

# Connections

Quarterly Newsletter for Institute's Friends, Patrons, Mentors and Students May - July 2021 Vol 10 - Issue 4

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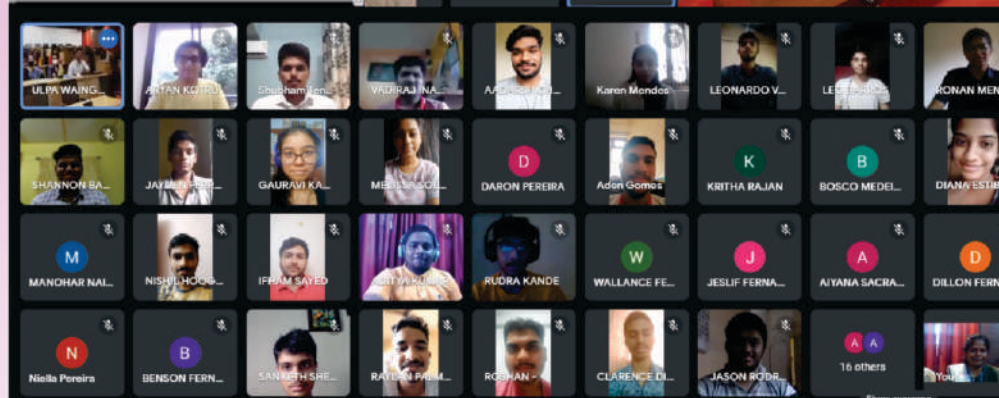
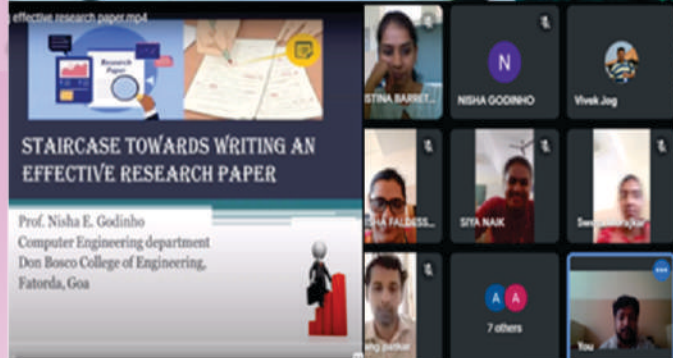
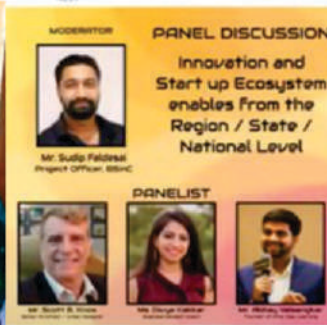
Training and Placement

Entrepreneurship Cell

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## NEWS IN GENERAL

### Art of Living Covid Care Program

'The Art of Living Covid Care Program' for the faculty and students of the institution was held from May 28, 2021, to May 30, 2021, online mode. The COVID-19 crisis impacted engineering education along with skills.

As per the circular by AICTE in association with Art of Living these sessions were conducted in a series of three protocols consisting of asanas, meditations, and breathing exercises or pranayamas to improve people's immunity, boost their mental resilience, and provide peace of mind. Yoga, breathing exercises and meditation significantly reduce fear and anxiety thereby maintaining good physical and mental health. The 30 minutes protocols of Asanas, Pranayama & Meditation were delivered in three categories:

- A. For a healthy population in order to help them build overall immunity and lung capacity.
- B. Supportive intervention of effective breathing exercises and stretches for patients with mild symptoms either at home or hospitals.
- C. Supporting rehabilitation and recovery during Post Covid.

As per the above protocol, a 3-day program of immunity enhancement was conducted for faculty by Mr. Santosh Ghodge and for students by Mrs. Minal Keni, Mrs. Swati Buwaji and Ms. Tanuja Sardesai. Covid care support program was initiated by Dr. Malini Desai and Post covid rehabilitation program by Ms. Maithili Kakodkar. These sessions helped participants to achieve a relaxed state of mind that enables healing and regeneration. This event was coordinated by Ms. Swaroopa Sail, Assistant Professor and Mr. Kishan Mangeshkar, student from Department of Civil Engineering.

### Leo Barros from FE Computer Engineering, DBCE, builds 'Quarantined Chefs'

What started off as a final project for Harvard's CS50 online course, 'Quarantined Chefs' a website built by

Mr. Leo Barros from FE Computer is now helping many home cooks and bakers to expand their business to reach a larger clientele. As part of the project he had to observe a problem and come up with a plausible

solution. "With the onset of the pandemic, I noticed that a lot of people from Goa had taken to cooking and selling food from their home. Some did it as a hobby while for others; it was their primary source of income. Most of these people promoted their business through social media, but this alone has a limited reach when it comes to each individual. Hence I decided to build a single platform dedicated to these home-based chefs where they could register and showcase their business," he said.

Each listing on 'Quarantined Chefs' displays the menu, locality, as well as direct links to the social media profiles of the chefs so that the viewers can contact the chefs directly.

He launched the website on June 1, 2021 and received an overwhelming response of over 300+ users in just 4 days. "From staying up late to fix bugs, to coding and implementing a manual-review system for the listings in a matter of few hours to managing the entire marketing process single handed, this has definitely been a learning process," he posted on his LinkedIn feed. This platform is built as a non-profit project. It is completely free and as of now, available only to residents of Goa. Besides this, Mr. Leo Barros has also begun a series of webinars called 'DeveloperSundays with Leo.'

<https://www.quarantinedchefs.site/>  
<https://leo.barros.github.io/dswl.html>



### Van Mahotsav

Van Mahotsav was celebrated on July 12, 2021 in association with the SEEDS (Stairway towards Empowering engineering Dreams to Success) Council of the Department of Science and Humanities.



Present on the occasion was the Director - Rev Fr. Kinley D'Cruz, Principal - Dr. Neena Panandikar, Registrar and Head of Department of Science and Humanities - Dr. Kala Nayak and staff

members.

The students of the previous academic year 2019-20 made Seed bombs of vegetables and fruits under the guidance of Ms. Grebrian Alemao, Ms. Steefni Cruz and Mr. Sanford Mascarenhas during a SEEDS event.

This year, it was decided that these Seed bombs would be distributed to staff members so that they could plant the same in their gardens. Rev Fr. Kinley D'Cruz, and Dr. Neena Panandikar were seen distributing the seed bombs to the staff members. Dr. Neena Panandikar in her address said "this is a small gesture towards celebrating Van Mahotsav during pandemic times."

The coordinators of the event were Ms. Ulpa Waingankar and Mrs. Maya Lin Noronha.

## Felicitation of DBCE students at World Youth Skills Day Function

The management and staff take immense pride in our students Ms. Benecia Colaco (BE Mechanical), Mr. Aditya Patil (BE Civil) and Mr. Harish Kamanache (BE Civil) who were felicitated at the World Youth Skills Day organized by Directorate of Technical Education (DTE) Goa on Wednesday, July 14, 2021. Ms



Benecia Colaco was felicitated by Hon. Chief Minister of Goa, Dr. Pramod Sawant in the presence of Chief Guest, Dr Anil Sahasrabudhe, Chairman AICTE; Dr. Vivek Kamat, Director, DTE Goa and other dignitaries on the dais. Ms Benecia Colaco is one among few Graduate Engineer Trainees selected by CEAT Specialty Tyres India in Supply Chain function with a package of 6 lakh per annum. The event was an attempt to build a roadmap to the development of technical manpower in the state of Goa to cater to different Industry skillsets. In this event the company officials handed over Offer Letters to respective students from Engineering colleges in Goa selected through campus placements. Mr. Ravi Mondal, Project In-Charge SK Constructions Delhi handed over the offer letter to Mr. Aditya Patil.

The event was attended by Dr. Neena Panandikar (Principal), Dr. Shreyas Simu (Asst TPO), Mr. Jeffrey Valadares (Placement Coordinator-Civil) and Mr. Sachin Turi (Placement Coordinator-Mechanical).

Ms. Benecia Colaco through her academic zeal and deep interests in core mechanical area cracked the interview process held by the CEAT Recruitment Team exclusive for mechanical students of DBCE. The placement process was coordinated by Ms. Avila Naik, TPO, DBCE and Mr. Sachin Turi. CEAT Specialty Tyres India is an Indian multinational tyre manufacturing company owned by the RPG Group, having presence in global markets. The company provides world-class products and services across 120 countries globally.

## Online Webinar: Career in Engineering 2021

The Training and Placement Cell organized an online webinar on the topic 'Career in Engineering'. This webinar targeted prospective students of class 10<sup>th</sup>, 11<sup>th</sup>, 12<sup>th</sup> as well as students who have completed a diploma course along with their parents. The objective of the webinar was to help aspiring students choose the right branch of engineering. An Online webinar session was conducted on Microsoft Teams video conferencing platform on July 31, 2021. A total of 184 registrations were received from various cities of Goa. Ms. Grebrian Alemao was the moderator of the event and Dr. Shreyas Simu coordinated the event.





Director, Rev. Fr. Kinley D'Cruz welcomed the participants to the webinar and briefed them about the Salesian Society of Don Bosco and its founder; he said "Don Bosco started technical schools to educate young people and skills that would guarantee better conditions and better future for them". Dr. Neena Panandikar gave a brief overview of the webinar; she emphasized "It is very important to know various branches of engineering field, so that you can make the right choice as your career ahead". Ms. Grebian Alemao gave an overview of our college and explained about various branches of engineering.

The first speaker of the webinar was Dr. Gaurang Patkar, HOD of Department of Computer Engineering. He gave an overview of the Computer Engineering domain and also provided insights on career prospects in the domain, projects/research fields. While explaining the depth of the field he said "Computer engineers build PC's, workstations and supercomputers and also build computer based systems found in cars, planes, electronics appliances etc."

The second speaker of the event was Dr. Varsha Turkar, HOD of Department of Electronics and Telecommunication Engineering. She presented her views on career opportunities for an ETC engineer and mentioned about core electronics jobs and non-core jobs in her presentation. She said, "ETC is a rapidly growing sector which has various job opportunities for skilled professionals".

The next speaker was Prof. Ajit Salunke, HOD of Department of Mechanical Engineering who gave an insight about Mechanical engineering and its sub domains like mechatronics and automobile engineering. He said, "Mechatronics is the upcoming

area and it is an interdisciplinary field and is a combination of mechanical, electronics, electricals and computer engineering". The last speaker for the event was Dr. Shwetha Prasanna, HOD of Department of Civil Engineering. She gave an overview about Civil engineering and its various sub categories; she mentioned "Students can think of field jobs, research jobs, management jobs or self-employment after graduation".

Videos of projects done by the engineering students of our college were shown to the participants to give them a glimpse of life at an engineering college. Dr. Shreyas Simu, Asst. TPO presented the overview of Training & Placement Cell at our College.

After the speakers finished, there was a question-answer session which was moderated by Ms. Grebian Alemao. A lot of questions were posed by students and parents.

After the Q&A session, Dr. Shreyas Simu delivered the vote of thanks.

## DEPARTMENT OF CIVIL ENGINEERING

### Webinar on Procedure for Enlistment under CMRY scheme 2020 for Engineering Professionals

A webinar on enlistment procedure under CMRY scheme 2020 for Engineering Professionals which is announced by Public Works Department, Govt. of Goa was conducted by Mr. Satyesh Kakodkar, Assistant Professor in Civil Engineering on June 10, 2021. 45 students from Civil and Mechanical departments participated.

Mr. Satyesh Kakodkar, while introducing the scheme gave an overview of the department and its role in economic, commercial and touristic development of the State of Goa. He highlighted the different sectors of P.W.D. and the job opportunities in these sectors. Further while addressing the students, Mr. Kakodkar, explained the benefits, eligibility criteria and enlistment procedure of the of the scheme.

Mr. Kakodkar gave a detailed insight of the scheme



and explained how the scheme will be beneficial to the students. He also gave a detailed explanation on how to fill the form and what are the required documents. The students participated in the discussion by posing questions and showed keen interest in the scheme.

## **Paper presentation in the International Virtual Conference**

Final year students, Mr. Arolkar Pawan, Arondekar Kishan, Gaunker Shifa, Fernandes Sheriton, De Melo Aristophanes of Department of Civil Engineering presented a paper titled “A REVIEW PAPER ON PARTIAL REPLACEMENT OF FINE AGGREGATE BY DIFFERENT WASTE MATERIALS” under the guidance of Dr. Shwetha Prasanna, in the International Virtual Conference “Recent Innovations in Science & Technology (RIST 2021)” conducted on June 19-20, 2021, organized by ERANAD Knowledge City Technical Campus, Malappuram, Kerala, India in association with ISET Research & HEXAIND Technologies and Services.

## **Workshop on Geostudio**

A workshop on Geostudio was conducted by Department of Civil Engineering for third year Civil Engineering students on June 19, 2021.

Geostudio is a modeling software used by Geotechnical Engineers & Earth scientists. It is an integrated software suited for modeling slope stability, ground deformation, heat & mass transfer in soil & rock.

The session was conducted by Assistant Professor, Ms. Akshata Kudchadkar who explained various functions within GeoStudio like SLOPE/W, SEEP/W, QUAKE/W, SIGMA/W, TEMP/W, CITRAN/W and AIR/W. Slope stability analysis was done by students using student edition.

38 students participated in the workshop. Faculty coordinators for workshop were Mrs. Annapurna Sakhardande, Ms. Akshata Kudchadkar and Mrs. Swaroopa Sail.

## **DBCE Signs MoU with PWD**

The Department of Civil Engineering signed a MoU with Public Works Department, Goa at a function held at Panaji on July 7, 2021.

Shri. Uttam Parsekar, Principal Chief Engineer represented the Public Works Department while Fr. Kinley D'Cruz - Director and Dr. Neena S. P. Panandikar - Principal represented Department of Civil Engineering.

The purpose of MoU is to strengthen Industry-Academic relationship for mutual benefit, to build fruitful and mutual relations, and propose to offer programs of mutual interest. It will also help to collaboratively identify common areas of interest in the sector of sustainable water distribution, transportation network and facilities, Geotechnical and Structural works for further study, research and documentation.

The MoU will focus to carry out studies in existing and new academic framework to yield a better public understanding of the problem areas and to suggest social, economical and technological solutions.

Stress on developing academic and research framework suitable for training of students in upgrading their skills is also a part of MoU.

Shri. Amar Vazirani - Superintending Engineer, Shri. Kishore Kolwalkar –Engineering Officer, Dr. Shwetha Prasanna –Head of Civil Engg. Department and Prof. Satyesh Kakodkar – Assistant Professor, Department of Civil Engineering were present on the occasion.

## **DEPARTMENT OF MECHANICAL ENGINEERING**

### **Virtual visit to Institute of Maritime Studies (IMS)**

On June 21, 2021, the Mechanical Department organised a virtual visit to IMS, Vasco. The event was hosted through Google meet for the final year students of Mechanical Engineering. The session was engaged by Mr Heston Dias, Lecturer and Mr Ajay A. Tambwekar, Dy. Director IMS, Goa.



The session commenced with the interaction between Alumni of DBCE and IMS Mr Janmenjay Sawant. He shared his experiences of

the training given at IMS and how it helped him for sailing.

Mr Heston Dias introduced marine engineering to students from training to job prospects. He elaborated the teaching learning process at IMS in the pandemic times. The marine field being fully practical oriented, IMS has introduced in the virtual reality to enable students take a tour of vessels and get acquainted with the different aspects of a ship that cannot be learnt through online classes. Various new laboratories and courses have been introduced to see that the quality of training remains intact in the pandemic times.

The faculty at IMS enabled the virtual visit of the campus through photos and videos of the marine workshop and various laboratories of the institute. It was followed by Q&A session on the admission process with the Dy. Director Ajay A. Tambwekar. The focus of the session was to set and guide a career path for students in marine engineering.

The virtual visit was coordinated by Mr. Sachin Turi and Mr Sanjeel Naik considering requests from students and a need to address the employability of students, by HOD-Mechanical- Prof. Ajit Salunke. The online session extended for 1.5 hours with an active participation of 45 students.

**Webinar on 'Game of Seconds-Forcing to think, what's most important' conducted by DBCE FSAI Chapter**

FSAI Students Chapter organized a webinar on “Game of Seconds-Forcing to think, what's most important” in association with FSAI Goa chapter on July 3, 2021. The speaker for the session was Dr. Rakesh Arya, Scheduling Coach & Unconventional

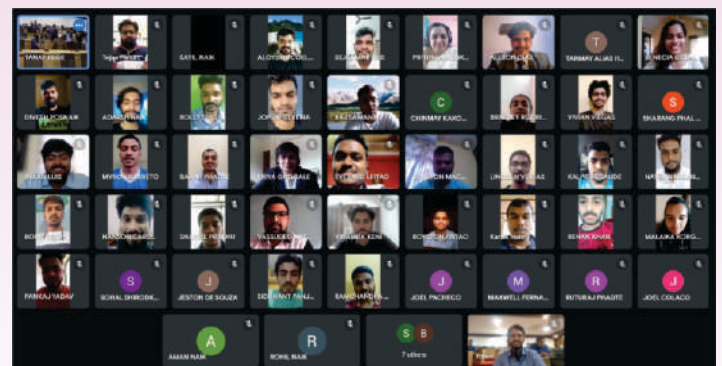
Inspirational Speaker. 125 students attended the program. The event commenced with a welcome address by Principal, Dr. Neena Panandikar. She appreciated the efforts of the FSAI student chapter and the organizing team. Rev. Fr. Kinley D'Cruz welcomed the speaker and enlightened the audience on the relevance of dreams in one's personal and professional life . The President of FSAI Goa Chapter, Dr. Jennifer Lewis admired the support of DBCE management and commended the FSAI team of DBCE for conducting various activities under the banner of the chapter.

Mr. Bahar Phadte gave an introduction to the speaker. Dr. Arya spoke about dreams of modern life, challenges and possibilities in challenges. He also emphasized on the importance of fire safety and highlighted on compact firefighting equipments. He said “Two most important things to be done in case of Fire is first, try to extinguish. If you can't extinguish, evacuate.” He concluded his session with a small meditation technique to calm the mind. Mr. Tanmay Bhagat, President of FSAI Student Chapter presented the Vote of Thanks. The event was hosted by Ms. Benecia Colaco. The coordinator for the event was Prof. Saurabh Raikar, Assistant Professor and Convenor was Prof. Ajit Salunke, Head of the Department.

**B.E. Mechanical Class of 2021 Farewell**

An online farewell ceremony was conducted on July 7, 2021 for the outgoing batch of students (2017-21) of the Department of Mechanical Engineering organized by Prof. Tanay Rege and Prof. Achintya Kambli. The event was hosted by Prof. Achintya Kambli.

The program began with a 2 minutes silence in





remembrance of Late Prof. Madhukar N. Raikar. The event then took off with a few words of well wishes by the Director -Rev. Fr. Kinley D'Cruz, followed by the Principal - Dr. Neena Panandikar. Fr. Kinley D'Cruz blessed the students by saying, "...skills and knowledge gained here will stand you in good stead to overcome difficulties...". Dr. Neena wished the students well and said "... not to take any life decision in haste...". Head of Department Prof. Ajit Salunke inspired the students with some advice for their future. He narrated a wonderful quote by Mr. Sundar Pichai, CEO of Google; " while it can be difficult to find hope in these bleak moments, it is important to celebrate the knowledge that one has gained in these difficult times. Be open, be patient, be hopeful; you will prevail.." The Professors also encouraged the students with a few words and wished them good luck. Prof. Suraj Marathe implored the students to be good ambassadors of the college, wonderfully saying; "...never allow selfish interests to blemish the integrity you have nurtured over the years in this college."

The students gave the teachers some light hearted awards, awarding the teachers in various categories like the funniest Professor, the most organized Professor, the most cheerful Professor etc., which helped lighten the mood of the event. Some of the students gave a few words of appreciation thanking the teachers and their classmates for the amazing 4 years. An online scavenger hunt was held where the students were made to hunt for various household items mentioned by Prof Achintya and present them on the meet.

Two videos were presented to the students; one which showcased all the special memories made through the past 4 years, the other featured childhood images of the students. The students were then presented with some Time Pass Awards which included the 'Class Joker', 'Class Bobkekar', 'Class Bhakasur', 'Most Out-Standing Student', 'Class Kumbakarna' and 'Class Drama Queen' awards for which the students were asked to send in their nominations and vote for them on the spot.

Miss Benecia Colaco won The Best Outgoing Student award as nominated by the Faculty of the

Department of Mechanical Engineering. While Mr. Vivian Viegas was voted in by the students as the Best Outgoing Student. Miss Benecia Colaco also sang a song 'To say Goodbye' by Abigail Paquin bidding farewell to all her classmates.

Mr. Tejas Pundit and Prof. Mayur Shetti were awarded the 'Prestigious Alumni Award'.

As the event came to an end, Bradley Rodrigues, a TE Mechanical student spoke a few words of farewell and sang a song "Good Riddance" by Green Day. The farewell was well received by the students who enjoyed every bit of the event even though it was online. The Ceremony ended with the Professors and the students taking an online group picture.

### **Webinar on Maintenance in Pharma Engineering (Audit Course in Maintenance Engineering)**

The Department of Mechanical Engineering held its sixth webinar in Audit Course in Maintenance Engineering for the academic year 2020-2021, on July 9, 2021. The session was delivered by Mr. Prasad Adpaikar, Manager Engineering, Sanofi along with Mr. Nagraj Naik, Calibration in-charge, Engineering, Sanofi and Mr. Rupesh Mopatkar, Engineering, Sanofi on "Maintenance in Pharma Engineering".

The webinar was hosted via Zoom. 55 participants from among the students of the Third year Mechanical Engineering and Faculty from Mechanical Department attended the webinar. The event was hosted and coordinated by Prof. Swapnil Ramani and Prof. Mayur Shetti. The event was initiated by Prof. Swapnil who welcomed the participants and gave a brief introduction about the resource person.

Mr. Prasad started by talking about the different products manufactured by Sanofi and the generalised requirements of the products. He elucidated the criticality of maintaining certain psychrometric conditions in the pharmaceutical processes. He gave a general outline of the manufacturing processes and the machines utilized as well as the auxiliary systems used. He spoke about the different subsystems present in the machines used. Role of Engineers in the pharma industry was

highlighted. The job of engineers for equipment purchase, installation, calibration & certifications, and eventual maintenance was also talked about. Mr. Adpaikar explained the different types of maintenance processes (Breakdown, Preventive & Predictive).

Mr. Nagraj spoke about the importance of calibration in the pharma industry. He spoke about the theory, techniques, and terminology & methodology of calibration. The different standards & machines were covered. Mr. Nagraj stressed the need of calibration, saying that “The true effect of non-calibration comes during failure.”

Mr. Rupesh spoke on the water purification systems used in the pharma industry. He spoke about the different machinery utilized in the processes of water purification. He shared videos to show the principle and working of the systems utilized at Sanofi. Overall, the talk was very interactive, with students asking questions, displaying curiosity and a willingness to learn more about the topics.

## **Webinar on Energy Efficiency in Industries through Energy Auditing**

The Department of Mechanical Engineering in association with ISHRAE DBCE Student Chapter organised a webinar on “Energy Efficiency in Industries Through Energy Auditing”, on July 10, 2021 to bridge the gap between academics and industry. The session was delivered by Dr. K. Srinivas Reddy, Professor, Mechanical Engineering Department, IIT Madras.

The webinar was hosted via Google meet. Participants from Industry, Faculty from other engineering colleges and Polytechnics, ISHRAE members, final year Mechanical Engineering students and Faculty from Mechanical Department attended the webinar. The event was hosted and coordinated by Prof. Sharad Shanbhag and Prof. Tanay Rege.

The event commenced with a welcome address by Rev. Fr. Kinley D'Cruz, Director. He said that “The world today is looking for newer and more efficient

and sustainable energy sources, Solar energy being one of them and giant strides are being made to harness solar energy.”. He highlighted to the participants on the importance of energy and the effect of energy consumption.

Dr. Neena Panandikar, Principal appreciated the efforts of the ISHRAE student chapter and the organizing team. She said that “organising events like this under the ISHRAE banner will help students to develop excellent networking opportunities with the Industry Professionals to gain knowledge.”. Prof. Sharad Shanbhag welcomed the participants and gave a brief introduction to the resource person.

Dr. K. Srinivas Reddy started off his session on different forms of energy, thermodynamics involved in energy transfer and showed with graphical representation as to why there is a need for energy auditing to reduce energy consumption. He explained the various steps of energy auditing to determine when, where, why and how energy is used in a plant or building. He also showed an example of energy audit carried out in a starch Industry and explored the different energy saving opportunities. He concluded his session by saying that “economics is very important when we implement energy efficiency in Industries”.

He also showed pictures of solar thermal technologies for power generation through 4-D approach (Design-Development-Demonstration-Deployment) installed in IIT Madras campus. He kept the entire session very interactive, ensuring to answer all the queries raised by the participants. Mr. Sunil Shetye, President, ISHRAE Goa chapter lauded the speaker for his knowledge sharing session and said that “It is important for our country to have a sustainable energy resource to meet the energy demand.”. He congratulated DBCE ISHRAE team for taking efforts to organise the webinar. Prof. Tanay Rege proposed the vote of thanks.

## **Webinar on Maintenance of HVAC Equipment (Audit Course in Maintenance Engineering)**

The Department of Mechanical Engineering held its fourth webinar in Audit Course in Maintenance



Engineering for the academic year 2020-2021, on June 11, 2021. The session was delivered by Mr. Prakash Naik, Treasurer ISHRAE Goa Chapter on Maintenance of HVAC Equipment.

The webinar was hosted via Google meet. 50 participants from the Third year Mechanical Engineering students and Faculty from Mechanical Department attended the webinar. The event was hosted and coordinated by Prof. Swapnil Ramani and Prof. Mayur Shetti. The event was initiated by Prof. Swapnil Ramani who welcomed the participants and gave a brief introduction to the resource person.

Mr. Prakash spoke about the different types of HVAC system. He spoke about the advantages, disadvantages, and the economics of the HVAC system. He also spoke about star rating of Air Conditioners and brushed on refrigeration cycle. Mr. Prakash's delivery on the subject was precise and on-point. He kept the entire session very interactive, ensuring to answer all student questions as and when they came up. The students gained valuable knowledge in this area of engineering.

### **ISHRAE webinar on Refrigeration and Air Conditioning: Advancements in VRV technology and Careers in HVAC**

An online webinar by the ISHRAE Goa chapter in Collaboration with ISHRAE Students chapter of our college was held on the July 15, 2021 through the Google Meet platform for all the DBCE student members of ISHRAE at 2pm. The webinar was held to commemorate the 10<sup>th</sup> anniversary of the college. The event was hosted by the faculty coordinators of ISHRAE Prof Tanay Rege and Prof Achintya Kambli.

The event began with a welcome address by the H.O.D of the Department of Mechanical Engineering - Prof. Ajit Salunke. Prof Balkrishan Chodankar, the President elect of the ISHRAE Goa chapter said a few words before the main talk began. The resource persons for the event were Mr. Arpit Verma, Senior Engineer - Sales and Marketing, Daikin India and Mr. Abhishek Dengale, Project Engineer, Daikin India who educated the attendees with knowledge of VRV and various other technology developed at Daikin

India. They briefed the participants regarding various job opportunities open in this domain. A few of the students used this opportunity to ask various questions; getting their doubts cleared.

As the event came to an end, the President of the Goa ISHRAE chapter Prof. Sunil Shetye highlighted the various benefits of being a part of ISHRAE and all the opportunities that it provides. Mr. Allson Dias proposed the vote of thanks. The Meet then came to an end, with the participants being enriched with knowledge in Refrigeration. 125 students from the second and final year, Department of Mechanical Engineering participated in the webinar.

### **Webinar on “Role of Condition Monitoring and AI in Maintenance” (Audit Course in Maintenance Engineering)**

The Department of Mechanical Engineering held its seventh webinar in Audit Course in Maintenance Engineering for the academic year 2020-2021, on July 16, 2021. The session was delivered by Mr. Ramnath Prabhu, Assistant Professor, Department of Mechanical Engineering on “Role of Condition Monitoring and AI in Maintenance”.

The webinar was hosted via Google meet. 70 participants from the Third year Mechanical Engineering students and Faculty from Department of Mechanical Engineering attended the webinar. The event was hosted and coordinated by Prof. Swapnil Ramani and Prof. Mayur Shetti. The event was initiated by Prof. Swapnil who welcomed the participants and gave a brief introduction to the resource person.

Prof. Ramnath started by talking about the different terminology and basics of vibration. He said “Vibration is found in everyday life”. He spoke about measurement of acceleration using accelerometer. He spoke about conversion between acceleration and velocity using Nomogram. He spoke about phase difference, amplitude and Spectrum Analyser. Application of Fourier Transform to segregate vibration pattern was stressed on. He spoke about the reason behind unbalance. Spectrum analysis is used for vibration monitoring. He spoke about

predictive Maintenance using AI and Data.

Overall, the talk was very interactive, with students asking questions displaying curiosity and a willingness to learn more about the topics covered in the session.

### **Talk on Financial Freedom**

On July 17, 2021, an informative webinar was organized by MESH (Mechanical Engineering Students Hub) of Mechanical Engineering Department. This topic was on financial freedom and was attended by students from second year and third year of mechanical engineering. The resource person was Mr. Gilbert Mendes, faculty of Don Bosco College, Panaji, Marketing consultant and business educator.

The talk started off with Mr. Seattle Rodrigues (Secretary of MESH) introducing the speaker Mr. Gilbert Mendes followed by an interactive and motivating session by the speaker. He said “It is important to do savings. Sometimes we need to control the urge of spending and differentiate between a 'want' and a 'need’”

He later went on to explain about investments and its various types. It made the students realize that investment wasn't just a clause used as a monetary concept but also the effort put in one's day-to-day life to get optimum results. The session was remarkably interesting and gave the attendees the clarity they were looking for amidst the pandemic crisis. The students enjoyed the session and felt motivated by it. Mr. Bradley Rodrigues (MESH Chairman) proposed the vote of thanks. Prof Suraj Marathe and Prof Sanjeel Naik coordinated the event.

### **R&D Knowledge Sharing Session on 'Acoustic Metamaterial' & 'Particle Size Reduction using Cryogenics'**

The Department of Mechanical Engineering held its monthly Knowledge Sharing Session, under the R&D cell on July 31, 2021. The first session was engaged by Prof. Chetan Gaonkar on Recent Trends while Prof. Mayur Shetti presented a technical paper in the

second session.

Prof. Chetan Gaonkar presented a technical talk titled 'Acoustic Metamaterial'. He began by discussing the principle of noise control and existing controls strategy at source, path and receiver. Further, he also briefed on the traditional acoustic materials used as enclosures, barriers and absorbers and the performance indicator metrics. Acoustic metamaterials were discussed giving a historical background and the membrane type acoustic metamaterials, its arrangement and response were elaborated in detail. Prof. Chetan concluded by saying that “such acoustic metamaterials can be used as filters, low frequency noise reduction, sound proofing and as acoustic reflectors.”

Prof. Mayur Shetti presented a technical paper on 'Particle Size Reduction using Cryogenics'. He began by highlighting the motivation behind the project wherein use of conventional systems for grinding rubber would degrade its structure and property for recycling. Thus grinding of rubber at cryogenic temperatures that would maintain the chemical integrity of rubber was investigated.

Prof. Mayur shared his experienced in developing a lab scale cryogenic grinding system for rubbers. He also presented his work in studying the particle size distribution for rubbers and explained the discrete element method used to model the grinding. Lastly, Prof. Mayur said that “cryogenic grinding can be exploited for spices such as black pepper.”

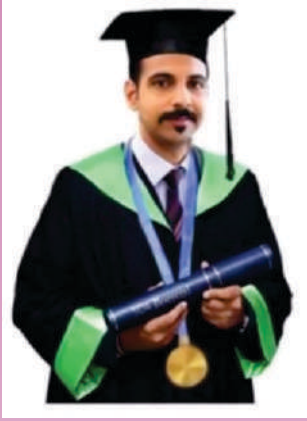
The session was attended by teaching and technical support staff from the Department of Mechanical Engineering and coordinated by Prof. Mayur Shetti.

### **Goan Lad Nithin Rajmohan Excels in International Management Program**

Nithin Rajmohan, Alumnus of our college has brought laurels to the state of Goa by securing a Gold Medal in International Master in Business, Batch of (2019-2021) (Specialization - Operations and Strategy) from SDA Bocconi School of Management, Italy.

The International Master in business (IMB) is a





specialized master program equivalent to a postgraduate (MBA) program offered by the school that brings to India its expertise and international standing. SDA Bocconi School of Management is a top graduate business school of Bocconi University, Italy, consistently ranked as the

best university in Italy in its fields, and as one of the best in the world. The school offers internationally recognized MBA Programs highly ranked by Financial Times and Forbes magazine.

Nithin graduated in the year 2016 from our college with a degree in Mechanical Engineering. He is currently employed as a Strategy Manager in IDfy.com (Baldor Technologies Pvt. Ltd), Mumbai. He has also worked across various domains in Industry, in Process Improvement and Project Management roles. “My Engineering days at DBCE have truly contributed in having the right attitude for academic excellence at this level and I would like to express my gratitude towards my alma mater.” Nithin said.

## DEPARTMENT OF ELECTRONICS AND TELECOMMUNICATION ENGINEERING

### IEEE DBCE Student Branch WIE AG Organizes Project Based Learning Workshop “Weave the Web”

The IEEE Don Bosco College of Engineering Student Branch Women in Engineering Affinity Group organized a Web Development Workshop “ Weave the Web” on 1<sup>st</sup> May, 2<sup>nd</sup> May and 15<sup>th</sup> May 2021 with the aim of enhancing the student's understanding on the basic yet essential skill of Web Development in an effective way. The Facilitator for the workshop was Alumni, Mr. Shivam Bale, Tentwenty Digital Agency Front End Engineer (Intern).

The first session of the workshop begin off with the

introduction of the resource person by Ms. Sheena Mashelkar, IEEE DBCE Secretary. The speaker started with the basics of HTML 5, CSS and JavaScript. He also explained how all the three languages interact for designing a webpage. In the second session the participants were asked to code along with the facilitator. Furthermore, the use of JavaScript and CDN was explained. The last session emphasized on the responsive web development with help of Bootstrap. All the sessions were very informative and the students had all their doubts cleared and queries solved by the trainer. By the end of the workshop, participants were asked to develop a website on their own and submit it to the organizing committee to receive an e-certificate. Prof. Yeshudas Muttu and Dr. Varsha Turkar appreciated the efforts put in by Mr. Shivam Bale in conducting this Project based Workshop.

### IEEE DBCE Student Branch Organizes “Dot Your Design”

The IEEE Bombay Section Students Activities Committee (SAC) collaborated with IEEE Student Branch of Don Bosco College of Engineering, Goa to organize a Graphic designing Workshop titled “Dot Your Design” on May 8 & 9, 2021. The Guest Speakers for the workshop were Mr. Rakshit Shah (Design Lead, IEEE Bombay Section SAC) and Mr. Sahil Sawant (Design Team Member, IEEE Bombay Section SAC). The entire workshop was mainly focused around the software namely Canva.



On Day 1, Ms. Anjima Rajesh as the host introduced Mr. Rakshit Shah to the audience. Mr. Rakshit began the workshop by giving the participants a lot of knowledge on the basics of designing. He further

went on to introducing Canva Pro. ,Graphic designer's role, do's and don'ts, the purpose of creating any design, font specifications and the texture in the design. Dr. Sarika Chouhan, IEEE Bombay Section SAC Chairperson, appreciated the efforts put forth by IEEE BS SAC team and IEEE DBCE Student Branch team.

On Day 2, the host Ms. Sheena Mashelkar welcomed the speaker Mr. Sahil Sawant. Mr. Sahil started the session by giving many examples of different designs and gave guidelines in designing different things like posters, PowerPoint presentations, letters, resume, etc. using Canva Pro. Considering a particular theme, he designed a few posters by himself and gave out lot of tips and tricks to the participants about the same. Few of the freeware posters designing tools were than shared.

Prof. Yeshudas Muttu, IEEE DBCE Branch Counselor mentioned about the collaborative work by IEEE BS SAC & IEEE DBCE SB and as an outcome of this event declared a poster design competition on the theme. The event was truly full of knowledge and received an active participation from 12 different colleges. Mr. Renvick Fernandes, IEEE BS SAC Volunteer & IEEE DBCE SB member delivered the vote of thanks.

## IEEE DBCE Student Branch Organizes e-Poster Design Competition on “COVID Vaccine Awareness in the Nearest Centre”

IEEE Bombay Section Student Activities Committee (SAC) in collaboration with IEEE Student Branch of our college organised a theme based e-Poster Design Competition on “COVID Vaccine Awareness in the Nearest Centre”. The participants of graphic design workshop “Dot Your Design” were made to participate in the same to test their skills learnt during the workshop. As an outcome, many posters were designed & submitted by the participants using the platform, Canva by May 15, 2021. The Posters were judged by Mr. Rakshit Shah- IEEE Bombay Section SAC Design Lead & Mr. Sahil Sawant, IEEE Bombay Section SAC Design Team Member. The winners for the same are as follows:

1<sup>st</sup> place – Mr. Aaryan Kumbhar, SIES Graduate School

of Technology, Mumbai

2<sup>nd</sup> place- Mr. Tushar Ninawe, SIES Graduate School of Technology, Mumbai

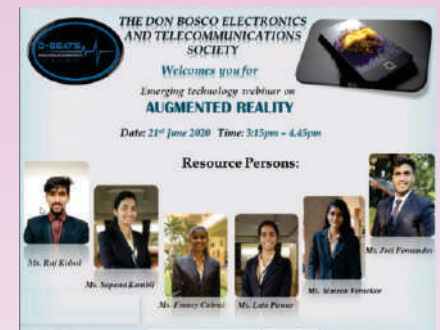
3<sup>rd</sup> place- Ms. Anushka Somavanshi, St. Francis Institute of Technology, Mumbai

All the participants were given an e-certificate. IEEE-DBCE Student Branch congratulates all the winners & they will be awarded prizes worth Rs.3500 from the IEEE Bombay Section.

## Emerging Technology Webinar on “Augmented Reality”

The Students Council of Don Bosco Electronics and Telecommunications Society (DBEATS) organized an Emerging Technology webinar on “Augmented Reality” on June 21, 2021. The objectives of this webinar were to expose the participants to the recent technology in AR and to help students to take up projects in this domain. The webinar was held virtually via Google meet and was attended by 80 students of second and third year of our college.

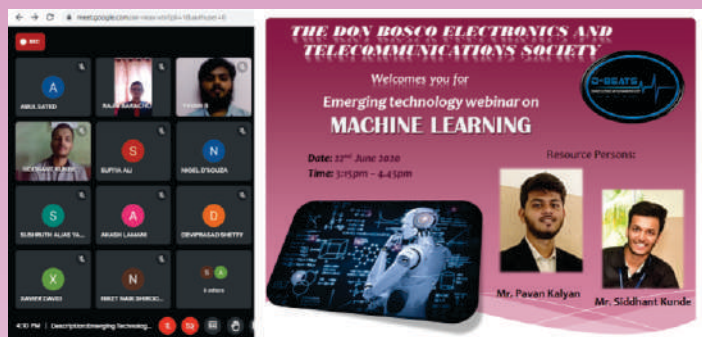
The webinar commenced with Mr. Rajiv Baracho, Executive Member of DBEATS introducing the speakers for the webinar. They were, Mr. Raj Kubal, Ms. Simran Vernekar, Ms. Francy Cabral, Ms. Sapana Kambli, Ms. Lata Pawar and Mr. Joel Fernandes, final year students of the ETC department.



The session began with the introduction to immersive technologies of Virtual, Augmented and Mixed Reality and the differences between them. Providing the facts and stats, the unprecedented growth in these technologies was presented. Thereafter, Unity, an end-to-end creation platform for AR, which has custom resources to bring immersive vision to life, was introduced. From the sea of various SDKs available, the most popular AR framework, Vuforia was familiarized and discussed.



In order that the students get first-hand exposure of Augmented Reality, an application was provided to the participants to use and explore. Insights were also provided on how the application was developed. Various applications of AR were discussed, followed by demonstration of the projects “Augmented Reality in Online Shopping” and “Innovative Medium of Learning using Augmented Reality”.



The webinar concluded with the vote of thanks delivered by Ms. Rosann Godinho, Secretary of DBEATS Council and student coordinator for the event. The DBEATS Council was guided by faculty coordinators, Mr. Deron Rodrigues and Mrs. Michelle Araujo e Viegas.

## Emerging Technology Webinar on “Machine Learning”

The Don Bosco Electronics and Telecommunication Society (DBEATS) organised an emerging technology webinar on “Machine Learning” on June 22, 2021. The objectives of this webinar were to expose the participants to the recent technology in Machine Learning (ML), to introduce the software tools used and the application of these technology and to help students to take up projects in these domains. The webinar was attended by students from second year and third year ETC via online platform.

The event began with a welcome by Mr. Rajiv Baracho, executive member of DBEATS student's council, followed by the introduction of the resource persons, Mr. Pavan Kalyan and Mr. Siddhant Kunde from BE-ETC.

The session commenced with a brief introduction to Machine Learning, followed by the types of Machine

Learning techniques: Supervised, unsupervised and reinforcement learning. The steps involved in ML algorithm were then presented. The speakers stressed on how Machine Learning can be used to solve various problems. Some leading technologies and applications which make use of ML were also covered. At the end, they demonstrated their final year project 'Fish Quality Assessment System' which was done using ML.

The webinar concluded with a vote of thanks delivered by Mr. Xavier David, executive member of DBEATS student's council and the coordinator for the event. The DBEATS Council was directed by faculty coordinators, Mr. Deron Rodrigues, and Mrs. Michelle Araujo e Viegas.

## Best Project Award!

The project Library Management Robotic System from the Department of Electronics & Telecommunication Engineering won the Best Project Award, for the 5th National Level IEEE Project Competition. This project is a joint venture between Don Bosco College of Engineering and Forum for Innovation Incubation Research & Entrepreneurship (FiiRE) under the Let's Solve Your Problem (LSYP) Initiative.

The project is being executed by Mr. Kingsley Fernandes, Mr. Renvick Fernandes and Mr. Jhurran Francis, under the guidance of Prof. Yeshudas Muttu and Prof. Flavia Leitao.

In a conventional library system, finding, issuing and returning of books is very much time-consuming.

Therefore the Library Management Robotic System aims at automating these tasks with the help of a Robot, thereby reducing the efforts and time spent by the users and librarians through a Smart



Library system. It also helps to maintain the status of all the books in the library database.

Among the 1000 plus entries, this project won the Best Project Award, for the 5th IEEE National Level Project Competition-2021 under the Embedded Systems domain, organized by GSSS Institute of Engineering and Technology for Women, Mysuru IEEE Student Branch in association with IEEE Bangalore Section and IEEE Mysore Sub Section on June 26, 2021, Co-Sponsored by IEEE Circuits & Systems Society Bangalore Chapter.

## **Webinar on “Project Rubrics And Documentation”**

The Final Year Project Quality Assurance Committee (FYPQAC), Department of Electronics and Telecommunication Engineering, organised a webinar on “Project Rubrics and Documentation” on June 26, 2021. The resource people for the webinar were Prof. Anisha Cotta and Prof. Priyanka Padiyar. The webinar was attended by faculty from Department of Electronics and Telecommunication Engineering via online platform.

The objectives of this webinar were to introduce the faculty to the rubrics and the documentation to be followed for the final year projects.

The webinar commenced with a detailed explanation on the general flow of the project work from the inception of idea to the completion and submission of the project thesis by Prof. Anisha Cotta. She said, “The rubrics that are formulated by FYPQAC are based on the various phases of the project flowchart, due to which it is important that we adhere to it”. It was followed by a briefing on the project marks allocation scheme by Prof. Priyanka Padiyar. The faculty were introduced to the various rubrics to be followed for evaluating and awarding marks to the project groups for every review.

Thereafter, the various documents related to project work were discussed and presented by Prof Anisha Cotta. She stressed on the need to maintain proper documentation and later highlighted the project themes for the next academic year.

The webinar was very interactive and concluded with a session wherein the queries of the faculty were addressed.

## **Study Abroad: a Workshop Series**

The IEEE DBCE Student Branch Women in Engineering Affinity Group in association with iSchoolConnect Pvt. Ltd. organized Study Abroad Program: a workshop series technically sponsored by IEEE WIE Bombay Section from June 29 - July 3, 2021.

Ms. Rashmi Kango – Study Abroad Mentor was introduced to the audience by IEEE WIE Student Member Ms. Sidhilaxmi Shenoy. The Session on 'Job Vs Higher Education' began with a poll asking the participants their plans after graduation. Ms. Rashmi mentioned some of the important aspects of a profile setup, which included academics, soft skills, persona, experience, social media, extra-curricular activities and social cause. She also elaborated on how Covid-19 has impacted current economical situations in various employment areas. She concluded by saying “while choosing your final destination, consider quality of study, career option, visa, scholarships, etc.”

On day 2, the IEEE Student Member, Mr. Mandar Borkar welcomed the speaker for the day Ms. Ashwini Sarode. In her session on 'All about Test Preparations', the speaker discussed about the test preparations required to study abroad, such as GRE, GMAT, TOEFL and IELTS. She briefly discussed the scores required, score distribution and acceptance rate. She also stated and explained the structure and score distribution for SAT examination.

The following day, IEEE WIE Student member Ms. Harshada Gawas introduced the speaker for the day, Mr. Prasad Kumar – Study Abroad Expert who spoke on 'Choosing the right university'. The speaker gave a step by step guide to choose an apt university one wants to study in. He said “choosing the right university includes a lot of steps, one of which is finding the right program itself”. He gave a lot of guidance with regards to availability of a program, tuition fee, scholarships, acceptance rate and rankings.



On day 4, Ms. Roopali Birman – Study Abroad Expert was introduced to the audience by IEEE WIE Student member Ms. Preksha Karpe who spoke on the Do's and don'ts of study abroad interview. The Speaker provided insights on interview preparation, how one should present themselves during a video interview, the documents required for an interview and tips to ace the VISA interview. Furthermore, she mentioned the necessary documents and also explained how the process works at the VISA interviewing stage.

On the final day, Mr. Ashish Fernando – Founder & CEO of iSchoolConnect was welcomed by IEEE Student member, Mr. Hrishikesh Prabhu. Mr. Ashish started off his session on 'All about studying abroad' by briefing the participants on how many students chose to study abroad in 2021 and how to choose the right country. He then offered a detailed road-map to study abroad and how to start working on ones profile so one can be ready to send out their applications.

After every session, Mr. Aditya Mirani – Marketing Executive at iSchoolConnect briefed the participants about the AI based Video Interview Analyzer available on their website. The attendees were actively engaged in this program by asking queries which were answered by the speaker at the end of every session. The event was coordinated by Prof. Yeshudas Muttu and IEEE DBCE Student members Ms. Neha Joshi & Ms. Anjima Rajesh.

### **Prof. Mohini Naik, invited as a resource person for the STEM workshop for Girls organized by Goa Science Centre, Ministry of Culture, Government of India**

Goa Science Centre has organized a STEM workshop for girls to motivate them to pursue STEM education on the July 16, 2021 via google meet. Prof. Mohini Naik, Regional Mentor of change (NITIAYOG) & Asst.



Prof. - Department of ETC, Don Bosco College of Engineering was invited as the resource person for the session. The session was attended by 70 students of 7th to 10th standard from all around Goa. Prof. Mohini Naik spoke on satellite communication and its applications.

In her session, Prof. Mohini Naik, said that “This is the latest growing technology and to motivate students to work in the area of science, imparting STEM education is the most important”. She covered various topics such as the basics of satellite communication, satellite launch, ISS basics etc. The STEM workshop focussed on girl education to pursue higher studies. The entire program was coordinated by Shri Venkata Durga Prasad K, Project Coordinator, Goa science centre. The Program received good feedback from the entire student community.

## **DEPARTMENT OF COMPUTER ENGINEERING**

### **Computer Students Attend Online Webinar “Study from Home “(Beyond Syllabus)**

C-CODES in association with the Department of Computer Engineering and the Alumni Committee of our College organised a webinar of Engineering on June 12, 2021, on “STUDY FROM HOME” conducted by alumna Miss Vaishnavi Kamat Dhakankar (2016 batch) currently working at Persistent Systems, Verna, Goa as a team lead. Miss Vaishnavi was a Goa university topper in Computer Engineering for the year 2016. The webinar was held for the students of the computer department via Google Meet under the guidance of Prof. Merwyn D'Souza and Prof. Siya Naik.

The speaker Miss Vaishnavi spoke about the concept of “Study from Home” and how to deal with it. Vaishnavi spoke how “Study from Home” could translate to “Work from Home in the future” as most of the IT companies nowadays provide “work from home” facility for employees. She asked students to sit in a designated study area for attending online classes by preparing a schedule for study as well as leisure activities. The speaker Vaishnavi emphasized

the importance of health- both physical and mental and about the importance of talking to friends and family in case of any kind of stress. The students were told about finding new hobbies and how these hobbies could translate into business opportunities. The session concluded with a Q&A session. Prof. Merwyn thanked the speaker for her valuable time and for sharing her experience and tips about “study from home”.

### **TE Computer Students Attend Online Webinar “Journey towards a successful BE project**

C-CODES in association with the Department of Computer Engineering organised a webinar on June 28, 2021, on “Journey towards a successful B.E. project” conducted by Professor Amey Kerkar from Department of Computer Engineering, DBCE, Fatorda, Goa. The webinar was held for the Third year Computer Engineering students via Google Meet under the guidance of Prof. Merwyn D'Souza and Prof. Siya Naik. 49 students attended the webinar.

In this transition phase from the third year to final year, students are usually in a confused mindset regarding how to choose a project idea and how to go about implementing it. The webinar was targeted to cater to the same. To begin with, the students were made aware of the significance of a good project, how to start the project, how to choose project idea and the scheme of instructions for semester VII and semester VIII as set by the Goa University.

Prof. Amey concluded by asking students “To learn, unlearn and relearn in the Journey towards a successful B.E. project”.

The session was followed by a Q&A session. Prof. Merwyn thanked the speaker for his valuable time and for sharing his knowledge and tips about B.E projects.

### **TE & BE Computer Students Attend Online Webinar “The 3w's of Research**

C-CODES in association with the Department of

Computer Engineering organised a webinar on “The 3w's of Research” conducted by Professor Norman Dias from Department of Computer Engineering on July 2, 2021. The webinar was held for the T.E. and B.E. computer students via Google Meet under the guidance of Asst. Prof. Merwyn D'Souza and Asst. Prof. Siya Naik. 49 students attended the webinar.

The session started off with an elaborate explanation on the 3Ws of research, that is: What, Where and Why. Different types of research papers were introduced like short communication, review papers etc. Scopus, Web Science group and how they function were also discussed. A briefing was also given about the different categories of journals in the web of science core group such as: SCIE, SSCI, AHCI and ESCI and how to alert one from cloned/ fake journals. Types of plagiarism were explained along with how to use Mandelley tool for research paper.

Asst. Prof. Norman concluded by asking students “To dream about your aims, be very much dedicated and work hard to achieve it”.

The session was followed by a Q&A session. Asst. Prof. Siya thanked the speaker for his valuable time and for sharing his knowledge and tips about Research.

### **Insights of the Mind**

C-CODES in association with the Department of Computer Engineering organised a webinar on “Insights of the mind”. The speaker for the session was Mrs. Pradnya Dessai. Mrs. Pradnya Dessai is associated with Art of living the largest volunteer based Organization in the world for last 17 years. The webinar was held for the S.E, T.E and BE computer students via Google Meet on July 17, 2021 under the guidance of Prof. Gaurang , Prof. Merwyn D'Souza and Prof. Siya Naik.

Prof. Siya introduced the speaker. The speaker for the session started off with an elaborate explanation on the factors affecting the human mind. She further explained what obscures the focus of the mind, how stress affects the mind, how to address the cause of



stress and how to handle emotions and manage the stress. She also demonstrated some breathing exercises that help to relieve stress.

Mrs. Pradnya said that “How you feel depends on the state of mind and differs from person to person”. The session was followed by a Q&A session. Prof. Siya thanked the speaker for her valuable time and for sharing her knowledge.

## Gold Medal in iCAN 2021 at Canada



Dr. Gaurang S. Patkar, Associate Professor in Computer Engineering excelled at the 6<sup>th</sup> International Invention Innovation Competition in Canada, iCAN 2021, with his unique finding related to Butterfly Pea flower Petal wine.

International Invention Innovation Competition in Canada, iCAN is the premier event of Canada for worldwide inventors. This year, the 6<sup>th</sup> International Invention Innovation Competition in Canada, iCAN 2021 was held online. Dr. Patkar secured the prestigious gold medal at the competition organised by Toronto International Society of Innovation & Advanced Skills (TISIAS) with his innovation titled 'Flower Wine Quality Prediction Using Artificial Intelligence'.

Dr. Patkar has invented a process for producing the Butterfly Pea flower Petal wine. He explained, “it's a new invention and the first of its kind to be using these flowers in making wine. These flowers which are available locally in Goa, are called as 'Gokarn' flower and also known for its medicinal properties.”

## SCIENCE AND HUMANITIES

### Departmental Café Session

The Department of Science and Humanities had its tenth Departmental Café Session on the June 28<sup>th</sup>,

2021. The resource person for the afternoon was Ms. Grebrian Alemao, Counsellor of our college. She began her session on Constructive Methods to Deconstruct Your Stress by conducting an activity in which she asked the participants to draw a picture of an animal with other creative detailing included in it. She then analysed the pictures drawn, giving an overview of what one's personality type could be. A disclaimer was shared saying that these are not facts of life but more like an ice breaker session.

Ms. Alemao then spoke about Stress, defining it as a reaction of one's body to the changing situations of one's life. To deal with these stressors, she focused mainly on cultivating hobbies. “Many of us fail to see the value of purposeful distraction or hobbies because we are tied up with many things that we do throughout the day”, she said.

She then coaxed the participants to be a little selfish and think about themselves. “Giving time to activities that help us relieve stress is good for one's health”, she added. She invited the participants to go on a journey to find a hobby that they find joy in. She then shared how her hobby of cooking or acrylic painting or cement artwork has helped her to express herself better and to focus on the minute details in day-to-day life. She then interacted with the participants and requested them to share about their hobbies. Ms. Grebrian ended her session by saying, “A healthy mind will lead to a healthy surrounding”.

### SEEDS - Valedictory Program

The SEEDS (Stairway towards Empowering Engineering Dreams to Success) valedictory program was held on July 17, 2021 Due to the pandemic this event was conducted on-line. The program began with the SEEDS Chairperson - Mr. Leo Barros welcoming the staff and students. The host for the event Mr. Aryan Kotru invited the respective student coordinators to introduce and explain each event to be held during the day. There were a total of 6 events conducted, namely:

1. Build a Brand: wherein participants designed a logo and an advertisement for a given company.



2. Ideas germinate: where groups of participants pitch their idea to a panel of judges.
3. A glimpse of my quarantine: a short movie making contest depicting daily life amidst a pandemic.
4. Around the world in 1 day; a virtual scavenger hunt around the world to places of historical and scientific importance.
5. Trial by Trivia: a quiz based on engineering, business and general knowledge.
6. PES 2021: A multiplayer football game.

The participants came up with brilliant ideas in the events namely, “Ideas germinate”, “Build a Brand” and “A glimpse of my quarantine”, which was much appreciated by the esteemed judges from various backgrounds. The event “Trial by Trivia” was very exciting and knowledge enriching for all the viewers and came to a nail biting finish. The crowning glory of the day was the PES 2021 football match which had everyone at the edge of their seats cheering and routing for their teams.

The event ended with a short valedictory function, graced by Director, Rev Fr. Kinley D'Cruz, Principal, Dr. Neena Panandikar, Registrar and Head of Department of Science and Humanities, Dr. Kala Nayak and staff members. The SEEDS Coordinator Mrs. Maya Lin Noronha welcomed the dignitaries, staff and students and also thanked the SEEDS Council for their cooperation and enthusiasm and for putting in their hard work and efforts to make the event a success.

Rev. Fr. Kinley D'Cruz in his address said, “Congratulations on a job well done. You have indeed pushed the limits for yourself and for all. The events organized by SEEDS members and coordinators together were really classy.” Rev. Fr. hoped that this event was a good learning

experience and wished the students the very best in their future endeavors. Dr. Neena Panandikar applauded the efforts taken by the chairman and his team members in organizing the various events. She said, “I strongly believe it was not an easy task connecting and coordinating this event virtually.” The Van Mahotsav program held under the banner of SEEDS was also appreciated by the Principal. She wished the students all the very best as they would now be entering into their respective departments.

The chairperson Mr. Leo Barros gave the annual report of the various events held during his tenure. This was followed by the announcing of winners of all the events and the overall championship trophy which was bagged by the students of the Department of Electronics and Telecommunication Engineering. The Faculty SEEDS Coordinator Ms. Ulpa Waingankar thanked the SEEDS Council and applauded them for their excellent execution of the event.

The Vote of thanks was delivered by Shubham Tendulkar the Secretary of the SEEDS Council. Overall this event was a great success with the students taking with them a memorable and fruitful learning experience.

## TRAINING AND PLACEMENT

### Webinar on – 'Stepping into the Industrial World'

The Training and Placement Cell organized a webinar on 'Stepping into the Industrial World' for students of all branches of the college. The talk was organized on World Youth Skill Day, July 15, 2021 on Google Meet.

The speaker for the event was Ms. Divya Lotliker. She is a HR Professional and a Soft Skills Trainer, and completed her PGDBM (HR) from Sri Sri Ravi Shankar Institute of Management Studies. She has diverse expertise in HR for more than 10 years in the industry in the verticals of HR like Talent Management, Talent Acquisition, Performance Management, Employee Engagement and Learning & Development. Currently she is working at Putzmeister Concrete Pvt. Ltd. company as HR Generalist.



The speaker while speaking about embarking the journey into the industry said that “Before stepping into the corporate or industrial world, I want you to question yourself, why you chose to be an engineer? What is your passion?” Through the whole webinar she touched upon these topics:

1. Being Prepared & Organized
2. Presenting yourself Professionally
3. Communicating Effectively
4. Managing your time
5. Preparing for the Interview Process
6. Making best use of what we learn (Academics & Practical)

The event concluded with Prof. Avila Naik, TPO by thanking the speaker for her valuable time and inputs. Principal - Dr. Neena Panandikar also thanked the speaker for a wonderful session. Dr. Shreyas Simu and Prof. Sachin Turi coordinated the event.

## E-CELL (Entrepreneurship Cell)

### Webinar on Lean Start- up & Minimum Viable Product

The Entrepreneurship-Cell (Ecell) and Institution's Innovation Cell (IIC) organized a webinar on Lean Start- up & Minimum Viable Product for members of Ecell and IIC and also other students of our college on Google platform on June 14, 2021.

The resource person for the webinar was Mr. K. Moorley Dharan, mentor at FiiRE. He has over 30+ years of experience in management experience in India and abroad. Mr. Moorley is a Lean and 6-Sigma leader. He has a passion for driving results, coaching and continuous improvement.

Mr. Moorley begin by speaking about lean startups. He then went ahead to explain the difference between Proof of concept, Minimum Viable Product and Minimum Marketable Product. He explained it with the help of example of Pizza chain. He also explained in detail about the Business Model Canvas. Finally at the end of his presentation he answered the questions posed by attendees. Dr. Shreyas Simu, the co-ordinator of the event thanked him for his

time and valuable knowledge.

### Internal Business Plan/Prototype Competition

Our college is one of the institutes to be selected for establishing MHRD – Institute Innovation Council (IIC). Ministry of Human Resource Development (MHRD), Govt. of India has established MHRD's Innovation Cell (MIC) (<https://www.mic.gov.in/>) to systematically foster the culture of Innovation amongst all Higher Education Institutions (HEIs) pan India. The primary mandate of MIC is to encourage, inspire and nurture young students by supporting them to work with new ideas while they are in formative years.

As part of the drive, an Internal Business Plan/Prototype competition was held in online mode to invite business models from young minds. The competition was held on the May 3, 2021 on google meet platform. Two eminent jury members – Mr. Sudip Faldesai, Project Officer at Goa State Innovation Council and Prof Achintya Kambli, Assistant Professor Mechanical Department were invited to judge the event. Among the audience present were Dr. Neena Panandikar, Principal – DBCE, Dr. Varsha Turkar, President IIC-DBCE, and other IIC and faculty members. This event helped evaluate business proposals presented by various teams.

Prof Swapnil Ramani, host and co-ordinator of the event welcomed the judges and introduced the teams. A total of 100 plus students joined the meet and the participating teams presented fabulous business ideas with most of them exhibiting enormous potential for start-ups. To outline a few, more than one team came up with idea/prototypes on innovative medium of teaching using Augmented Reality. Another team presented a fabulous concept and prototype of Ambulatory Blood Pressure Monitoring system that would assist healthcare professionals to study a patient better by continuously monitoring various vital parameter on the go. Yet others presented prototypes that detected formalin content in fish along with fish identification using Machine Learning.

Some of the teams proposed software solutions that

would help the general public. One team implemented the idea of sourcing advisors (legal consultancy) through an app in terms of finding legal help when required. A solution was proposed and executed for people to avoid long queues at car washing centres along with a streamlined process.

Students of the final year engineering, demonstrated good professional-presentation skills, with great innovative solutions to problems, that left the judges impressed. The finalists of the competition were Team 'Aikyam' - Innovative Medium of Learning using Augmented Reality, followed by team 'IRIS - Ambulatory Blood Pressure Monitor and team 'Legal Eagles' - Your Legal Consultancy.

In conclusion, the event was a great success leaving all students very encouraged. This definitely will leave them motivated to explore more of Entrepreneurship towards having their own start-ups.

### **Webinar On 'Angel Investment/VC Funding Opportunity for Early Stage Entrepreneurs'**

The Institution's Innovation Council (IIC) of Don Bosco College of Engineering in association with FiiRE organized a webinar on 'ANGEL INVESTMENT/VC FUNDING OPPORTUNITY FOR EARLY STAGE ENTREPRENEURS' on June 5, 2021. The Speaker for the day was Mr. Ajay Jain, founding partner of X-seed Consulting & IIITH Seed Fund, investment and advisory firms for start-ups'. He also has his own startup in the education sector called Gray Matters

Mr. Jain spoke broadly on the topics of definition of start up, start up journey and funding stages, startup ecosystems, funding avenues and government ecosystem. He gave a detailed comparison between small business and a start up - the start-up journey which every early stage entrepreneur goes through and also discussed in detail the various players in the start-up ecosystem like government, investor, mentors, media etc. In addition to this, he highlighted the key information about the types of funding e.g. Family & Friends, Bootstrap, crowd

funding, government, Angels, Venture Capital, private equity etc. He ended the session by giving advice and provided a reality check on start ups and funding. There was an interactive Q&A session with the participants wherein Mr. Jain answered all the queries giving real life examples

The webinar was very informative and appreciated by the audience. The faculty coordinator for the webinar was Mr Swapnil Ramani.

### **IIC session – A virtual visit to 'FiiRE' (the Incubation Centre for entrepreneurs at Don Bosco College of Engineering Fatorda )**

The Institution Innovation Council (IIC) of Don Bosco College of Engineering in association with FiiRE (Forum for Innovation Incubation Research & Entrepreneurship) organized a webinar on 'Virtual Visit – FiiRE on June 15, 2021 for the First year students of our college.

The Speaker for the day was Mr. Venugopal, the Incubation Manager of 'FiiRE'. The participants of the Webinar virtually toured the spacious and well-designed infrastructure of the Incubation Centre- 'FiiRE' also introducing the dedicated team that manages all activities of 'FiiRE'.

He elaborated the aims and objectives of the Incubation Centre through a Power-point presentation along with the targets achieved so far with 60 Incubations to build 30 lovable prototypes of products to be introduced in the market while hosting events to invite new ideas and raising funds to support startups. Even during the pandemic, 'FiiRE' organized activities and invited Innovations online through Webinars and virtual workshops.

Further an Incubator, Mr. Arbaaz Shah Muzawer the CEO of a company "Custom Elements"- an Online store that deals with motorcycle accessories and riding gear shared his experience of working with 'FiiRE'. He said that his journey with 'FiiRE' helped his dream venture to start his own company come true.

The webinar was very informative and appreciated by the audience. The faculty coordinator for the webinar



was Ms. Grebian Alemao.

## **IIC webinar on “Incubation Opportunities for students and faculty”**

Institution's Innovation Cell (IIC) of Don Bosco College of Engineering, Fatorda-Goa organized a webinar on Incubation Opportunities for students and faculty on June 28, 2021. Members of IIC, faculty and students of our college attended the meet. It was held in online mode.

The resource person for the webinar was Mr. Rohin Parkar who is the co-founder & CEO of Spintly. Mr. Rohin shared a very meaningful piece of information with the students and faculty who were keen to evolve as entrepreneurs, i.e to articulate a problem statement.

He went on to say “Entrepreneurs should launch their minimum viable product (MVL).” Mr. Parkar guided the audience on how they can take benefits from various schemes, market development assistance and funding schemes by creating a perfect prototype from their idea. He spoke about the accelerator program and listed several books which would be helpful when creating a startup. He also answered queries from staff and students and gave them clarity on how they can take up their idea as a successful business plan. Dr. Gaurang S Patkar, the coordinator of the event thanked him for his time and valuable knowledge.

## **Panel Discussion organized by IIC in Association with Goa State Innovation Council on 'Innovation and Start up Ecosystem enables from the Region/ State/ National Level'**

Institution Innovation Council of Don Bosco College of Engineering organized a panel discussion on “Innovation and Start up Ecosystem enables from the Region/State/National Level”, on June 29, 2021. The discussion was moderated by Mr. Sudip Faldesai – Project Officer, GSinC. The panelists were; Mr. Scott B. Knox, Senior Architect/Urban Designer, Miss Divya Kakkar, Business Mindset Coach and Mr. Abhay Valsangkar, Founder of Alter Ego Learning. There were more than 300 participants for the webinar which included students, faculty and entrepreneurs.

Prof. Suraj Marathe, the faculty coordinator of the panel discussion, set the tone of the webinar and welcomed everyone. He also explained the purpose of IIC and its objectives.

Mr. Sudip Faldesai took over as the moderator and explained in brief the topic of the discussion. He also explained the various schemes and opportunities provided by the government for nurturing their ideas related to startup and Innovation. Then he introduced the panelists, and the discussion began. Miss Divya Kakkar spoke on the concept of 'Ikigai'. She went on to say “Ikigai helps to motivate to think about how to innovate new ideas”. She led the audience in a short exercise as to find their Ikigai. Mr. Abhay Valsangkar spoke on his life experiences and the importance of learning. He spoke about the 3 ingredients to success-Mindset, skillset and toolset. Mr. Scott B. Knox spoke about the business model canvas and the value proposition canva. Mr. Sudip posed questions relevant to each of the panelists. The discussion covered various topics such as role of students in the Start up and Innovation journey, how it will be beneficial to build up students ideas into reality. Various questions were then asked by the attendees which were then answered by the panelists.

Finally, the moderator asked each of the panelists to give their concluding statements. He then concluded the discussion by mentioning the points about the importance of discipline, practice and innovation, and attitude towards quality. Ms. Benecia Colaço, the student coordinator of the discussion delivered the vote of thanks.

## **Disrupting Industry 4.0 with Empathy Led Innovation**

Institution's Innovation Cell (IIC) of our college organized a webinar on “Disrupting Industry 4.0 with Empathy Led Innovation” on June 30, 2021. Prof. Satyesh Kakodkar, welcomed and introduced the speaker Mr. Ashley Dsouza, founder, Hexcoderz.

In his address Mr. Ashley Dsouza explained the process of design thinking. Citing an example of a final year project and keeping the user in mind at

every stage of process, Mr. Dsouza, elaborated the process of Empathy, wherein he presented an example of a pothole, in which he presented a sequence of occurrences like rains generation of pothole, causing of accidents and what could be the potential solution.

Further, Mr. Ashley Dsouza explained the next step of design thinking i.e., defining a problem and described the documentation of a problem statement. The steps involved in ideation and deciding topmost amongst selected ideas was also explained. Building Prototype and solutions to overcome the failure which may result in prototype was also discussed in the interactive session. At the end of the webinar, Mr. Dsouza spoke on testing of prototype on end user. Mr. Leon D'Souza proposed the vote of thanks.

## **Prototype Validation – Converting Prototype into a Start-up**

The Institution Innovation Council Of Don Bosco College of Engineering in association with FiiRE presented a webinar on “Prototype Validation – Converting Prototype into a Start-up”, held in online mode to enlighten the students on the topic. The webinar was held on the June 12, 2021 on Google meet platform. The resource person invited to deliver the talk was Mr. Aaron de Miranda Colaço, who is the founder and currently Head of Blockchain at qiibee. The audience comprised students of second year, third year and final year of our college. Principal- Dr Neena Panandikar, IIC DBCE President- Dr Varsha Turkar, IIC and other faculty members were also present.

Mr. Aaron started off by defining what a start up is and what should be the idea behind any start up and in the bargain clearing a few misconceptions that aspirants usually have. The critical components he mentioned were design thinking and prototyping. Prototyping being the highlight of the talk. He said “Building a prototype is most important when a product is proposed to be built from scratch or something that is novel and ground-breaking. Also, most of the time an idea is better shown than spoken about.” Mr. Aaron introduced various tools that are

available today for prototyping. Mr. Aaron also stressed that a product when launched should reach the masses and not just cater to a few, this would help in attaining maximum profitability and success in the long run.

In conclusion, Mr. Aaron gave some useful tips and advice on how aspirants should start thinking in this direction and start building. The event was very well received by all and students were very thrilled to learn about the entire process. This definitely will leave them motivated to explore more on the idea of having their own start-ups.

## **The Institution Innovation Council of Don Bosco College of Engineering Fatorda, Goa organized a session on Building an Innovation / Product fit for Market**

The session was held on July 29, 2021 on Google meet platform from 1:00 pm to 2:00 pm. The speaker of the day was Mr. Arbaaz Shah Muzawer the CEO of a company “Custom Elements”- an Online store that deals with motorcycle accessories and riding gear. He started with explaining innovative design by stating different online apps for example OYO. He explained about Minimal Viable Product with an example of Hotstar. He also stressed on taking feedback from the customers who use the product.

Finally, at the end of his presentation he answered the questions posed by students. Mr. Aryan Kotru from first year computer engineering delivered the vote of thanks. The webinar was very informative and appreciated by the audience. The faculty coordinator for the webinar was Ms. Grebian Alemao.

## **RESEARCH AND DEVELOPMENT**

### **R&D Knowledge Sharing Session – 18<sup>th</sup> June 2021**

The Department of Electronics and Telecommunication organized its monthly Knowledge Sharing Session, under the R&D cell on June 18, 2021 through Goggle meet.

The first session was taken up by Prof. Trima



Fernandes e Fizado and the second session by Prof. Michelle Araujo e Viegas. Prof. Trima presented a technical talk titled “State of Art of Network on Chip”. Network on Chip is the state of the art approach to interconnect many processing cores. In this session, a summary of few research papers and the various contributions in the Network on Chip Areas was highlighted.

Prof. Michelle presented a technical talk on “Cognitive Radio Networks”. Cognitive Radio (CR) is a new promising communication paradigm for fully utilizing scarce spectrum resources opportunistically. The four stages of this technology namely spectrum sensing, spectrum management, spectrum sharing, and spectrum mobility, were also discussed. The event was encouraged by R&D Chair Dr. Varsha Turkar and coordinated by Prof. Flavia Leitao. Both the sessions were knowledgeable & received good feedback from the audience.

### **R& D Session on “Staircase towards an effective research paper writing” and “The 3 W's of research”**

The Department of Computer Engineering organized its monthly Knowledge Sharing Session, under the R&D cell on June 22, 2021.

The session was taken up by Prof. Nisha Godinho on “Staircase towards an effective research paper writing” and Prof. Norman Dias on “The 3 W's of research” through the Google Meet platform.

Prof. Nisha Godinho begin the session by explaining the research paper overview. She then explained the standard structure of the research paper (IMRD) which is followed by most of the reputed journals. She also gave a detailed explanation on every section to be included in the paper. Finally, she gave some important tips to be considered while writing the various sections of the research paper.

Prof. Norman Dias gave a brief introduction to different types of research papers, guidelines on submission of research paper to a conference /Journal, indexing of Journal, Impact factor, cite score steps to identify fake /cloned Journals. He also

spoke on different types of Plagiarism, and gave a demo on the use of Mendeley software. The event was coordinated by Dr. Gaurang Patkar and Dr. Vivek Jog. The session was indeed an interesting one and was enjoyed by all faculty members and received good feedback from the audience.

### **Department of Mechanical Engineering R&D Knowledge Sharing Session on 26<sup>th</sup> June 2021**

The Department of Mechanical Engineering held its monthly Knowledge Sharing Session, under the R&D cell on June 26, 2021. Prof. Suraj Marathe presented a technical paper in the first session while the second session was taken by Prof. Harshad Pingulkar on Recent Trends.

Prof. Suraj Marathe presented work from his published technical paper titled 'Thermal hotspot prediction in HPDC by shape constant'. Prof. Marathe presented his PhD research work in identifying the approximate height of thermal hot spots in casting components manufactured by high pressure die casting. A new shape constant in Chvorinovs rule and thermal modulus were determined that could identify the thermal spots in components manufactured by HPDC. Mould and shape constant was calculated and validated through ProCast simulation for the height of hot spot for standard shapes of cylinder, cube, sphere, pyramid etc.

Prof. Marathe concluded his session by providing useful tips to faculty registered for PhDs on compiling their PhD reports and simultaneously publishing technical papers.

Prof. Harshad Pingulkar presented a technical talk titled “Composite Modelling for Low Velocity Impact”. He started the presentation by talking about different types of Impact Studies. He spoke about Length Scale in Composite Modelling. Prof. Pingulkar covered different failure modes in composite.

He spoke about different types of contacts between composites while modelling. For low velocity impact Chang Chang Failure Model is used. Step by step he explained Finite Element Modelling of Composites.

Various results, plots and results were discussed. The session was attended by teaching and technical support staff from the Department of Mechanical Engineering and coordinated by Prof. Mayur Shetti.

## R & D Activity (Department of Science & Humanities)

### Talk on Composite materials .....PMCs Scope to explore

The R & D Cell (Department of Science & Humanities) had their knowledge sharing session on July 27, 2021. The Resource person was Prof. Gladys Da Silva.

Prof. Gladys Da Silva started her session with the definition of Composites and explained the different components which include the matrix phase, the dispersed phase and the interface, she explained the contribution of each of the phases in the making of the composite. Further, she touched upon the different types of matrix and dispersed phase materials used importantly the CMCs, PMCs and MMCs.

She emphasized on PMCs and how different reinforcements can be used to develop new Composite materials using the right polymer matrix.

Lastly, she concluded by listing out the applications of composite materials with special reference to Civil and Mechanical Engineering.

## FiiRE (Forum for Innovation Incubation Research and Entrepreneurship)

**Future50 18<sup>th</sup> June:** A roadshow was organised by FiiRE to promote an initiative by Startup Reseau. It is a mentorship-based venture building program, rooted in “experiential learning”, and focusing on “founder growth”, by coaching the participants on core skills and strategies needed to build and scale a venture. The takeaways from the Future 50 program include 100 Days Venture Building Learning Program; Structured program that makes you Think. Learn. Build. Grow.; Speed Dating session with Mentors/Investors for your “Idea Validation”; Facilitated workshops and 1-on-1 mentorship

sessions with 'Anchor Mentors'; Cash Prizes/Potential “Seed Funding”.

The program offers mentorship from industry leaders, domain experts, successful founders, investors, and job/internship opportunities, also help establish global networks, peer community and more.

**Transfer of Technology:** A bi-monthly event where ideators and inventors get an opportunity to present their technology-enabled inventions to domain experts, investors, potential co-founders and other stakeholders to explore the possibilities of collaborating to create game-changing technology organizations of the future.” The participating ideas were categorized under 'AgriTech, CleanTech, FoodTech, IT, and Others. ToT was an important step towards empowering the next big ideas as idea/technology owners got a chance to attract co-founders and investors and seek mentorships and key collaborations.

The 'Transfer of Technologies 2021' has witnessed the pitching of 10 business ideas across the various categories;

1. **Tulsi Gram** and **Bio-Remediation** under AgriTech
2. **Intelligent Aircon – IoT** and **Environmental Laboratories** under CleanTech
3. **Cake Making and Baking Using 3D Printing, CoLaBoRate App, Fish Quality Analysis System, and Sugar cane Juice** under FoodTech
4. **Electrical Line Fault Detection System** under IT
5. **Active A.RT-shirt** under the 'others' category.

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