

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

May - July 2017 Vol 6 - Issue 4

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#### AICTE: Ukieri Technical Leadership Programme



The phase three program of UKIERI (UK- India Education & Research Initiative) is aimed at providing an overview of the key leadership and management challenges facing educational practitioners today, with a focus on the application of effective leadership and management techniques and their beneficial impact on departmental and institutional performance. The Change Management component of the program will result in significant measurable impact on the participating institutions . Workshops conducted under the program will also be accredited by CMI.

A total of 100 leaders from different Government and private engineering colleges and polytechnics of India are participating in the program and among them is the Principal, Don Bosco College of Engineering, Fatorda, Goa, Dr. Neena Panandikar. It is worth noting that these 100 participants have been selected from the 1043 applications received .The program is sponsored by AICTE in association with Dudley University, U.K.

#### KSHITIJ 2017



Kshitij 2017 – A Project Exposition at Don Bosco College of Engineering, Fatorda was inaugurated by Prof. Varun Sahni, Vice-Chancellor, Goa University on 27th July 2017. Prof. Varun Sahni in his inaugural address emphasized the essence of Technology Vision 2035 and said that it is appropriate to develop new products to accelerate national technology. Fr. Kinley D'Cruz, Director, welcomed the gathering and spoke about Kshitij as the first step taken by the institution towards progress in technology and invited the students to have a meaningful experience. Dr. Neena Panandikar, Principal, highlighted the initiatives carried out at the institute to uphold the vision of excellence in education. Prof. Ajit Salunke, Event Convenor, gave brief information of Kshitij 2017.



Over 100 exhibits in various categories were displayed in Kshitij 2017. Students of various schools also participated in the Science Project Competition held in association with ISHRAE Goa Chapter. Around 1400 students of 18 schools and higher secondary institutes from across the state of Goa visited the expo. Engineering students and members of the public also attended the expo.

Kshitij 2017 saw a parallel event for students in the form of a panel discussion on "Corporate Work Culture" coordinated by Mr. Rajesh Gaonkar, TPO and Prof. Roseline Fernandes. The panel members were Mr. M. D. Phal, Managing Director, Goa State HRD Corporation, Mr. Prashant Naik, Manager-Continual Improvement, Titan Time Products Ltd., Mr Dilip Parab, Corporate Trainer and Mr. Sushant Surlakar, CEO, SMS Computers. Another parallel event, a one day workshop on "Sustainable Energy Options for the Future" was held for teachers of schools and colleges. The resource persons were Dr. A. K. Saran, Senior Principal Scientist, NIO, Mr. S. K. Subramanya, Station Reactor Physicist, Nuclear Power Plant, Kaiga, Dr. Srikanth Mutnuri, Associate Professor, BITS, Goa, Dr. Jagannath Hirkude, HOD-

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Mechanical Engineering Dept., PCCE and Dr. Manoj Borkar, Associate Professor, Zoology Dept., Carmel College.

During the valedictory function, prizes were distributed by Mr. Jose Noronha – Chairman, Goa State Public Service Commission. Mr. Noronha encouraged the students to patent their ideas and continue in the path of innovation. He also complimented the school students for their innovative ideas.

Some of the exhibits on display were Human Survival Detection System, Tile polishing robot etc. Several external partners like Upgrade, Inifnyt3d, Don Bosco College of Agriculture, Elimentonics and Manovikas High School exhibited their models. A business Idea competition "EUREKA" was also organised by UPGRADE. The event was conceptualized by Prof Ajit Salunke, Head – Mechanical Engineering and coordinated by Asst. Prof. Sachin Turi, Asst. Prof. Mithil Parab, Asst. Prof. Satyesh Kakodkar and Asst. Prof. Vishnu Rathod. The valedictory function was compered by Asst. Prof. Mathilda Colaco and Asst. Prof. Deron Rodrigues.

#### Visit by DRDO Scientist from Naval Science and Technological Laboratory



Dr. O. R. Nandagopan, Scientist 'G', Director, Naval Science and Technological Laboratory visited Don Bosco College of Engineering, Fatorda campus on 21st July 2017 at 4.30 pm. He interacted with the Director and Principal along with the respective Heads of Departments. He was very impressed with the campus, the lab infrastructure and other student related activities. He commended the faculty on their research progress and was very interested in collaborating with them on future projects. He encouraged faculty to patent their work and interact

with the industry to promote its use. The meeting ended with a tour of the college campus.

#### Talk By Rev. Fr. Paul D'Souza



Rev. Fr. Paul D'Souza conducted a session on the 10th July, 2017 and informed the faculty on Triple objectives of Higher Education, Key factors affecting the effectiveness of Technical education and the Important values Educators should possess.

He mentioned the Triple objectives of higher education as: Expansion, Inclusion and Excellence. He stressed that it is in the objective of Expansion that excellence should be guaranteed, in the objective of Inclusion is where higher education needs the support of the State without which, Higher education remains a forte of the rich and the upper class. He also mentioned that while dealing with the objective on Excellence, the primary aim of Higher education is not only skill and employability but also development and its contribution to economic, social, political, spiritual and cultural arena.

He continued to elaborate on the key factors that affect the effectiveness of Technical education being: goal producing well qualified technocrats, inculcating technical competence in students, administration, infrastructure, teaching effectiveness, interaction with industry and society, extra curricular activities, research and development.

He also informed the faculty regarding the benefits of a positive attitude and how as an educator one can make life 100% for their students.

#### **Civil Engineering Department**

One Week ISTE ECI Approved Workshop on Advances in Concrete Technology

The Civil Engineering Department organized a One



week ISTE ECI approved workshop on "Advances in Concrete Technology" from 19th to 23rd June 2017. The workshop partners were Renuka Consultants, Mumbai in association with SpaceDeal Pvt Ltd.

The Chief Guest of the inaugural function was Shri. Swapnil Naik, Collector and District Magistrate, South Goa. The Guest of honor was Rev. Fr. Paul D' Souza, Rector, Don Bosco College of Engineering, Fatorda. Also present for the function were Rev. Fr. Kinley D' Cruz, Director, Don Bosco College of Engineering along with the Principal, Dr. Neena Panandikar. The coordinators for the workshop were Asst. Prof. Satyesh Kakodkar and Asst. Prof. Starina Dias.

The workshop was handled by a team of eminent resource persons from their respective fields and it brought together over more than 50 participants from different colleges, government organizations and industry.

On the first day, Dr. Subhash C. Yaragal, Professor, National Institute of Technology, Surathkal stressed on sustainability and sustainable development and talked about various techniques and materials the construction industry can use to become more environment friendly. Dr. Mattur C. Narasimhan, Dean and Professor, National Institute of Technology, Surathkal gave a talk on the topic "Alkali activated concrete systems".

On the second day Dr. Yogini Deshpande, Principal Consultant, Renuka Consultants gave a day long lecture on various methods to evaluate in place concrete strength like core testing, rebound hammer, etc and flaw detection in concrete like ultrasonic pulse velocity, impulse echo method, pile integrity method, etc. On the same day, Dr. Jagadeesh Godihal, Professor, MIT Aurangabad enlightened the participants on "Sustainable development: What this meant for Engineers".

Dr. Yogini Deshpande continued with the workshop on the next day and provided the participants with information on methods of corrosion measurement and covermeter techniques and also demonstrated some of the techniques. On the same day Dr. G. S. Manjunatha, HOD, KLS Gogte Institute of Technology, Belgaum, shared his knowledge on the pros and cons of various Geopolymer composites. Dr. K.G. Guptha, HOD, Goa College of Engineering, Ponda, delivered a lecture on "Necessity of passivation in concrete" in which he talked about causes of concrete deterioration, which chemicals or admixtures can be used to prevent it and in turn their effects on the properties of concrete.

Dr. M.C. Nataraja, Professor, JSS Science and Technology University, Mysore, Karnataka talked about "New generation materials in concrete mix design-methods and codes of practice" in which he stressed on why blended cements should be given more preference. Later in the day, he explained all basic concepts in concrete mix design and how to design a mix. Dr. C.M. Ravi Kumar, Assistant Professor, University B.D.T. college of engineering, Karnataka gave a lecture on "Engineered cementitious concrete material" and its effects on the response of different structures to cyclic and wind loading. In the afternoon session, he provided information on various repair and retrofitting techniques used in structures as well as nondestructive testing methods.

On the last day, Mr. Vinod Ailsinghani, specification head, (Alccofine products) Ambuja cements Ltd. briefed on "High performance concrete with material advancements instead of concrete mix design" and talked about the need of smart materials in High Performance Concrete. Lastly, Dr. Ramachandra V., Sr. Vice President and Head (Tech. services), Ultra Tech cement Ltd., Mumbai spoke on the topic

"Special concretes for fast track construction projects" and talked about his experience in the field.





The valedictory function was held on 23rd June 2017. The Chief guest for the function was Dr. V. Ramachandra. The five day report of the workshop was read by Satyesh Kakodkar, Asst. Prof., DBCE and the vote of thanks was proposed by Starina Dias, Asst. Professor, DBCE.

This workshop provided an interactive atmosphere between the resource persons and the participants.

#### Third Year Field Visit to ID Hospital and Flyover

On 14th July 2017, the Third year Civil students visited Sub District ID Hospital Ponda The purpose of the field visit was to understand about the different units of the hospital and planning of the same. Sister Hema Naik guided students through the hospital. The



hospital had Ground and 3-storeyed structures which included reception area, pharmacy, waiting room, casualty for emergency, all the OPD's on the first floor and the wards on the other floors which were differentiated as female ward, male ward and children's ward. The hospital is equipped with 3 lifts out of which 1 is for the doctors and patients and other 2 are for the visitors. Around the hospital building gabion wall is used as a retaining structure.

The second visit was to the flyover under construction in Ponda where the students saw the placing of Reinforced Earth Retaining Panels and casting of one of the bridge girders. Mr. Patil, Junior Engineer, PWD was the guide for the site.

Asst. Prof. Nadya Baracho and Asst. Prof. Shruti Desai accompanied the 55 students for the field visit.

#### Soft Skill held TE Civil students

The students of Third Year Civil Engineering attended a workshop on 10th of July 2017.

The Morning session covered audio visuals on technical case studies namely



Hong Kong cable car project.

The session explained transportation alternatives to difficult terrains and its execution.

Faculty coorninator-Asst. Prof. Madhuraj Naik

 Construction of 3-Gorges dam in China.

> Session covered details on the



world's largest power station at 3 Gorges dam. The session covered various construction aspects environmental assessments and power generation aspects of the dam.

Faculty co-orninator-Asst. Prof. Madhuraj Naik

3. Afternoon half comprised of two sessions by Ms.

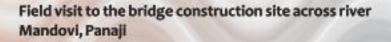
Priyanka Rao -Corporate trainer

The sessions covered following topics

- 1. Business dressing
- 2. First Impression
- 3. Business etiquette

From the perspective of interviews and work environment

Faculty co-ordinator- Asst. Prof. Prachi Dessai



The Department of Civil Engineering organized a field visit for the third year Civil students on 20th July



2017 to the bridge construction site across river Mandovi, Panaji which included a visit to the approaches on NH-17 between Pundalik Nagar junction (Porvorim) to Merces junction.



GSIDC has awarded this project on EPC contract to L&T Construction Heavy Civil Infrastructure IC. L&T Construction has engaged L&T Infra Engineering as the detailed design consultant. GSIDC has appointed S.N. Bhobe & Associates Pvt. Ltd. Navi Mumbai as the owner's Engineer. The students were directed to the site by Mr. Rajkumar- Manager, Larsen & Toubro Limited. On site, they informed students of the safety rules and regulations to be followed. Mr. Sanjeev Sinha, Resident Engineer, M/s. TPF Engineering Pvt. Ltd (Goa Regional Office) explained about the different phases of bridge construction. He explained that the bridge being constructed across river Mandovi, Panaji is of 3.1 km in length across the river and includes approaches on NH-17 between Pundalik Nagar junction (Porvorim) to Merces junction. This new cable stayed bridge is of 600 m length and 21 m width, having viaduct with length of 3330 m and width of 19.20 m and is being aligned between the two existing bridges to avoid the disturbance to the flow of water. The bridge has a 4 lanes configuration and has Pile Foundation done with Piles of 1500 mm diameter having solid approaches of 504 m length.

He explained the concept of a cable-stayed bridge stating that a cable stayed bridge has pylons, from which cables support the bridge deck. A distinctive feature is the cables which run directly from the tower to the deck, normally form a fan-like pattern or a series of parallel lines. In a cable stayed bridge, depending on its design, the cables carry the bridge

deck from one or both sides of the supporting tower. The stay cables carry the deck and transfer all bridge loads to the foundations. This is done by transmitting the cable stay forces, through its extremities; at its anchorage points. Stay cables are firmly attached to the anchorages which are designed to resist the buckling forces of the loads. Mr. Sanjeev Sinha also explained the Precast segmental erection to the students. He explained that precast segments that are constructed in the casting yard are transported on to the site where the lifting of the precast segments is done with bars through the lifting Holes and epoxy is used to join the segments.

A group of 15 civil engineering students accompanied by Asst. Prof. Oswyn Soares and Asst. Prof. Swaroopa Sail visited the site.

#### Mechanical Engineering Department

One week Training Program course on "Industrial Automation" at DBCE

Mechanical Engineering Department in association with Mechanical Engineering Students Hub (MESH) organised a one week Training Program on "Industrial Automation" from 3rd to 7th July, 2017 for third year students.

During the Inaugural Function, Dr. Neena Panandikar, Principal, welcomed the gathering and emphasized the role of Automation in Mechanical Engineering. Fr. Kinley D' Cruz, Director, highlighted on the role of Programmable Logic Controllers (PLCs) in the shipping industry where large container ships are seamlessly controlled. Prof. Ajlt Salunke gave a brief introduction to the course and said it would benefit the students for final year projects and job placements. Asst. Prof. Suraj marathe, MESH Coordinator was also present.

The resource persons dealt in detail about the automation in the present day industry. Prof. Devendra Sutar, Asst. Prof. (ETC. Dept.), Goa Engineering, College covered basics of PLC, Ladder Logic Programming, Timer, Counters and Interfacing of Sensors & Actuators with PLC. Mr Rajaram

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Parsekar, Elementronix, introduced students to Arduino, an open source electronic prototyping platform, Microcontroller programming, interfacing with sensors, programming and interfacing for robotics. Mr. Sandeep Mone, Autotech, Mapusa, gave a demonstration of control of Pneumatic cylinders, motors using PLC and also introduced variable Frequency Drives. Prof. Darshata Naik, Asst. Professor (ETC Dept.), SRIEIT, Shiroda, spoke on "Communication with PLC".

Asst. Prof. Manjunath Narwate and Asst. Prof. Raymond Joseph coordinated the workshop.

#### MecHeads Launched by Mechanical Department of DBCE

"MecHeads", a students group of the Mechanical Engineering Department for Community Outreach was launched on 14th July 2017 during the Valedictory Function of the one week workshop on "Computer Aided Drafting & Modelling" for Third Year Mechanical students.

Mr. Abhay Keni, Owner Shanta Pumps was the Chief Guest for the Function. Rev. Fr. Paul D'Souza - Rector, Dr. Neena Panandikar - Principal, Prof. Ajit Salunke - HOD, Mechanical Engineering Department and Asst. Prof. Suraj Marathe - Coordinator, Mechanical Engineering Students Hub were also present. Mr. Abhay Keni highlighted on the importance of Community development initiatives by students for the underpreviledged and development of managerial skills among students during such programs. Dr. Neena Panandikar complimented the students for taking the initiative for community outreach. Prof Ajit Salunke spoke on the importance of learning Robotics and related fields at the school level.

"MecHeads", which will be mentored by Asst. Prof. Ishan Kossambe and Asst. Prof. Tanay Rege and function under the banner of Mechanical Engineering Student's Hub will be empowered to take up Community Outreach Programs in the Technical Field in rural areas As part of this initiative, students will engage in training school students on areas like Robotics, AUTOCAD, Automobiles etc.

They will also be involved in training programs conducted for DBCE students.

Asst. Prof. Sachin Turi, Asst. Prof. Sanjeel Naik, Asst. Prof. Siddu Biradar, Asst. Prof. Manjunath Narvate, Asst. Prof. Chetan Gaonkar and Asst. Prof. Raymond Joseph were the resource persons for the workshop on "Computer Aided Drafting & Modelling"

#### Installation of CWC of ISHRAE DBCE Students Chapter 2017-18



The Student's Chapter Indian Society of Heating Refrigeration and Air Conditioning Engineers (ISHRAE) of Don Bosco College of Engineering, Fatorda installed the Chapter Working Committee for the academic year 2017-18 on 22nd July 2017 in the presence of Chief Guest, Mr. Michael Martins - President - ISHRAE Goa Chapter; Guest of Honour, Mr. Vijendra Prabhugaonkar - Regional Sales Manager, Modern Water PLC; Rev. Fr. Kinley D'Cruz-Director; Rev. Fr. Paul D'Souza - Rector, Mr. Milind Sardesai - Student's Chair, ISHRAE Goa Chapter and Prof. Suraj Marathe - Officiating Head of the Mechanical Department.

Mr. Martins highlighted on the platform that ISHRAE provides for students to showcase their leadership qualities as well as build up professional and technical proficiency in them. He also elaborated on the role, activities, programs, structure, facilities, collaborations and certification courses of ISHRAE. Rev. Fr. Kinley D'Cruz enlightened the audience with his words of wisdom thus mentioning a remarkable quote "Never Remain a Spectator in Life", and thanked ISHRAE for walking hand in hand with DBCE in its efforts towards bridging Institute-Industry Gap. Asst. Prof. Suraj Marathe addressed the gathering with a welcome speech followed by a brief overview of the activities conducted by the DBCE ISHRAE



Chapter during the year 2016-17 presented by Asst. Prof. Tanay Rege.

An Expert Talk on 'Water Treatment in Process Industries' was delivered by Mr. Virendra Prabhugaunkar, highlighting the recent developments in water treatment technologies and techniques, and present practices set in place in the process and HVAC industry.

Mr. Martins administered an oath to the newly elected student members. The student Chapter working committee comprises of Mr. Rhennon Dias – President, Warren Soares – Secretary, Mr. Keegan Fernandes – Treasurer and CWC members, Mr. Pranav Savant, Mr. Heramb Shikerkar and Mr. Steven Fernandes. The event was compered by Mr. Warren Soares and Mr. Rhennon Dias proposed the vote of thanks. The event was coordinated by Asst. Prof Tanay Rege and Asst. Prof Raymond Joseph.

# BE Mechanical Field Visit to Tata Motors, Fatorda (Auto Industries Goa, Pvt. Ltd)

The students of BE Mechanical Engineering visited Tata Motors, Fatorda (Auto Industries Goa, Pvt. Ltd) on 22nd July 2017. The industrial visit was very much beneficial for the students related to automobile engineering. Mr. Laxmikant Lawande, Assistant works Manager, Warranty section, explained the various automobile engineering concepts and design considerations by displaying automotive parts like radiator, engine, chassis, turbocharger etc. at the commercial section.

At the passenger Vehicle section, Mr. Saish, Senior Service Adviser showed the students different work stations employed for vehicle maintenance and services. He explained in detail about the different workstations like tool room, engine room, body painting section etc. The students were actively involved in the visit and gained valuable information related to automobile engineering.

The visit was organized by Asst. Prof. Chetan Gaonkar and Asst. Prof. Sharad Shanbhag, Mechanical Engineering Department. Mr. Joyston Menezes accompanied the students.

#### DBCE Mechanical Students develop Prototype of Pneumatic Paper Stamping Machine

Paper stamping in all the offices, institutions, banks, and post offices are done manually which is time consuming and laborious. The intensity of the stamp is not uniform. Final year Mechanical Engineering students, Aditya D'Souza, Chrislee Dias, Jolton D'Costa, Linford Dias and Nashlon D'Souza under the guidance of Dr. Pravin Verekar have developed a prototype of an automated pneumatic paper stamping machine in which stamping is done by a small capacity pneumatic press.

The paper stamping is based on principle of metal stamping which is used in the industries. In this case, a rubber stamp is attached to a pneumatic actuator (cylinder) which is driven by stepper motors on an XY table. The envelopes along with the postal stamp are fed to the conveyor belt by friction rollers one after the other. Then the image is captured by a camera and sent to a computer where it is processed in LabVIEW software. In LabVIEW, a previously taken template image of the postal stamp is matched with the stamp on the envelope due to which the stepper motors are activated through a Microcontroller which moves the pneumatic cylinder above the stamp. Once the required position is attained, a solenoid valve gets activated which forces the piston out of the cylinder resulting in stamping action. A rubber stamp is attached to the pneumatic cylinder by a stamp holder. The machine is capable of stamping numerous amount of paper stamps in short amount of time

#### Electronics And Telecommunications Engineering Department

# Faculty Development Programme (FDP) "Raspberry Pi"

"The one who dares to TEACH must never cease to LEARN". Keeping these thoughts in mind and to meet the ever changing technology needs, the Department of Electronics and Telecommunication Engineering organized a Two Day Faculty Development Programme (FDP) on "Raspberry Pi" on 23rd and 24th of June 2017, for the faculty members of Engineering colleges and Polytechnics.

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The main objective of the FDP was to provide the faculty members an opportunity to develop their skills in embedded computing with Raspberry Pi which has remarkable importance in the field of technology today. The resource person for the FDP was Mr. Milroy Dourado.

The first day of the FDP commenced with the introduction and a brief overview of the architecture of the Raspberry Pi. Complete installation process right from loading of the operating system onto the Raspberry and mapping the IPs was shown. Basics of Linux commands were introduced followed by Python programming language.

The afternoon session started with the understanding of the GPIO interface, input output programming followed by hands-on session where T-SOP sensors and LEDs were interfaced with the Raspberry Pi.

The second day featured interfacing of the Motor with the Raspberry Pi. Applications like controlling the speed of the motor and reversing the direction of the motor were implemented. Applications using Ultrasonic sensors where distance could be measured was also studied and implemented.

The afternoon session included a demonstration on Frequency Modulation and transmission followed by discussion and issue resolution. The faculty worked with great enthusiasm during the workshop and had their own Raspberry kits to be configured.

The FDP ended with a Valedictory programme,

where the faculty members were awarded a certificate for the same. The feedback given by the faculty members was overwhelming. Dr. Neena Panandikar, Principal of Don Bosco College of Engineering and Asst. Prof. Michelle Araujo, HOD of ETC Department appreciated the resource person Mr. Milroy Dourado for his in-depth knowledge in the domain. Asst. Prof. Mathilda Colaco read the report of the two days FDP followed by vote of thanks delivered by Asst. Prof. Flavia Leitao. Asst. Prof. Deron Rodrigues compered the Valedictory programme.

The coordinators for the FDP were Asst. Prof. Flavia Leitao and Asst. Prof. Mathilda Colaco.

#### Internship Report

#### Week1

A one week workshop was conducted for the Third year Electronics and Telecommunication Engineering students in association with DBEATS from 3rd July 2017 to 7th July 2017. The resource people for this one week workshop were Mrs. Mayalin Noronha, Miss Grebian Alemao, Mrs. Avila Naik, Mr. Rajesh Gaonkar, Asst. Prof. Roseline Fernandes, Asst. Prof. Vishnu Rathod, Asst. Prof. Mohini Naik.

DAY 1:- POSITIVE THINKING AND INTERVIEW

3rd July 2017: A Forenoon session on Positive Thinking
was conducted by Mrs. Mayalin Noronha where
students were briefed about the importance of good
behaviour and positive attitude towards life.

In the afternoon session, Ms. Grebian Alemao briefed students regarding the HR Interview. Also an inspirational movie "Soul Surfer" was shown to the students giving them a message not to give up in life, no matter what challenges you might have to face.

#### DAY 2:- GROUP DISCUSSION

4th July 2017: Asst. Prof. Roseline Fernandes addressed the students about resume writing and Group Discussion. The afternoon session was engaged by Mrs. Avila Naik in which she spoke about Building Profile.

DAY 3:- FIELD VISIT TO NIO, GOA



5th July 2017: The Third year students of Electronics and Telecommunication Engineering visited NIO, Panaji for a field trip. The students were accompanied by Asst. Prof. Mathilda Colaco and Asst. Prof. Yeshudas Muttu.

The students got an opportunity to visit the archaeological findings and the entire marine related machines as well as non living resource samplings. Dr. Anand Loka, Scientist at NIO, gave a talk on fields and jobs available for Electronics and Telecommunication Engineers at NIO. The students were also provided with information on Autonomous robots and machines (Like AUV and AVP) which are used in Marine research for checking various aspects like water level etc.

#### DAY 4:- CORPORATE CULTURE

6th July 2017: A one day workshop on Group Coordination and Time Management was conducted by Mr. Rajesh Gaonkar. It was an interactive session where they discussed on the topics such as-" what stops you as an individual to achieve something". This session helped the students to build trust, time management, choose their goals, team work, team spirit.

#### DAY 5:-DESIGN OF MICROSTRIP PATCH ANTENNA AND MULTISIM SOFTWARE

7th July 2017: In the forenoon session a talk on Microstrip Patch Antenna and its Applications was conducted by Asst. Prof. Mohini Naik in which students were given information about different applications of antenna, antenna parameters and rectangular microstrip patch atenna was designed...

In the afternoon session Asst. Prof. Vishnu Rathod introduced them to Multisim simulation software. Using this simulation tools students designed circuits.

#### Week 2: Workshop on PLC AND SCADA

As part of the in house training programme a one week workshop on PLC and SCADA was conducted for the Third year Electronics and Telecommunication Engineering students in association with DBEATS from 10th July 2017 to 14th July 2017 at Don Bosco College of Engineering,

Fatorda. The resource person for the workshop was Mr. Subodh Mone, Autotech, Mapusa.

PLC (Programmable logic controller) is an industrial computer control system that continuously monitors the state of input devices and makes the decisions based upon a custom program to control the state of output devices and SCADA (supervisory control and data acquisition) is a computer system that is used to gather and analyse real time data. SCADA systems are used to monitor and control a plant or equipment in industries such as Telecommunications, water and waste control, energy, transportation etc.

In this workshop students learnt the PLC and SCADA Technology. They were given description on various components and areas related to PLC. Students were taught how to program PLC using DELTA WPL Software (Ladder programming). Wonderware software (intouch) was used to program SCADA. During this one week course numerous programs were written based on Industrial applications.

The students found the workshop very interesting and knowledgeable and useful for their future projectwork.

The workshop was co-ordinated by Asst. Prof. Trima P. Fernandes e Fizardo and Asst. Prof Melba Lira D'Souza.

#### Computer Engineering Department

## T.E. Computer "Cloud Computing, Big Data and IOT" Internship Workshop

An internship workshop on "Cloud Computing, Big Data and IOT" was organized by C-CODES from 3rd July to 8th July 2017. The speaker was Mr Pravin Hanchinal. The workshop was attended by the 3rd year Computer Engineering students. The coordinators for the workshop were Asst. Prof. Merwyn D'Souza and Asst. Prof. Kiran Waghmare.

#### Day 1:

The workshop started with the introduction of cloud computing and different aspects related to it. The

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participants were then given a hands on session on how to create your own cloud online using Codenvy, which is a cloud environment IDE for coding, building and debugging apps.

#### Day 2:

The second day was all about how a cloud is made by using virtualization, which is the creation of a virtual-rather than actual-version of something, such as an operating system, a server, a storage device or network services.

Later, the students learnt how to create simple apps using two softwares called GitHub and PhoneGap, which is a source code repository and a mobile application development framework respectively.

#### Day 3:

This session included information about Big Data, which is extremely large data sets that are analysed computationally for patterns, and its management. Later, the students were shown how to organize data and count the different variables in a series of files using MapReduce, which can organize and reduce the results from each node into a cohesive answer to a query.

#### Day 4 and Day 5:

The students were shown a live demonstration on Raspberry Pi, which is a small and affordable computer that you can use to learn programming, and its application in IOT or Internet of Things i.e. the internetworking of physical devices embedded with electrical components which enable these objects to collect and exchange data. Mr. Pravin also explained how one can use internet to turn on and turn off a bulb.

#### Day 6:

Mr Pravin enlightened the participants on the career

path for the students. He showed them various websites where one can save personal details and create a CV, create blogs and personal websites.

#### T.E. Computer "Digital Marketing" Internship Workshop

An internship workshop on "Introduction to Digital Marketing" was organized by C-CODES from 10th July to 14th July. The speaker for the workshop was Mr. Sudhir Shetty, founder of Espressotive, a leading web design and web development company in Goa. The workshop was attended by the Third Year Computer Engineering students. The coordinators for the workshop were Asst. Prof. Merwyn D'Souza and Asst. Prof. Kiran Waghmare.



#### Day 1:

The workshop began with the overview of Digital Marketing, which is an umbrella term for all online marketing efforts. Businesses leverage digital channels such as Google search, social media, email, and their websites to connect with their current and prospective customers.

#### Day 2:

Digital Marketing using Facebook was the topic for the day. The participants were shown various ways on how to create a Facebook fan page and increase likes on a Facebook page.

Mr. Sudhir assigned tasks to 4 groups of the class, where each student had to get 100 likes for an assigned Facebook page.

#### Day 3:

Introduction of digital marketing using Instagram and Twitter was shown to the participants. Also, the importance of a hashtag, a word or phrase preceded



by a hash sign(#) to identify messages on a specific topic.

#### Day 4:

Introduction to Blogging and tips and tricks to increase views and subscribers. On the 4th day, task was to write a blog on any technical topic, containing attributes of a popular blog.

#### Day 5:

Different techniques on digital marketing such as search engine optimization, social media marketing, e-mail marketing and SMS marketing was discussed in the last session.

Certificates were awarded to the students at the end of the workshop.

#### S.E. Computer "HTML Advanced" Workshop (Beyond the Curriculum)



C-Codes Student Association along with the Computer Department has organized Lecture Series on HTML, CSS, PHP & MySQLI. Second year Computer Engineering students attended a workshop on "HTML Advanced" on 22nd July 2017 at Don Bosco College of Engineering, Fatorda – Goa. There were total 60 students for the workshop. Asst. Prof. Merwyn D'Souza, Asst. Prof. Manisha Faldessai, Asst. Prof. Norman Dias and Asst. Prof. Sweta Morajkar were the resource faculty for the day. Asst. Prof. Merwyn D'Souza was the coordinator for the workshop.

Abatch of 18 students were assigned to each faculty. The faculty expained to the students on HTML. HTML is a markup language used for structuring and presenting content on the World Wide Web. Students were showed how to create tables, lists, frames etc. Students attending the workshop were also introduced to concepts of CSS basics which stands for 'Cascading Style Sheets' and is the language of design for web pages, giving site designers the ability to suggest how their site

documents are styled.

CSS is interpreted by all graphical web browsers regardless of device or operating system. It allows a logical division between the



structure of a web page, (handled by the HTML) and the way it should look. CSS can be used to tailor the appearance of a web page specific to a particular device or screen size.

The workshop was interactive as well as hands on, with simultaneous practical sessions conducted by resource persons. The objective of this workshop was to reduce Skill Gap with Industry - Academia by delivering important programming skills which would be beneficial to students with regards to their placements in their final year. Students were encouraged and challenged to create their own websites and come up with innovative programming ideas.

# T.E. Computer "Introduction to Java Programming" Workshop

(Beyond the Curriculum)

Third year computer engineering students attended a workshop on "Introduction to Java Programming" on 22nd July 2017 at Don Bosco College of Engineering, Fatorda – Goa. The workshop was organized by C-CODES computer students association. A total of 54 students participated in the workshop. The workshop started at 9.00 am with a hands-on session in the Computer Department laboratories. Asst. Prof. Amrita Naik, Asst. Prof. Christina Barretto, Asst. Prof Amey Kerkar and Asst. Prof. Kiran Waghmare were 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 that is concurrent, class-based, object-oriented, and specifically designed to have as few implementation dependencies as possible. It is intended to let application developers "write once, run anywhere" (WORA), meaning that compiled Java code can run on all platforms that support Java without the need for recompilation. Java applications are typically compiled to byte code that can run on any Java virtual machine (JVM) regardless of computer architecture.



The workshop covered the basics of Java like creating java applications in Netbeans, data types, variable declaration in java, operators, input-output operations in java, conditional statements, looping statements, methods definition, strings, Arrays, class definition etc. In this hands-on course, students gained hands-on experience with Java programming and its object-oriented features. Students learnt to write, compile and execute Java programs, build robust applications using Java's object-oriented features, and created robust applications using Java class libraries.

# B.E. Computer "Soft Skills Development" Workshop

(Beyond the Curriculum)

Effective public speaking presentation is an essential lifetime skill. Speaking clearly and effectively is a valuable asset and an essential skill. It shows that a person is confident and knowledgeable about what he is saying. It also helps in persuading the audience to believe what one is saying. Public speaking skills help in a job interview, business meeting, networking and communicating with peers and teachers.

The Department of Computer Engineering at Don Bosco College of Engineering - Fatorda, Goa, conducted a Soft Skills development programme for



the final year computer engineering students (BE computer) on 22nd July, 2017. The workshop was organized by C-CODES computer students association. A total of 34 students participated in the workshop. The duration of the workshop was 2 hours. Asst. Prof. Ankit Kumar Tiwari, Asst Prof. Lilavati Samant, Asst Prof. Amey Tilve and Asst. Prof. Gaurang Patkar were the organizers for the workshop and Asst. Prof. Merwyn D'Souza was the coordinator for the workshop.

The resource person for the day was Mrs. Lorraine Fernandes from Life Skills Coaching Institute, Margao. The session was divided into the art of Public Speaking and Interview skills. She spoke on importance of expressing thoughts clearly and expressing views succinctly, overcoming stage fear and dressing up appropriately for the job interviews. She had an interactive session with the students as well wherein the students asked questions and cleared their doubts about job interview. The workshop ended with a vote of thanks.

# I & E Cell Interaction Session with Students of F.E, S.E, T.E & B.E Computer

Beyond Curriculum

The Innovation and Entrepreneurship Cell, in association with the Computer Engineering Department inaugurated on 22nd July 2017. A total of 85 Students from the Computer Engineering discipline had attended the event. The event was organised by Asst. Prof. Amey K. Shet Tilve under the banner of I & E cell.

Mr. Nikhil Divekar, the CEO/Founder of KOKM Juicery Pvt. Ltd. was the Chief Guest for the event. Asst. Prof. Gaurang Patkar, HOD, Computer Engineering Department was the Guest of Honor. Rev. Fr. Paul D'Souza, Rector; Rev. Fr. Kinley D'Cruz, Director and Mr. Rajesh Gaonkar, Training and Placement Officer were also present.





The Chief Guest, Mr. Nikhil Divekar began by narrating the story of his life, on how he started his business from sourcing Indian made products for export to Europe, from developing incense to promoting a health drink from Kokam fruit. He had an interactive session with the students.

The second speaker for the session was Mr. Mayuresh Nadkarni, Co-founder of YSM Media Labs Pvt. Ltd. He informed the audience about how he thought of designing games from college with his classmates, and later that idea developed to designing websites. He informed the students that he set up an office in Margao, and started out with zero clients, then got clients from Goa and around the world.

The final speaker was Mr. Rohan Naik, creative freelancer. He had an interactive session with the students in which he explained his story on how he was interested in music, since he was from a theatre background family. He further explained that in high school, he was inspired by wildlife and pursued a degree in Biodiversity Conservation and Management. He also mentioned that after getting his degree, he continued on with music. He started as a creative freelancer providing his talents in theatrics, movies and advertisements. In 2015, he bagged the Goa State film award for best lyrics for a song in the film 'Home Sweet Home'.

#### **Science And Humanities**

#### Orientation for FE students

An orientation programme was conducted for the newly inducted students of First Year Engineering from 3rd July to 7th July 2017.

The purpose of the orientation programme was to get the students accustomed to the 1st semester engineering subjects of Engineering Mathematics, Fundamentals of Electrical Engineering and Engineering Mechanics. The sessions were

conducted using interactive audio visuals.

The orientation was conducted by the following faculty: Asst. Prof. Vaishali Parakhi & Asst. Prof. Natasha D'Souza e Jaques in Engineering Mathematics. Asst. Prof. Flavia Leitao, Asst. Prof. Kimberly Morais, Asst. Prof. Mathilda Colaco, & Asst. Prof. Vishnu Rathod in Fundamentals of Electrical Engineering. Asst. Prof. B. Anirudha, Asst. Prof. Annapurna Sakhardande, Asst. Prof. Kaushik Pai Fondekar and Asst. Prof. Madhuraj Naik in Engineering Mechanics.

There was also a General Orientation session in which the students were welcomed and addressed by the Director, Fr. Kinley D'Cruz.

Principal, Dr. Neena Panandikar gave a presentation in which she highlighted the various undertakings and achievements at Don Bosco College of Engineering.

Asst. Prof. Harison Cota, HOD, Science & Humanities Department then introduced the faculty and staff to the students. He also briefed the students about the syllabus and examination pattern.

This was followed by a briefing about the library by Mr. Roland D'Cruz, Librarian.

Sports Officer, Dr. Avertano Barreto informed the students about the various sports and NSS activities in the college. Ms. Grebian Alemao and Mrs. Maya Lin Noronha, Counselors and Cultural In-charge, briefed the students about the cultural activities conducted in the college and also explained about the mentoring system existing in college. The concluding session was on training and placement given by the Training & Placement Officer, Mr. Rajesh Gaonkar. The students were then taken for a tour of the college by Asst. Prof. Gladys D'Silva and Asst. Prof. Roseline Fernandes.





#### Orientation for Parents of FE students



An orientation programme was conducted for the parents of the newly enrolled students of First Year Engineering on 8th July 2017.

Rev. Fr. Kinley D'Cruz, Director, welcomed the parents and gave a brief history of Don Bosco and the Salesian Society. He also informed the parents on how the students should conduct themeselves at the College in terms of dress code, wearing identity cards, academic performance and discipline. Dr. Neena Panandikar, Principal, gave a presentation highlighting the various activities taking place at the College.

Dr. Kala Nayak, Registrar, then gave information about the syllabus, examination system and scholarships. This was followed by a presentation by Asst. Prof. Harison Cota, HOD, Science & Humanities Department, Prof. Ajit Salunke, HOD, Mechanical Engineering Department, Asst. Prof. Annapurna Sakhardande, HOD, Civil Engineering Department, Asst. Prof. Michelle Viegas, HOD, ETC Engineering Department and Asst. Prof. Gaurang Patkar, HOD, Computer Engineering Department. In their presentations the heads highlighted the various undertakings and achievements of their respective department.



Ms. Grebian Alemao, Counselor, proposed the vote of thanks. The orientation was conducted by Asst. Prof. Roseline Fernandes.

The parents were then taken around the campus by the faculty from different departments. About 200 parents attended the orientation programme.

#### Inaugural prayer service for F.E. Students

An inaugural prayer service to invoke God's blessings for the new academic year 2017-18 on 10th July 2017 was held. The service began with a short presentation explaining the activities of the college. Scriptures from the Holy Quran, Bhagvad Gita and the Holy Bible were read by Umair Shah, Prithvi Amonkar and Gavin Fernandes of the first year. Prof. Jyoti Lewis prayed on behalf of all faculty and Gauri Bhatikar from the first year prayed on behalf of the students.

A worship song was sung by Yash Prabhugaonkar and Prasad Anushka Dinesh. The service was marked by the solemn lighting of the lamp by the Provincial - Rev. Fr. Felix Fernandes, Vice- Provincial - Rev. Fr. Avil Rodrigues, Rector- Rev. Fr. Paul D'Souza, Director-Rev. Fr. Kinley D'Cruz, Principal - Dr. Neena Panandikar, Registrar - Dr. Kala Nayak and First year student-Mr. Reuben Filipe Mascarenhas.



Speaking on the occasion, Rev. Fr. Kinley D'Cruz welcomed the first year students and explained to them the 6 point programme as follows: Love what you do and do what you love, do not just be a spectator - be where the action is taking place, get your hands dirty doing something good because at the end of it all you will profit, set your sights high, make up your mind on what you want to do and go for it, be an integral part of the happenings in the college.

Rev. Fr. Felix Fernandes congratulated the students



for having secured admissions at the College. He further explained to the students the 3 Pillars of the Educator System of Don Bosco: Reason, Religion and Loving Kindness.

The newsletter and academic calendar were released at the hands of Rev. Fr. Felix Fernandes and Rev. Fr. Avil Rodrigues. The compere for the function was Ms. Grebian Alemao and Asst. Prof. Roseline Fernandes proposed the vote of thanks.

#### National Advisory board for the International Conference

Ms. Roseline Fernandes has been appointed to the National Advisory board for the International Conference on Internet of Things for Future Smart Cities organised by Geetanjali Institute of Science and Technology, Nellore to be held from 21st -22nd July 2017

#### **Training And Placement Cell**

#### **Programs Conducted**

BOAT Survey – We hosted Board of Apprentice Training (BOAT) seminar on the 8th of April 2017. DTE Project Talk – We arranged talk on final year project in-association with Directorate of Education (DTE) on the 19th of April 2017. Resource persons from various Industries guided our TE students on aspects of projects; feasibility, patenting, industry help, etc.

#### **Placements**

Following companies conducted campus placement drives daring the period april-July2017.

Stalwart Systems - 31 Mar/4 April 2 of our students got placed for package of 6.45 laks pa. Citrix-17th Mar-12 April

FirstNaukri - 6 Apr: Online Aptitude test was

conducted by FirstNaukri. Students from all departments answered the test. FirstNaukri will share the data with top companies in India for hiring.

19 April: Campus drive was conducted for Dogears Print Media Pvt ltd. 5 students from Computer department got placed.

29 April: we conducted a pool drive for Sankalp Semiconductors (Hubli) ltd inviting students from all the colleges from Goa. 105 students attended the interview. 2 of our students from ETC got selected.

3 May: Interviews were conducted by Tech Force Composites, Goa, for our Mechanical students. 4 of our students got selected.

Trade Ocean - 4 May: Trade Ocean Itd conducted interviews for our students from all departments.

8th May: Matrix Zero One Solutions, Pune conducted a pool drive in our campus. More than 150 students across Goa and Karwar attended the drive. 26 in total were selected.

9 May: Tangentia India Technology Pvt Ltd conducted interviews for our computer students. 2 got selected.

10 May: Godrej & Boyce conducted interviews for our Mechanical students. One got selected.

10 May Gervanora Goa conducted drive in our college.

15 students were selected.

10th July - Orange Technologies Bangalore conducted online test for students of all streams.

#### Internship

The students of final year engineering of all disciplines undertook an internship program from 3<sup>rd</sup> to 15<sup>th</sup> July 2017.

## Contact Information

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