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NEWS IN GENERAL

Smart India Hackathon 2020 Internal Campus Hackathon Held at DBCE, Fatorda

Smart India Hackathon 2020 is a nationwide initiative to provide students a platform to solve some of the pressing problems we face in our daily lives, and thus inculcate a culture of product innovation and a mindset of problem solving. In SIH 2020, the students would have the opportunity to work on challenges faced within various Ministries, Departments, Industries, PSUs and NGOs to create world class solutions for some of the top organizations including industries in the world, thus helping the Private sector hire the best minds from across the nation.

In order to shortlist the teams for the Hardware and Software edition of SIH 2020 an internal hackathon was conducted at the college campus on 27th January 2020. A total of 22 teams comprising of 6 members each participated in the hackathon. The teams comprised of students from Mechanical, Computers, Electronics & Telecommunication and Civil Engineering. They presented their innovative ideas in front of a two member jury panel comprising of Mr. Aaron Miranda Colaco, Software Consultant, working with Blockchain and Mr. VenuGopal, Corporate relation Manager at FIIRE.

In the Hardware edition teams APOGEE and Electrovert emerged as the finalists. In the Software Edition teams INS, Haystack, Bazinga, Innovative Geeks and Mind Benders were declared the finalists. Teams Focus, Rekrete and Squadron-7, Technocrats were placed in the waitlist category in the Hardware Edition and software edition respectively.

Talk on Rights of Women in India and Road Safety

On 29th January 2020 students from Govind Ramnath Kare College of Law, Margao- Goa delivered a talk on Rights of women in India and Road safety. The session began with creating awareness about various women's rights under the Constitution of India mainly: equality, dignity, and freedom from discrimination. Additionally, India has various statutes governing the rights of women. They also spoke about the importance to be aware that road traffic injuries remain an important public health problem. When road safety products are utilized correctly or efficiently, they can help save lives, prevent accidents and injuries, and keep the society functioning in the most optimal way. The talk was attended by students of First year mechanical and civil engineering branches.

Feast of Don Bosco

On the feast day of St. John Bosco, 31st January 2020, a Thanksgiving Eucharist was celebrated at 11:00 am in the Chapel, followed by a variety of party games in the Auditorium at 12:00pm noon followed by a festive lunch at 1:00 pm. All the Staff teaching and non-teaching and a few students were present.

State Level Seminar on "Smart Phone Addiction: Physical, Social and Psychological Issues"

Nirmala Institute of Education organised a one day State Level Seminar on "Smart Phone Addiction: Physical, Social and Psychological Issues" on February 18th, 2020, for which the Counsellor – Don Bosco College Of Engineering- Mrs. Maya Lin Noronha, was deputed.

The Chief Guest for this function, IPS- Pankaj Kumar Singh in his address said that the issue of phone addiction is a very serious one and many youth are the innocent victims of this issue. He cited very interesting real life incidents of youth being abused

and duped with their phones. Mr. Kumar Singh suggested that there are several ways we can stop youth from being addicted to their phones such as allotting specific time to children for phone usage, monitoring what the phone is used for, and many more.

There were several paper presentations on various topics regarding phone addiction such as "Impact Of Smartphones Over Society";' How Smart Are We With Our Smart Phones";' The Fear Of Missing Out (FOMO)'; to name a few.

The afternoon session had a panel discussion comprising of Dr. Ubaldina Noronha, Dr. Arvind Haldankar and Mr. Rajeev Narvekar who also spoke on various issues regarding Smart Phone Addiction. There were a lot of interesting give and take suggestions exchanged between both the audience and the panellists.

The seminar ended with a brief observation and conclusion delivered by renowned Psychiatrist and Principal of the Home Science College, Dr. Mahesh Pai.

Overall, the seminar was interesting and enriching and all the participants took home a lot of added information, fortified to put to use.

UBA-Team, DBCE Organizes "Elocution Competition on Waste Management"

Unnat Bharat Abhiyan (UBA) team of Don Bosco College of Engineering, Fatorda, organized Elocution competition on "Waste Management" for the students of Balli Government High School on February 22nd, 2020. This event was followed by "Ek

Bharat Shreshta Bharat" programme which focuses on celebrating the Unity in Diversity of the Nation and to maintain and strengthen the fabric of traditionally existing emotional bonds between the people of the Country. This was showcased by a wonderful dance performance by the students of Balli School. Prof. Gaurang Patkar, Coordinator UBA along with his team members Prof. Sweta Morajkar, Prof. Yeshudas Muttu and Prof. Saurabh Raikar took this initiative to create awareness about waste management. A total of 11 students participated in this competition which was held in the school premises. There were two categories of participation Std. V to VII (Junior category) and Std. VIII to IX (Senior category).The competition was judged by Prof. Saurabh Raikar, Asst. Professor Mechanical Engineering Department, DBCE. Students took part with great enthusiasm and it was indeed a treat to hear them come out with their unique points. The winners of the competition were given attractive prizes.

Overall, it was a very enlightening and learning experience for the students. Prof. Gaurang Patkar thanked the Headmistress of Government School Balli, Mrs. Sharada Dessai for giving UBA Team, an opportunity to conduct the event.

Annual Sports Day

The 4th Annual Sports Meet took place on March 3rd, 2020 at Don Bosco College of Engineering, Fatorda. Every year, this day provides an opportunity for the students and staff to sprint on the sports field and release the spirit of sportsmanship, leadership and competitiveness.

The Chief Guest for the function was Rev. Fr. Ralin De Souza, Director, Don Bosco Oratory, Panjim. Also, present on the dais were Rev. Fr. Kinley D'Cruz-Director, Dr. Neena Panandikar-Principal, Rev. Fr. Paul D'Souza – Rector, Dr. Kala Nayak-Registrar.

The function began with the unfurling of the flag and the whole gathering sang the college anthem led by the Don Bosco band.

The torch was then lit by the Chief Guest who handed it over to Rajat Chipkar . The torch relay began with

Rajat Chipkar (BE Mech) followed by Kaviraj Rane (BE Mech), Pranav Khedekar (BE ETC), Simron Rodrigues (FE Mech), Neehal Bind (TE Mech), Carson Rodrigues (FE Comp), Flint Leitao (SE Mech), Ray Cortez (TE Civil), Sonia Vasco Da Gama (TE Civil) – Sports Secretary who then recited the Sportsmanship prayer. The students from all four departments led by their squad leaders took part in the march past parade.

Dr. Neena Panandikar, in her welcome address congratulated Dr. Avertano Baretto, Prof. Chetan Gaonkar and Ms. Sonia Vasco Da Gama along with the team members for having successfully organized the Annual sports day and also efficiently carrying out the interclass tournaments.

Rev. Fr. Kinley D'Cruz, then introduced the Chief Guest to the audience and handed over a bouquet of flowers as a token of appreciation.

The Chief Guest, Rev. Fr. Ralin De Souza addressed the gathering and motivated the students to give their best, saying that the value of the mind does not exist by itself, but one's body contributes to its existence. He said, that the students need to be determined in order to excel in the field of sports. He then declared the 4th Annual Sports Day at Don Bosco College of Engineering open.

The rest of the evening saw the students sprint and enthusiastically take part in the following events:
1) 100 mts run (Men & Women)
2) 200 mts run (Men & Women)
3) 400 mts run (Men & Women)
4) 4 x 100 mts relay (Men & Women)
5) 4 x 200 mts relay (Men & Women)
6) Tug of war between staff and students (Men & Women)

Dr. Avertano Baretto delivered the vote of thanks. The flag was then lowered and folded by Pranav Khedkar, Kaviraj Rane, Rajat Chipkar, Simron Rodrigues and handed over to the Chief Guest, which was then handed over to Prof. Chetan Gaonkar. At the end, the flame was extinguished by the chief guest and he declared the 4th Annual Sports Meet; CLOSED.

The event was compered by Dr. Avertano Baretto, Prof. Christina Baretto and Prof. Natasha D'Souza e Jaques

Procyon 2020

The student's Council organized the annual cultural fest Procyon 2020 on March 4th – 5th, 2020. Procyon is an inter-class cultural fiesta, wherein students of 18 different classes showcase their talents in various cultural activities on a common platform.

This year several activities like Rhythm of Tradition, Battle of Bands, Step Up Revolution, Flag Painting, Master-Chef, T-Strokes, The Voice, Skit, Rock the Ramp, The Scrapyard, Ad Making, Rangoli, Movie Making were held at the college campus.

The event was declared open by Chief Guest Mr. John D'Silva, renowned Tiatrist and Guest of Honor Ms. Cielda Pereira, International Fame of the movie Nachuya Kumpasar. Also present at the inaugural function were Director- Rev. Fr. Kinley D'Cruz, Principal - Dr. Neena S. P. Panandikar, Registrar - Dr. Kala Nayak, General Secreatry - Mr. Sankalp Gadekar and Cultural Secretary- Mr Alston Dias.

The winners of Procyon 2020 were the students of FE Computers and the Runners Up were BE Computers which were declared on the Annual cultural day at the hands of Director- Rev. Fr. Kinley D'Cruz

Miss PROCYON 2020 was won by Ms. Subrata Rai from BE Civil & Mr. Procyon 2020 was won by Mr.

Keegan Pinto from BE Mech.

Women's Day

Women's Day was celebrated with much zeal and enthusiasm on March 6th, 2020 at the college campus. The programme started with a prayer song melodiously sung by Prof. Annapurna Sakhardande. The Principal, Dr. Neena Panandikar then welcomed the gathering which comprised of the teaching and non- teaching staff, along with a few female students. This was followed by recitation of a poem on the strength of a woman by Prof. Sweta Morajkar. Some of the faculty, led by Principal, gracefully performed a dance which was cheered on by all the women in the audience.

The highlight of the whole programme was the half an hour session on self-defense demonstrated by Mr. Sankalp Gadekar and Ms. Saisha Parab who themselves are Karate instructors. They gave the faculty and students some valuable tips on how to defend themselves in an onslaught of an attack. The programme was compered by Prof. Christina Barreto who entertained the crowd with good spot prizes and unique ways of making women feel special through the women's day band which had 'each for equal' written on it and a slogan that she repeatedly made the audience say to each other; which was "You are beautiful, you are confident and you are worth it". The morning was capped off with the distribution of sumptuous snacks to all the women. This event was organized by the counseling cell.

Annual Day 2020

Annual Day and Prize Distribution Ceremony was celebrated at Ravindra Bhavan on March 7th, 2020. The Annual day is a platform to appreciate and acknowledge the young budding engineers for their

academic achievements and to display their talents in the field of Music, Dance and Theatre.

Principal- Dr. Neena Panandikar welcomed the gathering and congratulated the hard work put in that celebrates the spirit of Don Bosco College of Engineering. Director- Rev. Fr. Kinley D'Cruz addressed the gathering and appreciated the spirit of excellence present in the students. Rector- Fr. Paul D'Souza was present on the dais along with the Chief Guest- Dr. Gopal Mugeraya, Guest of Honour- Dr. Mridula Goel and Registrar- Dr. Kala Nayak.

In the annual report presentation, Dr. Neena Panandikar highlighted the incredible progress the college has made in a short span of time. Heads of Departments presented the annual report of their respective department. The Training and Placement report along with NSS report was presented by the respective officers.

Dr. Kala Nayak announced to the gathering the performance of the meritorious students who were felicitated. Dr. Avertano Baretto- Sports Director appreciated the sporting spirit of the students and congratulated the teams who participated and won accolades. The sports trophy was won by Department of Civil Engineering and runners–up were Department of Computer Engineering. The students were awarded certificates for various sports competitions.

The college magazine *Beacon* and the Newsletter *Connections* were released at the hands of the dignitaries.

Speaking on the occasion, the Chief Guest, Dr. Gopal Mugeraya, Director, NIT Goa stressed on the fact that students have to focus on being job providers and not job seekers. He also added that it is important to

inculcate entrepreneurial skills in the students so that they become self-sufficient.

The Guest of Honour, Dr. Mridula Goel, Associate Professor, Department Of Economics, BITS Pilani – Goa Campus spoke on innovation and invention and the need to imbibe it in the students. She emphasised on exploring the problem areas in order to find solutions.

The students, Ms. Sonia Vasco da Gama (TE Civil) and Ms. Stella Tom (TE Computer) compered the function. The formal inaugural session was followed by a cultural programme presented by the students and staff members. The function ended on a glorious note with First Year Students of Department of Computer Engineering winning the PROCYON Trophy and Final Year Students of Department of Computer Engineering winning the Runners-up trophy. Amey Kerkar, Assistant Professor, Computer Engineering proposed the vote of thanks.

The Annual Day 2020 was organised by the Students Council under the guidance of Prof. Amey Tilve, Ms. Grebian Alemao, Mrs. Mayalin Noronha, Prof. Sanford Mascarenhas and Prof. Steefni Cruz.

Workshop on Ground Station Development and HAM Radio

The Student Satellite club, Parikrama in collaboration with Goa Radio Amateur Society (GRAS) organized a hands on workshop on Ground station development and HAM radio. The workshop was held on March 7th, 2020 at the College campus. This event was open only for student satellite club members. Prof. Mohini Naik, Principal Investigator & Prof. Sweta Morajkar, CO-PI were the faculty coordinators for the workshop.

The resource persons for the workshop was a 4 member team from Goa Radio Amateur Society (GRAS). Mr. Amey Pandit, Embedded system design engineer & HAM radio operator with call sign VU2YQ, Mr. Mahindra Kannavar, Electronics & Instrumentation Engineer and HAM radio operator (VU2ZMK), Mr. Flavio Raposo is a retired Chemistry Professor from Don Bosco Panjim & HAM radio operator (VU2WPR) and Mr. Vishal Naik, HAM radio operator (VU3BBH)

The main objective of this workshop was to give the students a hands-on experience to receive the satellite data using Software defined radio (SDR).

Mr. Amey Pandit took over the session by showing HAM radio video and its importance. He also explained how to become a HAM radio operator. He also explained the radio Trans receiver designed by the team to transmit/receive the signal to the satellite. In the next session, Mr. Mahindra Kannavar, gave a demonstration on walkie talkie phones and explained the difference between HAM & walkie talkie phones.

Mr. Flavio Raposo & Mr. Vishal Naik both being the HAM radio operator gave a brief demo on software defined radio and signal reception using SDR. Mr. Amey Pandit, showed the Q 10 Satellite reception using simple dish TV antenna.

The last session of the day was wrapped up by taking the feedback of the participants. Vote of thanks was delivered by Project Manager Ms. Krupashri Koli. As a token of appreciation, mementos were handed over to Mr. Amey Pandit, Mr. Mahindra Kannavar, Mr. Flavio Raposo & Mr. Vishal Naik from Team Goa Radio Amateur Society (GRAS) by, Prof. Mohini Naik. The entire workshop received motivation from Rev. Fr.

Kinley D'Cruz, Dr. Neena Panandikar & Head of ETC Department- Dr. Varsha Turkar.

Women's Day

On the eve of the occasion of Women's Day, Dr. Charlton Cardoso along with his team from Zoe Health International addressed the female staff and students of Don Bosco College of Engineering to create awareness about their event "Empowering Women to Better Health – Women's Health and Menstrual Care" that was to be held on March 8, 2020 at Pai Tiatrist Hall, Ravindra Bhavan Margao - Goa. He encouraged the students to participate in the function on March 8th, 2020 along with their mothers so as to gain as much insight into women's menstrual health issues and to know of the preventive care for the same.

Outreach Session on Virtual Labs Conducted For Faculty Members of Government Polytechnic Curchorem

A session on Virtual Labs for the faculty members of Government Polytechnic Curchorem (GPC) was held on February 27th, 2020, at their college premises.

The aim of this session was to create awareness on the utilization of web-based experiments, virtualization and simulations towards enhanced learning.

Prof. Mathilda Colaco provided an introduction to

Virtual Labs and listed the benefits of becoming a Virtual labs nodal centre.

Prof. Saurabh Raikar gave a hands on session on how to use virtual labs and demonstrated various experiments in the fields of Mechanical, Electronics, Electrical and Computer Engineering.

The faculty members of GPC were then allowed to explore various other labs and were assisted as they performed experiments in their domain.
The faculty members showed their enthusiasm in knowing about VLABS and they were keen on implementing it for the students.

The session ended with the feedback session. Overall, it was very informative and interactive session.

DEPARTMENT OF CIVIL ENGINEERING

Field Trip Margao Western Bypass Road

A field trip was organized on the 25th of January 2020 at the Margao Western bypass road. Students along with two faculty members Asst. Prof. Madhuraj Naik. And Asst. Prof Jeffrey Valadares visited the site at Nuvem. The client for the project is CPWD, Consultants TPF, and contractors NG TARMAT

Senior Engineer from NG TARMAT-(JV) accompanied the students to different sites.

The project span is 28 km from Nuvem to Navelim leaving in between a span from the wholesale fish market in Margao to Colva as the overhead bridge proposal is the pipeline.

Students were taken to the Transportation lab on the site and explained about the different equipment's and the practical aspect of it.

The students were also taken to the Bitumen mixing plant at Consua along the airport road and they were explained about the different mixes and the process of Bitumen design mix. Later in the afternoon, the students were taken to Benaulim to show the laying

of reinforced wall panels and the pre tensioning and post tensioning of the girders. Pile foundations and pile cap design concepts were also explained.

Field Visit to Alcon R & D Kundaim

The students of second year Department of Civil Engineering were taken for a field visit on 8th February 2020 to Alcon research and development center at Kundaim Industrial Estate. Students were accompanied by faculty members Dr. Shwetha Prasanna and Prof. Madhuraj Naik.

This green building center is owned by Alcon constructions (Goa) Pvt. Ltd. and they manufacture different types of pavers, kerbs, dish channel, drain covers, bricks and blocks and tiles and slabs. They use ecofriendly material to manufacture these products. Students were explained to and shown how the concrete pavers are manufactured and what are the machines required to give smooth or rough finish to pavers. They were also shown raw materials which are used to manufacture these products. Students were then introduced to different type of products which they offer to the market and also informed where and how these products are used. Some of the products shown were the uni pavers used for heavy traffic areas, road junctions and industrial belts.

A Visit to Saligao Garbage Treatment Plant & Van Bhavan

A field trip was organized on March 13th, 2020 for the Final year Civil Engineering students at Hindustan Waste Treatment Pvt, Ltd., Saligao - Goa. The field trip was coordinated by Prof. Satyesh Kakodkar & Prof. Prachi Dessai.

In the morning session, the students visited the Garbage treatment plant which is operated by Hindustan Waste Treatment Private Limited (HWTPL). The plant has a desired capacity of 100 tons a day. The facility also generates 4 MW of electricity out of Methane gas, which is used to power the plant. Fresh waste brought in from Calangute and Candolim village panchayats is being treated at the plant. The work at the garbage treatment plant (GTP) is being conducted from 9.30 am to 6:00 pm. Mr. Saeil Kamat explained the detailed process involved in the segregation of the municipal waste and the available facilities at the plant.

In the afternoon session the students visited Van Bhavan, Altinho – Panjim. The building is designed as per Indian Green Building norms and registered under GRIHA. It's a ground plus three storeyed building having a built-up area of 4,176 sqm. The Ground floor has parking arrangement consisting of 25 cars and 40 two wheelers and other facilities like driver's room, BMS room etc. The building consists of rooms for Goa Broadband Network (GBBN), Independent Data Centre (IDC), State Data Centre (SDC), Directorate of Information Technology and Infotech Corporation of Goa Ltd.

The Terrace accommodates solar panels, mechanical utility services, dish antennas etc. The building has incorporated energy efficient materials such as fly-ash bricks, double glazed unit for external façade, LED internal lights, solar powered street lights, low flow fixtures for reducing excess water, rainwater harvesting tank to reduce rainwater run-off in the surrounding etc.

AutoCAD Training for SE Civil Students

The Department of Civil Engineering conducted AutoCAD training for the SE Civil students on March 14th, 2020. 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. Starina Dias and Prof. Shruti Desai trained the students on basics of AutoCAD software using the Draw and Modify Toolbar, Dimensioning etc. The students also got hands-on practice on these toolbars. This course is provided to the students to enhance their all-round development.

DEPARTMENT OF MECHANICAL ENGINEERING

GCCI Student Project Competition, Phase-1

Goa Chamber of Commerce & Industry (GCCI) & Goa State Innovation Council (GSIC) are jointly organizing final year innovative projects Competition for the academic year 2019-20 for students of engineering colleges affiliated to Goa University. It is a unique opportunity to showcase their work and to win recognition and reward. The competition is held in three phases, phase one being college level shortlisting and selection.

A total of 11 entries from final year students of the Department of Mechanical Engineering at Don Bosco College of Engineering had registered earlier for the competition. As a part of phase one, a team of judges was constituted by the Mechanical Engineering department, as per GCCI guidelines. The event was held on 05th February 2020 from 2.00 to 5.00 PM and the jurors where, Mr. Prasad Adpaikar (Sanofi India Pvt. Ltd.), Mr. Ryan Vaz (Infinity 3D), Mr. Deepak Kolur (Alumni, DBCE)

The projects were assessed on the basis of
- Idea Generation – Quality & Clarity.
- Innovative Approach.
- Feasibility in terms of Technology to support the Idea.
- Prototype.

Based on the assessment of the jury the following projects were selected as nomination for phase-2 of this competition.

1. Design and development of system for extraction of water from atmospheric air using vapour compression cycle
2. An experimental and theoretical investigation of solar still for water distillation
3. Design & fabrication of solar powered floating waste removal system for fresh water bodies

The event was coordinated by Prof. Avil Allwyn D Sa and Prof. Sharad Shanbhag.

ACRESERVE 2019-20

Indian Society of Heating Refrigeration and Air Conditioning (ISHRAE) Goa Chapter organized a one day programme for HVAC&R professionals and aspirants, ACRESERVE 2019-20 on 24th January 2020 at Sanskruti Bhavan, Panjim. The event saw participation of 12 ISHRAE DBCE Student members and two staff members of DBCE Mechanical Engineering Department; Mr. Sujesh Girodkar and Mr. Diptesh Naik.

The program began with the inaugural function, wherein, the President of Goa Chapter, Shri Santosh Naik, briefed the audience on the various events planned for the year and also more about ACRESERVE 2019-20. The first talk was on installation, commissioning and servicing of room air conditioners

by Mr. Donald Martins. After this, there was a small presentation by the sponsors of ACRESERVE 2019-20, Aspen Pumps, Mr. Sagar Raina delivered the talk, followed by a talk on maintenance of central air conditioners, by Mr. Lumen Araujo.

Post lunch, the event resumed with a session on heat load calculations and duct design by Mr. Lumen Araujo that most students found most beneficial from the academic point of view. The following session was a talk on servicing of car air conditioners by Mr. Graciano Gomes and then the final session was on tools and safety practices in refrigeration and air conditioning by Mr. Donald Martins.

The day ended with a valedictory function and all participants received certificates.

Seminar on Automobile Workshop

The Department of Mechanical Engineering organized a half day seminar on "Automobile Engineering" in association with DBCE IEI Chapter on 8th February 2020 for SE Mechanical Engineering-I batch students.

Prof. Saurabh Raikar explained to the students about basic construction and components of IC engines, different types of drives. Prof. Sharad Shanbhag explained the different types of IC engines, working of 4- Stroke and 2-Stroke engines, performance parameters of IC engines and supercharging of IC engines. 33 students were present for the talk. The workshop was coordinated by Prof. Sharad Shanbhag.

One Day Workshop on Artificial Intelligence

On 8th of February 2020, a One-Day Workshop on Artificial Intelligence was organised by the Department of Mechanical Engineering and facilitated by Professor Sharad Sinha and Professor Clint P. George from the Indian Institute of Technology Goa (IIT Goa) for the students and faculty of Don Bosco College of Engineering. Dr. Sharad Sinha and Dr. Clint Pazhayidum George, Assistant Professors in the Department of Computer Science & Engineering, IIT Goa were the resource persons for this workshop.

The workshop was divided into 4 sessions. The first two were held before lunch. First session was conducted by Dr. Sharad Sinha. He introduced key concepts on artificial intelligence; defining critical terms, capabilities as well as current limitations of AI. The second session was conducted by Dr. Clint P. George who explained key concepts of artificial intelligence. Basic algorithms were also covered during the session. Both the sessions also included multi-media resources to better elucidate key concepts.

Two hands-on sessions were conducted in the CAD/CAM Lab, building upon the knowledge and concepts learnt from the previous sessions. The two sessions were conducted by Dr. Clint P. George who was assisted by Dr. Sharad Sinha. The participants coded a basic AI algorithm using R programming language. The key concepts were introduced from the absolute basics as this workshop was designed to cater to participants with any skill level in coding. Multiple simplified examples of AI were coded.

The students showed keen interest in the workshop and have gained a hands-on experience in the topic of Artificial Intelligence.

Overall 39 students and 14 faculty members participated from different departments. This workshop was a good learning experience for the participants. They had the opportunity to familiarize themselves to AI using R programming language whilst also having the opportunity to interact with some of the best resource persons in the country. The workshop coordinator was Prof. Achintya Kambli and was assisted by Prof. Swapnil Ramani. The workshop convener was Prof. Ajit Salunke, Head of the Department of Mechanical Engineering.

During the valedictory function, certificates were handed out by Dr. Neena S. P. Panandikar, Principal of DBCE and Rev. Fr. Kinley D'Cruz, Director of DBCE.

Talk On "Nanotechnology for Industry" At GCCI, Panjim

A talk on Nanotechnology for Industries by Prof. Absar Ahmad was attended by Prof. Swapnil Ramani and Prof. Achintya Kambli of the Department of Mechanical Engineering on February 14th, 2020. The talk was organised by GCCI and held in the GCCI convention centre. Prof. Ahmad is the Director of the Interdisciplinary Nanotechnology Centre, Aligarh Muslim University. He spoke about the various applications of nanoparticles in different fields of science. He also described cost effective ways of production of significant quantities of nanoparticles.

An interactive session was also held where the attendees could interact with Prof. Ahmad and the other attendees.

Talk On Start – Up By Alumnus, Mr. Shantanu Desai– Batch 2019 – Mechanical Engineering

Mr. Shantanu Desai delivered a talk on **Start - ups** for the BE Mechanical students of Don Bosco College of Engineering organized on February 17, 2020 at the institute.

Alumnus, Mr. Shantanu Desai, Batch 2019, Mechanical Engineering, spoke on formulation of a problem statement and a solution, product description and benefits, product sales & marketing based on age group, gender & income bracket, testing the customers for feed back to help Research & Development, where & how customers will buy the product, idea of pitching for competitions, & investment model (eg: spending, planning & income).

He also emphasized that good ideas and teams get support from government organizations through various policies. He also mentioned about start – up competitions like start – up Goa, and those held by DRDO etc.

In all, 39 students attended the talk. The students interacted with Mr. Shantanu and asked a lot of questions.

Talk On "Innovation and Product Development" For TE Mechanical Students

The Department of Mechanical Engineering in association with the Institution's Innovation Council (IIC), Don Bosco College of Engineering, Fatorda organized a talk on "Innovation and Product Development" February 20, 2020 for Third Year Mechanical Engineering students. The resource

person was Mr. Tarun Krishankumar, Director, ULAVAN Agri Tech Services Pvt. Ltd.

He talked about the skill gap existing in the current crop of graduates and the importance to inculcate the right mindset for problem solving. He mentioned that the students should adapt to changing technologies and also build their own tools for finding solutions to the problems. He mentioned his work philosophy is based on willingness to learn, build trust and ensure integrity. He motivated the students to be independent learners and take responsibility for tasks assigned. He talked passionately about the use of drones in his line of work. This was followed by a Q& A session with the students and faculty members.

Overall, it was very enlightening and a good learning experience for the students. The talk was coordinated by Prof. Ajit Salunke, Head of Department, Mechanical Engineering, Prof, Suraj Marathe and Prof. Swapnil Ramani, Assistant Professors.

DBCE Mechanical Alumni Participate in "Kalpak", Project Exhibition

DBCE Alumni of the Department of Mechanical Engineering participated in "Kalpak", a three day exhibition of innovative projects in Science, Engineering, Arts and Social Sciences, from February 26 - February 28, 2020, organised by the Directorate of Higher Education at Adil Shah Palace (Old Secretariat), Panaji. Deepak Kolur, Saideep Naik and Harshad Kawlekar displayed their "Disabled friendly Robotic wheel Chair", while Rajat Halarnekar and Shivdas Gaad presented their "Glass Powdering and Grading Machine for Industrial Applications".

Kalpak showcased research projects by college students, in the form of working models and posters, as well as interactive exhibits. In addition to innovative solutions by Goan innovators, public talks by eminent experts were also held. The prime goal of organizing Kalpak was to provide a unique platform for students to showcase their talents and interact with fellow innovators, eventually building future research collaborations.

Kalpak brought academicians, innovators, and public on a single platform and is one of the several initiatives taken by the Directorate of Higher Education, in order to promote research and education in the state of Goa.

The Wheelchair was guided by Prof. Swapnil Ramani and Prof. Ajit Salunke while the glass powdering machine was guided by Prof. Suraj Marathe.

FSAI Chapter Committee 2020-21 Installed at DBCE

The Mechanical Department installed the student's Chapter committee 2020-21 of FIRE & SECURITY ASSOCIATION OF INDIA (FSAI) on February 29, 2020. The Chief Guest for the inaugural function was Mr. K. K. Sekhar, President FSAI Goa Chapter. Also present on the dais were Director- Rev. Fr. Kinley D'Cruz, Principal- Dr. Neena Panandikar and Head of Mechanical Engineering Department - Prof. Ajit Salunke. The function began with a prayer by Ms. Malaika Korgaonkar followed by a brief report by Mr. Tejas Pandit of the activities conducted by the outgoing FSAI committee 2019-20. Prof. Ajit Salunke welcomed the guests on the occasion and said the DBCE chapter intends to create fire safety awareness among various schools of Goa. Dr. Neena Panandikar complimented the outgoing committee for the activities conducted in the field of Fire & Security and highlighted the role of DBCE under the Unnat Bharat Abhiyan and achievements of students in the recently held waste management hackathon. Fr. Kinley D'Cruz citing a story said that management of safety and security is a serious job and wished the upcoming committee strength and courage to conduct the activities in the coming year.

The Chief Guest Mr. K. K. Sekhar initiated the oath taking ceremony and installed the new FSAI chapter committee 2020-21. He emphasised upon the importance of team work in the success of a professional organisation and complimented the leadership of DBCE for scaling great heights in such a short span.

Mr. Devendra Pingle (Police Sub-Inspector, Cyber Crime Cell, Ribandar) who was the Guest Speaker for the occasion made the students aware about Cyber

Crime, risks associated with internet & online activities and various sections under Information Technology Act. The program concluded with a Vote of Thanks by Mr. Tanmay Bhagat, current President of FSAI DBCE Student Chapter. Prof. Saurabh Raikar was the coordinator for the event. The DBCE chapter has around 200 members from all the departments.

IGNITRON 2020

"IGNITRON 2020", a one day event organized by the Mechanical Engineering Students Hub was

inaugurated by Mr. Kishore Shah – Director Ideaz Unlimited on March 13 2020. Fr. Kinley D' Cruz - Director, Prof. Ajit Salunke - HOD- Mechanical Department, Dr Kala Nayak - Registrar and Mr Royston Antao - MESH secretary were also present on the dais.

Fr. Kinley D'Cruz, spoke about dreaming big and achieving the goals by narrating a story of Buzz Eldrin. Prof Suraj Marathe briefed the audience about the activities of MESH and Mr. Keegan Pinto briefed about IGNITRON 2019. Prof Ajit Salunke complimented the students and staff of the Mechanical Department for their role in community development. Mr. Kishore Shah who was also the Key note speaker, delivered a session on "GOA-Growth, Outstand, Accelerate". In his unique style he motivated the students and elaborated on the means to find one's IKIGAI (Japanese concept for reason for being). He also appreciated the efforts taken by the MESH team and urged them to make IGNITRON a global event in the coming year.

A Laser cutting workshop in association with Goa State Innovation Council was organised for the students. Prof Gaurish Samant faculty of Mechanical Engineering was the resource person. MecHeads a student's robotics group under the guidance of Prof

Ishan Kossambe also conducted a seminar for First year students.

The event was coordinated by Prof Suraj Marathe and Prof. Sanjeel Naik, and the student's council of MESH.

DEPARTMENT OF ELECTRONICS AND TELECOMMUNICATION ENGINEERING

Prof. Mohini Naik has been selected and appointed as the "Regional Mentor of Change "by NITI AYOG, Govt. of India

Prof. Mohini Naik has been selected and appointed as the "Regional Mentor of Change": Head of mentor of change programme for GOA state by NITI AYOG, GOVT. OF INDIA. After competitive rounds of selection and reviews, top 37 candidates have been identified all over INDIA.

Prof. Mohini Naik, was honoured and felicitated at the hands of Shri. Rajiv Kumar, Vice Chairman, Shri. Amitabh Kant, CEO & Dr. R Ramanan, Mission Director of the Atal Innovation Mission (AIM) NITI AYOG on 31st January 2020 at NITI Ayog, New Delhi. She also attended one day training session organized by NITI. CEO, Shri Amitabh Kant, also launched the "GEMS OF MENTOR INDIA'S BOOK" a memoir of inspiring stories of AIM's Mentors of change across India.

Atal Innovation Mission has set up one of the largest Mentoring networks in India called Mentor India from the professional and industry community who can mentor students at Atal Tinkering Lab and AIC Incubators / startups. Over 5000+ mentors have already registered and every operational ATL has

already been allocated a mentor. A number of industry leaders and corporate organizations have volunteered to adopt ATLs/AICs in their vicinities to ensure close mentoring and success of these initiatives. AIM is also actively working on establishing collaborations with innovation systems and entities in other countries in APAC, Europe, UK, USA, Africa and Latin American Countries.

AIM is a flagship national Innovation initiative of the Prime Minister and the Government of India under the NITI Aayog (National Institution for Transforming India). AIM's goals are to establish and promote a vibrant culture of innovation and entrepreneurship nationwide.

Fieldtrip to Goa Waste Management Plant (GWMS)

The Department of Electronics and Telecommunication Engineering organised a fieldtrip to Goa Waste Management plant (GWMS), on February 5th, 2020. The class was accompanied by Prof. Samantha and Prof. Shreyas.

The students were taken to the auditorium where videos of the establishment and gradual development of the plant were shown. Later they were taken to the plant where they were introduced to all the machinery and its working.

Thus efficient use of the waste is made and management is done. This visit to the plant made the students aware that proper waste management is essential for the environment and for the future.

Field Visit to ONGC

The Second Year Electronics and Telecommunication Engineering Students visited ONGC, Goa on 5th

February, 2020. The students were accompanied by Professor Trima Fernandes e Fizardo and Professor Selvyn Fernandes.

The students were welcomed by Mr. Jayant Kumar Singh, an officer at ONGC. He gave a brief introduction about ONGC and its operations. Firstly, an introduction to various manual firefighting tools, various chambers to generate foam, cut out models of the tools used were shown.

This was followed by depiction of various impactful equipment which were Water Monitor- an aimable controllable high capacity water jet used to extinguish fire at a range of up to 60 m, Fire Fighting nozzle, Mayur Valve, Water Umbrella each one having a specific advantage for a specific application. Along with these, information about different types of fires was provided which are Class A (Ash- Solid fire), Class B (Barrel- Liquid fire), Class C (Cylinder – Gaseous Fire), Class D (Ductile – Metal Fire) fires.

The students were also taught about the different types of extinguishers and their SOP (standard operating procedure). These include – Water type, Powder (chemical type), Foam and Gas (Co2). The Students also operated all the extinguishers to extinguish fire set up using oil.

The field visit was a very exhilarating experience for all the students and made the students aware about ONGC and also about the career opportunities in such PSU's. The staff at ONGC was very welcoming and supportive.

Three Days Skill Workshop On " Drone Design & Aviation"

The IEEE Student Branch in collaboration with Eduvance and Drona Aviation organized three days hands on workshop on "Drone Design and Aviation".

The workshop was held from 7th February to 9th February 2020 at the Don Bosco College of Engineering campus at Fatorda, Goa. This event received participants from DBCE & PCCE Goa. Prof. Yeshudas Muttu, IEEE Branch Counselor & Prof. Flavia Leitao were the faculty coordinators for the workshop. The resource person for the workshop was Mr. Prathamesh Satardekar, Senior Systems Engineer & Mr. Ashish Yadav, Junior Systems Engineer from Eduvance, Mumbai. The main objective of this workshop was to give the student a hands-on experience of the latest technology that is used in industry, such as Drones, AR (Augmented Reality) & VR (Virtual Reality).

Day 1: February 7, 2020
IEEE Student Member, Ms. Krystal Fernandes welcomed everyone for the three days' workshop, & requested the speaker to take over the session.

The session began with technical and theoretical aspects of aviation. The speakers gave a presentation and spoke about the Wright brothers-who were the first ones to commercialise the plane.

Day 2: February 8, 2020
The Speakers began the session by talking about the various components of a drone that included the flight control board, the sensors like an accelerometer, gyroscope, magnetometer, the electronic speed controller, etc. The materials of the various frames used for assembly, the different carbon composites were discussed.

For the next half of the day, the students were given a drone simulator using their PC and VR so that they get used to controlling the drone, move the drone while in flight, get it to rotate and keep it levitating in air. The students were taken to an open area of the campus and began the actual aviation session of the drone, after which the students got a hold over controlling the drone and the session was concluded for the day.

Day 3: February 9, 2020
The Final day of the Drone Design and Aviation workshop commenced with videos related to aviation, the history and timeline of aviation so as to show the relevance of programming in drones to the students. Models such as modelling of objects to be carried by drones, the mathematical model for drones and mathematical models to change applied force on drones were discussed.

The last session of the three days hands on workshop was wrapped up by taking the feedback of the participants. They were later asked to dissemble the drones that they built and worked on for the past days. All the attendees will be provided with participation certificates by Eduvance. Vote of thanks was given by IEEE Student Chair, Mr. Renvick Fernandes. As a token of appreciation, Mementos were handed over to Mr. Prathamesh Satardekar & Mr. Ashish Yadav from Team Eduvance by IEEE Branch Counselor, Prof. Yeshudas Muttu. The entire workshop received motivation from Director, Rev. Fr. Kinley D'Cruz, Principal Dr. Neena Panandikar & Head of ETC Department, Dr. Varsha Turkar. Overall, this Drone Design and Aviation workshop was hosted and concluded successfully.

Workshop on "PCB DESIGN"

To fulfil the Industry goals and requirements the department of Electronics and Telecommunication Engineering in association with DBEATS conducted a one day workshop on "PCB Design" on the 8th of February, 2020 for the third year students of ETC. Total of 38 students attended the workshop.

The workshop started with a motivational and interactive talk on "PCB Design". The resource person for the workshop was Prof. Flavia Leitao, faculty at Don Bosco College of Engineering.

The following contents were covered for the workshop:

- Understanding of the Circuit
- Knowledge of component packages
- Testing the circuit on breadboard
- Drawing circuit layout and transferring mirror image of layout on PCB
- Masking to remove the unwanted copper
- Etching
- Drilling and mounting of components
- Soldering
- Testing.

The circuit implemented on the PCB was an "Astable Multivibrator"

Firstly, the students were given a brief explanation on the different stages involved in PCB designing using power point presentation.

The Students were given a brief understanding of the different packages (TO-92,TO-220, tape and reel, Ammo, etc.) and also the different types of parts (Through holes and Surface mount) along with the soldering methods (wave soldering and reflow soldering) for the same.

The students had a hands-on experience in designing the PCB. They first started with the masking activity, where they had to transfer the mirror image of the layout on the PCB. A very innovative and easy method of doing this was employed using the Iron. The mask was smoothened by the markers to avoid any break in the copper tracks. The masking was followed by Etching, where Ferric Chloride was used for removing the unwanted copper. The PCB was then nicely cleaned to remove the entire mask.

The etching activity was followed by drilling and

Soldering. The students were first given instructions and demo on how to use the drilling machine and the soldering iron. The students then got a hands on exposure to drilling and soldering.

The coordinators for the workshop were Prof. Flavia Leitao and Prof. Melba D'Souza. The students showed great zeal and enthusiasm in designing the PCB and the satisfaction and joy to see the circuit work was overwhelming. The workshop was a fruitful and a very successful event.

GCCI Student Project Competition, Phase-1 Conducted By Department Of Electronics and Telecommunication

Goa Chamber of Commerce & Industry (GCCI) & Goa State Innovation Council (GSIC) are jointly organizing final year innovative projects Competition for the academic year 2019-20 for students of engineering colleges affiliated to Goa University. It is a unique opportunity to showcase their work and to win recognition and reward. The competition is held in three phases, phase one being college level shortlisting and selection.

A total of 8 entries from final year students of the Department of Electronics and Telecommunication had registered earlier for the competition. A team of jurors was constituted by the Electronics and Telecommunication Engineering Department, as per GCCI guidelines to judge the phase-I event. The event was held on February 13th, 2020 from 10.00 a.m. to 1.00 p.m. The jurors for the event were, Mr. Venugopal T R, Corporate Relations Manager, FIIRE- Fatorda, Ms. Sanjeeta Nadkarni, Autotech, Mapuca, Mr. Myron Rodrigues, Graduate Perception Engineer, Dynium (Alumni of DBCE)

The projects were assessed on the basis of Idea Generation – Quality & Clarity. Innovative Approach. Feasibility in terms of Technology to support the Idea.

Based on the assessment of the jury the following projects were nominated for phase-2 of Final Year innovative Projects Competition: Aquatic Waste Collecting System, Fire Fighting Robots Using Swarm Intelligence. The event was coordinated by Prof. Anisha Cotta.

Workshop Conducted on the Topic 'NodeJS'

The IETE student branch of ETC Department organized a two day workshop on the topic, 'NodeJS'. The workshop was held on and February 28th – 29th, 2020 at the Signal Processing and Machine Learning Lab. The talk was open for Third year and Final year ETC students.

The resource person for the workshop was, Mr. Sumeet Gohil. He completed his MSc. in IT from Thakur College (Mumbai University). Later, he completed a diploma from CDAC and later also conducted a workshop for CDAC students. He is a freelance developer and currently working on projects from British Council.

The first day of the workshop was about backend development which included topics: Backend Introduction, Database Introduction, Get Started (NodeJS with Express), Server Setup, Create API was covered in morning session. In the evening session of first day the topics covered were: Routes, Database (MySQL or MongoDB), Controllers/Models, Data Validation, Deployment (Heroku).

On the second day of the workshop, frontend development topics were covered. In the morning

session, the students were familiarized with Frontend Introduction, HTML/CSS/JS Introduction, Get Stared (ReactJS), Client Setup, Create Basic APP. In the evening session, the topics covered were: Add Routes, Data Exchange between Server and Client (Axios or Fetch), CRUD Operations, Dashboard with One Graph, Deployment (Heroku).

After the talk, there was a discussion among the resource person and attendees wherein the expert cleared various doubts on the topic. Before calling it a day, the expert encouraged students to keep exploring more in the field and take up new projects in the domain. The resource person also informed the students about the job opportunities available in the field.

4 Day Workshop on "Python" Attended By Students Of F.E. ETC

First Year Electronics and Telecommunication engineering students attended a four day hands on workshop on "Introduction to Python Programming" on February 28th - 29th and March 13th – 14th, 2020 at Don Bosco College of Engineering, Fatorda Goa. Asst. Prof. Priyanka Padiyar was the resource faculty for the workshop.

The first day of the workshop covered introductory topics such as Basic data types and variables, arithmetic operations, strings and operation of strings, data structures such as lists, sets, tuples, dictionaries and range.

On the second day of the workshop, topics such as installation and use of various modules such as math, matplotlib and numpy were covered. Also, plotting of bar graphs, histograms, pie-charts, scatter plots using matplotlib was covered and trigonometric and logarithmic graphs using numpy was covered.

On the third day, operations on trigonometric functions and logarithmic functions were covered using math and numpy module. Also, plotting of various mathematical functions using numpy and matplotlib was covered. Students were also taught how to modify the various features of a graph, multiple plots, subplots etc.

On the last day of workshop, students were taught about conditional statements, loops, control flow and pattern printing

In this hands-on course, students gained experience on Python programming and its features. Students learnt the applications of various modules in Python

IEEE Student Branch-Dbce Organized Educational Tour to Nashik

The IEEE Student Branch organized its second Educational Tour to Nashik from February 28th 2020 to March 4th 2020 under the guidance of IEEE Branch Counselor, Prof. Yeshudas Muttu. 61 IEEE student members along with 4 Faculty members, Prof. Yeshudas Muttu, Prof. Mohini Naik, Prof. Deron Rodrigues & Prof. Mathilda Colaco visited Nashik Thermal Power Station- Eklahare, Sarda Farms & Sula Automation.

The students visited Sula Vineyards to get acquainted with the automation technology used. The guide took the students through the entire process involved in making wine & process control instrumentation involved in the same.

On day 2 of the educational tour, various fun activities were planned for all. Everyone was informed to gather at Nehru Garden. The main purpose of having such an event was to develop a bond & let communication between all the IEEE Student members happen. Students had fun playing various games, getting involved in technical interactions & challenges.

The IEEE members travelled to Sarda Farms which is a 100% pure, organic dairy farm. It is a 11-acre farm that houses 1250 cows. The milk farm is completely mechanised- the whole process from milking the cows to aggregation and packaging is fully automated, with minimum to zero human intervention. Every attendee was delighted to visit and know about Sarda Farms since cows here are treated with equal, if not more, love and respect as that of humans. It was also very exciting to learn about the technology which is at par with international standards.

On day 3, the field visit began with the instructor reciting all the precautions and rules that must be maintained in the plant at Nashik Thermal Power Station, the students were escorted to the TSC room where a short PowerPoint presentation was shown to them. The thermal power station has rated capacity of 630 MW and has 3 units of 210 MW each. It uses a coal-fired boiler to produce steam for power generation.

Prof. Mohini Naik was Felicitated by the Governor of Goa

Prof. Mohini Naik has been selected and appointed as the "Regional Mentor of Change": Head of mentor of change programme for Goa state by NITI AYOG, Govt. of India. After competitive rounds of selection and reviews, top 37 candidates have been identified all over INDIA.

With regards to this, Prof. Mohini Naik, was felicitated by the honourable Governor of Goa, His Excellency Shri Satya Pal Malik at the chamber of Governor of Goa, Raj Bhavan Goa on March 5th, 2020.

The Governor Shri Satya Pal Malik appreciated the work done by, Prof. Mohini Naik and encouraged her to work further on the project. He also appreciated & congratulated her family, Principal and management of Don Bosco College of Engineering for supporting this activity which will bring right change in the schools.

"FOSSEE Proponent Symposium 2020"

Fossee Nmeict conducted the "FOSSEE Proponent Symposium 2020" on March 7th, 2020. Participation in this event was through invitation. Faculty contributors of various FOSSEE activities, top scorers in the Yaksh online test conducted for the participants of the massive blended workshops (organized jointly by both FOSSEE and Spoken Tutorials) were invited. It saw participation from college Professors, Heads of Departments, Principals and the Directors of various institutes in India. There were a total of 33 persons who attended this event from 18 different institutes. Prof. Kimberly Morais of Don Bosco College of Engineering was invited for the event and felicitated for her work.

2 Day Workshop on "Digital VLSI Design" attended by Students of T.E. ETC at NIT- Goa

A two day hands-on workshop on "Digital VLSI Design" was organised by National Institute of Technology, Goa for the students of the Department of Electronics and Telecommunication Engineering. The workshop was held at NIT, Goa on March 13th – 14th, 2020 and was attended by 25 students from the ETC Department along with two faculty members Prof. Anisha Cotta and Prof. Samantha Cardoso.

On the first day the session began with an introduction by the Professors from NIT, Goa, Dr. Nithin Kumar and Dr. Vasantha M.H. The students were also welcomed with warm and inspiring words from the Director of NIT, Goa, Dr. Gopal Mugeraya. The morning sessions were conducted by Dr. Vasantha M.H. and Dr. Nithin Kumar wherein they explained the various basic concepts underlying VLSI designs, followed by a hands- on session in Cadence. On the second day, a session was conducted by Dr.Nithin Kumar in which he covered the details of CMOS inverter and its applications, and encouraged questions from the students and cleared their doubts with great enthusiasm. The afternoon sessions included a hands-on session of the Cadence software in the NIT, Goa Design Lab. The students could work on the software themselves with guidance from the research scholars of NIT, Goa and practically verify the concepts taught during the theory sessions.

It was a very good experience for the students to learn and explore Digital VLSI Design. NIT, Goa also encouraged the students to come back and experiment with the software in the future with their own ideas.

Analog IC Design Workshop

The IETE student branch of ETC Department organized a two day workshop on Analog IC Design. The workshop was held on March 13th -14th, 2020 at Signal Processing Lab and was open for Third year ETC students.

The resource person for the workshop was, Mr. Akhil U. Masurkar, Ass. Prof.- Vidyalankar Institute of Technology, Mumbai. He completed his M.E. in Electronics Engineering from Fr. Conceicao Rodrigues College of Engineering, Mumbai in 2012 and his degree in B.E. is in Electronics Engineering from Vidyalankar Institute of Technology, Mumbai in 2009.

The first day of the workshop included topics: Basics of VLSI, Difference between Analog and Digital VLSI, Current mirrors, Cascode current mirrors and CS amplifiers. On the second day of workshop topics covered were: CD and CG amplifier, Differential

amplifier and Operational amplifier. After learning the theoretical concept of each design the students implemented the same on the software 'LTspice'. The students got themselves familiarized with LTspice software and were also able to the plot characteristics of circuits of various inputs given to the design circuits.

During the workshop the expert cleared various doubts related to the topic. The expert encouraged students to keep exploring more in the domain and the projects that can be done in this domain.

DEPARTMENT OF COMPUTER ENGINEERING

'DBCE Dream Big'- An Industry Student Connect Event

The Department of Computer Engineering organized 'DBCE Dream Big'- an Industry Student Connect event, on February 14, 2020, the first of its kind to be held which aims to promote awareness about innovation in industrial and professional expertise amongst students.

The event began with Prof. Amey Kerkar welcoming the audience that included the computer students and faculty.

The speaker for the first session was Mr. Kishore Shah, Director at IDEAZ Unlimited, who was introduced by Prof. Christina Barretto. He began his session by getting everyone on their feet and asking them some Interactive Questions. He spoke about how he had always held deep admiration for the Director, Principal and HOD at Don Bosco College of Engineering, and then proceeded to show his appreciation for them by presenting them with a

memento of his own. He made sure that the audience gave them all a standing ovation. His session was largely centered on Developing the Innovation and Entrepreneurial Ecosystems. He stressed upon how observation plays a vital role in innovation and creativity and translating it into something novel, and how one should take the initiative and be the change for something that one is 'terribly annoyed about'. He concluded with emphasizing on how the current market keeps changing and how one should make 'Business as Usual' into 'Business Unusual'. This was followed by a short Q & A session which was modulated by Caesar D'Silva, an Alumnus of Don Bosco College of Engineering. He stressed upon the fact that having a good sense of humor is important to maintain good customer relations. This ended with presenting a token of appreciation.

After this, the results of GCCI Techmania fest 2020 were announced and the certificates were awarded.

The delegates gathered at the center of the stage to sign the MOU (Memorandum of Understanding) between Persistent Systems Limited(PSL) and Department of Computer Engineering, Don Bosco College of Engineering. This was followed by a short slideshow showcasing the Computer Department's achievements.

The speaker for the next session was Mr. Girish Bharne, Vice-President of Persistent Systems Limited. This was a purely interactive Q&A session which was also moderated by Caesar. Mr. Bharne answered question from the audience which ranged from questions on what an employer looks for in an employee while hiring, as well as the basic important skills that a fresher would require in order to be recruited. He stressed about how freshers should present themselves with confidence and not rely on the CV system. He emphasized on how attitude should be important as well as a willingness to learn, and how one should always be well informed of the latest happenings in technology. He was also presented with a token of appreciation followed by a group photo with everyone.

This was followed by the introduction to the last speaker for the morning session, Mr. Tarun KrishnaKumar, Director at Ulavan Agritech Services

(OPC) Pvt. Ltd. He has companies in various incubation centers across India, especially FiiRE, and is an advocate of finding the right tools to solve problems. He stressed upon how the objective and goal of the problem one is trying to solve matters and how to fill the skill gap; the cause being changing technology and the solution being adaptable and building ones' own tools if necessary. He mentioned how his work philosophy is based on willingness to learn and seek out mentors and ask for help, as well as being independent and taking responsibility. This was also followed by a Q&A session. Here he re-iterated on how confidence and passion is important to arrive at a solution and give clarity to ones' mindset. The morning session then ended with Prof. Norman Dias presenting a token of appreciation.

The afternoon session resumed with interaction between Caeser Fernandes and Rohit Sankpal, alumni of Don Bosco College of Engineering and cofounder of internship stations. He has worked as a software designer in Codeword coding company. His company interconnects the industries with students thus bridging gap between them. The idea for his company arose during his Final Year Topic selection which leads him to develop a small mini project and finally starting his own company. He is the first person who made the Inspirus Trailer for Don Bosco College of Engineering. According to him, basic skills like ability to handle difficult situations, confidence, coordination, financial stability maintenance is required for a good Enterprenuer. He stated that "How a project is developed matters most rather then what we develop".

The next session was held with Mr. Shravan Hegde, alumnus of Don Bosco College of Engineering, and co-founder of Earnestek. He was also the youngest speaker to speak at World IOT Summit, Bangalore. During the session, he was asked about choosing 'Earnsteak' as his company name to which he replied the word 'Earnest' meaning sincere. He also focused on choosing an appropriate name for ones' startup. He also spoke about teaching qualities like patience, imagination and communication skills.

The final session was conducted by ULAVAN agri-tech services. It builds tools for farming and agricultural services for solving real life problems of farmers. One such prototype developed by them was drone weighing 1.99kg comprising of different electronic components. Demo of the automated drone was given to the students showing its pitch, throttle and rotating features, it was an interactive session with students asking queries and giving inputs. The event ended with Prof. Norman Dias delivering the vote of thanks.

Back to Front Workshop

Workshop on Back to Front was organised for the third year students of the Department of Computer Engineering by the student council of C-codes. The workshop was conducted on February 29th, 2020. Resource faculty for the workshop was Prof. Vivek Jog. The faculty coordinator for the same was Prof. Merwyn D'Souza. 35 students attended the workshop.

At the workshop, designing of the software using UML diagrams was taken up as a part of study. Software designing right from client level meetings till deployment of the same was taught through various models like use case, class, sequence, activity and deployment diagram. All students worked on open source software titled Star UML and witnessed the live implementation.

SE Computer Students Attend Java Swing Workshop

Second year computer engineering students attended a workshop on "Introduction to Java Swing Programming" on February 29th, 2020. The workshop was organized by C-CODES computer students association. The workshop started with a hands-on

session in the Computer Department laboratories. Prof. Ankit Kumar Tiwari was the resource faculty for the day. Asst. Prof. Merwyn D'Souza was the coordinator for the workshop.

Java is a general-purpose computer programming language, completely based on Object Oriented Features. It is also popularly used for web based applications. Hence to design the GUI interface for web applications or desktop applications Java Swings is needed. Java Swing is a part of Java Foundation Classes (JFC) that is used to create window-based applications. It is built on the top of AWT (Abstract Windowing Toolkit) API and is entirely written in java.

The workshop covered the basics of Extended Java Programming Skills with topics like Introduction to Java Swing, Swing Components like JButton, JTextField, JTextArea, JRadioButton, JCheckbox, JMenu, JColorChooser etc., Event handling with Swing Components and various GUI Application designing examples.

In this hands-on course, students gained hands-on experience with Java Swing programming and its event handling features. Students learnt to design GUI Interface for various Java Applications using Java Swing class libraries.

SE Computer Students Attend Scratch Programming Basics Workshop

Second year computer engineering students attended a workshop on "Scratch Programming Basics" on March 14th, 2020. The workshop was organized by C-CODES computer students association. The workshop started with a hands-on session in the Computer Department laboratories. Asst. Prof. Merwyn D'Souza, Computer Department was the resource faculty for the day and the coordinator for the workshop.

Scratch is a visual programming environment where you design/create your interactive stories, games & animations. Scratch involves drag and drop of various blocks together to write programs & such an environment enables the users to focus on the logic & enjoy the learning experience! Unlike most

Java/C++ development environments, there is NO free-form typing, so there are syntax errors either!

The workshop covered the basics of Scratch Programming Skills with topics: What is Scratch?

Understanding the Basic of Scratch, Installation of Scratch, Creating new sprite, different scripts available, importing sprites from library, changing stage background, programming the sprites and Sprite Interaction via Variables.

Students gained hands-on experience with Scratch programming and its features and learnt to design simple Scratch animations.

TE & BE Computer Students Attend Android Basics Workshop

Third year and final year computer engineering students attended a workshop on "Android Basics" on March 14th, 2020. The workshop was organized by C-CODES computer students association. The workshop started at 2.00 pm with a hands-on session in the Computer Department laboratories. Mr Saurabh Kanekar, Junior research fellow was the resource faculty for the day. Asst. Prof. Merwyn D'Souza was the coordinator for the workshop.

Android is a mobile operating system based on a modified version of the Linux kernel and other open source software, designed primarily for touchscreen mobile devices such as smartphones and tablets. Android is developed by a consortium of developers known as the Open Handset Alliance, with the main contributor and commercial marketer being Google. The workshop covered the basics of Android Programming Skills with topics: What is Android? Understanding the Basic of Android OS, Building Blocks of Android, Application Lifecycle, Installation of Android Development, Configuration of Android

Development Environment on your Computer, Making the UI using XML for Android, Compiling the Code, What is the Use of Manifest File in Android Development Environment?, Creating the Virtual Android Device like ANDROID 1.5, Make a simple Hello "Name" Print Program for Android Device, Make app for Android Device and Debugging the Code.

Students gained hands-on experience with Android programming and its features and learnt to design simple android apps.

DEPARTMENT OF SCIENCE AND HUMANITIES

Departmental Café Session

The Department of Science and Humanities had its sixth Departmental Café Session on February 8, 2020. The resource persons for the afternoon were Prof. Natasha D'Souza e Jaques who introduced the concept of Graph Coloring; Prof. Jyoti Lewis who gave the many ways to make the world a better place and Prof. Harison Cota who showed how one can have fun with physics.

Prof. Natasha gave a brief history of the existence of graphs and how graphs make it easier to model real world information which can be further interpreted. She then went on to show how a graph coloring is an assignment of labels, called colors, to the vertices of a graph such that no two adjacent vertices share the same color. She said that the aim is always to use minimum number of colors to arrive at an optimum colouring. She then explained the difference between edge coloring and vertex coloring saying that an edge coloring can be transferred to a vertex but the vice-versa is not possible. Showing the

practical applications of graph coloring, Prof. Natasha gave instances where graph coloring is used as an application in scheduling, register allocation, biological networking and even Sudoku. She then gave the audience an activity to color a map with the use of minimum number of colors. She ended her session with two problems to be solved within the week for which the person would be rewarded. It was a very fun filled session, indeed.

Prof. Jyoti's session was one that led the audience into introspection. She said that one of the best ways to make this world a better place was to first focus on the self and to try to be the best version of ones' self. Stating the problem, she said that many negative issues arise because one does not know how to address themselves and most often misuse their freedom of speech to hurt a person. One uses their shortcomings as excuses for their behavior rather than working on bettering themselves and changing their perceptions.

She then gave a series of solutions, the first being retrospection; she asked the audience to retrospect on their days and to see where during the day did they go wrong. Second, modify; how could one have changed their response to a situation. Third, be conscious; the key towards bettering ones' self is to be conscious of ones' feelings and to analyze their response before one says or does something so as to avoid hurting the others and in turn, themselves. Fourth, working on ones' strengths and weaknesses and Fifth, seeing the good in others and helping the other hone their strengths.

She reminded the audience that what one sows is exactly what one will reap, hence to always be aware and be careful. She ended her session by reciting a poem by Henry Wadsworth Longfellow.

Prof. Harison began the session by asking the audience whether they like physics or not, to which he got a mixed response. He said that physics can be fun through practical application. He gave the classic example of the tortoise and the hare race saying that the hare had an advantage of 1 and a half hour over the tortoise but he slept and that's why he lost the race and couldn't make up the time. He then gave an interesting fact, stating that a person in space can see the sunrise and sunset every 45 minutes and hence 1 day on Earth is equal to 16 days in space. He then showed, through varied examples how when two objects travel at the same speed and in the same direction they do not collide.

He then explained the centre of gravity by asking the audience to stand up without leaning forward. He said it is not possible because the centre of the ground and the centre of gravity are not the same. He spun two eggs and asked the audience to guess which among the two was the boiled one saying that a cooked egg spins longer and smoother than a raw one. On the whole, all three sessions of this café were applicative and introspective.

TRAINING AND PLACEMENT

Seminar Talk Delivered By MSME, Goa

The Training and Placement Cell arranged a talk on schemes and training offered by Ministry of micro, small and medium scale enterprises (MSME). The Second year and Third year Engineering Students from the Departments of Computer, Mechanical, Civil and Electronics & Telecommunication attended the talk and video session. The talk was organized on Wednesday, February 26th, 2020 in the campus.

The talk was delivered by Mr. P.P. Kulkarni, Asst. Director of MSME, Goa. He spoke about entrepreneurship and job creation in growing a digital India. He spoke how MSME can help in setting up an enterprise for young aspiring students. Two videos were showed to students which imparted the information of various schemes of MSME. The students asked interesting questions regarding courses, schemes and job opportunities. The talk ended with Rev. Fr. Kinley D'Cruz, Director of the college, presenting a letter of appreciation to Mr. P.P. Kulkarni.

Seminar Talk on the topic Higher Education – MBA Perspective

The Training and Placement Cell arranged a talk on Higher Education – MBA perspective for the Final Year Engineering Students from the Departments of Computer, Mechanical, Civil and Electronics & Telecommunication. The talk was organized on Wednesday, February 26th, 2020 at the campus. The talk was delivered by Ms. Suchitra from IIBS, a MBA college from Bangalore. She spoke about why MBA is a good option after completion of Engineering and the need in the industry for engineers holding a MBA degree. She also spoke about how MBA imparts leadership qualities and team management skills.

The resource person also spoke about fees of various MBA colleges and why IIBS is a good option. The speaker encouraged the students to pursue MBA immediately after completion of Engineering. The students asked questions regarding fees and placements. The talk ended with Dr. Shreyas Simu, Asst. TPO presenting a letter of appreciation to the delegates of Professional Learning Institute.

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