

BLUEPRINT

Civil Engineering Department's Newsletter Volume 06, Issue 01, July - December 2021

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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 CORNER

DBCE – PWD MoU



Civil Engineering Department of Don Bosco College of Engineering, Fatorda signed a MoU with Public Works Department, Goa in a small function held at Panaji on 7th July 2021. Shri. Uttam Parsekar, Principal Chief Engineer

represented the Public Works Department while Fr. Kinley D’Cruz, Director and Dr. Neena S. P. Panandikar Principal represented Department of Civil Engineering, Don Bosco College of Engineering. The purpose of MoU is to strengthen Industry-Academic relationship for mutual benefit, to build fruitful and mutual relations, and for propose to offer programs of mutual interest. It will also help to collaboratively identify common areas of interest in the sector of sustainable water distribution, transportation network and facilities, Geotechnical and Structural works for further study, research and documentation. The MoU will focus to carry out studies in existing and new academic frameworks to yield a better public understanding of the problem areas and to suggest social, economic and technological solutions. Stress on developing academic and research frameworks suitable for training of students in upgrading their skills is also a part of MoU. Shri. Amar Vazirani - Superintending Engineer, Shri. Kishore Kolwalkar – Engineering Officer, Dr. Shwetha Prasanna –Head of Civil Engg. Department and Prof. Satyesh Kakodkar – Assistant Professor, Civil were present on the occasion.

R&D session

The Civil Engineering Department had its seventh session under R&D cell on the 6th October 2021. Prof. Kaushik presented on 'Use of Cow Dung Ash as Partial Replacement for Cement in Mortar'. The speaker explained how the use of cement could be reduced in mortar by replacing it with cow dung ash. He explained that Cow dung ash is obtained when the cow dung is dried for 12 days, heated at around 420-550 degrees Celsius and is cooled and crushed into powder form and then sieved under IS 400-micron sieve. He also informed that Cow dung ash as a by-product is readily available at cattle farms with negligible price and sometimes is almost free of cost. He highlighted that replacement of cement by cow dung ash had resulted in better strength, durability and workability as compared to conventional mortar mix. Prof. Kaushik concluded the following from his study saying the compressive strength throughout the testing period of 7, 28 and 56 days with every replacement percentage gives a value higher than 3 N/mm² as per IS 4031-6 (1988). He also stated that the optimum percentage of replacement of cement with Cow dung Ash across 7, 28 and 56 days was found to be close to around 15% due to higher strength of around 10 N/mm² at 56 days of curing. As far as cost is concerned with the compressive strength and replacement of cement combined, the best percentage was found to be at 25% Cow Dung Ash. The paper was published in international journal of Engineering Research & Technology, Volume 9, Issue 14.

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

PAPER/ JOURNAL PUBLICATIONS

| Author Name | Title of Paper | Details | National/ International |
|--|--|---|-------------------------|
| Dr. Shwetha P. | Application of geosynthetic inclusions in cohesion less soil reinforcement | Materials Today: Proceedings, https://doi.org/10.1016/j.matpr.2021.10.178 , ELSEVIER | International |
| | Replacement of fine aggregate by allied materials, | International Journal of Engineering Research & Technology (IJERT), ISSN: 2278-0181, ICETCE - 2021 Conference Proceedings, Vol. 9, Issue 14, 17-22. | International |
| Kaushik Pai Fondekar & Akshata Kudchadker | Use of cow dung ash as a partial replacement for cement in mortar | International Journal of Engineering Research & Technology (IJERT), ISSN: 2278-0181, ICETCE - 2021 Conference Proceedings, Vol. 9, Issue 14 | International |
| Kaushik Pai Fondekar & Neena Panandikar | Experimental Investigation on usages of waste material as partial replacement for cement & fine aggregates | International Journal of Engineering Research & Technology (IJERT), ISSN: 2278-0181, ICETCE - 2021 Conference Proceedings, Vol. 9, Issue 14 | International |
| Starina Dias | Recycling tetra Pak into eco-friendly building materials | International Journal of Engineering Research & Technology (IJERT), ISSN: 2278-0181, ICETCE - 2021 Conference Proceedings, Vol. 9, Issue 14 | International |
| Prachi Dessai | Analysis of materials in terms of energy performance used in ancient and modern architecture | International Journal of Engineering Research & Technology (IJERT), ISSN: 2278-0181, ICETCE - 2021 Conference Proceedings, Vol. 9, Issue 14 | International |

WORKSHOPS PARTICIPATED

| Name of the Faculty Participated | Training Programmes | Date | Organization |
|---|---|---|---|
| Dr. Shwetha P. | Online Orientation Training Programme for Mentors | 26 th to 30 th July 2021 | NITTR |
| Shruthi Jhambale Kaushik Fondekar Nadya Baracho Akshata Kudchadkar B.R. Anirudh Jeffrey Valadares | AICTE sponsored "Recycling materials in highway construction" | 19 th to 24 th July 2021 | Indo global college of Engineering, Abhipur, New Chandigarh |
| Swaroopaa Sail | INTRODUCTION TO GEOSPATIAL TOOLS AND TECHNOLOGY | 26 th to 30 th July 2021 | Indian Institute of Technology Roorkee. |
| | Recent trends and Development in the field of Civil Engineering | 12 th to 16 th July 2021 | Tapi Diploma Eng. College, Surat. |
| Akshata Kudchadkar | Emerging technologies in Civil Engineering | 27 th to 31 st July 2021 | Institute of Engineering & Technology, Lucknow |
| | Disaster Resilient Infrastructure | 9 th to 13 th August 2021 | University Institute of Technology, Himachal Pradesh University, Shimla |
| B.R. Anirudh | AICTE-ATAL Structural dynamics & Earthquake resistant design of structures" | 24 th to 28 August 2021 | --- |
| Satyesh Kakodkar | Carbon footprint reduction: Issues & challenges | 8 th to 12 th November 2021 | Goa college of Engineering |

WORKSHOPS/ WEBINARS CONDUCTED

| Name of Faculty | Workshop/Seminar | Date |
|--|--|---------------------------|
| Swaroopaa Sail and Starina Dias | Webinar on “Foundations for Infrastructure Facilities: Principles and Sustainable Practices” | 2nd to 3rd September 2021 |
| Shruti Desai, Starina Dias and Saddiya Shaikh | AutoCAD Training -Basic Course | 29th & 30th Sep 2021 |
| Prof. Jeffrey Valadares | Occupational Health and Safety and Safety Management in Industries’ | 16th October 2021 |
| Dr. Shwetha Prasanna and Saddiya Shaikh | Orientation Programme for lateral Entry students | 21st October 2021 |
| B. R. Anirudha and Satyesh Kakodkar | Installation of CESA Council (2021-22) | 23rd October 2021 |
| Jeffrey Valadares | ‘Entrepreneurship and Patent | 27th October 2021 |
| Prof. Satyesh Kakodkar and Prof. Shruti Desai | Webinar series II-“Be Water Wise” | October – November 2021 |
| Starina Dias | Concrete Mix Proportioning | 22nd December 2021 |

NPTEL Orientation Program for Second Year Students

NPTEL Orientation Program for Second Year Students was conducted on 25/7/2021 at 3.45PM by Prof. Swaroopa Sail, Assistant Professor, Department of Civil Engineering. Students were introduced to the list courses being offered by NPTEL, how the courses are conducted, number of assignments to be answered, duration of each course, evaluation criteria, exam details. They were guided on how to enroll for the courses, types of certificates offered by NPTEL, domain courses and domain certificate etc. Students were explained about the credit courses offered by the Department to be chosen to earn 20 credits by the end of the eighth semester. The instructions while choosing the credit courses and advantages of enrolling for those were also shared. Students will receive BE with honors certificate from reputed institutions like IIT and IISC after completion of credit courses and domain certificate if they specialize in areas like Construction Materials Technology, Structural Analysis, Structural Design and Environment. Students who cleared credit courses while studying in third and fourth semester were congratulated.

STUDENTS CORNER

INSTALLATION OF CESA COUNCIL 2021-2022



The installation ceremony of CESA council for the year 2021-2022 was held on 23th Oct 2021. Mr. Kalkoor was speaking as the Chief Guest for the installation ceremony of Civil Engineering Students Association (CESA) of Don Bosco College of Engineering, Fatorda. Fr. Kinley D'Cruz- Director, Dr. Neena Panandikar -Principal, Dr. Shwetha Prasanna - Head of Civil Engineering Department, Prof. Satyesh Kakodkar and Prof. B. R. Anirudha Faculty Advisors were present on the occasion. Further speaking on the occasion Mr. Kalkoor said Civil engineers have more social connect and hence can help society to come with ideas with minimum use of natural resources thereby causing minimum environmental impact. Engineering and technology is necessary for socioeconomic development he further added.

Fr. Kinley D'Cruz congratulated the new council and wished a great success. He further advised the students to get acquainted with field knowledge along with theoretical. Dr. Neena Panandikar in her address guided the students to get explore to new aspects of technology and get these news aspects blended with civil engineering. Dr. Shwetha

Prasanna -Head of Civil Engineering briefed about the various activities conducted by the department. A technical bulletin consisting of the project papers of final year students was released at the hands of Chief Guest. Earlier Mr. Nikhil Chinchwade, Outgoing chairman welcomed the gathering. Ms. Berny Dias compared the function while Mr. Gul Ahmed Shaikh-Incoming Chairman proposed the vote of thanks.

Orientation Programme for Lateral Entry Students

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

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

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

Dr. Kala Nayak, Registrar of Don Bosco College of Engineering addressed the students about the rules and regulations of the institute and requested the students to abide to the same. She also gave necessary information about the academic design of the B.E Course

Dr. Shwetha P, Head of Civil Engineering Department addressed the students and discussed about the Department vision, mission and objectives and the activities conducted under CESA.

WORKSHOP & TRAININGS

| Name of Faculty | Course | Class & Sem | Date |
|---|--|----------------------|----------------------------------|
| Mr. Aakash Milind Vichare | BIM Revit course | BE Civil student | 23rd August to 28th August 2021. |
| Prof. Shruti Desai, Prof. Starina Dias and Prof. Saddiya Shaikh | AutoCAD Training - Basic Course | SE students | 29th & 30th Sep 2021 |
| Dr. Shreelaxmi Prashanth, Manipal Institute of Technology, Manipal | Self-Compacting Concrete Mix Proportioning Workshop | Faculty | 08th October 2021 |
| Asst Prof. Starina Dias | Concrete Mix Proportioning | TE Civil students | 22nd December 2021 |

WEBINAR

| Name of Faculty | Webinar | Date |
|---|--|-------------------------|
| Dr. G. R Dodagoudar Prof IITM, Chennai | Foundations for Infrastructure Facilities: Principles and | 2nd to 3rd September |
| Dr. Purnanand P Savoikar, Goa College of Engineering Prof. R. Shivashankar NITK Prof. Vishwas Sawant from IIT Roorke, Ms. Sangeen Desai and Mr. Govind Raj from Keller Ground Engineering India Pvt. Ltd Mr. A. Karthikeyan Proprietor of Karthikeyan Associates, Chennai | Sustainable Practices | 2021 |

| | | |
|--|---|--------------------------------------|
| RICS School of Built Environment, Amity University | Career Opportunities in rapidly changing Built Environment sector | 29th September 2021. |
| Dr. H.K. Ramaraju Professor and head department of Civil Engineering, Dayanand Sagar college of Engineering, | Webinar series II- “Be Water Wise” | 9th October 2021 |
| Er. Rajendrakumar V Saraf, Managing Director, Viraj Envorizing Pvt. Ltd, Pune. | Webinar series II - “Be Water Wise” | 23 rd October 2021 |
| Dr. T Phani Madhavi, Bapatla Engg college, Bapatla, AP | Webinar series II - “Be Water Wise” | 13 th November 2021 |
| Mr. Richie Baracho Safety Officer & Asst. Prof. Jeffrey Valadares | Occupational Health and Safety and Safety Management in Industries’ | 16th October 2021 |
| Asst. Prof. Jeffrey Valadares | Entrepreneurship and Patent | 27th October 2021 |
| Akshata Shet (ALUMNI Batch 2016), Mr. Kishan Mangeshkar (Alumni batch 2020) and Mr. Mazahar Shah (ALUMNI Batch 2015). | Alumni talk | 30th Oct 2021 |

PAPER PUBLICATIONS

| Name of the Student | Title | Date(s) | Journal |
|------------------------|---|-------------|--|
| Leon De Souza | A review of Takt time planning and the work density method in lean construction | 19 Sep 2021 | Lean construction journal 2021 pp 180-192 |

PARTICIPATION IN CULTURAL ACTIVITIES

| Name (s) of Students | Type & Level of Cultural Activities | Date(s) | Organised by |
|-------------------------------------|---|---|--|
| Kritha Rajan | INSPIRUS 2 K21 "Framed" | 29 th and 30 th October 2021 | Department of Computer Engineering, DBCE |
| Valanka Rodrigues Ayanaa Inamdar | INSPIRUS 2 K21 "Runtime Terror" | | |
| Ayanaa Inamdar | INSPIRUS 2 K21 "Rubik's Cube" | | |
| Grishmaa Bandodkar | INSPIRUS 2 K21 "KEYBOARD WARRIORS" | | |

PARTICIPATION IN SPORTS ACTIVITIES

| Name(s) of Students | Award/Prize won | Date (s) | Organised by |
|---------------------|--|-----------------------------------|--|
| Aleister Gomes | 2 nd place State Level Weightlifting Championship under the aegis of Goa Weightlifting Association | 18 th December 2021 | The United Sports and Cultural Club at Curchorem Goa |

PARTICIPATION IN TECHNICAL ACTIVITES

| Name of the Student | Seminar/Workshop/ Technical Events/Conferences/Training programmes etc. | Date(s) | Organised by |
|--|--|--|---|
| Parth Kushte | Green Interiors Roadmap (10-Hour Green Building Training) | 22 nd August 2021 | UGREEN-green Building School |
| Ayanaa Inamdar Mohammed Gaus Kanyal Grishmaa Bandodkar | We Think Digital- Digital Shakti 3.0 (Webinar on Cyber Security) | 30 th September 2021 | National Commission for Women, Facebook, CyberPeace Foundation & Autobot Infosec |
| Ayanaa Inamdar | 2 nd Place AutoCAD Drafting Competition VAASTU (Utkranti 2021) | 31 st October and 1 st Nov 2021 | CESCO NIT Goa |
| Tanishq Kulkarni | 2 nd Place Technical Quiz Competition PRAJNA KOSH (Utkranti 2021) 2 nd Place Group Discussion Competition SAMWAAD (Utkranti 2021) | 2021 | |