
BLUEPRINT

Civil Engineering Department's Newsletter Volume 03, Issue 02, January- June 2019

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VISION

To be the Centre of Excellence in Civil Engineering Education and Consultancy by providing holistic, innovative and research centric environment and keeping pace with rapidly changing technologies.

MISSION

- To impart quality education in civil engineering, through effectiveness and innovation in teaching and learning.
- To promote positive interactions among faculty and students and foster networking with alumni, industry and other stake holders.
- To train young minds in soft skills, intellectual and ethical strengths, conducive to globally competitive environment.
- To motivate students for research and entrepreneurship in relevant sectors of society with focus on excellence and creativity.
- To undertake sponsored research and provide consultancy services in all the areas of civil engineering beneficial to the community.

FACULTY INITIATIVES

PAPER/ JOURNAL PUBLICATIONS

- Prof. Madhuraj Naik presented a paper on Detection of defects in concrete structures by using infrared thermography at the International Conference on Smart materials and Techniques for Sustainable development.

WORKSHOPS/SEMINARS CONDUCTED & ATTENDED

- Asst. Prof. Prachi Dessai & Asst. Prof. Kaushik P. Fondekar attended a workshop on Safety aspects at construction sites organised by The Institution of Engineers (India) Goa State Centre at Ravindra Bhavan, Margao, Goa on 14th June -15th June 2019.
- Asst. Prof. Madhuraj Naik attended an International conference on Smart materials and techniques for Sustainable development (SMTS-2019) organised by Department of Civil Engineering, Dr. N.G.P. Institute of Technology, Coimbatore on 4th – 5th April 2019
- Asst. Prof. Satyesh Kakodkar, Asst. Prof. Oswyn Soares & Asst Prof. Madhuraj Naik attended a seminar on New & Innovative technologies in Civil Engineering organised by IEI(India) Goa state centre on 15 – 16th March 2019.
- Asst. Prof. Satyesh Kakodkar & Asst. Prof. Oswyn Soares attended a 1 Day workshop on Additives in Concrete on 1st February, 2019 organised by Indian Concrete Institute, Goa Centre.
- Asst. Prof. Annapurna Sakhardande, Asst. Prof. Shruti Dessai, Asst. Prof. Starina Dias, Asst.Prof. Kaushik Pai Fondekar & Asst. Prof. Akshata Kudchadkar attended a 1 Day Moodle Learning Management System on 15th March 2019 organised by Computer Engineering Department, Don Bosco College of Engineering, Fatorda, Goa in association with IIT-Bombay.
- Asst. Prof. Satyesh Kakodkar attended a workshop on Safety aspects at construction sites organised by The Institution of Engineers (India) Goa State Centre at Ravindra Bhavan, Margao, Goa on 14th June -15th June 2019.

FACULTY ACHIEVEMENTS

- Asst. Prof. Akshata Kudchadker secured top 3 in the 8-week NPTEL online exam in the subject Plastic Waste Management.
- Dr. Shwetha Prasanna & Asst. Prof. Starina Dias secure Elite Medal in the 8-week NPTEL online exam in the subject Plastic Waste Management.

STUDENTS ACTIVITIES

Winners of “Innovative Project competition of Engineering colleges of Goa 2018-19”



Recently the Goa State Innovation Council in association with the education committee of GCCI hosted the finals of the “Innovative Project competition of Engineering colleges of Goa 2018-19”. The competition was held on 02nd March 2019 at Sanskruti Bhavan, Patto. In all 159 projects were submitted for the competition of which 25 were shortlisted for the final prize. The Prize winner was awarded to the project titled “Manufacture of Brick using Laterite Soil” from the Don Bosco College of Engineering, Civil department. Students Atish Loliengar, Shwetang Nadkarni, Gaurai Gaunekar, Sajal Kamat and Vikesh Malik and project guide, Professor Satyesh Kakodkar received the winner’s trophy and certificate.

“SANKRITI 2019”

The Civil Engineering Students Association (CESA) in association with ICI students’ chapter DBCE organized one day Tech Fest “SANKRITI 2019” on 28th March 2019. This intercollegiate technical fest had a number of events where the students showcased their Innovative ideas and skilful talents in the various events that were organized, like Concrete Mix Design, Truss design, Aakriti (AutoCAD), Battle of words (Debate), Pixels (Photography), Brain Buster’s (Quiz) etc. There were also a number of fun activities such as Treasure hunt, Block painting in which students participated with great enthusiasm.

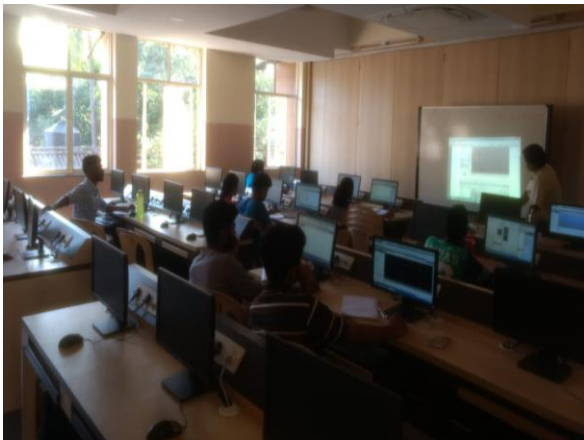


The valedictory function of “SANKRITI 2019” was organized in the presence of the Chief Guest for the function Er. Joseph Silveira (ICI Goa), Rev Fr. Kinley D'Cruz (Director), Dr. Neena Panandikar (Principal) and Dr. Shwetha Prasanna (HOD). For the valedictory function the winners and runners-up were presented with certificates, trophies and cash

prizes. The overall winners of “SANKRITI 2019” were Goa College of Engineering, Farmagudi. A total of 188 students registered and attended the event which also outstation students from Belgaum, Hubli, Karwar participated with great enthusiasm. The faculty coordinators of “SANKRITI 2019” were Prof. Satyesh Kakodkar and Prof. B.R Anirudha.

IN-HOUSE TRAININGS/EXPERT TALKS

MIDAS Gen Training



Four days hands on MIDAS GEN training was conducted for B.E. civil students of 2018-19 batch of Don Bosco College of Engineering on the 27th October 2018, 17th January 2019, 7th February 2019 and 9th March 2019. The Resource persons for the training were Prof. Madhuraj Naik and Prof. B.R. Anirudha, Civil Engineering Department, Don Bosco College of Engineering. A total of 16 students were present for the training. The topics covered

during the training were modelling and analysis of 2-D beam, rigid jointed frame and pin jointed plane frames. Also, modelling and analysis of a 15-story building with gravity as well as seismic loading was covered in these sessions. RCC design features of MIDAS Gen were also used to design various structural components of the building.

AutoCAD training

The department conducted an AutoCAD training for the SE Civil students on 09th February and 09th March 2019. 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. In all 51 students attended the basic course consisting of 02 sessions held on 09th February and 09th March 2019.

“Interior Designing” – Ms. Neha Kakodkar



The Department conducted a talk on “Interior Design” on 25th April, 2019. This talk was conducted as a part of academic enhancement for Second year students. Consulting Civil Engineer and Interior Designer Ms. Neha Kakodkar was the Speaker. Er. Neha Kakodkar highlighted the basic concepts of planning the interiors. She covered various topics which include planning of modular kitchen, types of False Ceilings, Air Conditioning and reading of Electrical drawings. In her presentation, she spoke on the benefits of modular kitchen over traditionally handmade cabinets. She also explained 5 steps to plan a Modular Kitchen which include: defining the layout or shape, selecting the modules, choosing the material, selecting the counter top and choosing the right kitchen appliances. In Her presentation

FIELD VISITS

Educational Tour at Pune

Students’ of final year Civil Engineering of Don Bosco College of Engineering, Fatstudent’sompanied by Prof. Satyesh Kakodkar, Prof. B.R. Anirudha, Prof. Akshata Kudchadkar and Mr. Bupesh Prabhudessai visited Central Water and Power Research Station, Military College of Engineering and Kolte Patil Life Republic Construction site during their Educational tour to Pune. On the first day students visited the Central Water and Power Research Station (CWPRS), Pune. It is the major research organization in the field of hydraulic and allied research as a subordinate office of the Ministry of Water resources of Government of India and deals with planning, organizing and undertaking specific research and development studies related to optimizing designs of river, coastal, water storage and conveyance hydraulic structures.



Later in the evening the students visited the Kolte-Patil Mega-Township, biggest Township in Pune. On the site Mr. Mangesh Shende- the Project Head, Mr. Rahul Talele –Business Head and Mr. Pravin Mahajan - Quality Manager were present to address the students. The students were informed the size of the Project was 500 acres and the buildings constructed were of 21

storeys each. They were also informed that a new method of construction called Kumkang Aluminium formwork system was used due to which they could complete a single building of the project within a year. They also mentioned that M30 grade high flow concrete was used for construction. Senior Quality Engineer Mr. Yuvraj Londhe gave a brief idea on the various tests done on the concrete in their laboratory.

Salaulim Dam

The Final year Civil Engineering of Don Bosco College of Engineering, visited the Salaulim Dam on 26th April 2019 along with Prof. Oswyn Soares and Prof. Madhuraj Naik. The students visited the Salaulim irrigation project which is located on the river Salaulim, a tributary of the river Zauri. On site the



concerned engineer of PWD explained that the construction of the project was started in 1976 and was originally proposed to be completed by 1980, but was completed in May 2006. The students got to see the composite earth-cum-masonry dam of 42.7m height and 95.0 m length with a water spread area of 24 km². They also saw the duckbill spillway through which the excess water starts flowing from once the reservoir has reached its full capacity.

Site visit to Zuari Bridge

On 08th February 2019, the Second year Civil Engineering students of Don Bosco College of Engineering, Fatorda visited the bridge site at Zuari.

At the start of the field visit the students were taken to the fabrication unit of the bridge. At the fabrication unit site, the students were made aware that to make the two four lane bridge carriage way for the bridge, composite deck slabs of steel girder with precast concrete slabs on top were to be used. The steel girders would be fabricated at the unit at the site using advanced robotic welding equipment.

The students got to see the various machines and their working like cutting robot, CNC drilling machine ,fit up bed etc .The students were also explained different types of welding, like submerged arc welding (SAW) and metal active gas welding (MAG).They were made known that the submerged arc welding (SAW) is mostly preferred as it requires less time and can be used for large scale welding.

The Students were then taken to the water front where they got an opportunity to see the construction of the pylons. The students were briefed about how the piles were constructed and were made aware that 78 piles of 42 m height were constructed using M55 grade of self-compacting concrete. They were also made aware by the officials that the piling work that was done at the water front was the most critical part of the project as yet.

65 second year students were accompanied by Prof. Shruti Desai, Prof. Kaushik Pai Fondekar and Prof. Madhuraj Naik. Of Don Bosco College of Engineering.



SE Civil students visit to South Goa District Hospital and Alcon Green Building Centre and R&D lab

A field trip was organized on 12th January 2019 by the Department of Civil Engineering, Don Bosco College of Engineering for the students of the Second Year to the South Goa District Hospital in Margao followed by a visit to the Alcon Green Building Centre and R&D Lab Centre in Kundaim, Ponda.

The students were shown the 5 storey South Goa District Hospital and the key architectural and design elements required in a hospital. The students were informed that the building structure is resting on piles and grillage foundation and that the land on which the structure is resting on was previously agricultural land where the water table is within the depth of 1.5 m causing a delay in the construction of the foundation work. They were explained that the basement accommodates 100 vehicles and was maximized to accommodate the laundry, disposal room, disinfection closet, pharmacy etc. The students were explained about the Firefighting regulations and also the automatic sprinkler system that is made mandatory in the building and basement also. They were told that running parallel to the water pipelines were also drainage pipes which discharges water into the sewers. They were informed about the centralized cooling ducts in the basement used for ventilation.

They further explained that the hospital has a capacity of 500 beds and the top two stories were dedicated for a nursing college. The hospital has a general, private and an isolated prisoner's ward for males and female respectively. Ventilation in the wards was



carried out using fans along with natural ventilation while the rest of the building used the centralized cooling system.

The top two stories that were dedicated to the nursing college have classrooms of 50 student's capacity with different labs available on both

the floors. They also have an Auditorium having a capacity of 150 people. The students were accompanied by Asst. Prof. Jeffrey Valadares, Asst. Prof. Madhuraj Naik and Asst. Prof. Oswyn Soares from the Department of Civil Engineering.

In the latter half of the day the students accompanied by the principal of Don Bosco Engineering college Dr. Neena Panandikar, and the faculties of the Department of Civil Engineering. All visited the Green Building Centre and Alcon Research and development (R&D) Centre in Kundaim, Ponda. It was made known to us that this plant prides itself in the creation of better-quality concrete in association with ACC Cement.

Here the students were explained and shown the various equipment used for concrete testing. The students also got to see Water permeability apparatus, Rapid Chloride Permeability Testing Apparatus used for testing the durability of concrete, Heat Hydration Apparatus etc.

They also got to see the chemical testing lab where various tests are being conducted on the cement to improve the quality of cement and concrete. The students also got an opportunity to see the fully automated plant that supplies concrete bricks, pavers, kerbs etc. They also got an opportunity to see the two-separate process of wet and dry that the plant is divided into.

Field trip BE Civil 'Salaulim Water Treatment Plant'



The Third Civil Engineering students of DBCE, the Water treatment plant at Salaulim, Sanguem on 26th April 2019 along with Prof. Satyesh Kakodkar and Prof. Prachi Dessai.

At the water treatment plant near Salaulim dam the students got an opportunity to see how the water which is taken from the dam is treated and supplied for drinking purpose to Vasco,

Margao, Quepem, Sanguem and other prime towns and villages in South Goa. They saw treatment process like aeration, sedimentation and pre and post chlorination of water.

SEMINARS /WORKSHOPS/TECHINICAL EVENTS & TECHNICAL COMPETITIONS

- ✚ Atish Lolienkar, Shwetang Nadkarni, Gaurai Gaunekar, Sajal Kamat & Vikesh Malik secured 1st Place in Innovative Project Competition organized by GCCI and GSInC in March 2019
- ✚ Sanket Bhat, Herrick Caldeira, Ray Cortez, Yash Dessai, Godwin Fernandes & Sonia Vasco da Gama were Shortlisted for 3rd Level Smart India Hackathon in April 2019
- ✚ Saishwar Naik, Shradha Shirodkar, Sharayu Pednekar, Sainil Priolkar, Saiesh Karwarkar, Sahil Tari, Omkar Kotharkar & Sahil Dessai participated in New and Innovative Techniques in Civil Engineering on 14th-15th March 2019

SPORTS ACTIVITIES

- ✚ Pallavee Velip, Dipti Gaude, Tanushree Saraswat, Maryann De Souza, Shruti Mauzo, Divya Naik & Luiza Fernandes participated in Kho-Kho organised by Multipurpose High School from 13th Feb-16th Feb 2019.
- ✚ Akash Naik, Sanat Mhapne, Saurav Chari, Abhishek Kothambikar, Rahul Naik, Mayur Prabhu & Gautam Zangli reached Quarter Final in Cricket organised by Goa University from 21st Feb- 18th March 2019.
- ✚ Sonia Vasco de Gama, Jocelyn Godinho, Carey Ann Gonsalves & Uma Naik participated in Volleyball organised by Goa University from 5th Feb- 11th Feb 2019.
- ✚ Mayur Prabhu & Shivam Raikar participated in Volleyball organised by Chowgule College from 25th and 28th January 2019.
- ✚ Vikesh Malik reached Second Round in Kabaddi organised by Goa University from 16th Jan- 18th Jan 2019
- ✚ Ray Cortez participated in Handball organised by Goa University from 5th Feb- 11th Feb 2019.
- ✚ Yash Ajgaonkar, Darshan Varkuri & Vikesh Malik participated in Kho Kho organised by Multipurpose High School from 13th Feb- 15th Feb 2019.