

BLUEPRINT

Civil Engineering Department's Newsletter Volume 03, Issue 01, July- December 2018

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Upcoming Events

Sankranti 2019

VISION

To promote edifice of safe, secure and sustainable society.

MISSION

To impart quality education to build competitive and creative young engineers by keeping pace with rapidly changing technologies and to become a leading centre of excellence in civil engineering education and research.

DEPARTMENT DETAILS

The Department has well qualified and experienced faculty in the areas of Structural, Geotechnical Engineering and Environmental Engineering. The department has been organising various programs to enhance the Institute - Industry linkage through field visits, workshops, seminars etc. The Department offers Bachelors of Civil Engineering programme, with total number of 60 seats in the 1st year and 12 seats for lateral entry into the second year. Every year students of Third year are exposed through industry internship programme of 1 month duration for field experience.

The Department has 11 fully functional Laboratories which along with academic requirements also cater to the Internal Revenue Generation through testing and consultancy

DEPARTMENT ACTIVITIES

“ACCE Foundation Day” celebration



The Principal of Don Bosco College of Engineering -Fatorda, Dr. Neena Panandikar was invited as a Chief Guest and keynote speaker at the “Foundation Day” celebration of Association of Consulting Civil Engineers (India) (ACCE) Goa Centre on the 3rd August 2018, which was held at the International Centre Goa, Dona Paula – Goa.

Dr. Neena brought to the fore the extremely relevant and highly informative keynote speech on “NPTEL (National Programme on Technology Enhanced Learning) online courses. Her speech was very well received and acknowledged by all present at the gathering.

MIDAS Gen Training

Three days hands on MIDAS GEN training was conducted for Civil Engineering Faculty of Don Bosco College of Engineering from 16th to 18th September 2018. The Resource persons for the training were Mr. Prakash Bajaj and Mr. Abhishek Waghmare, Structural Engineers from Computer Help, Mumbai.

MIDAS GEN is a Windows-based, general-purpose structural analysis and optimal design system. The intuitive user interface, contemporary computer graphics and substantially fast solver are some of the highlights of this software. The user-oriented input/output features and significant analysis capabilities enable engineers and researchers to readily undertake structural analysis and design for even complex and large structures.



The topics covered during the training were Modelling, Analysis and Design of a 15 story RCC building, Analysis and Design of a Steel Structure and Flat Slab Modelling. A total of 15 faculty members and one industry delegate were present for the training. The coordinators for the Training were Prof. Oswyn Soares and Prof. B.R Anirudha.

FACULTY INITIATIVES

PAPER/ JOURNAL PUBLICATIONS

P. Shwetha, K. Prasanna published a paper on “Pedotransfer Functions for the Estimation of Saturated Hydraulic Conductivity for Some Indian Sandy Soils” in the Eurasian Soil Science, 2018, Vol. 51, No. 9, pp.1042-1049, Pleiades Publishing, Ltd., 2018, ISSN 1064-2293

WORKSHOPS/SEMINARS/EXPERT TALKS ATTENDED

Dr. Neena Panadikar , Dr. Shwetha P., Akshata Kudchadkar ,Annapurna Sakhardande, Jeffrey Valadares, Kaushik Pai Fondekar , Madhuraj Naik, Nadya Baracho, Prachi Dessai, Satyesh Kakodkar, Starina Dias attended a MIDAS GEN workshop from 16th Sep – 18th Sep 2018 by the Department of Civil Engineering, Don Bosco College of Engineering at DBCE, Fatorda.

Dr. Shwetha Prasanna, Jeffrey Valadares & Swaroopa Sail attended a 1 day “Second Dr. Victor de Mello Goa Lecture and Symposium on Women in Geotechnics” on 15th Oct 2018 organised by Goa Engineering College and Indian Geotechnical Society Goa Chapter at GEC, Goa

Dr. Shwetha Prasanna, Swaroopa Sail & Starina Dias attended a 1 day NPTEL Workshop on 21/7/18 organised by IIT Madras at Don Bosco College of Engineering, Fatorda.

WORKSHOPS/SEMINARS/EXPERT TALKS CONDUCTED

B.R. Aniruddha & Oswyn Soares (Co-ordinator) conducted a MIDAS GEN workshop from 16th Sep – 18th Sep 2018 at Don Bosco College of Engineering at DBCE, Fatorda.

STUDENTS NEWS

Installation of “CESA COUNCIL 2018”

Students must have a professional attitude to be successful in life, said Er. Bharat Kamat, Chairman of Indian Green Building Goa Center. He was speaking as the Chief Guest at the Installation ceremony of Civil Engineering Students Association (CESA) for the year 2018-19 at Don Bosco College of Engineering, Fatorda.

Director Fr. Kinley D’Cruz, Principal Dr. Neena Panandikar, Head of Civil Department Dr. Shwetha Prasanna, CESA Faculty Coordinator Prof. Satyesh Kakodkar and CESA Chairman Yash Ajgaonkar and Secretary Saiesh Karawrkar were other dignitaries present on the dais.

Speaking on the occasion further, Er. Kamat advised the students to see the Civil Engineering discipline through different dimensions and to tap business opportunities in these fields. He also said that Green Construction is taking deep roots deep in the field of Civil Engineering and there is high demand for civil Engineers with such knowledge and exposure.



Fr. Kinley D’cruz, Director of Don Bosco College of Engineering speaking on the occasion congratulated the new council of CESA and said that such councils provide a platform for the students to bridge a gap between industry and academia.

Dr. Neena Panandikar -Principal of Don Bosco College of Engineering while addressing the gathering appealed to the students to grab the opportunities they come across. Earlier Outgoing Chairman Mr. Siddhant Porob welcomed the gathering. Prof. Kaushik Pai Fondekar administered the oath to the new council and Prof. Satyesh Kakodkar introduced the new council members to the gathering. Mr. Yash Ajgaonkar proposed the vote of thanks while Ms. Subrata Rai compered the programme.

Engineers Day 2018

The Civil Engineering Department of Don Bosco College of Engineering, Fatorda celebrated Engineers Day on 11th September 2018. Every year the Indian Engineering Community celebrates 15th September as Engineers Day to give tribute to the greatest Indian Engineer Bharat Ratna Mokshagundam Vishvesvaraya on his birth anniversary.

The function began in the afternoon half, where the Chief Guest for this function was Er. Gurunath Naik Parrikar-Chief Engineer, PWD and Guest of Honour was Er. Abhijeet Salkar, Director, Salkar & Associates, Vasco da Gama.

The function started with the Principal of the college Dr. Neena Panandikar, welcoming the gathering and congratulated all the nine students who secured distinction in the university examination from the college.



The “Sankriti-2018” souvenir was released in the hands of the Chief Guest and Guest of Honour of the function. Later the guest of Honour gave a presentation on some of the greatest innovators and their innovations that has contribution to the society. After this all the distinction holders of 2014-18 batch were felicitated. The Chief Guest spoke about how Engineers can contribute to the society and focus on sustainable development. Being the chairman of “The Institution of Engineers” Goa chapter he also gave a brief insight about the same.

A total of about 70 students were present for the function.

ICI EVENT- PAPER PRESENTATION

As part of the ICI event, a paper presentation competition was organized for second year and third year Civil Engineering Students of DBCE on 11th August 2018. The topics for paper presentation were

- 1) Concrete Technology – For SE CIVIL
- 2) Advances in Civil Engineering – For TE CIVIL

A total of 5 teams participated in the competition, having judged by Prof. Oswyn Soares and Prof. Roseline Fernandes, Assistant Professor's from the Department of Civil Engineering and Science and Humanities DBCE respectively.



Some of the topics on which the students presented were Bubble Deck, Robo Sand, Self-Compacting Concrete, Fiber Reinforced Concrete etc. The paper presentation competition was attended by a total of 52 participants of SE and TE Civil. The vote of thanks for the event was given by the coordinator of the event, Prof. Satyesh Kakodkar and the event was concluded by handing over a memento to the judges.

Career guidance seminar for final year Civil Engineering students

The Department of Civil Engineering of Don Bosco College of Engineering, Fatorda organized a seminar on Career guidance for final year Civil Engineering students on 11th Oct 2018. Prof. Sanjay Patil from RICS School of Built Environment, Amity University conducted a session on career guidance. He spoke about RICS School of Built Environment and Amity University. He also informed that RICS serves as a world class institution for education, training, research and standards, which is led by the industry, for the industry.



In this seminar he included the following topics 1) Major challenges facing the construction industry in India in 2018 - a project management perspective, 2) Impact of GST, Demonetization and RERA on Indian real estate, 3) Improving performance of construction projects: A project manager's approach, 4) Impact of smart city development in India's real estate, 5) Why do projects fail? How to avoid project management failures, 6) Introduction to valuation, 7) Stakeholder management - important concept underlying project management success, 8) Entrepreneurship opportunities in built environment sector, 9) Challenges being faced by real estate industry in India, 10) How construction technology is changing India's construction sector, 11) Green buildings & sustainability initiatives in real estate development, 12) Identification and assessment of risk factors affecting construction projects, 13) Affordable housing initiatives in India, 14) The impact of sustainability on project management, 15) Career Opportunities in built environment after Architecture/ Civil Engineering/Other Engineering Programs.

WORKSHOPS/ SEMINARS/ IN-HOUSE TRAININGS

AutoCAD training for TE Civil Students



A one week in house AutoCAD training was conducted for the Third Year Civil Engineering students of Don Bosco College of Engineering from 2nd to 6th July 2018.

For the first two days of the training basic tools in AutoCAD were taught to the students, followed by an course of using layer function which was conducted by Mr. Celestan

Braganza, a Civil Engineer and expert in AutoCAD from the office of Shekhar Panandiker & Associates. In this course Mr. Celestan explained with a presentation the definition and properties of the layer command in AutoCAD. He also emphasized the importance of layer command in drawing architectural and electric drawings etc. The students also got hands on practice on the layer and block command. The basic AutoCAD course for these interested students was conducted in their earlier semester by Asst. Prof. Nadya Baracho, Asst. Prof. Starina Dias and Asst. Prof. Kaushik Pai Fondekar.

Concrete Mix Proportioning

The Civil Engineering Department of Don Bosco College of Engineering, Fatorda in collaboration with UltraTech Cement organized a “Concrete Mix Proportioning”



workshop on 07th September 2018, for the second year Civil Engineering students.

The workshop was conducted by Mr. Vikrant Dessai, Technical Officer, UltraTech Cement who elaborated the purpose of

concrete mix proportioning and its significance and later performed tests to demonstrate the workability of concrete. In all 50 students attended the workshop. The workshop coordinator was Prof. Starina Dias.

Second Week In House Student Development from 09th July - 13th July 2018 for Third Year Civil Engineering Students

09th July 2018



A field trip was organized for TE Civil students on 09th July 2018. The students were taken to the South Goa District Hospital Margao. Students were made aware of the planning and execution aspects

of hospital buildings. The students were accompanied by Prof. Jeffrey Valadares, Prof. Oswyn Soares. The field visit would benefit students in the curriculum and give them practical exposure while studying the subject of Building Drawing II where knowledge of commercial buildings plans is mandatory. A total of 38 students were present for the trip.

10th July 2018

Our alumnus from the batch of 2016, Er. Yogesh Shigaonkar, leading Aircraftman, Indian Air Force delivered a talk on “Career in Defence” for the student at 11:00 am to 12:30 pm. He gave an insight on prerequisites and procedures to join the force. The session was well received by the students and interactions continued with a question and answer session.



11th July 2018

Dr. Jagannath Hirkude, Associate Professor, Mechanical Engineering Department Goa College of Engineering, Farmagudi delivered an expert talk on “Energy Audit in Building”. The talk was held between 11:00 am to 12:30 pm. He spoke on the need and process of conserving energy and minimizing its utilization in building.



12th July 2018



The students were taken to Ravindra Bhavan, Fatorda-Margao to see the planning aspects in of a public building. The students got to see the auditorium, conference and rehearsal halls and the ac plant. The students were accompanied by Prof. B R Anirudha and Prof. Akshata kudchadker. A total of 51 students were present for the trip.

13th July 2018

Er. Nazareth Vaz of Water Resources Department presented an expert session on Slope Stabilization of Cabo Hill at Raj Bhavan. Er. Vaz started the session at 11:00 am by introducing the geotechnical problems at Cabo Hill site. Further he spoke about various rectifying measures, soil explorations and monitoring processes carried out at Raj Bhavan. the session ended at 12:30 pm with a question and answer session where students actively raised their queries that were answered by the speaker.



EXPERT TALKS

“Contracts” by Er. Vinod Shukla



Er. Vinod Shukla, Vice President of PEMS, Delivered a talk on “Contracts” for Final Year Civil Engineering Students of Don Bosco College of Engineering, Fatorda on 07th August 2018.

Er. Shukla explained to the students the different terminologies adopted in Contracts and Tenders. He also explained the different types of contacts and procedures for filling the tenders. In

his talk he also gave an overview of different methods like BOT, BOOT etc. executed by the Government.

He shared his experiences of National Highways, International border fencing, contract management under FIDIC, planning and formulation of tunnels and roads of Indian Himalayas etc.

Talk on NDT for Second Year Civil Engineering students

A talk on Non Destructive Testing (NDT) techniques was organized for the Second Year Civil Engineering students of Don Bosco College of Engineering Fatorda on 15th and 16th



October 2018 by the Civil Engineering Department.

The talk was handled by Mr. Celestan Braganza and Mrs. Afreen Mulla from the office of Shekhar Panandiker and Associates. They firstly explained to the students the concept of

NDT and its importance like testing concrete for discontinuities or differences in characteristics without destroying the serviceability of the concrete member. They also explained and demonstrated on some of the methods of NDT like the Rebound Hammer test and Ultrasonic Pulse Velocity test and how the results were interpreted from the data obtained from the test. They also covered topics like carbonation tests that shows the effect of the atmospheric CO₂ on the RCC structure, Tritex Multigauge used to check metal thickness and monitor the corrosion levels in concrete without removing the coating and the Covermeter test that is used to locate the rebar, measure the diameter of the reinforcement and measure the exact concrete cover. In all 75 students attended the talk Asst. Prof Starina Dias coordinated the workshop.

Talk by Sunil Shinde on “Sustainable Construction and New Trends in Construction”



Er. Sunil Shinde, Sales Unit Customer Service Incharge -ACC Ltd. Hubli delivered a talk on the topic “Sustainable Construction and New Trends in Construction” on 08th August 2018, for the Final year Civil Engineering students.

In his talk Er. Shinde highlighted the meaning of Sustainability and the need of sustainability. He explained the ways and means by which a sustainable construction can be carried out. He emphasized on the need of energy savings before and after the construction site is functional. The concept of rainwater harvesting, design of good ventilation and lighting, benefits of landscaping and Energy audit was explained by him.

Er. Amit Lawande-Customer Service Officer South Goa, Er.Tanveer Hooli- Customer Service Officer North Goa were also present on the occasion.

FIELD VISITS

Field visit to Construction Site at Fatorda

The second year Civil Engineering students of Don Bosco College of Engineering, Fatorda visited a construction site at Fatorda on 28th September 2018 in the afternoon half.

On site the students got to see backfilling, plinth beams, column reinforcement and ties, shuttering and reinforcement for staircase. At another site they got to see sunken slab for toilets, curing, plastering and plumbing. In all 58 students visited the site.

Field Visit to Construction site of New Bus Stand at Vasco

The Civil Department of Don Bosco College of Engineering organized a field visit for the Third year Civil Engineering students on 25th August 2018, to the construction site of the new bus stand at Vasco. A total of 56 students accompanied by Prof. Akshata A.S Kudchadker, Prof. Kaushik V. Pai Fondekar and Prof. Madhuraj Naik visited the site.



On arriving at the site, Er. Biswas and Er.Ved Naik (Consulting engineer working for Er. Datta Kare) showed the students the plan of the ongoing site. The site plan consisted of an office building, parking lot and two terminals for buses. At the construction site, the students got to see the boring machines that were used for boring the cast-in situ piles. He explained to them that the entire bus stand would have 308 piles, having depth at

certain places upto 34 meters. Furthermore, the students had an opportunity see the steel reinforcement that would be used in the cast in situ piles along with the concrete. The entire project is taken up by GSIDC and is quoted to around 99 crores.

Fieldtrip of Final year Civil Engineering students

The Final year Civil Engineering students of Don Bosco College of Engineering, Fatorda visited Zuari Brige and Nisha's Play school on 26th October 2018. They were accompanied by Prof. Oswyn Soares ,Prof. Starina Dias and Mr. Shantanu Dessai.

At the Zuari Bridge site at Agassaim the students were informed through a presentation by the project head that the Zuari bridge work is taken up by Dilip Buildcon Ltd. and that the bridge is divided into three packages. Package one consists of approach road from Bambolim to Agassaim with elevated road, package two includes the main Zuari Bridge and package three consists of elevated road from Verna to Cortalim. He informed that the whole bridge length including the approach roads is 13.635 km which included the 640 meter long cable stayed bridge. He informed that the eight-lane bridge will have two carriageways of four-lanes and would connect Panjim and Margao across the river Zuari. They were later taken to the pile foundation site where they are shown rotary drilling process, the project head also explained to the students the concreting process for the piles and the pile caps and also explained the foundation problems encountered by them at the bridge site.



The later half of the day the students visited House of Goa and Nisha's Play school located at Porvorim where Architect Gerard Da Cunha explained to the students the general layout of the buildings and spoke that the design and construction of the school was done using recyclable materials. He explained to them that Nisha's Play school

situated near House of Goa was built on a slope, balancing the cutting and filling of soil .He said that the elements of the both the buildings are designed in such a way to communicate the idea of different form and colour. In this energy efficient play school the Civil Engineering students were able to see various low cost techniques like windows were replaced with brick jali that provided sufficient light and breeze inside the building, roof slabs that were replaced by filler slabs to reduce the dead load of the slab, walls were made up of recycled glass bottles, brick lintels, scrap metal that was used for making window grills, salvage wood that was used for roof truss.

Second Year Civil Students Visit to RMC Readymix (India) at Sancoale

The second year students of Don Bosco College of Engineering visited RMC Readymix (India) at Sancoale on 25th August 2018. RMC Ready-mix (India) [A Division of Prism Johnson Limited] is one of the largest ready-mixed concrete manufacturers in India. In Goa they have their plants at Sancoale, Kundaim and Colvale. A total 54 students attended the fieldtrip accompanied by Prof. Starina Dias and Prof. B.R Anirudha.



On reaching the site Mr. Nivas Gaad (Technical Manager) and his team comprising of Ms. Oshin Da Costa (Quality Control Incharge) and Mr. Gaurish Bhartu (Customer service officer), explained to the students the typical layout of the RMC plant-which consists of silos and bins for the storage of cement and aggregates respectively, weigh batchers for proportioning different ingredients of concrete, mixer for thorough mixing of

ingredients, and a computerized system controlling the entire production process. The students also got to see their various special concrete products like Portacrete- is a tailor made concrete that is available in easy to handle small consignments, Perviouscrete- a special category of modified concrete that permits rain water run off to percolate to it, Aquarestcrete- a waterproofing concrete that is suitable for basements, Dycrete-concrete that is suitable for architectural and decorative application are some to name a few. A presentation was also shown to them on the various sites their Ready mix concrete have been provided. The students got an opportunity to visit their Concrete Lab where they were explained the various test conducted on cement and concrete.

Field Visit to Sewage Treatment Plant at Navelim

The final year Civil Engineering students of Don Bosco College of Engineering, Fatorda along with Prof. Prachi Dessai and Prof. Jeffrey Valadares visited the Sewage treatment Plant at Navelim on 24th September 2018. In all seventy one students visited the site.



On visiting the site, the students were made aware that the sewage treatment plant treats municipal waste for the City of Margao. The plant has a capacity of treating 6.7 MLD of

waste water every day. The Assistant Engineer Incharge explained the various aspects in the processes involved in the treatment of wastewater.

This visit was extremely beneficial to the students for understanding the treatment processes adopted to treat municipal effluents. Students gained hands on experience in understanding the execution of processes like Screening, Grit removal, Aeration, Digestion, Decanting, Chlorination and also learnt benefits of Sequential batch Reactor technology used in treatment plant.

STUDENTS INITIATIVES

CULTURAL ACTIVITIES

Type & Level of Cultural Activities	Date(s)	Organised by	Award/Prize won	Name (s) of Students
State level Intercollegiate quiz Competition	27th September 2018	GTDC and Tourism Department Govt. of Goa	2nd place	Kishan Mangeshkar
State level Intercollegiate quiz Competition	18th October 2018	Doordarshan kendra	1st place	Kishan Mangeshkar Atish Loliengar

SPORTS ACTIVITIES

Type & Level of Sports Activity	Date (s)	Organised by	Award/Prize won	Name(s) of Students
Badminton Men	17th -21st July 2018	Goa University	Quarter final	Leon Mario R De souza Deepraj D Naik Rajat Rajaram Naik Sanat Mhapne
Badminton Women	17th -21st July 2018	Goa University	Participation	Jasmine D Karapurkar
Chess competition	31st July and 1st August 2018	Goa University	5th place	Sarvesh Sahadev Rao
Weight lifting	7th and 8th August 2018	Goa University	Participation	Harish Borkar
Power Lifting	9th - 11th August 2018	Goa University	Participation	Ashish Arlekar Gautam Zangli Harish Borkar

Best Physique	14th August 2018	Goa University	1 Bronze medal	Pavan Kumar Singh Ashish Arlekar Vaibhav Vithal Gaonkar
Cross Country	18th August 2018	Goa University	Participation	Yash Shrikant Ajgaonkar Rahul Prakash Naik
Judo	28th – 31th August 2018	Goa University	Participation	Saurav Chari
Basketball	19th – 27th August 2018	West Zone Championship	Participation	Ray Cortez
Taekwondo	4th – 7th September 2018	Goa University	1 Bronze medal	Aman Kailas Naik Shivam Naik Raiker Vedant Haldankar Pranav Mangaonkar Mayur M Prabhu Laukik Dessai Swaraj Dessai
Basketball	19th -21st September 2018	Goa University	Participation	Ray Cortez Jaydeep Pawar Edward Fernandes
Basketball	19th -21st September 2018	Goa University	Participation	Divya Vivek Naik Maryann B De Souza Carey Ann Gonsalves
Football		Goa University	Participation	Floyd Lobo Brandon Jason Furtado Harish Kamanache

TECHNICAL ACTIVITIES

Seminar/Workshop/ Technical Events/Conferences/Training programmes etc.	Date(s)	Organised by	Award/Prize won	Name (s) of Students
A seminar on Contracts in Construction Industry	3rd and 4th August 2018	Association of Consulting Civil Engineers	Participation	Ferwyn Andrade Shubham Gaonkar Clive Vales Gaurai Gaunekar

				Atish Lolienkar Siddhant Porob Shwetang Nadkarni
Quiz (Technical Event)	31st August 2018	Agnel Polytechnic Verna-Goa	Participation	Jyoti Kumari Kohima Dessai
Slump test(Technical Event)	31st August 2018	Agnel Polytechnic Verna-Goa	2nd place	Gajanan Bandekar Priyanka P Naik Sriyanka Rivanker
BIGG LEAP	21st September	E-cell and CIBA	Participation	Leon De Souza Gaurav Shetgaonkar
A workshop on Financial Literacy for Women entrepreneurs	27th September 2018		Participation	Nandisha Pednekar Aditi R Lawande Danira Vaz Subrata Rai
Second Dr. Victor De Mello Goa lecture	15th October 2018	IGS Goa Chapter	Participation	Ajay Gaonker Shubham Arondekar Akshay Mungarwadi Vishwesh Gaude Pritesh Gaude Vedant Haldankar

TRAINING & PLACEMENT

The internship for this Semester was carried out for 2 weeks from 2nd – 13th July 2018. The students have undergone internship in firms such as Aman Builders, City Constructions, Cityscape Developers, Dilip Buildcon Limited, Models Constructions, Mohidin Propertier, Nanu Real Estate, RBS Khandeparkar, Royal Builders & Developers, SWater Resources Dept, Talak Builders & Marmugao Port Trust, GSIDC, PWD.