Mechanical Department of Don Bosco College of Engineering organised a Webinar on “Aspects & Prospects of Design for Mechanical Engineers”. The event was hosted through G-SUITE for the Third and Final Year students of Mechanical Engineering. The Industry experts for the event were Mr. Rupesh Padwalkar (Power Systems, COE-LEAD Tata Technologies Ltd, Hinjewadi Pune India) and Mr. Rajesh Parab (Lead- Geartrain, Punch Powertrain Eindhoven Netherlands).

The session commenced with the Introduction of the topic and presenters roadmap to guide students through the success and failure journeys of the speakers. Mr. Rupesh started the session with 7S Model of Organization to give students an insight of Industry working and Hierarchy to support Product Design. Mr. Rajesh then continued on the Design philosophies implemented in Industry such as V-Model, House of Quality Model, Double Diamond Design process. Mr. Rajesh with his wide exposure in Mechanical Industry in India and abroad emphasized the importance of small tools like Brainstorming for the initial phases of Design.

All focus of the session was to set and guide a career path for students. Both the speakers listed down and elaborated with practical experiences the different Technical and Interpersonal skill sets required for fresher's to excel in the field of Engineering. Mr. Rupesh later ended up the session with a concluding remark to balance IQ and EQ for a successful career growth.

The Web chat was initiated and hosted by Prof. Sachin Turi considering suggestions from students and a need to identify a skill gap to bridge Industry-Academia by HOD-Mechanical Prof. Ajit Salunke. The event was coordinated by Prof. Sanjeel Naik and Prof. Achintya Kambli. The online session extended for 1.5 hours with an active participation of 60 students.

BE Mechanical Farewell 2020



The Department of Mechanical Engineering organised an Online Farewell for the students of the department graduating on the of July 21, 2020. A decision was made early on not to break traditions of giving the graduating class a proper send-off. However due to the prevailing conditions, an in-person event could not be held. The event was hosted and coordinated by faculties of the department, Prof. Tanay Rege and Prof. Achintya Kambli on the Google Meet platform. Students joined in from the comfort and safety of their homes.

The event was informal in nature. Director, Fr. Kinley D'Cruz, Principal, Dr. Neena Panandikar and Head of Department, Prof. Ajit Salunke addressed the gathering with the help of pre-recorded video messages. Faculties and students shared their collective experience of the time spent together. Faculties individually spoke to the students congratulating them on completing their formal engineering education and urged them to continue their path towards excellence. They reiterated the need to stay strong and positive in these testing times and offered their best wishes to the students.

Keegan Pinto performed a song on the guitar. Dr. Neena Panandikar, also delivered a wonderful

rendition of '*Itni Shakti mujko de na data*' in a pre-recorded segment. Students spoke their hearts out expressing their appreciation of the efforts taken by the department in organising this event as well as the efforts taken by the faculties in helping shape their careers.

The results for the Best Out Going student of the mechanical department were also declared. The nominees were Mr. Steven Fernandes, Mr. Rohan Naik Borkar and Mr. Johan Goudinho. While each of these nominees were and are great individuals in their own right, only one winner could be declared. A poll conducted by the department amongst its facilities yielded a win for Mr. Steven Fernandes. The students too agreed with the results of the Best Outgoing student of the department: Students Edition, also resulted in Steven Fernandes winning the title. The department of Mechanical Engineering congratulated Steven on his dual win and wished him all the best for his future endeavours.

The students were given personalized memorabilia in the form of a class photo with their name written on it. These were sent to the students via email. Overall, the event was a success.

DEPARTMENT OF ELECTRONICS AND TELECOMMUNICATION ENGINEERING

IEEE DBCE Student Branch Organizes 'Tech Insight: a Webinar Series'

The IEEE Student Branch of Don Bosco College of Engineering, Goa Organized "Tech Insight: a webinar series", in association with the IEEE Bombay Section under the leadership of IEEE Branch Counselor, Prof. Yeshudas Muttu from May 20- 28, 2020 with unflinching support & motivation of Head of ETC Department, Dr. Varsha Turkar. The main aim to host this event was to continue the process of learning during the lockdown period in India by sharing technical insights on various research topics. Live Streaming of the Webinar was done on YouTube. The event received 500+ registrations & was open to students and faculties, for IEEE as well as non-IEEE

members all over India. The event was hosted by Prof. Yeshudas Muttu.

Day 1: May 20, 2020

Topic: Image Forensics

Speaker: Dr. Sangita Chaudhari, Professor RAIT, Navi Mumbai

The first speaker of the webinar series, Dr. Sangita Chaudhari was introduced to the audience by IEEE student Branch- Vice-chair, Mr. Gautam Dessai. Dr. Sangita Chaudhari started with a history of image manipulation. Later on, she explained Image Forgery, its two approaches, enhancing & watermarking images and techniques involved in the detection of image forgery. Details on how to go about image splicing detection and inconsistencies of detection were stated. Towards the end of the session, the speaker has an interaction with Prof. Yeshudas Muttu to answer most of the questions posted by the attendees onto the YouTube live chat. The vote of thanks was delivered by Mr. Gautam Dessai.

Day 2: May 21, 2020

Topic: Data Science and Data Analytics- a paradigm shift from IoT Prospective

Speaker: Dr. Amiya Kumar Tripathy, Professor, DBIT, Mumbai

The introduction of the second speaker was given by Ms. Neha Joshi, Secretary of IEEE DBCE Student Branch. Dr. Tripathy commenced the session by introducing the basics of data science and the Internet of Things (IoT). He then played a video of 'Life Simplified' which showed how IoT simplifies our lives in daily use. The speaker proceeded to explain the basics of Analytics and its three types, the programming tools for data research which include SAS, R, Hadoop, Python, etc. He also gave an in-depth explanation of GeoSense and its use in the agricultural industry. The second webinar concluded by the speaker answering some of the questions asked by the attendees in the live chatbox. The vote of thanks was delivered by Ms. Neha Joshi.

Day 3: May 22, 2020

Topic: Wireless Network Simulation Tools

Speaker: Dr. Saurabh Mehta, Chief Academic Officer, VIT, Mumbai

The speaker was introduced by Mr. Renvick

Fernandes, Chairperson of IEEE DBCE Student Branch. Dr. Mehta introduced to the wireless networks & spoke on how it is related to IoT and the three standard acceptable ways to test wireless networks. He exhibited his work on case papers related to simulation tools and shared a few network tools and gave a brief comparison of different networks and systems with various aspects such as Applicability, Interface, Availability of Modules, License, etc. Later, different issues with simulation were presented. The attendees were actively engaged in this seminar by asking queries in the live chat box which were answered by Dr. Mehta at the end of the session. The vote of thanks was delivered by Mr. Renvick Fernandes

Day 4: May 26, 2020

Topic: Microelectronics in India: R&D training and career opportunities

Speaker: Dr. B Satyanarayana, TIFR, Mumbai

The session commenced with an introduction to the speaker by the joint secretary, Ms. Krystal Fernandes. Dr. Satyanarayana provided knowledge about study and manufacturing of small electronic circuits. Further, he explained industrial standard ICs, ASSP, ICs & VLSI. Dr. Satyanarayana spoke about the challenges of technology and various jobs available like design engineers, verification engineers, etc. To end with his presentation, various skill sets, expertise, qualifications, and courses which would help attain a job in this field were clearly mentioned. This was then followed by a Q & A session in which a few of the questions from the audience were put forward by Prof. Yeshudas Muttu to the speaker, which he answered in clearly. The session was concluded after a vote of thanks by the Joint Secretary Krystal Fernandes.

Day 5: May 27, 2020

Topic: Satellite Image Processing

Speaker: Dr. Varsha Turkar, Professor & Head of ETC Dept., DBCE, Goa

The IEEE Student Branch program committee lead-Mr. Musab Shaikh introduced the speaker for the fifth session. Dr. Varsha Turkar began her session with the basics of remote sensing, its need and techniques. SAR (Synthetic Aperture Radar) and POLSAR (Polarimetry SAR) with its various applications along with advantages and

disadvantages were discussed. Data processing steps, thermic map, scattering matrix, image classification, methodology and data processing were elaborated. Lastly, the question and answer session was held which helped the viewers to clear their doubts. This was followed by the vote of thanks given by Shivam Bale, IEEE treasurer.

Day 6: May 28, 2020

Topic: Industrial Machine Learning: Considerations and Opportunities

Speaker: Dr. Shaunak De, Data Scientist, Capella Space Corporation, USA

The guest speaker of the day was introduced by our IEEE student branch joint treasurer Mr. Suyog Borker. Dr Shaunak De started off by making the session as interactive as he can by giving us access to a mini project created by him as well as a Discord channel for us to join, discuss and ask questions. He initially spoke about how he built his mini-project – various libraries used, the ideation, etc. He further went on by giving us the 'Recipe for Deep Learning'. As Dr. Shaunak stated the 'Level up' for machine learning would be – Deep Learning theory/ Math – Training Deep Learning models – Shipping Deep Learning projects. With knowledge of about 20 programming languages, he stated that the basic Product Roadmap to deep learning is Data Labelling, Data Storage, Data Versioning and Data Processing. He also gave us a variety of platforms to pick and choose from to better our journey on the given roadmap. Dr. Shaunak was extremely helpful and patient while answering all our questions. Mr. Suyog Borker thanked the speaker for his interesting way to keep the audience engaged & making it interactive.

Prof. Ajay Dhruva from Vidyalkar Institute of Technology & Prof. Mario Pinto from Goa College of Engineering shared their experience after attending all six sessions of the Webinar series. Dr. Varsha Turkar, Head of ETC Department, DBCE acknowledged and thanked the Director-Fr. Kinley D'cruz, Principal-Dr. Neena Panandikar, IEEE Student Branch Counselor-Prof. Yeshudas Muttu, Technical Staff- Mr. Romeo D' Cruz, Ignatius Dias & students for their immense support in organizing this event. To conclude, Prof. Yeshudas Muttu appreciated the efforts put by the IEEE Student branch EXE-COM

members & sub-committee leaders for their exuberance & diligence to organize this event and thanked each & every resource person for sharing their valuable time.

Four Day Online Programme on 'Aerial Robotics: Designing For Beginners'

The Department of Electronics and Telecommunication Engineering, Don Bosco College of Engineering, Fatorda-Goa, under the banner of Don Bosco Electronics and Telecommunication Society (DBEATS) in collaboration with InfiCorridor Solutions Pvt. Ltd., Mumbai organized an Online four day programme on 'Aerial Robotics : Designing for Beginners' using Autodesk Fusion 360. It was conducted from June 16 – 19, 2020 from 4pm to 6 pm. The sessions were conducted online using Microsoft

T e a m s platform.

Aerial robotics is an outlet of the core branch of robotics involving



design, construction, operation, and use of aerial robots, in simple words, robots that fly. A wide array of potential applications exists for robots that have the level of mobility offered by its flight. The military applications of aerial robotics include surveillance, targeting, and even strike missions, whereas its civilian applications are remote sensing, disaster response, image acquisition, surveillance, and transportation.

This webinar series was organized under the capacity building and training initiative of InfiCorridor Solutions for college students, having the main objective of developing skills among students to design and create an Aerial Robotics model by assembling various components by applying the basics of design and systems engineering. The workshop covered the following concepts:

1. Designing the components from scratch
2. Assembling the components to create a

model

3. Basics of Design and Systems Engineering
4. Rendering and Animating the models
5. Basics of Simulation using Finite Element Analysis

The resource persons for the sessions were Mr. Yash Turkar, Mr. Christo Aluckal and Mr. Sumedh G. Deshpande, all part of the Research and Development Team at InfiCorridor Solutions. Their team, under the direction of Dr. Yogesh Agarwadkar, with several years of experience in research and development, specialises in state-of-the-art technological solutions.

In total, 58 participants from different cities like Mumbai, Pune, Nagpur, Ahmednagar, and Verna attended the event. The participants showed keen interest in the sessions and submitted the components that they designed after learning from the workshop which showed the effectiveness of the workshop. This online workshop was coordinated by Dr. Varsha Turkar and Prof. Deron Rodrigues.

Orientation Programme on “Google Classroom” for ETC Faculty Members

A Hands-on Workshop on Google Classroom was conducted by Prof. Yeshudas Muttu for Faculty members of Electronics & Telecommunication Engineering in Signal Processing (E9) Laboratory on July 16, 2020. The main objective of this Programme was to make the teaching more productive, collaborative & meaningful.

Initially, Prof. Yeshudas Muttu briefed the participants about college G-Suite account &



provided practical experience on Google Classroom. This was followed by creating a classroom, managing

coursework in the classroom, adding students to the classroom that boosts collaboration & develops communication between Student & Faculty member. The four main tabs of the Google Classroom, namely: Stream, Classwork, People and Grades were explained in detail. Prof. Yeshudas Muttu emphasized more on adding material to the classroom & demonstrated by adding Web link, YouTube Search Video & link, file from Google Drive & Desktop.

Later, the participants were engaged with creating & scheduling the assignments/Quiz assignments for the students. Forming Rubrics file for evaluation of assignment was also shown. Prof. Yeshudas Muttu explained about the Grading of assignments by adding the participants as students to the Google Classroom. The workshop concluded with Linking Google Classroom with Google Meet Platform using Google calendar on Classwork Tab that will provide the feeling of Virtual Classroom for Students as well as Faculty members. All the faculty members created the Google Classroom for their respective Subjects & Classes that will definitely provide smooth functioning of teaching process.

Digital Farewell Celebration honouring ETC Batch 2020

In the five months since lockdown, restrictions may have eased, but there's no word on the reopening of colleges and schools. For the batch of 2020, wearing the graduation gown seemed a dream. However, to mark the end to a four year long splendid journey of engineering, the Electronics and Telecommunication (ETC) Engineering department at Don Bosco College of Engineering tried their best to bid the students of the 2020 batch an online farewell, giving them a chance at offering their crucial years of life, a heartfelt goodbye.

The online farewell ceremony began at 3:00pm. The Director, Rev. Fr. Kinley D'Cruz, the Principal Dr. Neena Panandekar, the Registrar, Dr. Kala Nayak, the Head of the ETC Dept., Dr. Varsha Turkar and faculty members of ETC and Science and Humanities department, assembled in the auditorium, whereas the students joined via digital video conferencing software Google meet.

The ceremony started off with a warm welcome by Prof. Mathilda Colaco, followed by a short prayer song, “Itni Shakti Hamein dena Daata”. Thereafter, the Director, Rev. Fr. Kinley D'cruz addressed the students, guiding them to face the challenges awaiting them. This was followed by words of wisdom by the Principal, Dr. Neena Panandikar. Head of the Department, Dr. Varsha Turkar then gave her message to the final years which was full of love and enlightenment.

Subsequently, the first issue of ANKUR 2K20, a project idea book launched by the ETC Department along with the final year students was then released at the hands of the Director, the Principal and the Head of ETC Department. ANKUR 2K20 is a collection of the seeds sown by the final year students in terms of their final year projects, providing a platform to the students to exhibit their novel ideas and serve as a benchmark for aspiring engineers to gain an insight into the latest developments in engineering and technology.

To refresh some old memories from the first year, a video comprising of the events the students participated in, like the mannequin challenge, dance competition etc., was played.

The class teacher of BE ETC Prof. Deron Rodrigues shared his experience of teaching BE ETC and appreciated their behaviour, responsibility, diligence and unity. Dr. Shreyas Simu, Prof. Mohini Naik, Prof. Natasha Jaques and Prof. Mathilda Colaco also delivered their appreciative messages to the class of ETC 2020 and wished them luck. Thereafter some students of BE ETC were awarded with certain tags such as hard worker, class clown, best leader, fashionista etc. As a token of love and appreciation the juniors put up a small performance in the form of songs and testimonials. This was followed by the singing performances by Prof. Yeshudas Muttu, Prof. Mohini Naik and Prof. Mathilda Colaco, which were thoroughly enjoyed by the audience!

A few students of BE ETC, Ms. Shriya Nayak, Ms. Neha Shanbhag and Ms. Sampada Nagvenkar put up some performances in the form of dance videos. Mr. Raviraj Bhagat, mesmerized the audience with his

melodious singing. A few students, Ms. Prajacta Naik, Mr. Kowshik Kolvenkar, Ms. Siddhi Dessai, Mr. Raviraj Bhagat and others also spoke their hearts out to express love and gratitude towards their classmates, the management and faculty with whom they'd spent four long years of their lives.

As a goodbye gift to BE ETC, the juniors had made a video to go down the memory lane. The faculty members expressed their love towards the students by singing some lovely songs in chorus and what a lovely moment that was. Prof. Mathilda Colaco was the compere for the event. The ceremony was concluded with a vote of thanks by Prof. Deron Rodrigues, the event coordinator.

DEPARTMENT OF COMPUTER ENGINEERING

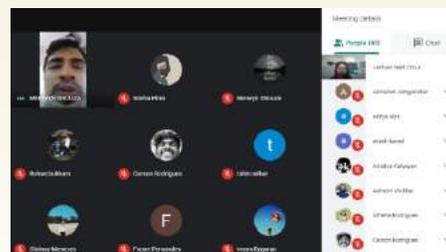
“Evolution of Mobile Technologies” Webinar (Beyond the syllabus)

The C-CODES Students association in association with the Department of Computer Engineering conducted a webinar on “Evolution of Mobile Technologies” for the computer engineering students on July 08, 2020. It was a one and half hour long session from 11.30am-1pm. The resource persons were Alumni / Prof. Janhavi Naik and Prof. Merwyn D'Souza.

Total of 56 students attended the webinar organized by Prof. Janhavi Naik through GOOGLE MEET platform. The link was shared to everyone on the group to attend the session at least 10 minutes before.

The session started with energetic QA round, testing Knowledge of students in terms of Mobile generations. The different technologies and generations were discussed. Current mobile technology was emphasized and its features also.

Students asked certain questions during the session making it interactive. The cellular network generations, along with



different architectures were discussed. The point “Mobile is an amazing technical achievement” was explored. The orthogonal schemes importance and need was also explained to students.

The architecture of GSM and call was shown and explained. The different components involved were sequentially explained.

The different generations were compared and analysed. The evolution part was more stressed on during the webinar. The upcoming mobile technology was explained; the role played by Qualcomm was explained. The students were also shown different images pertaining to technology. The concept of frequency reuse and handoff was explained to students along with the types and techniques.

At the end of session, there was a Q & A round for asking of doubts. Also, the feedback link and quiz link was also shared among the students. The e-certificates were issued on successful passing of quiz. The coordinator for the webinar was Prof. Merwyn D'Souza.

Online Adieu- BE Computer Batch 2020 Farewell

The “ONLINE ADIEU” for BE computer students batch 2020 was scheduled on Monday July 20, 2020. The event took place in the seminar hall –II in the presence of almost all faculties along with Director- Fr. Kinley D'cruz gracing the occasion. The Principal- Dr Neena Panandikar and some faculties connected online. There were around 50 participants connected through GOOGLE MEET platform.

The event started with hosts, Prof. Janhavi Naik and Prof. Siya Naik greeting and welcoming students. After that, prayer meet, was sung by Dr. Neena Panandikar while the students played through MEET Platform. Rev. Fr. Kinley D'cruz addressed the



students and motivated them towards a bright future. Dr. Neena Panandikar addressed the students and wished them. Head of Department- Dr. Gaurang Patkar addressed the students, followed by Class teacher Norman Dias.

The cultural part of the programme started with a Flash back video – walking down memory lane, created by TE COMPUTER Student Vaishnav. There were some performances by all faculties of Computer Department starting with Dr. Gaurang Patkar , Manisha Phal dessai, Vivek Jog, Ankit kumar Tiwari, Amey Kerkar and all others. The Students awards were displayed for students, which created lot of fun and enthusiasm among the students. Later followed the faculty awards which were designed by students only.

The next part of the programme were performances by students and Fish ponds- secret messages and wishes to faculties and class mates. It was very much a fun filled event. Some students were given chances to express their feelings and speak about their journey. Some students were seen emotional. Later part of the event was declaring the ALUMNI website open and telling them to register, which enlightened their moods.

Lastly, scribble pads links were given to students to express and write messages to students and faculties. Dr. Neena Panandikar also joined in for the group picture live at the end of the programme. Everyone was happy and enjoyed. The groups and chats were flooded with thank you and appreciation messages. The link to access all videos and pictures was shared with students. Vote of thanks was delivered by Prof. Janhavi Naik.

One week ISTE approved STTP on Recent trends in Industry 4.0

Day 1:

The Department of Computer Engineering organised a One Week ISTE approved workshop on “Recent Trends in Industry 4.0 Technologies” from July 27-31, 2020 using an online Platform.

The workshop was attended by 95 participants from various disciplines of engineering, both faculty and

industry representatives. The workshop was based on the current trending technologies in Industry 4.0. Also present was Rev. Fr. Kinley D'Cruz, Director and Dr. Neena Panandikar, Principal, Don Bosco College of Engineering along with Dr. Gaurang Patkar, HOD Computer Engineering. The coordinators of this workshop were Asst. Prof Merwyn D'Souza, Asst. Prof Mithil Parab, Asst. Prof Amey Tilve. Eminent speakers with expertise in various emerging technology in industries were invited to deliver sessions during the course of the entire week.

First speaker for the day was Mr. Kishore Shah, Director of IdeaZ Unlimited, who delivered a session on Introduction to Industry 4.0. He gave a quick overview of core elements and technologies in Industry 4.0, he elaborated on the difference between Industry 3.0 and Industry 4.0. He mentioned the drivers behind Industry 4.0 and its goals. He also spoke about the impact of Industry 4.0 on the business and the community.

In the afternoon session, the participants were introduced to "Demystifying Blockchain", by Mr. Vishesh Garg, senior specialist in Advanced Development Center, Hewlett Packard, Bangalore. He gave a brief understanding about blockchain technology to create decentralized peer to peer transfer of assets without requiring trust. He also explained several hash functions and application of blockchain on ETHEREUM platform. He briefed the participants on terms like node, minor, transaction, gas, payment, tamper proof order of transaction etc. Participants were also made aware of the challenges in blockchain and where it could be used or not used.

Day 2:

First speaker for the day was Mr. T. Kartheeswaran, Lecturer, University of Jaffna, Srilanka, who delivered a session on Agent Technology. He explained how agents can sense and act on the environment and make their own intelligent decisions. He also explained various features, characteristics and components of Agents. Participants were made aware of application of agent technology in the field of medical diagnostics, satellite imaging, refinery controllers etc. He introduced the concept of mobile agents to the

participants which are programs migrating from system to system processing information. He also explained the advantages of multi mobile agents, internet based software agents and its application in the field of pattern recognition, bioinformatics, education etc.

The afternoon session began with a session by Dr. Karim Tobich, Head of Cyber Security & Compliance Consultancy, United Kingdom. He spoke on Recent Trends in Industry 4.0 Technologies, foundations for IoT from standards perspective.

He talked about Industry 4.0 and it's application group. He emphasised that Industry 4.0 is connected, where distribution becomes instant and virtual so all parties (contractors, sub-contractors, suppliers) are interconnected via a virtual platform. Also resources become automated using engines, motors, pumps etc. and management becomes easier.

He spoke about how international standards are developed and how it changes the business approach. He explained with an example of the ISO organization.

He went on to share some expectations from an IoT system, noting that safety and security characteristics are paramount in any IoT based system.

Day 3:

First speaker for the day was Dr. Shriram D. Raut, Assistant Professor, Solapur University, Maharashtra



a, INDIA who delivered a session on "Cyber Security and Forensic". He talked about the importance of network security in IoT, social media to avoid cyber crimes. He explained to the participants about phishing and how to avoid email scam and phishing. He explained the 7 steps for avoiding a spear phishing attack which is very much needed to prevent the

phishing attacks. Participants were made aware of cyber bullying, identity theft. He also explained the five critical steps in digital forensic which includes evidence identification, preserving evidence, recovery, analysis and reporting. He demonstrated a Photo Forensic Tool for investigating the images.

The afternoon session began with Dr. Alepsis Efthimios, Associate Professor from the Dept. Of Informatics, University of Piraeus - Greece. His topic was on Human Computer Interaction (HCI) in 2020.

He gave an elaborate description on HCI key topics; devices of interaction, modalities of interaction, user modeling and experience and big data. He gave a brief history of HCI or basically as it was known then as Human Machine Interaction. He mentioned some new trends in HCI as smartphones, wearables and IoT.

He posed a question on why there is a need for interaction. He explained with the example of smartphones and their importance. He went on to differentiate between smart and normal feature phones and the age group of people using these phones. He emphasised the increase in use of smartphones by showing various statistical charts and studies.

He explained the need for sensors; motion sensors, position sensors and environment sensors. He listed the availability of sensors by platform.

Dr. Efthimios stressed on the importance of HCI and user experience. He also spoke about programming for wearables and their role in IoT. He shared and discussed the latest statistics on wearables. He ended his session by answering questions from



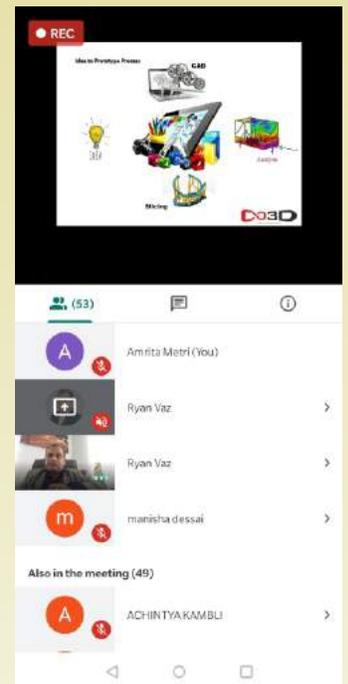
participants.

Day 4:

First speaker for the day was Mr Ryan Vaz, Founder, Infinity3D, Goa, INDIA who delivered a session on “3D Printing”. He explained the importance of 3D printing in the evolution of industry 4.0 by narrowing the gap between idea and reality. He also demonstrated 3D printing by building a small 3D structure. Participants were made aware of applications of 3D printing like architectural modelling, custom prosthetics, fashion, personalized gifting, home decor, jewellery designing, automobile modelling, organ transplant etc.

The speaker for the afternoon session is Mr. Gohar Chanekar, a Visual Artist at Visual Vibes, Bangalore. His session was on Virtual Events in Pandemic and Projection Mapping.

He began his session with an introduction to 3D Mapping, it's uses and applications. He mentioned the four factors that govern Projection Mapping as Content, Projection Hardware, Surface and Mapping Software (CPSM). He went on to give a demonstration on using Resolume - a 3d mapping software. He explained the basics of projection i.e. perspective projection.



He elaborated on how one could use virtual events in the pandemic situation by making use of online streaming events. This could be done as a live event or a pre-recorded event. He explained that this saves a lot of money in terms of production and travel. He continued by listing the requirements for online streaming events such as streaming platform, streaming software, composition software and the content or live feed.

He went on to elaborate on different streaming

software and answered participants queries on the same.

Day 5:

First speaker for the day was Dr. K. Suresh, Associate Professor, Sreevidyanikethan Engineering College, Tirupati, Andhra Pradesh, India who delivered a session on "IOT & its Application". He explained how IoT has played an important role and created new business opportunities in Industry 4.0. He focused on benefits, challenges, issues in IoT to bridge the research gaps. Participants were made aware of cloud platforms, communication protocols, communication technologies, data analytics framework, application framework needed for developing IoT application. He spoke about the five steps needed for developing IoT applications and future aspects of IoT. Participants were also made aware of application of IoT in the field of retail system, health, industries, household activities, weather forecasting. He briefed about Arduino components that can be used for building IoT applications. He demonstrated how tinkercad can be used to develop simple arduino applications.

The next speaker was the founder and Director of Ulavan Agritech Services (OPC), Mr. Tarun Krishnakumar. His topic was on Drone Industry 4.0 and New Age Industry Opportunities.

He began with a review of Industry 1.0 to 3.0 in Agriculture. He went on to explain Industry 4.0 from the point of agro-services. He introduced the concept of drone technology and IoT. He interacted with the participants, encouraging them to identify different types of drones and the sensors required by the drone. He listed the types of drone sensors and the areas of applications.

He introduced the concept of LiDAR, a method for measuring distances by illuminating the target with laser light and measuring the reflection with a sensor. He differentiated between LiDAR and Photogrammetry: the science and technology of obtaining reliable information about physical objects and the environment through the process of recording, measuring and interpreting photographic images and patterns of electromagnetic radiant

imagery and other phenomena.

Mr. Tarun also listed the skills necessary towards taking up projects under Drone Industry 4.0.

The workshop ended with a valedictory function where the participants were encouraged to give their valuable feedback. Many participants gave a very good review of the workshop. Rev. Fr. Kinley D'Cruz, Director and Dr. Neena Panandikar, Principal was also present for the function.

Dr. Gaurang Patkar, HOD of the Department of Computer engineering delivered the convenor report of the five day workshop. Prof. Amey Tilve delivered the vote of thanks.



DEPARTMENT OF SCIENCE AND HUMANITIES

One day Webinar on Graph Theory and Applications- An Overview

The Department of Computer Engineering, Government Polytechnic, Daman organised a one day webinar on Graph Theory and Applications- An Overview on July 15, 2020. The resource persons for the webinar Dr. Jessica Pereira, Department of Mathematics, Goa University and Mrs. Natasha D'souza e Jaques, Department of Science & Humanities, Don Bosco College of Engineering introduced various graph theoretic concepts and research applications to the participants.

Dr. Aruna Govada – HOD Computer Engineering, introduced the resource persons and Dr. Suhas Patil-Principal, Government Polytechnic, Daman welcomed the resource persons and participants to

the webinar.

The morning session began with Mrs. Natasha D'souza e Jaques speaking about Applications of graph theory in real world, Isomorphism of graphs, Mycielski constructions of graphs and Graph colouring.

Dr. Jessica Pereira, in her session engaged the participants in learning the concepts of Eulerian graphs, Hamiltonian graphs, Dominating sets, Graph labelling and other research applications.

The participants included faculty and students. Questions were posed during the sessions. A total of 70 participants attended the webinar.

The webinar ended with concluding remarks from Shr. VandanBabu T., who appreciated the resource persons for the concepts and the content that was delivered during the webinar. Dr. Prashanth D. delivered the vote of thanks.

TRAINING AND PLACEMENT

IIC e-sessions

Due to the difficulty faced by IIC-Institutes to complete the IIC calendar activities for Quarter 3(Q3) and Quarter 4(Q4) for the IIC calendar year 2019-20, IIC-MIC organised 17 e-sessions as e-activities on various themes of Innovation, IPR, Entrepreneurship and Start-up which would replace the physical activities of Q3 and Q4, from April 28 – May 22, 2020.

The faculty of Department of Electronics and Telecommunication Engineering, Don Bosco College of Engineering-Fatorda attended e-sessions on National Innovation and Start-up Policy for students and Faculty 2019- A Guiding Framework for HEIs for Implementation, Role and Importance of Pre-Incubators, Incubators and Accelerators in HEIs - Harnessing Innovation and Entrepreneurial Potential of Students and Faculties at Early Stage, Hangout with emerging Innovator & Entrepreneurs Supported through MIC & AICTE, Role of network enablers in driving I & E HEI's-A case of TIE-India,

Entrepreneurship, Business Idea and Business model canvas to name a few.

These e-sessions covered various topics related to innovation and start-up policies strategies and governance for promoting entrepreneurship such as norms for students and faculty driven start-ups, Incubation and pre-incubation support, Incentives and rewards for students and faculty pursuing innovation and start-ups, IP ownership and equity / revenue sharing mechanisms. The difference between pre-incubation, incubation and acceleration, Mentoring and networking for the incubator, Staff and funding for the incubator, Services and Collaboration Opportunities with HEIs to Drive I&E Ecosystem, Life of a Start-up Founder and Myths and Hometake Messages etc.



Online Webinar: Career In Engineering

The Training and Placement Cell of Don Bosco College of Engineering organized an online webinar on the topic 'Career in Engineering'. This webinar targeted students of class 10th, 11th, 12th and their parents. The objective of the webinar was to help aspiring students to acquire a challenging engineering career in life. Online webinar session was conducted on Webex video conferencing platform on May 26, 2020 from 4 PM to 5:30 PM. The number of registrations received was 35 out of which 3 were parents and rest were students between the age group of 15-17 years. Registrations were received from various locations such as Mumbai, Bengaluru, Kolhapur, Sawantwadi apart from cities of Goa. Prof. Avila Naik was the Moderator of the event and Dr. Shreyas Simu was the Event co-ordinator.

Dr. Neena Panandikar welcomed all the participants to the online webinar. Director, Fr. Kinley D'Cruz gave brief information about Salesian Society of Don Bosco. Prof. Avila Naik gave an overview of Don Bosco College of Engineering and a wide spectrum of engineering domain.

The first speaker of the webinar was Prof. Gaurang Patkar, HOD of Computer Engineering Department. He gave an overview of the Computer Engineering domain and also provided insights on career prospects in the domain. The second speaker of the event was Dr. Varsha Turkar, HOD of Electronics and Telecommunication Engineering Department. She presented her views on career as an ETC engineer. She also spoke about core electronics and non-core jobs. She explained how the Electronics and Telecommunication field has reached wider masses and integrated with other domains of engineering. The next speaker was Prof. Ajit Salunke, HOD of Mechanical Engineering Department who gave an insight about Mechanical engineering and its sub domains like mechatronics and automobile engineering. The last speaker for the event was Dr. Shwetha Prasanna, HOD of Civil Engineering Department. She gave an overview about Civil engineering and its contents. She spoke about job opportunities in the domain and how civil engineering is an evergreen branch of engineering.

After the speakers finished their brief description on various domains of engineering there was a question answer session. A lot of questions were posted by students and parents regarding engineering domains and cut-off marks for the said branches. There were queries about pre-requisites required for joining an engineering college.

After the Q&A session, Prof. Avila Naik thanked all the speakers and participants of the online webinar session. Dr. Shreyas Simu gave a vote of thanks to Director, Principal and speakers who helped to make the online session a successful event.

Online Webinar: Career in Engineering 2.0

The Training and Placement Cell of Don Bosco College of Engineering organized a second online webinar on the topic 'Career in Engineering'. This webinar targeted prospective students of class 10th, 11th, 12th as well as Diploma and their parents. The objective of the webinar was to help aspiring students to acquire a challenging engineering career in life. Online webinar session was conducted on

Webex video conferencing platform on June 8, 2020 from 11:30 AM to 1:00 PM. The numbers of registrations received were 20 out of which 5 were parents and rest were students between the age group of 15-19 years. Registrations were received from various cities of Goa. Prof. Avila Naik was the Moderator of the event and Dr. Shreyas Simu was the Event co-ordinator.

Dr. Neena Panandikar welcomed all the participants to the online webinar session. Director, Fr. Kinley D'Cruz gave brief information about Salesian Society of Don Bosco. Prof. Avila Naik gave an overview of Don Bosco College of Engineering and explained about various branches of engineering. She also spoke about jobs and placements for graduates of engineering.

The first speaker of the webinar was Prof. Gaurang Patkar, HOD of Computer Engineering Department. He gave an overview of Computer Engineering domain, also provided insights on career prospects in the domain. He also spoke about projects and research domains in Computer Engineering field. Second speaker of the event was Dr. Varsha Turkar, HOD of Electronics and Telecommunication Engineering Department. She presented her views on career opportunities for an ETC engineer. She also spoke about core electronics jobs and non-core jobs. She explained how electronics and telecommunication field has integrated with other domains of engineering and today there are fields like Biomedical Engineering, Mechatronics etc. The next speaker was Prof. Ajit Salunke, HOD of Mechanical Engineering Department who gave an insight about Mechanical engineering and its sub domains like Mechatronics and Automobile engineering. The last speaker for the event was Dr. Shwetha Prasanna, HOD of Civil Engineering Department. She gave an overview about Civil engineering and its contents. She spoke about different job opportunities for a civil engineer. Videos of projects done by engineering students of Don Bosco were shown to the participants to give them a glimpse of life in an engineering college.

After the speakers finished, there was a question-answer session. A lot of questions were posted by

students and parents. One question was regarding difference between BTech, B.E. and BSc. Degree. There was also a question pertaining to the branches of Engineering affected due to pandemic.

After the Q&A session, Prof. Avila Naik thanked all the speakers and participants of the online webinar session. Dr. Shreyas Simu delivered a vote of thanks.

TCS Webinar

The webinar on Pre Offer Connect was organized on June 18,2020, by the TATA Consultancy Services Ltd Panel with Training & Placement Officers and students of four engineering colleges from Goa. Around 274 students participated from DBCE, PCCE, GEC and AITD colleges. The panelist from TCS were Mr. Shakti Nandan, Mr. Dharmender Kumar, Miss. Mrunalini P. and Mr. Gaurav Ghelani.

The purpose of the webinar was to bring all the students to encourage and discuss about the importance of placements. The panelists from TCS discussed about various schemes, programmes and contests which can help the candidates to become a part TCS and start working with them. Some of the major contests are Human, InfraMind, EnQuode, CodeVita, etc. These contests can help the students to brush up and enhance their skills and by performing well in any of these contests they are directly eligible for interview with TCS. Students can also register through TCS NextStep to be a part of the TCS environment and to get all news and announcements. Mr. Gaurav, one of the panelists also emphasized on the quality of resume and the things to keep in mind before going to an interview and the basic eligibility criteria for interview.

Last but not the least, this webinar was very interactive and informative and most of the queries of the attendees were answered by the panelists and it surely will encourage all the students to utilize



their time during this situation and brush up their skills.

Pre-Placement Training

This year due to the ongoing pandemic situation, Training and Placement Office decided to conduct the Pre-Placement Training online. This training was one-week long conducted for students of batch 2022 of Don Bosco College of Engineering. The online training was conducted on Google Meet platform with around 208 students participating from branches of Civil, Computer and ETC engineering departments.

The online training included sessions on group discussion, personal interview, resume writing and general aptitude. Students also joined the google classroom that was created for aptitude test to ask their queries and get the doubts solved.

The GD/PI and resume writing session were conducted by:

1. Prof. Avila Naik for Computer engineering students
2. Prof. Jyoti Lewis for Electronics and Telecommunication engineering students.
3. Prof. Stefni Cruz for Civil engineering students.

Aptitude sessions and tests were conducted by Prof. Shreya Kurne for all the students.

Contact Information

Ph.: (0832) 2743944 / 2741045

Fax: (0832) 2742648

Don Bosco College of Engineering

Fatorda, Margao, Goa 403 602

Website: www.dbcegoa.ac.in

Email: dbcefatorda@dbcegoa.ac.in