
BLUEPRINT

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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

R&D session

The Civil Engineering department had its first session under R&D cell on the 5th December 2020 at 4.00 P.M. There were two speakers for this session. Dr. Shwetha Prasanna presented a research paper while Prof. Kaushik P. Fondekar presented on a recent trend.

Dr. Shwetha presented on the topic 'Soil water-retention prediction from pedotransfer functions for some Indian soils. The key highlight of her talk was finding out the quality of subsurface soil which is affected by agricultural or industrial activities. In order to find the quality, the soil water retention curve (SWRC) and the hydraulic conductivity functions need to be calculated. The SWRC is an important factor for sustainable and improved agricultural production. The paper stresses on how pedotransfer functions are an effective tool in finding out soil water retention. The paper is published in Archives of Agronomy and Soil Science 59 (11), 1529-1543. Prof. Kaushik presented on 'Building Integrated Photovoltaic Glazing (BIPV)'. He spoke on the applications of BIPV in buildings to convert the solar energy into electricity. He made the participants aware of the components of BIPV. He also explained the types of BIPV viz. monocrystalline, polycrystalline and thin film PV systems and the application of each. He briefed about the installation of PV and its growth across the globe.

PAPER/ JOURNAL PUBLICATIONS

Author Name	Title of Paper	Details (journal name, volume, series, year)
Dr. Neena Panandikar	Repairs & rehabilitation of concrete structures: case studies	Springer, Volume 105, Page Number 137-144, ISSN 2366-2557, Lecture Notes in Civil Engineering, ISBN 978-981-15-8292-9, https://doi.org/10.1007/978-981-15-8293-6 ,
	Assessment of pushover response parameters using response surface methodology	Springer, Volume 105, Page Number 3-12, ISSN 2366-2557, Lecture Notes in Civil Engineering, ISBN 978-981-15-8292-9
Dr. Neena Panandikar & Kaushik V. Pai Fondekar	Experimental investigation of egg shell powder as partial replacement of cement in fibre reinforced	Springer, Volume 105, Page Number 557-566, ISSN 2366-2557, Lecture Notes in Civil Engineering, ISBN 978-981-15-

	concrete	8292-9
Annapurna Sakhardande & Sanford Mascarenhas	River water resource management and flood control using GIS	Springer, Volume 105, Page Number 373-382, ISSN 2366-2557, Lecture Notes in Civil Engineering, ISBN 978-981-15-8292-9
Satyesh A. S. Kakodkar	Brick Manufacturing Using Laterite Soil	Springer, Volume 105, Page Number 217-230, ISSN 2366-2557, Lecture Notes in Civil Engineering, ISBN 978-981-15-8292-9
Swaroopa Sail & Akshata Kudchadkar	Estimation of ultimate bearing capacity of soil for shallow foundation	Springer, Volume 105, Page Number 305-318, ISSN 2366-2557, Lecture Notes in Civil Engineering, ISBN 978-981-15-8292-9
Nadya Baracho	Assessment of construction and demolition waste in Goa for re-use in new construction	Springer, Volume 105, Page Number 157-170, ISSN 2366-2557, Lecture Notes in Civil Engineering, ISBN 978-981-15-8292-9
Madhuraj Naik	Optimisation of Infrared Thermography for damage detection in concrete structures using Finite Element Modelling	Springer, Volume 105, Page Number 177-188, ISSN 2366-2557, Lecture Notes in Civil Engineering, ISBN 978-981-15-8292-9
Starina Dias & Kaushik Pai Fondekar	Partial replacement of fine aggregates with coconut shell ash in concrete	Springer, Volume 105, Page Number 207-216, ISSN 2366-2557, Lecture Notes in Civil Engineering, ISBN 978-981-15-8292-9

SEMINARS/EXPERT TALKS CONDUCTED

Name of Faculty	Event/Workshop/ Seminar/Field visited	Class & Sem	Date
Prof. Shruti Desai, Prof. Nadya Baracho, Prof. Jeffrey Valadares	Internship training	SE Civil students	6th -17th July 2020
Faculties of Civil Engineering Department	Internship training	TE Civil students	13th-24th July 2020

Asst. Prof. Akshata A.S Kudchadker, Ms. Aarti Kamat and Mr. Vishal -Kamat EduTech	Introduction to 3D Modeling (Online)	TE students	Civil	28 th July 2020
Prof. B.R. Anirudha	MIDAS Training (Online)	GEN students	B.E. civil	12th August to 14th August 2020.
Asst. Prof. Jeffrey Valadares and Asst. Prof. Nadya Baracho	Heritage restoration and Conservation series (Webinar series)	open to all		29th August 2020 and 26th September 2020
Dr. Shwetha Prasanna & Prof. Amol Shimpi MRICS	Webinar on Green Building Environment	BE students		26th November 2020
Asst. Prof. Satyesh Kakodkar & Mr. Girish Joshi, Zonal Head, Marketing and Customer Service Group was the speaker.	Webinar on SMARTCRETE Innovations in Concrete Technology	SE, TE, BE Students		28 th Dec. 2020

SEMINARS/EXPERT TALKS ATTENDED

Name of the Faculty Participated	Seminar/Workshop/Short Term Courses/Conferences/Training Programmes etc.	Organization	Date
Dr. Shwetha P.	Five Days Online Faculty Development Program on "Research in Engineering - A Way Forward"	A. P. Shah Institute of Technology, Thane.	6th - 10th July, 2020
	ISTE approved Five Days Online Faculty Development Program on "Software Application and Research in Civil Engineering"	Department of Civil Engineering A. P. Shah Institute of Technology, Thane from	13th to 17th July, 2020.
	AICTE sponsored Online Short-Term Training Program on "Sustainable Transport for Smart Cities"	Department of civil engineering Peter's college of Engineering and Technology, held during.	20th July to 25th July 2020
	A Five days Online Faculty Development Program on "Research Advances in Civil	Jyothy Institute of Technology, Bengaluru.	27th to 31st July 2020

	Engineering”		
	One Week TEQIP - Online Faculty Development Program on “Disaster Management Mitigation and Responses (DMMR: 2020)”	(Sponsored by Technical Education Quality Improvement Program -III) organized by Department of Civil Engineering, Assam Engineering College Jalukbari, Guwahati.	10th August to 14th August 2020
	First International Webinar Series on “Natural Disaster Resilience for Built Infrastructure (NDRBI)”	University of Technology Sydney and IIT Madras	24th to 28th of August 2020
	A Three Days National Level Online Faculty Development Program on “Sustainable Engineering (SE)”.	Department of Civil Engineering, Vidyanikethan Engineering College (Autonomous), Tirupati	27th -29th August, 2020
	Indo-Canadian Workshop on “Interactive Design in Geotechnical Engineering: Theory to Practice”	NITK Surathkal & Indian Institute of Technology IIT Kanpur, India and University of Ottawa, Canada.	24th Sep to 2nd Oct 2020
	Five days online Faculty Development Program on "Sustainable Environmental Geotechnics"	Department of Civil Engineering, S.R.K.R. Engineering College, Bhimavaram, Andhra Pradesh	5th to 9th October 2020
	One week Faculty Development Program on Climate Change and Carbon Issues	B.M.S. College, ISTE, IGBC and IWWA	06-10 July 2020.
Annapurna Sakhardande	8-week course on Building Materials and composites	NPTEL	Sep – Nov 2020
Swaroopaa Sail	Five Days Online Faculty Development Program on "Research in Engineering - A Way Forward"	A. P. Shah Institute of Technology, Thane.	6 to 10 July,2020
	International One-week Online FDP “Digital tools for Researchers and ICT online tools in teaching”	Hindustan College of Arts and Science, Coimbatore,	20th – 24th July 2020

			Tamilnadu	
	One-week Development "Research Advances in Engineering	online Program on Civil	Faculty on Civil Institute of Technology Tataguni, off Kanakapura road, Bengaluru-560082	Jyothy Charitable Jyothy of 27th - 31st July 2020
Kaushik Pai Fondekar	Short Term Training Program on "Training of Teachers"		National Institute of Technical Teachers' Training and Research, Bhopal	3rd August to 8th August 2020
Akshata Kudchadker	Two Week Online FDP On Effective Use of ICT Tools in Online Teaching		IQAC & Department of Electronics and Telecommunication Engineering Department Of G.S Mandal's MIT, Aurangabad	22nd June- 4th July 2020.
	5 Days Online FDP On Disaster Management and Mitigation		Department of Civil Engineering, Karunysa Institute of Technology and Sciences, Coimbatore	27th July - 31st July 2020.
	One-Week Online FDP On Disaster Management Mitigation and Responses (DMMR 2020)		Department of Civil Engineering, Assam Engineering College Jalukbari, Guwahati	10th-14th August 2020.

STUDENTS CORNER

INSTALLATION CEREMONY OF THE CIVIL ENGINEERING STUDENT ASSOCIATION (CESA)

The department of Civil engineering of Don Bosco college Fatorda, Goa had organized the virtual installation ceremony of the Civil Engineering Students Association (CESA) on 26st September, 2020 in the morning half of the day.

The welcome address was delivered by the outgoing Chairman Mr. Godwin Fernandes which was followed by an inspiring and an inciting address by Dr Neena S.P. Panandikar and Rev Fr Kinley D’Cruz. Administering of the oath was carried out by Professor Kaushik Pai Fondekar where in Nikhil Chinch wade on behalf of the new committee took the oath followed by the introduction of the Chief guest and speaker for the day by Dr. Shwetha Prasanna (Head of department-Civil engineering). Dr. R Shivashankar (Professor at the national institute of technology Karnataka, Suratkal) in his address, briefed the students upon the importance of Civil engineering and modern constructions. He also brought to light pivotal aspects pertaining to Geotechnical engineering encouraging students to participate actively to the listening. And finally, Mr. Nikhil Chinch wade placed his word of thanks on record as the newly elected Chairperson of CESA.

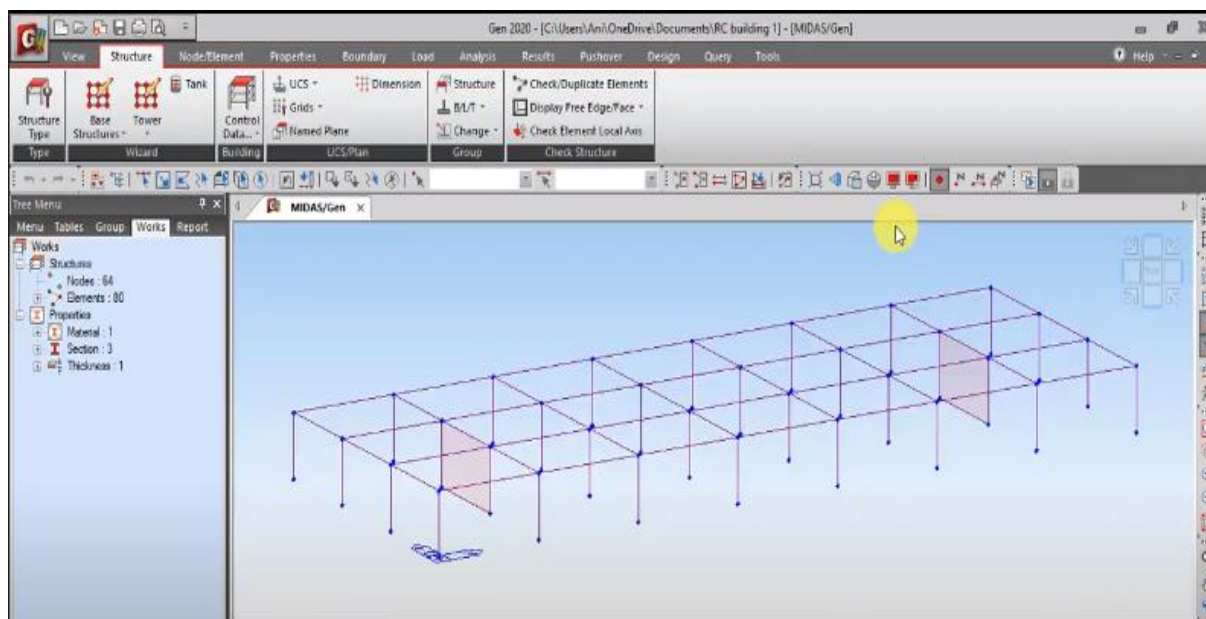
WORKSHOPS/ SEMINARS/ IN-HOUSE TRAININGS

Online MIDAS Gen Training

Three days hands on online MIDAS GEN training were conducted for B.E. civil students of 2019-20 batch of Don Bosco College of Engineering from 12th August to 14th August 2020. The Resource person for the training was Prof. B.R. Anirudha, Civil Engineering Department, Don Bosco College of Engineering. A total of 24 students joined virtually for the online training.

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 engineering students to readily undertake structural analysis and design for even complex and large structures. In addition, MIDAS GEN provides design capabilities using latest Indian standards leading to an optimal design solution.

The topics covered during the training were modeling and analysis of 2-D beam, rigid jointed frame and pin jointed plane frames. Also, modeling and analysis of a 12-story building with gravity as well as seismic and wind loading was covered in these online sessions



EXPERT TALKS

Heritage Restoration and Conservation Techniques

The department of Civil Engineering conducted a webinar series on Heritage Restoration and Conservation between 29th August 2020 and 26th September 2020. The co-ordinators of this webinar were Asst. Prof. Jeffrey Valadares and Asst. Prof. Nadya Baracho. Over 300 participants registered for the webinars. The participants were from India as well as abroad.

Lecture 1: The first lecture of the series was delivered by Prof. Jorge Mascarenhas from University of Tomar on 29th August 2020. His lecture was on Rehabilitation of Old Yield Buildings in Urban Areas. He spoke on the various types of load bearing structures in Portugal, the techniques of construction and showed how the buildings were rehabilitated to withstand earthquakes. He explained how old structures were made fire resistant. He also spoke on how stitching technique that was used to conserve of old walls in conservation of old heritage structures.

Lecture 2: The second lecture of the series was delivered by Arch. Kushagra Keshav, Co-founder and Principal Architect at Studio Story Board, on 5th September 2020. He delivered a lecture on Traditional Construction Techniques in Load Bearing Construction. Arch. Kushagra explained about the benefits of using lime, instead of cement, in plaster. He presented one of his projects in Maharashtra where local material such as Granite were used. He also explained the procedure of rammed earth constructions and its benefits. The different combination of local. Material used in rammed earth materials were also highlighted on.

Lecture 3: The third lecture of the series was delivered by Arch. Shivali Gupta, Co-founder and Principal Architect at Studio Story Board, on 12th September 2020. She delivered a lecture on Traditional Wood Joinery Systems. Arch. Shivali presented the different types of joints used in stone and wood structures. She also spoke about different treatments available to avoid termite attacks on wooden members. She stressed about the use of locally available wood for

constructions to suit the environmental needs. The wood joining system used in trusses and the different type of woods used for construction of houses were spoken on.

Lecture 4: The fourth lecture was conducted on 19th September 2020 and was delivered by Arch. Ketak Nachinolkar, Conservation Architect based in Goa. Arch. Ketak elucidated about the conservation of a lot of old Churches and Temples in Goa. He emphasized on the selection of materials so as to keep up with the originality of the old structures. Different case studies on restoration and conservation were highlighted.

Lecture 5: The fifth lecture was conducted on 26th September 2020 and was delivered by Arch. Thirupurasundari Sevvell, founder of Nam Veedu Nam Oor and Nam Kadhai, Tamil Nadu. Arch. Sevvell had an interactive session with the participants on the topic Understanding Traditional Techniques – Oxide Floorings. She presented on various oxides used for floorings, the application procedure and benefits of using oxide floorings. She also highlighted how artisans and workmanship plays an important role in achieving a perfect glossy oxide floor.

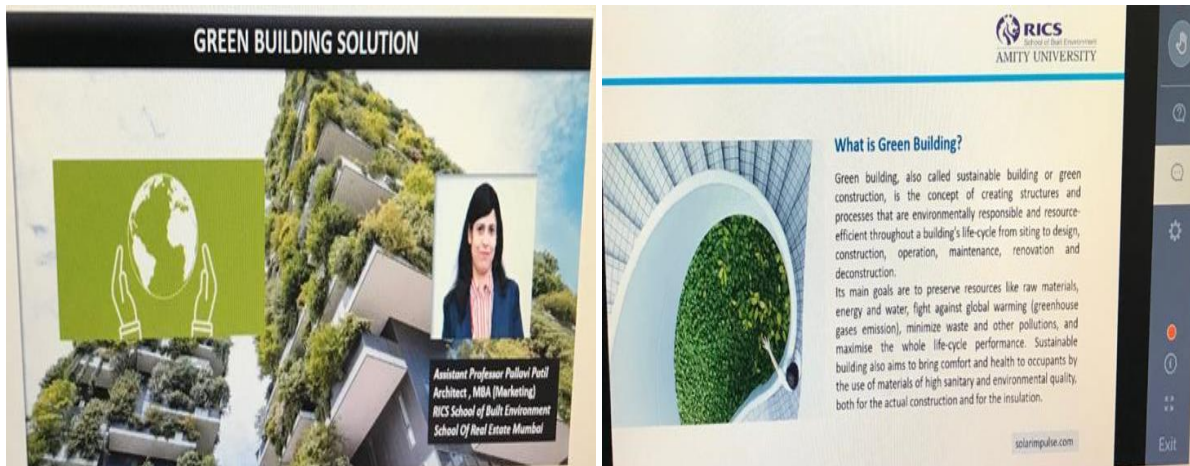
Introduction to 3D Modeling

Department of Civil Engineering organized an interactive online session on Introduction to 3D modeling using AutoCAD and Sketch Up for the students of Third year Civil Engineering on 28th July 2020. The speaker for the session was Ms. Aarti Kamat from Kamat EduTech LLP, Margao. She started her session by explaining to the students the importance of 3D modeling in various branches of Engineering and specifically to Civil Engineering. She also briefed the students about the various certification courses offered by them in AutoCAD 2D, AutoCAD 3D, Rivet and Sketch Up to the students. The session was attended by 46 TE students and was coordinated by Assistant Professor Akshata A.S Kudchadker.



Green Building Environment

Dr. Shwetha Prasanna, Head of Civil Engineering department organized a talk on **Green Building Environment** on virtual mode for final year civil engineering students at Don Bosco College of Engineering on 26th November 2020. The speakers were Prof. Amol Shimpi MRICS, Associate Dean and Director, School of Real Estate, RICS SBE, Mumbai and Prof. Pallavi Patil, Architect, DACA, DMK, MBA in Marketing Amity University. Prof. Pallavi Patil spoke on an overview of green building environment, principles of sustainability, green building technologies, fundamental principles of green building, and sustainable construction technologies used in green buildings. Prof. Amol Shimp spoke about the importance of emitting good values, skills and opportunities that RICS School of build environment provides to the students in carrier. It was an inspirational talk and helped students to know in detail about the opportunities available for carrier development in green building environment.



SMARTCRETE for Innovations in Concrete Technology

A webinar for the students of Civil Engineering Department of Don Bosco College of Engineering was organized by Prism Johnson Limited on December 28, 2020. The department has signed a MoU with Prism Johnson Limited.

Mr. Girish Joshi, Zonal Head, Marketing and Customer Service Group was the speaker. Mr. Joshi while addressing, elaborated the role of Concrete in the construction industry and how in the recent past the developments have taken place in the field of Concrete Technology. Mr. Girish Joshi also explained the various properties of concrete which made concrete as one of the prime materials in the construction industry. Further addressing the students, Mr. Joshi enlightened them on the different tests performed on fresh and hardened concrete. Seven holy steps of concrete manufacturing were elaborated by Mr. Joshi. Further in his talk, Mr. Joshi, highlighted how curing plays a role in making better concrete and explained the various methods of curing. Lastly, he explained the innovative technologies adopted by Prism Johnson, where he showcased 15 different types of innovative items manufactured at the plant. Mr. Girish Bhartu, Assistant Manager, Customer Service took the students through the virtual gallery of Prism Johnson. Prof. Satyesh Kakodkar, Assistant Professor -Civil, coordinated the programme.

FIELD VISITS / INTERNSHIP

Event/Workshop/Seminar/Field visited	Class & Sem	Date
Internship training	TE Civil students	6th -17th July 2020
Internship training	BE Civil students	13th-24th July 2020
Introduction to 3D Modeling (Online)	TE Civil students	28 th July 2020
Careers in Civil Engineering and Life Cycle Phases of a Construction Project (Online Alumni Talk)	SE, TE, BE Civil students	29th July 2020

MIDAS GEN Training (Online)	B.E. civil students	12th August to 14th August 2020.
Heritage restoration and Conservation series (Webinar series)	open to all	29th August 2020 and 26th September 2020
online Alumni talk	SE, TE, BE Civil students	23rd November 2020.
Webinar on Green Building Environment	BE students	26th November 2020
Webinar on SMARTCRETE for Innovations in Concrete Technology	SE, TE, BE Students	28 th Dec. 2020

ACHIEVEMENTS

CULTURAL

Type & Level of Cultural Activities	Date(s)	Organized by	Award/Prize won	Name of Student
Elocution Competition	27th October - 2nd November 2020	Goa Shipyard Limited	3rd Prize	Declan Luis

TECHNICAL

Seminar/Workshop/ Technical Events/Conferences/Training programmes etc.	Date(s)	Organized by	Participants
Open-Access Design Virtual Experience Program	June-July 2020	Inside Sherpa	Omkar Phadtare
Quiz on Safety and Health in Construction	2nd July 2020	Alison	Omkar Phadtare
Mastering bitumen for Better Roads and Innovative Applications.	13th July 2020	Coursera	Omkar Phadtare

Webinar on Reinforcement Detailing for Durable Concrete Structures	22nd July 2020	ACCE, Goa Chapter and UltraTech Cement, Ltd	Avisha Satarkar
Webinar on Utilization of Polyester Fiber for Improved Properties of Concrete	2nd August 2020	Girijabai Sail Institute of Technology, Karwar	Shifa Gaunker
Webinar Series I on Heritage and Conservation Techniques	29th August - 26th September 2020	DBCE, Fatorda	Yash Kerkar Hrithik Desai Parag Khadji Richa Satardekar Shreelaxmi Desai Avisha Satarkar Sherwin Oliveira Shifa Gaunker Herrick Caldeira Reuben Mascarenhas Dhanashri Sawant Parth Kushte Rohit Ravi Ramnath Nayak Tanmay Rane Pradhun Phadte Nikhil Chinchawade Shams Shaikh Aniket Palyekar Vaibhav Khadilkar Deepam Kamat Omprakash Gupta Vinav Naik
One Week Online Short-Term Course on Construction Materials in Civil Engineering	25th -29th August 2020	Dr. B R Ambedkar National Institute of Technology, Jalandhar	Hrithik Desai
Debate Competition	6th , 7th and 8th November 2020	Fr. Conceicao College of Engineering, Bandstand, Bandra West	Nikhil Chinchawade Tanishq Kulkarni
INSPIRUS 2K20	20th-21st November 2020	DBCE, Fatorda	Nikhil Chinchawade Tanishq Kulkarni