



Connections

Quarterly Newsletter for Institute's Friends, Patrons, Mentors and Students

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Don Bosco College of Engineering Celebrates Goa's 60 years of Liberation



NEWS IN GENERAL

75th Independence Day

Don Bosco College of Engineering celebrated the 75th Independence Day of India in the college premises on August 15, 2021. This short ceremony started in the presence of the Rector – Rev. Fr. Paul D'Souza, who unfurled the National Flag. All the staff members of Don Bosco college of Engineering sang the National Anthem and showed their respect to the national flag and to the whole nation. The ceremony was held while maintaining all the rules & regulations of the COVID-19 pandemic.



Present on the occasion were Director - Rev. Fr. Kinley D'Cruz, Administrator – Rev. Fr. Ralin De Souza, and D.S. Prashant – CEO FiIRE . Principal – Dr. Neena S. P. Panandikar welcomed the teaching as well as non-teaching staff. Fr. Paul D'Souza addressed the whole gathering and wished all a very happy Independence Day. “Every single citizen of India should abide by the rights given to them as stated in constitution of India. Although we are in 75th year of Independence, we still need to be independent in many aspects” said Fr. Paul D'Souza. The function was coordinated by Dr. Avertano Barretto, Director of Physical Education & Sports, who also proposed the vote of thanks.

DBCE Celebrates Annual Day 2021

Annual Day and Prize Distribution Ceremony was held on 6 September 2021 at the institute. On this occasion, the institute feted the efforts and commitment of all stakeholders toward the journey of 10 years of academic excellence. The Chief Guest was Mr. Vijay Hede, MD, Shivranjani Securities Company Private Limited (SSCPL) and along with him present were Rector-Fr. Paul D'Souza, Director-Fr. Kinley D'Cruz, and Principal-Dr. Neena Panandikar and special invitees.

Director, Fr. Kinley D'Cruz released the 10 years logo displayed in a video that showcased the glimpses of the journey of the institute from 2011 to 2021. He thanked the AV Team, Mr. Rolando Gomes, Mr Aloysius Baptista, Mr. Fredy Fernandes and Mr. Akhilesh Bhisso for the amazing display.

Principal, Dr. Neena Panandikar welcomed the gathering and appreciated everyone who contributed in the 10 years journey of the institute that celebrates the spirit of Don Bosco. In the Annual Report of 2020-2021, she highlighted the achievements, initiatives, awards and placements of faculty and students. The HODs presented the department report in an AV emphasizing on the progress and achievements of the staff and students.

Registrar, Dr. Kala Nayak announced the performance of the meritorious students who were felicitated by the Chief Guest for their exemplary performance. Mrs. Maya Lin Noronha declared the names of 15 well deserving students who received scholarship from the Chief Guest Mr. Vijay Hede under its CSR initiative. She also mentioned the names of 6 students who received Engineer W. X. Mascarenhas Award.

In his address, Fr. Kinley cited the closing of 10 years chapter and beginning of another chapter for the College. He said, “We have grown from strength to strength not allowing any defeat in our way. I thank all parents for showing their trust in the institute.”

The college magazine 'Beacon' coordinated by Mrs. Anisha Cota and the Newsletter 'Connections' coordinated by Mrs. Natasha D'Souza e Jaques were released at the hands of the Chief Guest.

Rector – Fr. Paul D'Souza in his address congratulated the stakeholders. He said, “Hearty



Congratulations to the Director, Principal, Staff and Students for one more fruitful year added to the glorious saga of Don Bosco College of Engineering.”

Speaking on the occasion, the Chief Guest, Mr. Vijay Hede congratulated the Management, Staff, Students and Parents for taking the college to the next level. He applauded the zeal of every stakeholder and encouraged to augment the level of competency to the best in the country. He mentioned, “Empathy, humility and inclusiveness are the three key aspects that you need to mould your students with. It is of dire importance to reach out to people who are not so fortunate to get what most of us have in our life.”

Fr. Kinley presented a memento to the chief guest as a token of appreciation. Mrs. Natasha Jaques compered the function and Ms. Christina Barretto proposed the vote of thanks.

The Annual Day 2021 was organised by the Cultural Committee – Mr. Amey Tilve, Ms. Grebrian Alemao, Mrs. Maya Lin Noronha, and Ms. Steefni Cruz.

Don Bosco College of Engineering Celebrates Goa's 60 Years of Liberation

As we begin the Diamond Jubilee year of Goa's Liberation, the government decided to host a year-long celebration to mark 60 years of liberation from Portuguese rule. The Portuguese invaded Goa in the year 1510, and Goa was liberated on 19 December, 1961, after around 450 years of Portuguese rule. As part of this yearlong celebration, the Department Electronics and Telecommunication Engineering (ETC) in collaboration with Department of Science and Humanities (S&H) floated two competitions through which were captured and appreciated the Legacy of Goa.

The first competition was the Collage making Competition themed as Goa in a Snapshot. Here the participants had to make a Digital Collage using not less than 10 images portraying various facets of Goa. The second competition was the Video making Competition, themed as Capture Goa's Rich Culture. Here the participants had to make a video of not more than 3 minutes depicting the Goan Culture. These competitions were floated in schools and colleges all across the state in the month of August and the kind of spirit seen in the participants was overwhelming.

The Prize distribution function was held on October 1, 2021, at the College. Among those present for the function was the Director- Rev. Fr. Kinley D'cruz, Principal- Dr. Neena Panandikar, HODs and Staff members of the departments of ETC and S&H, the participants and students of DBCE who were present online. The judges for the Collage making Competition were Mr. Aaron Gonsalves, Seminarian and Mr. Rony Michael Pereira, Owner Pixel Canvas. The judges for the Video making Competition were Mr. Ryan Dsouza, Proprietor of Mountain Top Motion Pictures and Ms. Melba Fernandes, Proprietor of Melba Photography. And the winners of the two competitions were as follows: Collage Making Competition: 1st Prize: Mr. Mark Agnelo Cota, 2nd Prize: Mr. Dattaprasad Gurudas Naik, 3rd Prize: Mr. Selwyn Shaun Fernandes. Video Making Competition: 1st Prize: Ms. Adishree Haresh Korde, 2nd Prize: Ms. Melissa Alexander Solomon, 3rd Prize: Mr. Jefin Sam John.

The audience showed great enthusiasm for the event by dressing in Goan style. The organizing team did an amazing job in getting out the essence of the rich and diverse Culture and Heritage of Goa. The event was organized by the Prof. Flavia Leitao, Prof. Samantha Cardoso and Prof. Anisha Cotta from the ETC Department and Prof. Harison Cota, Prof. Steefni Cruz and Prof. Ulpa Waingankar, from the S&H Department, along with Dr. Varsha Turkar, Convener & HOD - ETC Dept., DBCE and Dr. Kala Nayak, Co-Convener, Registrar, HOD - S&H Dept., DBCE.



DEPARTMENT OF CIVIL ENGINEERING

Paper Presentations

The BE Students of Civil Engineering Department presented papers in International Conference on Emerging Trends in Civil Engineering (ICETC 2021) which was organized by Shri Vasant Rao Potdar Polytechnic in association with Visvesvaraya Technological University held on Sep 2-3, 2021.

The following papers were presented

1. Assessment of Green Rating for Roads by Mr. Gajanan Bandekar under the guidance of Asst.Prof. Kaushik Pai Fondekar and Asst. Prof. Akshata Kudchadker.
1. Use of Cow Dung Ash as a Partial Replacement for cement in Mortar by Mr. Deepam Kamat under the guidance of Asst.Prof. Kaushik Pai Fondekar and Asst. Prof. Akshata Kudchadker.
1. Recycling of tetra Pak into ecofriendly materials by Mr. Mahesh Biradar under the guidance of Asst. Prof. Starina Dias.
2. Replacement of Fine Aggregate by Allied Materials By Mr. Pawan Arolkar under the guidance of Dr. Shwetha Prasanna.
3. Case study on Evaluation of Vulnerability of Earthquake of High rise buildings in Goa by Mr. Ray Cortez under the guidance of Asst. Prof. Oswyn Soares and Asst. Prof. B.A Anirudha.
4. Analysis of Materials in terms of energy performance used in ancient and modern Architecture by Mr. Leon Mario de Souza under the guidance of Asst. Prof. Prachi Dessai.

The keynote speakers for the conference were Dr. K.B Prakash Professor and Principal Government Engineering College, Karnataka, Dr. Lukasz Sadowski Professor, Wroclaw University of science and Technology, Poland, Dr. Nemkumar Banthia Professor, The University of British Columbia, Canada, Dr. Amogh Mudhatkal PostDoctorate Research Fellow, University of Lincoln, UK, All the

presented papers were published In International Journal of Engineering Research and Technology (IJERT) ISSN: 2278-0181, ICETCE 2021 Conference Proceedings.

Webinar on "Foundations for Infrastructure Facilities: Principles and Sustainable Practices"



The Department of Civil Engineering organized Two Days Online National Webinar on "Foundations for Infrastructure Facilities: Principles and Sustainable Practices" from September 2-3, 2021 in association with Indian Institute of Technology Madras, Chennai.

The Inaugural function was graced by the Chief Guest - Mr. Rajesh Naik, Additional General Manager (Projects), Indian Port Rail & Ropeway Corporation Ltd., (A JV Company under Ministry of ports, shipping and Waterways, Government of India), Director - Rev Fr. Kinley D' Cruz , Principal - Dr. Neena Panandikar. Mr. Rajesh Naik mentioned that to celebrate 10 years of a remarkable journey at DBCE , the path initiated to conduct a seminar is appreciable which would help participants to learn new concepts beyond syllabus content. He further stated that experience and challenges faced during construction shared by speakers from IIT, NIT and engineers from geotechnical field will be helpful for all, knowledge of foundation for buildings major and minor bridges, reinforced earth structures, roads and railway infrastructure is vital as many challenges are faced in ground improvement due to erratic soil behavior.

The Convenor for the webinar was Dr. G. R Dodagoudar Prof IITM, Chennai and Dr. Shwetha Prasanna HOD, DBCE. The coordinators were Asst. Prof. Swaroopa Sail and Asst. Prof. Starina Dias.

In total, there were 6 sessions delivered by eminent speakers from various Institutions and organisations across India.

The first speaker was Dr. Purnanand P Savoikar, Professor in Civil Engineering, Goa College of Engineering, - Goa who highlighted on need for geotechnical investigations, General guidelines for shallow and deep investigations, Equipments used, Invasive and Non-invasive investigations and Physical modeling.

The second speaker was Prof. R. Shivashankar from NITK Surathkal covered topics on types of pile foundations, load bearing capacity, advantages of piles, liquefaction, mobilization of pile resistances and design aspects. He presented on amazing civil engineering structures, pile driving formulae, pile load tests, pile intergrity tests and pile group analysis.

The third speaker was Prof. G. R. Dodagoudar from IIT Madras, Chennai, who presented on design principles, Construction and Monitoring of combined pile raft foundation, finite element method, soil-structure interaction, case studies, recommendations for the design of CPRF and the observational method.

On the second day, the first session was delivered by Prof. Vishwas Sawant from IIT Roorke who gave an overview on the mechanism, types of liquefaction, evaluation of liquefaction potential, zone of liquefaction and modeling of liquefaction.

The next session was delivered by Ms. Sangeen Desai and Mr. Govind Raj from Keller Ground Engineering India Pvt. Ltd. Mumbai who highlighted on optimal foundation solution, choice of foundation systems, piling in seismic condition, alternative foundation techniques, innovation in foundations, challenges for geotechnical engineers, opportunities for ground improvement, types of ground improvement, vibro stone columns, vibro compaction and challenging projects carried out by Keller India Pvt., Ltd., Mumbai.

The last session for the day was by Mr. A. Karthikeyan Proprietor of Karthikeyan Associates, Chennai, who explained on contiguous piles, borelogs, earth pressure diagram, design of capping beam, structural drawing and site challenges.

The webinar concluded with the valedictory speech given by the Chief Guest - Mr. Raj Kumar K. Dy. General Manager L&T Construction, Larsen & Toubro Limited, Mumbai. Mr. Rajkumar K mentioned that L & T had completed the remarkable Mandovi bridge project and appreciated seminar topic as it meets present challenges to meet 17 basic sustainable goals given for world, two prominent being no poverty and home to live. Construction industry round the clock working for infrastructure projects for next generation. Mumbai coastal route project has adopted monopiles of diameter used 2.5m, 3.2m, 3.5m instead of group of piles as no pier and pile cap is required and pile itself acts as a pier.

Altogether 539 participants had registered from all around the world which included those from Nigeria, South Africa, Nagaland, Bangladesh, Manipur, Orissa, Jammu & Kashmir, Uttar Pradesh, Andhra Pradesh, Rajashtan, Gujarat, Karnataka, Goa, Maharashtra, Tamil Nadu, Ranchi, Delhi, Telangana, Thiruvananthapuram, Pondicherry and Haryana.

Webinar On Career Opportunities In Rapidly Changing Built Environment Sector



A webinar on “Career Opportunities in rapidly changing Built Environment sector” was organized for the final year students Department of Civil Engineering in association with RICS School of Built Environment, Amity University on September 29, 2021.

Prof. Dr. Sanjay Patil MRICS, Associate Dean and Director of school of construction, RICS SBE, Mumbai was the speaker. Mr. Patil elaborated on the career opportunities in rapidly changing built environment sector and the technological advancement that are taking place in the 21st century and replacing the need of humans in the workforce and also the post effects

of COVID-19. Further in his talk, Mr. Patil, highlighted the upcoming projects in the field of construction and the skill required for the same. Further addressing the students, Mr. Patil enlightened them on the different fields where one can build skills like Drone technology, 3D- printing,, Artificial Intelligence (AI), Building information modeling (BIM), Internet of things (IoT), Integrating tech as solution, health and safety. Dr. Shwetha Prasanna, Head of Civil Engineering department, coordinated the programme.

AutoCAD Training For SE Civil Students

The Department of Civil Engineering conducted an AutoCAD training for the SE Civil students between September 29-30, 2021.

The software is one of the most used tools in Civil Engineering and is used by many architects, engineers, and many other professionals in work execution for general and detailed drawings. In this course Prof. Shruti Desai, Prof. Starina Dias and Prof. Saddiya Shaikh trained the students on basics of AutoCAD software using the Draw and Modify Toolbar, Dimensioning, layers etc. The students also got hands on practice on these toolbars. This course is provided to the students to enhance their all-round development. In all, 29 students attended the basic course consisting of 02 sessions held on both the days

Self-Compacting Concrete Mix Proportioning Workshop

The Civil Engineering Department organized a “Self-Compacting Concrete Mix Proportioning” workshop on 08th October 2021, for the faculty of Civil Engineering Department.

The resource person for the workshop was Dr. Shreelaxmi Prashanth, Assistant Professor, Civil Engineering Department, Manipal Institute of Technology, Manipal. She elaborated the purpose of self-compacting concrete mix proportioning and its significance.

In the morning session she explained the IS

specifications of self-compacting concrete mix design and also briefed the faculty members on the Laboratory considerations while casting the mix.

In the afternoon session various mix design trials were conducted in the laboratory to demonstrate the workability of concrete.

In all 11 faculty members, laboratory assistant and attendants attended the workshop. Assistant Professor Shruti Jambhale was the coordinator of the workshop.

Online Lecture On 'Occupational Health And Safety And Safety Management In Industries'

Department of Civil Engineering organized an online lecture on 16 October 2021 on 'Occupational Health and Safety and Safety Management in Industries'. This lecture was organized to bridge the gap between the industry and academia. The speaker for the lecture was Mr. Richie Baracho a recognized Safety Officer as per Goa Factories rule. The talk was organized By Asst. Prof. Jeffrey Valadares who is engaging the Subject of 'Occupational Health and Safety Assessment' as an open elective for the third year Mechanical Engineering and Computer Engineering students.

Mr. Baracho covered topics on roles and responsibilities of safety officers, he explained about few cases in the industry which led to the improvement of the environmental and safety laws in the industry. He gave different examples of unsafe acts and unsafe conditions at work places. He elaborated on hazard identification and risk assessment and the procedures followed by Hazard Identification Risk Assessment (HIRA).

He also highlighted on the safety committee, accident investigation committee, external audit, training and on safe handling of equipment, job safety, employee participation, monitoring the exposure to hazard. In the question answer round the students asked him about the courses and the pre-requisites required to become a safety officer, to which he also explained the requirements of National Examination Board in Occupational Safety

and Health (NEBOSH) courses and Advance Diploma in Industrial Safety courses. Overall the lecture was very interesting and interactive.

Orientation Programme For Lateral Entry Students



Department of Civil Engineering organized an online orientation programme for the newly admitted lateral entry students at the institute premises on 21 October 2021. The major objective of the programme was to make the students aware of the academic aspects of the course, the rules and regulations of the Institute and ensuring their participation.

The Director - Rev Fr. Kinley D'cruz, delivered a speech on the occasion, wherein he introduced the founder of Salesian society Saint Don Bosco and also stressed the importance of dedication to one's profession and the need to have proper planning before taking up and implementing any project.

Dr. Neena Panandikar – Principal, expressed delight over the fact that the college successfully completed 10 years and the Institute had already become a much sought after institution for Engineering studies in the state. She also reiterated the Management's commitment to elevate the Institute to the status of one of the best engineering colleges in the state within the shortest time possible. There was a brief presentation on the learning environment in the institute, the infrastructure, the student's activities and past student's achievements. She had an online one on one interaction with the students.

Dr. Kala Nayak – Registrar, addressed the students about the rules and regulations of the institute and requested the students to abide by the same. She also gave necessary information about the academic

design of the B.E Course. Dr. Shwetha P, Head of Civil Engineering Department addressed the students and discussed about the Department vision, mission and objectives and the activities conducted under CESA. Dr. Shwetha .P, Head of Civil department, and Prof. Saddiya Shaikh coordinated the programme.

Installation of CESA Council 2021-2022

The installation ceremony of CESA council for the year 2021-2022 was held on 23th Oct 2021. “Engineers contribute to a great extent in nation development and can play a vital role in Environmental Protection” said Anish Kalkoor, Dy. Conservator of Forest, Goa. Further, Mr. Kalkoor said that India being a business hub has to face different challenges and increasing population creates scarcity of resources, as an engineer one can create various sustainable way and protect environment.

Mr. Kalkoor was speaking as the Chief Guest for the installation ceremony of Civil Engineering Students Association (CESA). Fr. Kinley D'Cruz- Director, Dr. Neena Panandikar -Principal, Dr. Shwetha Prasanna- Head of Civil Engineering Department, Prof. Satyesh Kakodkar and Prof. B.R.Anirudha Faculty Advisors were present on the occasion.

Further speaking on the occasion Mr. Kalkoor said “Civil engineers have more social connect and hence can help society to come with ideas with minimum use of natural resources thereby causing minimum environmental impact”. Engineering and technology is necessary for socioeconomic development he further added.

Fr. Kinley D'Cruz congratulated the new council and wished them great success. He further advised the students to get acquainted with field knowledge along with theoretical.

Dr. Neena Panandikar in her address guided the



students to get exposed to new aspects of technology and get these news aspects blended with civil engineering.

Dr. Shwetha Prassanna -Head of Civil Engineering briefed about the various activities conducted by the department.

A technical bulletin consisting of the project papers of final year students was released at the hands of the Chief Guest.

Earlier, Mr. Nikhil Chichwade, outgoing Chairman welcomed the gathering. Ms. Berny Dias compered the function, while Mr. Gulahmed Shaikh-Incoming Chairman proposed the vote of thanks.

DEPARTMENT OF MECHANICAL ENGINEERING

NIRMANA 2K21

An Academic Projects Competition For BE Mechanical Engineering Students



The Department of Mechanical Engineering organized the event 'NIRMANA 2K21', an academic projects competition on August 25, 2021 from 9.30 to 1.30 pm. The event was held to give an opportunity for graduating BE Mechanical Engineering students to exhibit their academic projects virtually on Google Meet platform. A total of 12 projects were shortlisted to be presented to an expert panel of jury and faculty of mechanical engineering. Students of final year, and in particular 100+ third year & second year mechanical engineering students actively attended the event virtually to enrich their knowledge and get an exposure to projects that will help them take and work on projects in future. The judges for the event, Mr. Raghuvir Chary, Head of Fabrication Tech. & Erection Engg. Dept. in Government Polytechnic,

Panaji; Mr. Sumukh Kamat, Founder & Managing Partner for The Energy Footprint and Mr. Yogesh Tarkar, ex-faculty DBCE Goa & an entrepreneur in Supply Chain and logistics were welcomed by Director - Rev. Fr. Kinley D'Cruz He encouraged the participating students saying, "The world is your play field, step out confidently making a mark, and to think out of the box and come with newer and path breaking projects". Further Principal, Dr. Neena Panandikar welcomed all attendees present and added, "Wonderful projects been done by mechanical engineering students & will be difficult for the judges to pick the best idea/project showcased". Head of Department of Mechanical Engineering, Prof. Ajit Salunke also addressed the event saying "Project is the actual outcome of the teaching learning process: academic, industry interactions etc. culminating to a good project" and also thanked GSIC for providing financial support to projects during the pandemic time.

The participating students exhibited their projects with the help of presentations and model/demonstrative videos that helped all the attendees of the event to understand the technicality associated with the projects. The presenting students actively answered the questions put forward by the judges and were open to all the feedback and suggestions provided to them. The virtual event was concluded with a general feedback from the judges praising the conduct of such events virtually during ongoing pandemic restrictions and also the enthusiasm with which students have worked and presented their projects. In praising the faculty supervisors, Mr. Sumukh Kamat said that "the faculty supervisors have really motivated and guided the students in taking wonderful projects that are worthy of commercialization, patenting or presenting in technical conferences". Mr. Raghuvir Chary also expressed his views by mentioning that it was a memorable experience for him to have been invited for such an event while Mr. Yogesh Tarkar expressed his appreciation for the invite and said that "such events build the institute-industry connect wherein the students are able to present projects that can be correlated to potential industry problems/requirements". The top three projects were identified and appreciated by the jury for award

of cash prizes and e-certificates for all the project group members. Prof. Avil D'Sa proposed the vote of thanks to all the student participants, student attendees, judges, faculty and the coordinators of the event. The virtual event received positive feedback from the participating final year mechanical engineering students and as well by second and third year mechanical engineering students.

The event was convened by HOD Mechanical, Prof. Ajit Salunke, coordinated by Prof. Suraj Marathe & Prof. Avil D'Sa and organized by Prof. Mayur Shetti & Prof. Harshad Pingulkar.

Visit to Institute Of Maritime Studies (IMS)



The faculty of Department of Mechanical Engineering visited the campus of Institute of Maritime studies (IMS), Vasco on 30th September 2021.. The time shares milestones of achieving 25 years of completion for IMS and 10 years for DBCE.

The session commenced with a welcome note from Mr Deepak Shah, Director of IMS and Mr Ajay A. Tambwekar, Dy. Director IMS. Mr Deepak Shah introduced marine engineering to DBCE faculty from training to career prospects. He elaborated the teaching learning process at IMS in the pandemic times. The marine field being fully practical oriented, IMS introduced virtual reality to enable the students to take a tour to vessels and get acquainted with the different aspects of ships that are difficult to learn through online classes. Various new laboratories, simulators and courses have been introduced to ensure the quality of training remains intact in the pandemic times.

The presentation was followed by a visit to various laboratories of IMS. The DBCE faculty were guided by the IMS faculty Mr Tanuj Kumar, Mr Heston Dias, Mr Akash Chowdhary, Mr Vivek Pai, Mr Francis Fernades, Mr Rohan Shirodkar and Mr Sudesh Gaonkar. The campus tour included visits to Engine room simulator, Virtual Reality station, Welding shop, marine workshop and Automation lab.

A session was conducted to discuss various platforms the two institutes can share to prepare mechanical students to take up marine engineering as a career. Mr Ajit Salunke, HOD Department of Mechanical Engineering, put forth various avenues where both the institutes can handshake to carry forward the ties in future endeavours. The vote of thanks was proposed by Mr. Sachin Turi.

Virtual Field Visit to Sanofi Healthcare Pvt. Ltd. (Audit Course in Maintenance Engineering)

The Department of Mechanical Engineering held its first session in Audit Course in Maintenance Engineering for the academic year 2021-2022, on 27th October 2021. For the first time the audit course was initiated with a virtual Field visit to Sanofi Healthcare Pvt. Ltd. The session was delivered by Mr. Prasad Adpaikar, Manager Engineering, Sanofi along with his Engineering team.

The webinar was hosted via Zoom. 55 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. The event was initiated by Prof. Swapnil who welcomed the participants and gave a brief introduction about the resource person and also to our association with Sanofi.

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.

After the brief overview the virtual tour of the Goa Development Centre and the various auxiliary units was initiated. Mr Prasad and his engineering team took us around the site and helped the students explore virtually the powerhouse substation, Boiler & chiller section, Air handling Units, Compressor units, water purification section, dehumidifiers, Diesel generators etc. They explained the sub components, working and various maintenance practices followed for the various utilities used in the plant.

A short video of the Goa development centre was shown to conclude the virtual visit. Overall the virtual field visit was very interactive, with students asking questions displaying curiosity and a willingness to learn more about the role of mechanical engineers in the pharma sector

DEPARTMENT OF ELECTRONICS AND TELECOMMUNICATION ENGINEERING

Online Adieu- BE ETC Batch 2021 Farewell

On August 17, 2021, the Department of Electronics & Telecommunications Engineering bid farewell to its final year students of batch 2017 – 2021. It was an online event coordinated by Ms. Kimberly Morais on google meet.

The function began with a prayer by Miss. Rosann Godinho. Director - Fr. Kinley D'Cruz, conveyed his message “to be determined in life and never look back. The past must be considered a lesson, don't be afraid to make mistakes, acknowledge them, learn from them and move ahead”. Principal - Dr. Neena Panandikar in her address appreciated the efforts of the students and said “be confident and believe in



yourself and the best things will happen in life.” Head of Department – Dr. Varsha Turkar, Class teacher - Ms. Kimberly Morais conveyed their messages during the live session. Staff Members shared their experiences of teaching the batch and wished them well.

The annual release of “Ankur” project idea book of the Department was coordinated by Ms. Anisha Cota and Ms. Priyanka Padiyar.

For the informal function two events were organised. One was Classfare Awards 2021 which was collectively hosted by Mr. Yeshudas Muttu, Ms. Mathilda Colaco, Mr. Selvyn Fernandes, Ms. Samantha Cardoso, Mr. Deron Rodrigues, Ms. Melba D'souza. The second event was “Apke Alfaaz” which was hosted by Ms. Flavia Leitao and Mr. Sheryas Simu. The students and faculty thoroughly enjoyed both the events.

Mr. Pavan Kalyan was declared the best outgoing student of the Department. The event ended with a recorded song “Yaroon” sung by a student.

Orientation On “project Management And Rubrics”

The Final Year Project Quality Assurance Committee (FYPQAC), Department of Electronics and Telecommunication Engineering organised an orientation program on “Project Management and Rubrics” on September 03, 2021. The orientation was delivered by Project Coordinators, Prof. Anisha Cotta and Prof. Priyanka Padiyar and was attended by the Final Year Students, Department of Electronics and Telecommunication Engineering via online platform. The objectives of the orientation were to introduce the students to the entire project flow and the evaluation rubrics for the final year projects. The session also aimed at motivating the students to work as a team and enlightened them with the benefits of teamwork.

The orientation commenced with a detailed explanation on the general flow of the project work from the inception of the idea to completion and submission of the project thesis by Prof. Anisha Cotta. It was followed by a briefing on the project

marks allocation scheme by Prof. Priyanka Padiyar. The students were introduced to the various rubrics which would be followed for evaluating and awarding marks to them for every review.

Thereafter, Prof. Anisha stressed upon the necessity of project management and teamwork. She spoke about the various benefits of teamwork such as diversity of ideas, distribution of workload, improved productivity, quick solution, etc. She concluded by saying “The strength of the team is the individual team member. The strength of each team member is the team”

The orientation was very interactive and ended with a session wherein queries of the students were addressed.

SE ETC Students Orientation 2021

Department of Electronics and Telecommunication Engineering conducted an Orientation Programme for the Second year students of Electronics and Telecommunication Engineering on September 17, 2021. The Orientation Programme was held in online mode through Google meet. The main objective of the Programme was to welcome the students and to give the students an overview of the various departmental bodies and activities carried out by the department.

The Orientation Programme commenced at 3.15 p.m. Prof Melba D'Souza –Class teacher of the class welcomed the students and introduced the students to the various courses in the curriculum. She also informed the students about Semester exams, Internal tests and the importance of attendance.

Dr. Varsha Turkar (HOD-ETC) briefed the students about the department activities and stressed on the discipline that is to be followed by the students. She encouraged students to be involved in Mini projects, Internships, Attend workshops and online courses that will help them to learn beyond syllabus.

Prof. Flavia Leitao introduced e-Yantra Lab to the students and gave an insight on the various workshops and activities conducted under e-Yantra.

Prof. Anisha Cotta explained how Mini projects help to explore and strengthen the understanding of fundamentals through practical application of theoretical concepts. She also encouraged the students to work on Mini projects.

Prof. Deron Rodrigues gave an overview of DBEATS (Don Bosco Electronics and Telecommunication Society) and spoke about various activities like Technova, Bose Shannon Shockley Paper presentation, Workshops and Expert talks organized under DBEATS.

Prof. Yeshudas Muttu introduced the students to IEEE student's branch. He elaborated on the various Workshops, Competitions and various activities conducted under IEEE student branch.

Prof. Mohini Naik gave a brief overview on Student Satellite Club Parikrama, Antenna Research group and Indian Space Research Organization (ISRO) outreach programme. She informed about the work carried out and encouraged students to register for courses under Indian Institute of Remote sensing- (ISRO) outreach programme.

IEEE Bombay Section Power & Energy Society Organized “Finance Management Workshop for Women”

On the occasion of 4th IEEE R9 PES WiP Day, a workshop on Finance Management for Women was organised by IEEE PES Bombay Chapter in association with IEEE Student Branch of Don Bosco College of Engineering (IEEE DBCE) and IEEE S.B. Jain Student Chapter. The speaker of the day was Ms. Garima Bajaj Saxena, 2nd Certified Management Accountant USA and Certified Financial Planner USA. The event was held virtually on 29 September 2021 at 5.00pm on the Webex Meetings platform

Ms. Saxena began the workshop by briefing the audience about the objectives of financial management such as understand your financial situation, creating a budget, making a plan for self and family, etc. She spoke about the different ways in which a girl could save money and manage their finances while studying which was quite essential

since most of the participants were students. The speaker also emphasized on the benefits of finance management at an early age. She also explained a few investment choices which include Equity Mutual Funds (EMFs) via Systematic Investment Plans (SIPs), FDs, Fixed Maturity Plans (FMPs), etc. Some important points to be considered while going for a start-up or business were also discussed. Furthermore, Ms. Garima Bajaj Saxena also provided a checklist of factors to consider before starting a business. The workshop was concluded by the speaker explaining to the participants how women should be financially independent with age and to review one's financial portfolio with financial goals every year. Towards the end, there was a Q&A session where the participants asked various questions, which were answered by the speaker, thereby clearing the participants doubts. The IEEE DBCE Student Coordinators for the event were Ms. Britney Mascarenhas and Mr. Mandar Borkar.

IEEE WIE AG DBCE Organized “Arduino for Beginners - Webinar”

Sapientury, Bengaluru in association with IEEE (Institute of Electrical and Electronics Engineers), Don Bosco College of Engineering- Fatorda- Goa (DBCE) Student Branch Women in Engineering Affinity Group organized a webinar on 'Arduino for Beginners' held on September 30, 2021 via the Google Meet platform. The webinar was open to all students of the college but the main audience comprised of students from second and third year. The student co-ordinator for the event was Ms. Britney Mascarenhas, IEEE Student member from Third year - Electronics & Telecommunications Engineering.

The host, Ms. Rashee Gude – IEEE Student member, warmly welcomed the participants and introduced the speaker for the evening Ms. Poojitha M K, the President of Innovation & Entrepreneurship Development Cell (IEDC): Bangalore Institute of Technology. She began the session by saying “The engineering education system requires more practical and experimental learning methods rather than having plain theory-related courses”. She was very expressive and gave many good examples of

experimental learning. Ms. Poojitha then followed through to the main topic, that is, Arduino and briefed the audience about the Arduino ecosystem which comprises of the Arduino board and its components. She explained the importance of development boards and how Arduino, being an open-source platform, is diverse from the others. She further went on and taught us about the Arduino board setup and the Arduino software. The speaker also conducted a simulation of the Arduino board on the TinkerCad software and encouraged the participants to take it up as well. Many Arduino-related project ideas were also shared through the presentation. Before ending the session, Ms. Poojitha made sure to ask the students for any doubts, after which the host Ms. Rashee concluded the webinar.

IEEE DBCE Student Branch Celebrates IEEE Day

On the 9th October 2021, the IEEE Student Branch celebrated IEEE Day. The IEEE SB Counselor, Prof. Yeshudas Muttu began the IEEE day celebrations by recalling why IEEE day is celebrated. He stated “The anniversary of the 1884 meeting in Philadelphia where member of the American Institute of electrical engineers, one of IEEE's 2 predecessor's societies, gathered for the first time to share technical idea”. Later, the IEEE SB Adviser, Dr. Varsha Turkar compiled all her IEEE experiences into a nice short story and left the audience extremely inspired, proud and motivated. , The IEEE committee members, Ms. Neha Joshi, Mr. Atish Naik Gaonkar and Ms. Sheena



Mashelkar shared their journey through IEEE and the qualities that they developed being a part of IEEE DBCE SB. The Director, Rev. Fr. Kinley D'Cruz & the Principal addressed the IEEE Members and congratulated them for their achievements. The formal function was concluded with cake cutting ceremony along with the executive committee members.

The audience were later engaged with poster making on IEEE bodies and some fun games and social activities. To conclude the entire event, there was a prize distribution ceremony and Ms. Rosann Godinho gave the vote of thanks. The entire event was hosted by Mr. Kaiser Souza.

Introduction to Cryptography And CrypTool

A webinar titled “Introduction to Cryptography and CrypTool” was conducted for third year Electronics and Telecommunication Engineering students in association with DBEATS on October 9, 2021. The webinar was delivered by Asst. Prof. Michelle Araujo e Viegas and Asst. Prof. Trima P. Fernandes e Fizardo. Asst. Prof. Michelle Araujo e Viegas spoke about “Cryptography, Features of Cryptography, Symmetric Key Cryptography, Asymmetric Key Cryptography and Hash Functions”.

Asst. Prof. Trima P. Fernandes e Fizardo briefed the students on Attacks of Cryptography, introduced them to the CrypTool software-showing them various encryption and decryption techniques.

The students showed keen interest and enthusiasm and the session concluded with a discussion on the topic.

IEEE DBCE SB Hosts IEEE Xtreme 15.0

The IEEE Student Branch hosted the 24 hours coding competition-IEEE Xtreme 15.0 from 23 October 2021 to 24 October 2021, which was proctored and well organized by the IEEE Student Branch counselor Prof. Yeshudas Muttu and technically assisted by Mr. Ignatius Dias.

IEEE Xtreme 15.0 is a 24-hour World-wide online



coding competition where various universities and colleges, of this esteemed community, which is IEEE, go on head-to-head in a friendly yet compelling and invigorating competition. The event received 5561 registrations from teams from all around the world, of which our College had 13 teams, with 3 members each. The objective of this event was to encourage team building through communication, and problem-solving skills. The participants were challenged with a new problem statement every hour with 25 problem statements in total based on different concepts like arrays, graphs & trees, data structures, image processing with memory and run time constraints. It was also a very testing experience as the students had to sustain themselves for 24 hours as they kept tugging away which proved to be an amazing coding and social experience. The event was encouraged by the Director - Fr. Kinley D'Cruz, Principal - Dr. Neena Panandikar & HOD - Electronics & Telecommunications Engineering - Dr. Varsha Turkar with necessary support by FiIRE.

The competition ended on 24 October 2021 (5:30 am) wherein, Mr. Alston Dias and Ms. Anjima Rajesh shared their experience. Prof. Yeshudas Muttu appreciated the efforts put in by the IEEE student members & motivated them to be a part of IEEE to grab more opportunities.

Two-day Hands-on Workshop On “e-Yantra Robotics”

The e-Yantra Robotics Faculty Team of Electronics & Telecommunication Department organized a Two Day Workshop on Firebird V Robot for the students of TE ETC, on 29th & 30th of October 2021. The purpose of the Workshop was to spread education in Embedded systems and Robotics.

The Workshop would also ensure better Final year

projects in this area. The students were divided into 7 teams with 5 members in each team, thus training 35 students to work on the Firebird V Robot. The resource persons for the workshop were Prof. Flavia Leitao, Prof. Yeshudas Muttu, Prof. Deron Rodrigues and Prof. Mathilda Colaco.

Day 1: 29th October 2021

The first session was taken up by Prof. Yeshudas Muttu on Introduction to Robotics that included Major Components such as Sensors, Actuators, Control system, Intelligence, Power supply, Communication, Indicating Devices of a Robot and Introduction to Firebird V ATmega 2560. The students were also introduced to the various Input-Output Ports and Registers in ATmega 2560 and how they can be accessed. Subsequently, the students were given hands-on exposure in Embedded C programming for interfacing the Buzzer, Boot Switch and Bar-graph LED using the Atmel-6 Studio.

The second session was taken by Prof. Flavia Leitao on interfacing the LCD with the Firebird V Robot. The Students were briefed on the LCD operation and were then asked to interface the LCD and the Boot Switch for a given application. This was followed by interfacing of the Motors. The students were briefed on the Motor Driver IC L293D and the different Motions and were then given a small task of how to interface the Motors and device an application to make the Robot move in a defined direction.

Day 2: 30th March 2021

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

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

The Students had an amazing learning experience and showed great enthusiasm in executing the given challenges. They suggested that more such workshops should be conducted which would provide learning beyond curriculum.

Hearty Congratulations to the IEEE DBCE Team!

IEEE Student Branch of our College celebrated IEEE Day on 9th October 2021, participated and won second place in the IEEE Day 2021 Celebration Contest organized by the IEEE Bombay section.

IEEE Award 2021: Regional Exemplary Student Branch

For all the hard work put forth in organizing unique and quality activities in the year 2020 during the Pandemic, IEEE Student Awards Committee and IEEE MGA Student Activities Committee declared IEEE Student Branch as one of the winners of the IEEE



Regional Exemplary Student Branch Award 2021. The purpose of this award is to provide public recognition of exemplary IEEE Student Branch operations. We congratulate the IEEE DBCE Team for this achievement.

DEPARTMENT OF COMPUTER ENGINEERING

“CYBER SECURITY 2021” - Workshop on “3 Pillars of Cyber Security”

Department of Computer Engineering in association with Forum for Innovation Incubation Research & Entrepreneurship (FiiRE), Goa conducted a workshop on “3 pillars of Cyber Security” on 24th, 25th and 26th September 2021. The resource person was Dr. Karim Tobich, Head of Cyber security and Compliance Consultancy, United Kingdom. The session was held on zoom platform. There were 115 registrations for the workshop. Dr. Neena Panandikar, Principal - Don Bosco college of Engineering welcomed the speaker and the participants of the workshop. Dr. Karim said “Cyber Security is a very important and a crucial area of research as it is used widely by every individual in day to day life. Research in cyber security is the latest trend as the world has moved online at a faster pace due to the pandemic.”

Day 1 session- Dr. Karim Tobich began the day 1 session explaining about the terms like security, liability, 3 pillars of cyber security. He gave interesting examples to relate, with people and job titles for the same. He also spoke about the different responsibilities; each person has in terms of cyber security. He conducted three small activities in between sessions. He also explained the importance of certifications and types of certifications present.

Day 2 sessions- The CIA triad along with different types of information was explained. He spoke about Information Security Management Systems- the different policies, guidelines and procedures for the same. He gave insights regarding the objectives and types of controls. He explained about the

certifications which are possible to get. He explained the importance Fedramp – Federal risk and authorization management program and SOC-Security operation center. He made the session interesting with different activities during the session.

Day 3 session- The session begin with learning what is cyber security and cyber space. He gave examples and showed videos to make these things interesting. He explained the roles and objectives of federal risk and authorization management program and security operation center. He explained different family controls, types of attacks along with examples and activities. The different rights and understanding of Privacy by design were explained. Devsecops and Devops concept was made aware. He gave insights regarding engineering vertical, auditing vertical, program and management vertical. The whole development life cycle stages were explained.

On 26th September, for the concluding session, Director - Rev. Fr Kinley D'cruz, Chief Patron of the workshop joined the zoom platform. Dr. Gaurang Patkar, HOD Computer Engineering Department and Convener of the workshop, delivered the vote of thanks. Mr. D. S. Prashant, CEO FiiRE was also present. The whole session was coordinated by. Prof. Amey K. Shet Tilve, Assistant Professor, Department of Computer Engineering & Ms. Ashlesha Noronha, Community Manager, FiiRE.

One Day Seminar On “research Proposal Writing”

Department of Computer Engineering organized a one day seminar on “Research Proposal Writing” on 30 September, 2021. The convener of the seminar was Dr. Gaurang Patkar. The coordinator of the seminar was Prof. Amrita Naik.

The seminar was attended by 74 participants from various disciplines. The participants of the seminar were faculty from various colleges all over India - Jhulelal Institute of Technology, Nagpur, NSHM Knowledge Campus Durgapur, West Bengal, Sushant University, Haryana, Kuruskehtra University, Kuruskehtra, Deenbandhu Chhotu Ram University of Science and Technology Murthal Sonipat , Haryana,

Dr APJ Abdul Kalam Technical University, Uttar Pradesh, PSS Central Institute of Vocational Education, Madhya Pradesh, Bharati Vidyapeeth's College of Engineering, Delhi, NIT Surathkal, Manipal Institute of Technology, Karnataka, Galgotias University, Uttar Pradesh, Vellore Institute of Technology, Tamilnadu, Amrita School of Engineering, Tamilnadu, Gitam University, Karnataka, National Institute of Technology Goa, National Institute of Oceanography, Goa, Indian Institute of Technology Goa, Govt College, Khandola, Goa, Goa college of engineering, Padre Conceição College of Engineering, Shree Rayeshwar Institute of Engineering and Information Technology, Agnel Institute of Technology and Design, Goa. The seminar also included participants from Botho University, Botswana and Gyalpozhing College of Information and Technology, Bhutan.

The seminar began with an informative talk delivered by Dr. Dharendra Bahadur from IIT - Goa. Dr. Dharendra Bahadur said -“The objective of a research proposal should be effective, crisp and to the point”. He emphasized on research schemes/agencies available for a young researcher. He also made the participants aware about the research funding agencies which would provide grants for research in various fields. The second speaker of the seminar was Dr. Purushotama B.R, from NIT - Goa. Dr. Purushotama B.R said -“Words used in the research proposal should reflect the focus”. He explained a few components of research proposal and also mentioned few key points to the participants on how an effective research proposal should be written. The session concluded with a vote of thanks delivered by Prof. Amrita Naik.

Webinar On “data Analytics Using Hadoop And Apache Spark”

C-CODES in association with the Department of Computer Engineering organised an online webinar on “Data Analytics using Hadoop and Apache Spark”. The speaker for the session was Mr. Virendra Dakhode a Senior Analyst Programmer at TCS. The webinar was held for the S.E & T.E computer students through Google Meet on October 9, 2021 under the guidance Prof. Merwyn D'Souza and Prof. Siya Naik.

The session began with a concise introduction of the speaker by Ms. Ritika Ghanti. Following that Mr. Virendra Dakhode started his presentation off by explaining about data analytics and its importance. He also connected it to everyday life giving relevant examples of how it was used by Google in fraud detection. Going deeper into the subject he explained the types of data and its aspects. He also explained how legacy framework functions. He then went on to discuss a scaling problem about servers crashing when data in data bases increases exponentially and how Hadoop and Apache spark are data processing engines used to solve this problem where big data is generated by telecom, bank, e-commerce, search engine, healthcare, android and IOS apps, advertisement and other such industries which store data that shouldn't be deleted, data generated through social media apps through millions of posts on Instagram and Facebook, tweets on Tweeter, videos on YouTube and votes on Reddit, etc. Further he also interacted with the students ensuring they understood what is being explained.

He then carried on proposing questions on Big Data and giving elaborate explanations. He also explained the characteristics of Big data, the 3V's: volume, velocity and variety. Finally, he gave a detailed step by step breakdown of the Hadoop ecosystem and simplified the complex jargon so that it was easily understood. He then concluded his presentation with use cases of Hadoop and Apache spark.

Mr. Virendra said that “Data analytics technologies and techniques give organizations a way to analyze data sets and gather new information.”

His presentation was followed up by a Q&A session where all doubts were cleared and Mr. Virendra shared his own experience in his industry. To conclude the meet Ms. Ritika Ghanti thanked everyone.

Inspirus 2K21

The Department of Computer Engineering, in association with C-CODES organized for the fifth time, an intercollegiate event called 'INSPIRUS 2k21-Make it Happen'. It was a national event, where students in and around Goa attended and



participated in various technical events held on 29 and 30 October 2021.

INSPIRUS has been a very successful event running for the past 5 years with maximum participation of students from various schools, higher secondary schools and colleges. Various events such as the 24 hours continuous Inspirathon (hackathon) in association with FIIRE, Rubik's Cube, Mindspark, Masked Hunter, Framed, Incarnate, Keyboard warrior, Code Trade, Runtime Terror were organised. A workshop on Agile Mindset and Engineering in Education & Digital Transformation Trends in Education was also organized for faculty and students.

The Chief guest for the inaugural function was Mr. Milind Anvekar - President of Goa Technology Association, Vice President Open Destinations and Guest of Honor was Mr. Nitish Raikar- Chief Operations Officer, Kilowatt. Both the officials welcomed the audience and gave an eye opening speech about the immense importance of the ever-growing IT sector in both the current times and the upcoming future.

The event details are as follows:

1. Inspirathon: Hackathon

The event began on the 29 October at 12 noon and lasted till 30 October 12 noon over a period of 24 hours. The event was organized in association with FiiRE (Forum for Innovation Incubation Research and Entrepreneurship) the incubation centre at DBCE, and One Shield Software. A total of 13 teams participated in the 24 hour long coding event. The main coordinator of the event was Mr. Oysturn Vas. The faculty coordinators were Prof. Mithil Parab and Prof. Amey Tilve.

2. Code Trade: Swap Coding

Code trade was an offline coding event held on 30 October. A total of 14 teams participated in the event from various high schools, higher secondaries, undergraduate and diploma from professional and non-professional institutions from Goa. The winners for the event were team Code Homies and Code Wiz. The faculty coordinator was Prof. Janhavi Naik and the student coordinator was Druvi Tendulkar.

3. Incarnate!: Digital Comic Illustration

The Incarnate! event involved 18 participants competing amongst each other to provide the best quality of art in the given time. The theme of the event was 'Worlds Collide' College as well as school students from various institutions in India participated in this virtual event. The winners were Rutwik Korgaonker and Samuel Jason Rodrigues. The event coordinator was Mr. Aryan Kotru.

4. Framed: Photography

Framed was an online photography solo event held on 29 October. The event witnessed a huge participation of around 60 students from various colleges. The winners were Himanshu Naik and Stanric Cardozo. The event coordinating team was led by Nihal Kamat.

5. Keyboard Warriors: A speed typing event.

Keyboard Warriors was held on 29 October. A total of 55 enrollments were recorded. The winners were Nathan Henriques and Andrio Gonsalves. The event coordinator team was led by Ronan Mendes.

6. Masked Hunters: Treasure Hunt

The event was held on the 30 October, in which five teams participated. The participants were given clues in the form of codes which were to be decoded to obtain the treasure. The coordinating team was led by Mr. Ashish Mishra. The faculty coordinator was Dr. Vivek Jog.

7. MindSpark: Quiz Event

Mindspark was an offline quiz event held on 29 October. The theme of the quiz was Tech, Science and General Knowledge. Around 16 teams participated in the event. The winners were Caymann Velingkar and Shanktaksh Kamat. Runners up were Harshavardhan Pathakji and Harsh Naik. The student coordinating team was led by Mr. Shubham

Tendulkar. The faculty coordinators were Prof. Ankit Tiwari and Prof. Siya Naik.

8. Runtime Terror: Coding-Decoding.

Runtime Terror was held on the second day of the event i.e. 30 October. A total of 11 teams (2 participants in each team) participated. The winners were Team Gochugaru. The runners up were Team Stream Troopers. The event coordinators' team was led by Gauravi Kamat.

9. Rubik's Cube:

The rubik's cube event involved 23 participants competing with each other to be the fastest to solve a 3x3 rubik's cube. Participants from various colleges of Goa participated for the event. The winners were Yaduraj Kuncolienkar and Shrey Amonkar. The event coordinator was Mr. Nihal Kamat and the faculty coordinators were Prof. Nisha Godinho and Prof. Janhavi Naik.

10. Workshops: 'Digital Transformation Trend in Education' and 'Bringing Agile Mindset and Engineering in education'.

The seminars were attended by 18 participants comprising of faculty from various colleges. The event speakers were Mr. Anay Kamat and Mr Mark Rocha. The faculty co-ordinators were Prof. Nisha Godinho and Prof. Shweta Morajkar and the student co-ordinator was Mr. Germano D'costa.

The event concluded with the valedictory function, the Chief guest was Mr. Nitish Raikar, COO, Kilowatt. The Chief guest spoke about his practical experience in engineering, job searching and his journey to become job ready from failures to success and quoted that "Career is the intersection between industry and line of business and that it is essential to be flexible and adaptable to be successful in IT industry". The C-CODES and INSPIRUS coordinator Prof. Merwyn delivered the INSPIRUS 2K21 report. A total of 271 participants took part in INSPIRUS 2K21.

The events winners of INSPIRUS 2K21 were felicitated with certificates and prize money. The event concluded with a vote of thanks by Prof. Amey Tilve. Nicole Fernandes and Aryan Kotru were the compères for the valedictory ceremony.

C-CODES Council Installation & Inspirus 2K21 Inaugural Ceremony



The annual installation of C-Codes, the Students Council of Computer Engineering and inaugural ceremony of "INSPIRUS 2K21" was held on October 29th, 2021. This ceremony was held in the presence of the Chief Guest, Mr. Milind Anvekar who is the President of Goa Technology Association, Guest of Honor, Mr. Nitish Raikar who is the Chief Operation Officer of Kilowatt, Mr. D.S. Prashant - CEO FIIRE, Rev. Fr. Paul D'Souza- Rector, Rev. Fr. Kinley D'Cruz-Director, Dr. Neena S. P. Panandikar- Principal, Dr. Gaurang Patkar- Head of the Department of Computer Engineering as well as the faculty members of the Department of Computer Engineering.

The inaugural ceremony commenced with a video showcasing the institute's history for the past decade, its aims and achievements, a video showcasing a trailer of Inspirus followed by the lighting of the lamp. Dr. Neena Panandikar introduced the Chief Guest, furthermore she shared her views on C-CODES and Inspirus, as well as applauded the efforts taken by the council, volunteers and faculty coordinators for the same. Rev. Fr. Kinley D'Cruz then spoke and gave his views on the transpiring event and wished the participants his best. He emphasized the importance of how this era is not just about "Learning but learning to relearn."

The report for the C-CODES Council of 2020-2021 was then delivered by ex-Chairman of C-Codes, Mr. Cyndroy Rebello, in which he mentioned the activities carried out by the C-CODES council for the previous year 2020 -21 and a brief overview of the Inspirus 2020. Appreciation towards the outgoing C-CODES members then took place which was followed by



felicitation of Alumni who excelled with distinction.

Guest of Honor, Mr. Nitish Raikar provided insight about the 4th Industrial Revolution and how the 3rd wave of the pandemic ushers a bigger wave of Industry 4.0; new start-ups, professions, the evolution of professions and competition in the market. He said that “New generation should help the old and vice versa in today's world of digital disruption”

The new C-CODES council, for the academic year 2021-2022, headed by the chairman Mr. Carson Rodrigues was introduced. This was preceded by the members of the new council taking the oath of leadership and responsibility.

The Chief Guest, Mr. Milind Anvekar lauded the efforts of the council members in putting together Inspirus 2k21. He further wished them success in their future endeavors and advised them to expand their skills, using their skills in an innovative, creative and interesting way. In conclusion, he quoted that it is very important to adapt to the ever changing industry and emphasized that the IT industry will open doors of opportunity to youngsters. Mr Milind said that “Its important to grow as a person and activities like INSPIRUS 2K21 help in building overall growth”

The vote of thanks was proposed by Dr. Gaurang Patkar who echoed words of appreciation and thanks. Miss Nitya Pai and Mr. Joshua Fernandes were the comperes for the event.

Dr. Gaurang Patkar Wins GTA Award 2021

Goa Technology Association (GTA), an association of IT companies in Goa, organized their fourth anniversary with a Tech meet and award night. Honorable Chief minister of Goa, Dr. Pramod Sawant was the Chief Guest and Minister of Information Technology, Ms. Jennifer Monserrate was the Guest of Honor. Dr. Gaurang S Patkar, Head of Department of Computer Engineering was conferred with GTA award and 1000 FOHO coins for his contribution in the field of Artificial Intelligence and Data Analytics. He was the only faculty chosen for this award from all engineering colleges in Goa. The event was in DoubleTree by Hilton, Panaji.

The event was attended by IT, ITES and tech startups from Goa and began with a session from Flipkart on the future of e-commerce payments, followed by many sessions from reputed companies in and around Goa.

SCIENCE AND HUMANITIES

Student Induction Programme FE Orientation 2021

As mandated by the AICTE Model Curriculum, the Science & Humanities Department conducted a two-week Student Induction Programme for the newly inducted first year engineering students. Due to pandemic the Induction Programme was held in online mode through Microsoft Teams & Google Meet platform. The programme was hosted by the FE class teachers Prof. Gladys D'Silva, Prof. Ulpa Waingankar, Prof. Steefni Cruz, Prof. Harison Cota and Prof. Vaishali Parakhi, along with Prof. Natasha D'Souza e Jaques, Ms. Maya Lin Noronha and Ms. Grebian Alemao. The Induction Programme was coordinated by Institute Induction Programme Cell (IIPC) members Prof. Gladys D'Silva & Prof. Harison Cota under the leadership of Dr. Kala Nayak, Registrar & HOD, Science & Humanities Department. The schedule of the Programme was meticulously prepared keeping in mind the norms and recommendations set in the model curriculum.



Day 1 (4th October 2021)

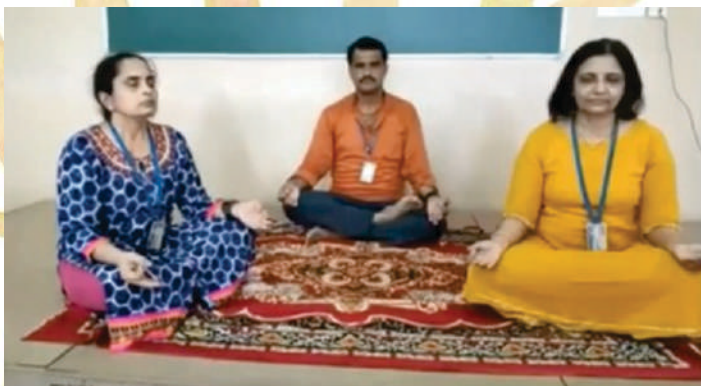
In the morning session the students were welcomed and addressed by the Director, Fr. Kinley D'Cruz and Principal Dr. Neena Panandikar. The director briefed them about the history of Don Bosco, the Salesian family and the various Don Bosco institutes in Goa. The principal gave a general overview of the various activities and achievements of the college.

In the afternoon session, Fr. Ralin De Souza, Administrator, DBCE, gave a session on the Don Bosco's Spirit, wherein he spoke about the Don Bosco's preventive system of education and encouraged the students to take active part in all the activities carried out at DBCE.

Day 2 (5th October 2021)

The morning session began with yoga exercises conducted by Prof. Vaishali Parakhi, Prof. Suraj Marathe & Dr. Kala Nayak. This was followed by a talk on Health & Nutrition by Dr. Joline Fernandes, Immunity, Lifestyle & Wellness Consultant. Dr. Joline, in her talk, emphasised that it is important to eat to be healthy rather than to have a good physique.

In the afternoon session, the HODs of the different departments, Dr. Shwetha P. (Civil), Prof. Ajit



Salunke (Mechanical), Dr. Varsha Turkar (ETC) and Dr. Gaurang Patkar (Computer), interacted with their respective branch students and enlightened them about the vision, mission of the department, activities of the department and the NBA accreditation process.

Day 3 (6th October 2021)

In the morning session, Ms. Avila Naik, Training & Placement Officer, gave an overview of the career options available to engineering graduates including higher studies and becoming entrepreneurs. She also detailed the activities conducted by the placement cell.

The next session was by Ms. Poonam Shirsat, Founder Director, The Skill Company. In her session "Facing Challenges with a Smile", Ms. Shirsat actively engaged the students encouraging them to have a positive mindset. She, however, could not complete her session due to network issues.

In the afternoon the students were given an insight into the Cultural, Sports, NSS and SEEDS activities at DBCE by the respective faculty co-ordinators Prof. Amey Tilve, Dr. Avertano Barreto, Prof. Chetan Gaonkar & Prof. Ulpa Waingankar. Prof. Yeshudas Muttu briefed the students about IEEE students chapter while Prof. Avila Naik spoke about the activities of the Entrepreneurship Cell (E-cell) including the "Entrepreneurship: Idea to Startup" Audit Course.

Day 4 (19th November 2020)

The day began with a session on "Universal Human Values" by Prof. Selvyn Fernandes in which he highlighted, with practical examples, the importance of having good human values.

This was followed was Ms. Shirley Sousa, Lawyer, giving a talk on the Constitution of India. Ms. Sousa emphasised on the Preamble and also made the students aware of the fundamental rights & duties as enshrined in the Constitution. The session concluded with a quiz on the Constitution of India.

In the afternoon session, Mrs. Maya Lin Noronha, Prof. Steefni Cruz & Prof. Ulpa Waingankar actively

engaged the students in fun activities & games. The students too showcased their talents in art and singing.

Day 5 (8th October 2021)

The first session for the day was “Role of Engineers in Society and Industry”, which was conducted branch wise with faculty from respective branches, Prof. Jeffrey Valadares (Civil), Prof. Sachin Turi (Mechanical), Prof. Trima Fernandes (ETC) and Dr. Vivek Jog (Computer). In the session, the faculty underlined the contribution of engineers in their respective fields.

Next, Dr. Dayanand Rao, Medical Officer, GMC gave a motivational talk “Being Positive during COVID”. Dr. Rao encouraged and motivated the students to be focused and excel in all circumstances.

In the afternoon was a session on FiiRE by Mr. Venugopal TR, Incubation Manager, FiiRE. He spoke to the students about the incubation process and the facilities provided at FiiRE, the Startup Incubator at the DBCE Campus.

This was followed by another round of games and fun activities conducted by Ms. Grebiana Alemao, Prof. Steefni and Prof. Ulpa along with other faculty from Science & Humanities Department.

Day 6 (9th October 2021)

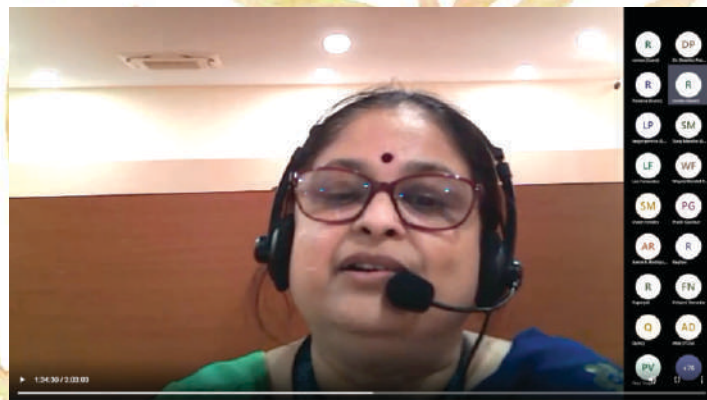
In the morning session the FE students were invited to the campus for a tour of the entire DBCE Campus. In order to maintain distancing, the students from different branches were called at different timings. Faculty from the respective departments along with the FE class teachers showed the students the classrooms, labs, staffrooms, administration sections, seminar halls, common rooms and washrooms, canteen, sports facilities and the FiiRE facility.

Orientation For Parents Of FE Students

In the afternoon an orientation programme was conducted for the parents of the FE students through Microsoft Teams. The orientation began with a virtual tour of the college campus through a

short video. Fr. Kinley D'Cruz, Director, then addressed the parents wherein he briefly explained the history of Don Bosco and the various Don Bosco institutes. Fr. Kinley also explained to the parents the rules & discipline expected from the students in the institute.

Next, Dr. Neena Panandikar, Principal, gave an overview of the various activities being held at the College and highlighted the progress of the college over the years.



Dr. Kala Nayak, Registrar, then informed the parents about the FE scheme of instructions of the 1st & 2nd semester and the grading system as per the new AICTE model curriculum. Further, Dr. Nayak briefed the parents about the various scholarships which the students can avail of.

This was followed by the heads of the Science & Humanities, Mechanical Engineering, Civil Engineering, ETC Engineering and Computer Engineering Departments highlighting the activities and achievements of their respective departments.

Prof. Avila Naik, TPO, gave a report of the placement drives and the status of students placed over the years.

The parents' orientation was hosted by Prof. Gladys D'Silva.

Day 7 (11th October 2021)

In the morning session Dr. Kala Nayak, Registrar & HOD of Science & Humanities, explained about the FE Curriculum, Grading System and Scholarships which the students can avail of. She further introduced the

FE faculty to the students and also briefed the students about the labs and audit courses conducted by the Science & Humanities Department.

This was followed by a workshop on Communication skills conducted by Prof. Steefni Cruz. The workshop focussed on letter and email writing.

Day 8 (12th October 2021)

Prof. Ankit Tiwari, in the morning session, enlightened the students about cyber security and told them about the precautions we need to take while engaging in social media and online transactions. He also answered students' questions about ethical hacking and dark web.

In the next session, Mr. Roland D'Cruz, Librarian along with Library Assistant Venessa Fernandes educated the students about the college library system and facilities and gave a demo of the online library portal.

Day 9 (13th October 2021)

In the morning session, Dr. D.S. Vidhya explained to the students the NPTEL online certification courses, especially with respect to Goa University BE Honours program and Domain certification which the students can obtain by undergoing NPTEL certification courses.

This was followed by briefings about activities conducted in the college through Students Satellite Club, Fire & Security Association of India (FSAI) and Institute Innovation Council (IIC) by the respective faculty co-ordinators Prof. Mohini Naik, Prof. Saurabh Raikar and Prof. Michelle Viegas.

Further, Ms. Grebian Alemao, Counsellor, explained to the students the student mentoring program followed in our institute, while Ms. Maya Lin Noronha, Counsellor, gave a session on Time Management.

Day 10 (14th October 2021)

This being the last day of the orientation, in the morning session, Dr. Kala, Registrar gave information about the Academic Calendar on the current semester. Prof. Harison then displayed and explained the offline/online timetable of the FE

classes. In the next session, the senior students and alumni of the respective departments interacted with the FE students and shared their experiences and progress at DBCE.

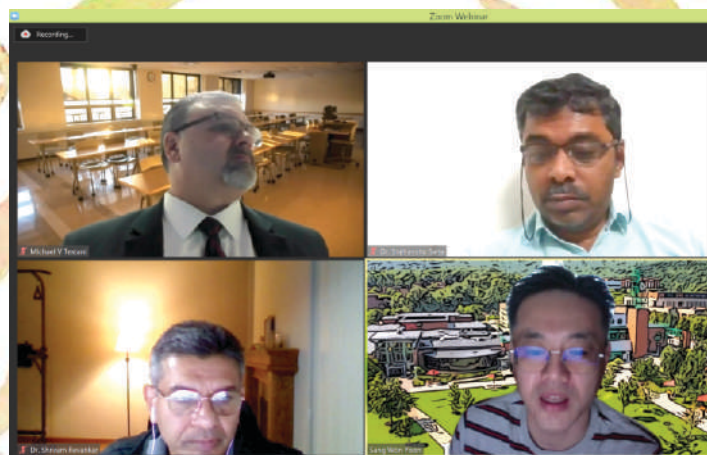
During the afternoon sessions of Day 7 to Day 10, the students were introduced to the various first semester subjects like Mathematics, Physics, Chemistry, Basic Electrical & Electronics Engineering, Basics of Mechanical Engineering, Environmental Science, Workshop Practice and Communication Skills by the respective faculty.

Also, faculty from the respective departments engaged the students in special sessions like PCB design, Technical paper writing, to name a few. Feedback was taken from the students after the morning and afternoon sessions on each day of the Induction Programme in which they mentioned that they had benefited from the various sessions and also gave suggestions for improvement.

Don Bosco Binghamton Big Data International Online Conference DB3D – 2021

The Department of Science and Humanities together with Binghamton University (BU) organized the Don Bosco Binghamton Big Data International Online Conference DB3D – 2021 from October 19-21, 2021. A total of 107 participants registered for the conference.

The Conference began with an Inaugural on October 19, 2021, graced by the presence of Rev. Fr. Kinley D'cruz - Director - DBCE, Dr. Mohammad Kasawaneh - Professor; Department Chair; Graduate Director;



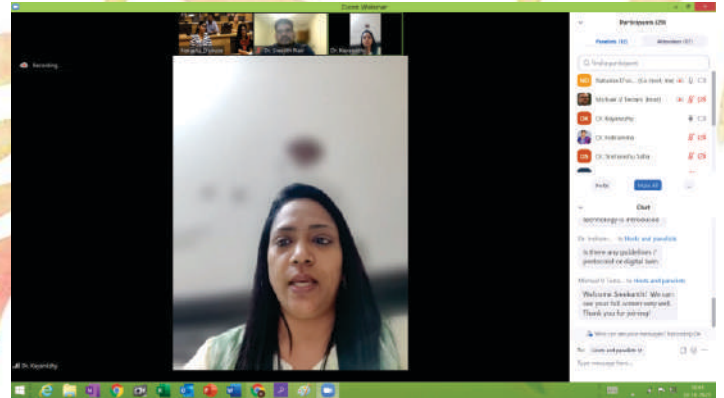
Professor; Associate Director - BU and Dr. Neena Panandikar – Principal – DBCE.

In her address to the audience, Dr. Neena Panandikar referring to DB3D 2021 said, “I am very sure this will be a great platform for the researchers to exchange vision and ideas to shape our future to discuss how this new knowledge and capabilities can drive progress into the 2021 and beyond.”

Rev. Fr. Kinley D'Cruz related the details of the Don Bosco Society. He wished the organisers and participants and further added, “We are coming together to enlarge our horizons and may this learning experience take us far and wide.”

Dr. Mohammad Kasawaneh appreciated the DB3D 2021 team from BU and DBCE and mentioned “We are delighted to have several participants from IBM or joining us as part of the 3-day conference as keynote speakers.”

The participants were enriched by the insights of 11 Keynote speakers, Dr. Hiroki Sayama- Professor, Department of Systems Science and Industrial Engineering, Binghamton University, Dr. Ben Amaba - Global Chief Technology Officer (CTO), Data Analytics and AI Elite Team, Industrial Manufacturing, IBM, Dr. Indiramma- Professor, Department of Computer Science and Engineering, BMS College of Engineering, Bengaluru, Dr. Snehanshu Saha - Associate Professor, Computer Sc. & Information Sys. and APPCAIR, BITS Pilani, K K Birla Goa Campus, Dr. Shriram Revankar - VP and Fellow, Adobe Research Labs Bangalore, Dr. Sangwon Yoon- Associate Professor Dept. of Systems Science & Industrial Engineering, Binghamton University, Dr. Sreekanth Ramakrishnan - Senior Technical Staff Member, IBM Z Hybrid Cloud Strategy, IBM, Dr. Sreejith Nair - Postdoctoral Research Fellow, Research Institute for Autonomous systems, University of North Dakota, Dr. Aruna Gowada- HOD, Computer Engineering Government Polytechnic, Daman, Assistant Director of IT, U.T. of Daman & Diu, Dr. Nitin Upadhyay- Chairperson Integrate Program in Management Co-Chairman Information Technology and Systems, Indian Institute of Management Jammu, Dr. Vivek Jog- Assistant



Professor, Department of Computer Engineering, Don Bosco College of Engineering.

Varied topics were addressed by the keynote speakers during the conference as follows: Understanding Diversity, Innovation and Social Evolution: Theoretical and Experimental Approaches, The Process and Approach for Data Analytics, Machine Learning, and Artificial Intelligence becomes Critical for the Future, Big data business models and case studies, Optimization: A Multi-armed Bandit In Deep Neural Nets, AI and Bigdata Algorithms and Challenges, Digital Transformation using Artificial Intelligence/Machine Learning in Electronics Manufacturing, Transforming Client Experience through Industrial Engineering Techniques, Moving computation from cloud to ground, Frequent Sub Graph Mining, Big Data Crossroads: Maximizing the opportunity and overcoming the challenges, Taxonomy of Big Data Analytics Tools for Beginners. There were 48 authors who presented their research work at the Conference. The presentations were moderated by Prof. Michael Testani - Director of Industry Outreach-BU and Prof. Kala Nayak - Head of Department of Science and Humanities- DBCE.

The closing remarks for the conference were presented by Prof. Michael Testani and Prof. Kala Nayak.

The participants expressed that the talks had indeed added more flavour to their research areas through the feedback they provided. The International Conference was coordinated by Conveners - Prof. Michael Testani - Director of Industry Outreach-BU and Prof. Kala Nayak - Head of Department of

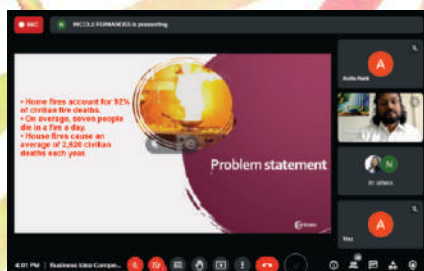
Science and Humanities - DBCE and Co-Conveners- Dr. Hiroki Sayama - Professor, Department of Systems Science and Industrial Engineering, BU, Dr. Sangwon Yoon - Associate Professor Dept. of Systems Science & Industrial Engineering, BU, Dr. Kenneth Chiu - Associate Professor-Computer Science- BU, Mr. Harison Cota- Asst. Professor-Department of Science & Humanities- DBCE, Mrs. Natasha D'souza e Jaques- Asst. Professor-Department of Science & Humanities- DBCE.

E-CELL (Entrepreneurship Cell)

Business Idea Competition

Entrepreneurship Cell organized Business Idea Competition under Entrepreneurship: Idea to Startup Course exclusively for ECell Students on Friday, 24 September 2021 at 3.00 p.m. via Google Meet.

Prof. Mathilda Colaco, Host and Event Coordinator highlighted the aim of this event and welcomed the participants, judges, and viewers for this event. Principal, Dr. Neena Panandikar congratulated all the participants and mentioned that participation is more important than just winning. She applauded the efforts taken by the ECell Team in organizing the



event. She stated, "If you will keep on participating in such events then surely one day, we will see you as entrepreneurs. It does not matter that you win or lose, all that matters is the courage to take part."

Prof. Satyesh Kakodkar, ECell Faculty Member introduced D S Prashant, CEO – FiiRE (Forum for Innovation Incubation Research & Entrepreneurship), Rohin Parkar, Co-Founder & CEO – Mriinq Technologies (Spintly) and Kanan Tandil, Co-Founder – CogniQue as Judges for this event. Ecell students (presently in Second Year of Engineering) presented 08 Ideas in the competition.

The participants enthusiastically spoke about the idea mentioning the challenge and prospect of these ideas. The team leaders: Vadiraj Inamdar (COMP), Nishil Hoogar (COMP), Sejal Sanjay karapurkar (COMP), Nicole Ana Fernandes (COMP), Ronan Chris Mendes (COMP), Leo Barros (COMP), Hitendra Naik (COMP) and Jeremy Gilbert (ETC) along with their team members answered the questions put forward by the judges in the best way possible.

Prof. Amey Tilve, ECell Faculty Member declared the results. The first Place awarded to Sonic Drone Fire Extinguisher idea presented by Nicole Ana Fernandes and Second Place to Quarantined Chefs idea by Leo Barros. The judges congratulated the winners and the participants too and provided their inputs. The event concluded with the vote of thanks proposed by Prof. Manjunath Narwate, ECell Faculty Member who echoed the words of appreciation to the Director, Principal, Judges, ECell Student Members and the entire E-Cell Team. The event was planned and executed by the E-Cell Team – Prof. Satyesh Kakodkar, Prof. Manjunath Narwate, Prof. Mathilda Colaco, Prof. Amey Tilve, Dr. Shreyas Simu and Mrs. Avila Naik.

INSTITUTE INNOVATION COUNCIL

Webinar On 'Industry 4.0: Changing Shape Of Businesses And Job In The Age Of Automation'

Institution Innovation Council and ECell organized a one-day Webinar on August 27, 2021, titled 'Industry 4.0: Changing shape of Businesses and Jobs in the Age of Automation'. Mrs. Avila Naik, ECell Convenor and IIC Member started the session with a warm welcome to all the attendees, introduced the DBCE IIC, and introduced the guest speaker. The session was delivered by Guest Speaker Mr. Abhinav Mishra - Founder & Director of Products, Research, Modelling & Analytics Value3 Advisory.

The session was quite interactive. He initially spoke about his career journey in detail. Mr. Abhinav Mishra mentioned all his highs and lows in his journey from an engineer to an entrepreneur. He mentioned the skills that are required by any individual to pursue

their dreams. He said, “Inculcate intellectual curiosity and prepare a career graph to create a value”. He described how the field of Artificial Intelligence (AI) and Robots have now taken over the world, and how it is only going to be an upslope in this field henceforth. He gave an example of Amazon and how it evolved as a company and has since adapted to the AI revolution in its early stages to obtain great heights today.

The session ended with a Q&A session, allowing the participants to interact with Mr. Abhinav openly. Student Coordinator Ms. Sheena Mashelkar proposed the vote of thanks.

RESEARCH AND DEVELOPMENT

R & D Activity: Talk On Mathematics In Temple Architecture

The R & D Cell (Department of Science & Humanities) had their knowledge sharing session on August 30, 2021. The Resource person was Ms. Ulpa Waingankar.

Ms. Ulpa Waingankar started her presentation with the quote “The most important principle of environment is that you are not the only element”, followed by the meaning of Fractal which is the self-similar recursive geometry. She then spoke on Hindu Philosophy describing the cosmos as holonomic and self-similar in nature.

In connection to this context, she elaborated that fractal theory was being followed in Indian Hindu Temple Architecture much before the discovery of Fractal Theory. Her presentation was aimed at giving an elementary idea about the fractal theory and the basic structure of Hindu temples with supportive and self-explanatory visuals and analysis of the topic. She concluded with emphasis on the relationship between Fractal Theory and Hindu cosmology by reasoning out why Fractals were preferred and used in Temple architecture

'How To Win Friends And Influence People' – Dale Carnegie: An Overview

Department of Science and Humanities held its monthly Knowledge Sharing Session, under R&D cell on September 23, 2021 through Google meet. The session was delivered by Ms. Steefni Cruz on the topic 'How to Win Friends and Influence People' – Dale Carnegie: An Overview

Ms. Steefni Cruz quoted the following “When dealing with people, let us remember we are not dealing with creatures of logic. We are dealing with creatures of emotion, creatures bristling with prejudices and motivated by pride and vanity.” She mentioned, 'How to Win Friends and Influence People' by Dale Carnegie is a self-help classic that reads as a life manual. Ms. Steefni Cruz highlighted the core idea of the book is that one can change other people's behaviour simply by changing their own. She further stated that the book teaches the principles to better understand people, become a more likeable person, improve relationships, win others over, and influence behaviour through leadership.

The session touched upon topics like the fundamental techniques in handling people, ways to make people like you, the skill of winning people to your way of thinking and being a leader without arousing resentment or offense. The session aimed at giving a basic overview of the book while also imparting key elements in helping the audience to build on their personalities.

The session was coordinated by Mrs. Gladys Da Silva with encouragement from Dr. Kala Nayak- Head of Department – Science & Humanities and was attended by all the teaching as well as non-teaching staff.

R&d Knowledge Sharing Session On 'use Of Cow Dung Ash As Partial Replacement For Cement In Mortar' & 'building Information Modelling (bim) Technology: Trends And Challenges

The Civil Engineering Department had its seventh session under R&D cell on the 6th October 2021. The

two speakers for this session were Asst. Prof. Kaushik Pai Fondekar and Dr. Shwetha P.

Prof. Kaushik presented on 'Use of Cow Dung Ash as Partial Replacement for Cement in Mortar'. The speaker explained how the use of cement could be reduced in mortar by replacing it with cow dung ash. He explained that Cow dung ash is obtained when the cow dung is dried for 12 days, heated at around 420-550 degrees Celsius and is cooled and crushed into powder form and then sieved under IS 400 micron sieve. He also informed that Cow dung ash as a by-product is readily available at cattle farms at negligible price and sometimes is almost free of cost. He highlighted that replacement of cement by cow dung ash had resulted in better strength, durability and workability as compared to conventional mortar mix.

Prof. Kaushik concluded the following from his study saying the compressive strength throughout the testing period of 7, 28 and 56 days with every replacement percentage gives a value higher than 3 N/mm² as per IS 4031-6 (1988). He also stated that the optimum percentage of replacement of cement with Cow dung Ash across 7, 28 and 56 days was found to be close to around 15% due to higher strength of around 10 N/mm² at 56 days of curing. As far as cost is concerned with the compressive strength and replacement of cement combined, the best percentage was found to be at 25% Cow Dung Ash.

The paper was published in International journal of Engineering Research & Technology, Volume 9, Issue 14 along with Deepam Kamat, Omprakash Gupta, Aniket Palyekar, Vinav Naik, Vaibhav Khadilkar and Akshata Kudchadker.

Dr. Shwetha presented on 'Building Information Modelling (BIM) Technology: Trends and challenges'. Dr. Shwetha introduced the BIM technology as the most promising development in Architecture, Engineering and construction Industry. She also explained that the BIM technology helps architects, engineers and constructors visualize what is to be built and thus identify any potential design, constructional or operational issue.

Dr. Shwetha elaborated on the following

applications of BIM technology: (i) Visualization can be easily generated, (ii) fabrication/shop drawings are generated for various building systems, (iii) Code Review: Fire department and other officials may use these models for their review of building projects, (iv) Cost estimating: the software has built-in cost estimating features. She also highlighted on the challenges in the usage of this software. The challenges discussed were as follows (i) need for well-developed practical strategies for the purposeful exchange and integration of meaningful information among the building information model components, (ii) need to standardize the BIM process and to define guidelines for its implementation, etc.

Knowledge Sharing Session on Red Tacton

The Department of Computer Engineering organized its monthly Knowledge Sharing Session, under the R&D cell on October 9th, 2021. The Knowledge Sharing Session initiative involves activities whose main motive is to update Faculty members with the latest trends in Technology and Research and to learn something beyond academics. The session was taken up by Prof. Merwyn D'Souza and Prof. Amey Tilve on "Red Tacton" through the Google Meet platform.

Prof. Merwyn D'Souza started the session by explaining the overview of Red Tacton. He introduced the concept of Red Tacton, the working of Red Tacton and the features of Red Tacton. Prof. Merwyn said that "Red Tacton is a new Human Area Networking technology that uses the surface of the human body as a safe, high-speed network transmission path."

Prof. Amey Tilve explained the different applications of Red Tacton like one-to-one services, intuitive operations, personalization, new behaviour patterns and security applications. He said that Instant Private Data Exchange can be done just by shaking hands and then personal profile data can be exchanged between mobile terminals on the users.

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.

R&D lecture on “Positive Psychology” **Department of Science & Humanities**

Department of Science and Humanities held its monthly Knowledge Sharing Session, under R&D cell on 23 October through Google meet. The session was taken by Ms . Mayalin Noronha

Ms. Maya Lin began her session with a quote from Martin Seligman who said “The aim of Positive Psychology is to catalyse a change in psychology from a preoccupation only with repairing the worst things in life to also building the best qualities in life.”

She said Scientists from the positive psychology movement, tells us that, to live a good life it is not enough to remove what is wrong with it, but to work on the positivity you have within. We put emotions in a spiral, giving a spiralling effect...a downward spiral for negative emotions and an upward spiral for positive emotions. And so each emotion, implicitly takes as its job to recreate itself in the next minute. And each emotion in this moment affects our emotions in the next moment.

Negative emotions differ from positive emotions in that positive emotions are so much more subtle than negative emotion, that is, negative emotions kind of scream at you, and positive emotions are just a little whisper sometimes. It's interesting that the, positive events happen more frequently than negative events, so we really just need to take notice of the positive events that are already there and appreciating things that are there.

She spoke on 10 different types of frequently experienced common positive emotions. All of these positive emotions are in the order of their frequency in people's daily experience. The Positive emotion that's probably closest to happy would be Joy, followed by Gratitude, Serenity, Interest, Hope, Pride, Amusement, Inspiration, Awe and Love.

She then further spoke about how positive emotions help us and how to work on it. She quoted from Rick Hanson, author of *Hardwiring Happiness*, suggestion, that pausing to let good events sink in for ten to twenty seconds allows them to become part of you. And this habit can rewire your brain to create a lasting positive psychology inside of you.

She said that there is an analogy with how plants flourish because of Sunlight and a similar heliotropic effect happens in humans, where at some level, your brain knows this, and turns towards sources of positivity, and stretches itself open to take in as much as it can in order to flourish where positivity is crucial for the life of all humans

We were introduced to an experience of Loving Kindness Meditation This meditation, of loving kindness involves generating feelings of warmth, caring, and friendliness toward oneself and others and is a way of developing intentions and concentration. She spoke on the Vagus nerve and how it is really implicated in both psychological health and in physical health.

She also spoke on how the immune system responds to stress and adversity. in good times, when you're connected with other people, those emotions of connection kind of warn the immune system that there's a lot of togetherness going on. “Other people matter”, period.

At the same time that positive emotions beget health and health begets positive emotions.

She concluded by saying Everything is possible, maybe not immediately, but the very seeds you plant, the very seeds you water will create the future. Take time to quieten your mind, meditate, open your heart, listen to the trees, the voice of nature and just



cultivate loving-kindness. The session was coordinated by Ms. Gladys Da Silva with the encouragement from HoD Dr. Kala Nayak and was well attended by all staff.

FiiRE (Forum for Innovation Incubation Research and Entrepreneurship)

The following events were conducted at FiiRE

August:

1. HEAT:

Help Entrepreneurs Achieve and Thrive (HEAT) is a guided peer group discussion, action planning and review process for startups. To gain maximum benefit from the programme. HEAT will assist you in creating a powerful action plan as well as stay on track via monthly reviews. It will help you in achieving clarity in your objectives, understanding the actions you need to take to achieve the objectives and hold yourself accountable for the said objectives with our Inhouse mentor Mr. Moorly Dharan.

- Tools and techniques to improve action planning
- Accelerates target achievement
- Improves probability of obtaining funding

2. Investor Meetup with FiiRE Startups:

FiiRE's flagship investor meet series was organized to help startups talk to investors about their fundraising plans, discuss growth & other challenges in an informal setting. This helped startups gain insight on 'thinking like an investor' and best practices before fundraising.

3. Padmashri Milind Kamble visited FiiRE

September:

1. Cyber security hosted by Don Bosco College of Engineering

2. Enterprise Creation Program:

A workshop for people who are interested in being entrepreneurs. The speakers were Mr. B.S Revankar, Mr. Ramchandra Salgaokar and Mr. Tushar Sawant

October:

1. Students from VVM's Shree Damodar College of

Commerce and Economics College in Margao, Goa College visited FiiRE

2. 2-day Tourism Accelerator Program:

10 Tourism Companies from across India came to Goa to pitch their idea to the tourism committee and a few inhouse investors of FiiRE.

Company Name

10Times

Auxbrains Ventues Pvt Ltd.

(Momingly)

Digitour

hav.

Instio Experiences Pvt Ltd

Lokaso Media

Offbeat Tracks

PARAM PEOPLE INFOTECH

SOLUTIONS PVT LTD

Revio Solutions

Srishti Lifescience Private Limited

TravStackSai Santhosh

TrippDeals Online Services Pvt Ltd

Tyndis

Zodhya

Founder

Atul Todi

Rinjo John

Anand

Abdul

Girish

Rajat

Vandana

Rajesh

Midhun

Prateek

Prabil

Naveen

Rohit

1. Transfer of Technology:

A platform providing an opportunity for collaboration between ideators, inventors, entrepreneurs, investors, domain experts and related stakeholders to create amazing technology companies. Ideators had to register themselves under any of these categories: Agritech, Clean Tech, Food Industry, IT Based, Others.

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