MANGALORE INSTITUTE OF TECHNOLOGY & ENGINEERING



Accredited by NAAC with A+ Grade, An ISO 9001: 2015 Certified Institution (A Unit of Rajalaxmi Education Trust®, Mangalore - 575001)

Affiliated to V.T.U., Belagavi, Approved by AICTE, New Delhi.



DEPARTMENT OF CIVIL ENGINEERING



NEWS BULLETIN



MANGALORE INSTITUTE OF TECHNOLOGY & ENGINEERING



DEPARTMENT OF CIVIL ENGINEERING

VISION

To produce **Competent and Professional** Civil Engineers with **Academic excellence** and **Ethics** to meet Societal Challenges at Global level

MISSION

M1: To provide quality technical education through student centric teaching - learning processes.

M2: To enable student with practical knowledge, innovation and research to find solutions for societal problems.

M3: To impart professional skills and ethics to involve in consultancy and Civil Engineering projects







About the Civil Engineering Department

Civil Engineering is a prominent and oldest branch of engineering which deals with buildings, bridges, roads, flyovers, railways, water supply, sanitary, development of townships and other infrastructural development. Due to liberalization policy of the government, many infrastructure projects like golden quadrilateral, National highway constructions and transport sector development are the need of the hour. Many multinationals are engaged in the infrastructure developmental activities. The job opportunities are in civil engineering fields and software companies. Analytical and logical abilities and liking for the profession are the essential requirements. Subjects on concrete technology, transport engineering, water supply and sanitary engineering, geotechnical engineering, fluid mechanics and machinery, structural mechanics, hydrology and water resources, irrigation engineering are studied in this course.

The Department of Civil Engineering has been started at MITE in the year 2013 and has been accredited by the National Board of Accreditation, New Delhi (from 2018-2021). The Department focuses on the overall development of the students through innovative teaching and learning. One of the main objectives of the Department is to produce qualified, competent and employable civil engineering graduates to cater the needs of industry and society by imparting requisite knowledge and training in different areas of Civil Engineering and emerging technologies. The department has highly qualified faculty. The students from different parts of the country are studying in the branch. Some of the labs which have been established under the department are Surveying, Basic Material testing Lab and Fluid Mechanics Lab. Software Application and Design Lab, Geotechnical Lab, Environmental Lab, Concrete and Highway Lab and Structural Engineering Laboratory.

MITE - Local CAFET INNOVA Technical Society Centre is started under the Department of Civil Engineering in association with CAFET-INNOVA Technical Society, Hyderabad. It is an International nonprofit organization to encourage the teaching faculties, young talent especially students towards the field of Research & Development (R&D) and harness their intellectual abilities for the betterment of institution as well as industry.

About ACES: ACES (Association of Civil Engineering Students) is a student's of civil engineering association, it is one of the non-profit association formed for the benefit of civil engineering students. Under the flag ship of Department of Civil Engineering every year conducting various technical talks from the industry persons and professors from IITs, IISc & NITs, workshops, conferences, technical tour, industry visit, sports etc. for the benefit of civil engineering students.

MITE consultancy services provides the consultancy services in different fields of Civil Engineering for both Government, Semi Government and private agencies since from inception. The basic aim of MITE consultancy services (MITECONS) is provide quality services for technical problems at reasonable and affordable rates as a service to society.

About Finishing School Program: The finishing school program on Building Construction Practices initiated by the Department of Civil Engineering was started for the Final Year students' in 2017-18. The training covered areas of construction practices like setting out and marking, hands on training on masonry, software application in Civil Engineering, Geotechnical investigations. The FSP also covered topics on formwork and scaffolding, bar bending, RMC, Mixed design, alternate building materials etc. This preemployment training program was to enhance and sharpen required skills among the civil engineering graduates and make them employable.





MESSAGE FROM HEAD OF THE DEPARTMENT



Dr. Ganesha Mogaveera

Professor & Head Department of Civil Engineering Mangalore Institute of Technology & Engineering Badaga Mijar, Moodbidri-574 225 Mobile: +91 9448983955 / 9591843955

Email: hodciv@mite.ac.in
Website: mite.ac.in

It is my immense pleasure to mention that, Civil Engineering is a prominent and oldest branch of engineering which deals with buildings, bridges, roads, flyovers, railways, water supply, sanitary, development of townships and other infrastructural development. Due to liberalization policy of the government, many infrastructure projects like golden quadrilateral, National highway constructions and transport sector development are the need of the hour. Department of Civil Engineering was established in the year 2013 and organised a series of activities like Technical talks, Quiz competition, Model exhibition, National and international level conferences & workshops and finishing school program. Department focused on industrial training to the students apart from regular academic activities. I am proud to mention that, our Department is releasing News Bulletin for concluding series of activities of the academic year 2021-22.

I am grateful to our honourable chairman Sri. Rajesh Chouta, Founder of Rajalaxmi Education Trust® for his tremendous support in developmental work of the department and our beloved Principal Dr. M. S. Ganesha Prasad for his constant support and encouragement. I would like to appreciate the continuous effort put forward by the Chief Coordinator of Association of Civil Engineering Students (ACES) Dr. Jayaprakash, M. C. and it's my privilege to thank the faculty members of Civil Engineering Department and my dear students.

Dr. Ganesha Mogaveera





CONTENTS	Page No.
Department Vision and Mission	I
About Department of Civil Engineering	II
Message from Head of the Department	Ш
Technical Talks and Hands-on Training Programe	01-04
Industrial Visit	05-05
Alumni Entrepreneur Interaction	05-10
MITECONS – Consultancy Services	11-11
Student Achievements	11-13
MOUs	13-13
Technical Articles by Students	13-15



CIVIL ENGINEERING DEPARTMENTAL ACTIVITIES 2021-22

Inauguration of ACES Activities 2021-22

ACES (Association of Civil Engineering Students) is one of the non-profit association formed for the benefit of civil engineering students. Under the flag ship of Department of Civil Engineering, every year we are conducting various technical talks of the successful industrial personalities and professors from IITs, IISc & NITs. Along with that we propose workshops, conferences, technical tour, industry visit, sports etc. for the benefit of students.

On 16th November 2021, Er. Keerthan Kumar K B, Deputy General Manager, Mangalore Chemicals & Fertilizers Ltd. (MCF), Mangaluru, has inaugurated the ACES activities of 2021-22, followed by delivered a technical talk on "Non Destructive Testing of Concrete -a Case Study". He briefed about his experience with case study on Non Destructive Testing importance; testing instruments and their principles for the budding civil engineers. The Non-Destructive Testing helps in determining the elements of a structure like; Measuring the volume or density of the material and components of a concrete structure.

Er. Keerthan Kumar K B, has worked with Torsteel Research Foundation in India from 1999 to 2005 as a Civil Engineer-Non Destructive Testing. He has carried out number of Structural investigations & NDT on various concrete structures. During his tenure in Torsteel he has produced over 300 technical reports on testing, rehabilitation & restoration of Structures in distress. Later he joined

Mangalore Chemicals & Fertilizers Ltd., (MCF), Panambur, Mangalore in August 2005 as a Deputy. Manager-Projects. He was instrumental in setting up SNF (Sulphonated Naphtahlene Formaldehyde) plant in 2008.



Er. Keerthan Kumar K B, Deputy General Manager, Mangalore Chemicals & Fertilizers Ltd. (MCF), Mangaluru, delivered a talk on "Non Destructive Testing of Concrete -a Case Study" on the occasion of ACES Students Activity Inauguration 2021-22

Technical Webinar

A webinar on 'Conceptualizing Digital Built Environment with Focus on BIM' was delivered by Er. Fozail Misbah, Assistant Professor, School of Construction, RICS School of built Environment, Amity University, Noida, on 29th October, 2021. He briefed about the need for digitalization of Built environment, digitalization of workforce, digital built environment in existing education, typical problems in construction industry, Digital fabrication, Introduction to BIM and difference between CAD & BIM.

Er. Fozail Misbah is a Civil Engineer with Masters in Building Engineering & Management from School of Planning & Architecture, Delhi. His research interests includes High Rise Building Construction; Construction Management and Sustainable Construction. He has teaching experience as a visiting faculty in MBIT, Delhi and as GATE faculty in various institutions.



Er. Fozail Misbah, Assistant Professor, School of Construction, RICS School of built Environment, Amity University, Noida, delivered a talk on 'Conceptualizing Digital Built Environment with Focus on BIM'

Workshop on 'Ultra Tech Building Products and its Applications'

A one-day workshop on 'Ultra Tech Building Products and its Applications' was conducted on 23rd November, 2021. The resource person for the workshop was Er. Santosh Vishwanath Kori, Head- Technical Customer Solution-South, Ultra Tech Cement Limited, Building Products Division, Bengaluru. The workshop mainly focused on the Ultra Tech building products, alternative building products available in the market, introduction of ready mix concrete, importance & Application of waterproofing System and emerging solution for sustainable construction in the morning session. The participants were provided hands on experience on ready mix concrete design.

Er. Santosh Vishwanath Kori has 21 Years in Construction Chemicals & Dry Mix Products. He was Regional Market Development In charge, Pidilite Industries Ltd, Dr. Fixit. Currently, he is working as Head- Technical Customer Solution- South, UltraTech Cement Limited, Building Products Division, Bengaluru.



Er. Santosh Vishwanath Kori, Head-Technical Customer Solution- South, Ultra Tech Cement Limited, Building Products Division, Bengaluru. Has given hands-on training 'ready mix concrete design'.

Hands-on training program on 'Total Station Surveying'

A one-day hands-on training program on 'Total Station Surveying' was conducted on 2nd March, 2022. Mr. Nithesh from Pink Peach Constructions, Udupi has been invited as resource person for the hands-on training. The objectives of the hands-on training was to provide the knowledge on Total Station usage and plotting the data surveyed in Auto-CAD for further Applications.

Pink Peach Construction Company started in the year 2016 has established themselves as one of the reliable surveyors and is committed to providing clients a variety of residential and commercial surveying services in a timely fashion at competitive rates.

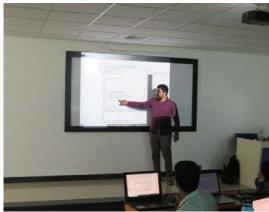


Mr. Nithesh from Pink Peach Constructions, Udupi, has given training on 'Total Station Surveying'

Hands-on training program on 'Hydraulic Modeling of Water Distribution System'

A three-day hands-on training program on 'Hydraulic Modeling of Water Distribution System' was conducted from 14th March, 2022 to 16th March, 2022. The resource person for the hands-on training was Mr. Rajeev M UK-Water Civils Arcadis, Bengaluru. The objectives of the hands-on training were to enhance faculty technical skills and to understand practical implementation of pipe network analysis in broad area.

Mr. Rajeev M is currently working in Arcadis which is the leading global Design & Engineering Consultancy for natural and built assets. Arcadis work in partnership with clients to deliver exceptional and sustainable outcomes throughout the lifecycle of their natural and built assets.

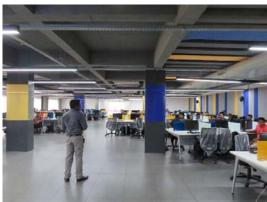


Mr. Rajeev M, UK-Water Civils Arcadis, Bengaluru, has given hands-on training on 'Hydraulic Modeling of Water Distribution System'

Hands-on Training Programe on 'SketchUp& V-Ray'

A two-day hands-on training program on 'SketchUp & V-Ray' was conducted on 30th May, 2022 & 31st May, 2022 by CADD Tech LABS, Mangalore. The advantages of the hands-on training were to enhance the use of SketchUp & V-Ray in 3D modeling projects like architectural, interior design, landscape architecture, and video game design, etc.

CADD Tech LABS Training Services an institute that offers high quality certified trainings on various CAD/CAM and Project Management software's by highly experienced faculties so that students can develop their skills which make a solid foundation for their career.



Hands-on training on 'SketchUp & V-Ray' was given by CADD Tech LABS, Mangalore.

Technical Talk

A technical talk was delivered by Dr. Ravi D R, Environmental Officer, KSPCB, Bengaluru, on 3rd June, 2022. He briefed about the conservation of natural resources to control pollution and climate change. He pointed on reducing humanity's collective carbon footprint and conserving our natural resources to fight climate change will help leave our planet habitable for future generations.

Dr. Ravi D.R. is an seasoned professional with over 28 years' of rich experience involves Monitoring, Liaison, Treatment Plant Operations, Environmental Management, Maintenance, Urban Governance, Statutory **Applications** with extensive and diverse Private experience and Government agencies.



Dr. Ravi D R, Environmental Officer, KSPCB, Bengaluru, delivered a talk on 'Conservation of Natural Resources through Pollution Control'

Exhibition of 'Working Models Based on Hydraulics Pressure'

A one-day Exhibition of 'Working Models Based on Hydraulics Pressure' was conducted on 22nd August, 2022 and coordinated by the faculty Ms. Megha Mayuri B G. The exhibition was a part of Academic activity, and all the models were working based on Hydraulic Pressure. The main objective of the exhibition is to understand, analyze and create a working model based on the Pascal's Law.



A second year students were exhibited the 'Working Models Based on Hydraulics Pressure'

Hands-on Training on 'Non Destructive Testing of Concrete Structure'

A one-day hands-on training program on 'Non Destructive Testing of Concrete Structure' was conducted on 12th September, 2022 by the faculty member of Ms. Megha Mayuri B G and Ms. Swapna S A, Department of Civil Engineering, MITE. The hands-on training was a part of the necessary learning of internship to enable the students to conduct the NDT and to analyze the same in real time projects. The hands-on training gave an opportunity to each student to individually work with the Rebound Hammer, to collect data and analyze the data to plot the graph and to arrive at a conclusion on the strength of the concrete tested. The skill of handling and using of Rebound hammer equipment was imparted to students.



Third year students undergone hands-on training on 'Non Destructive Testing of Concrete Structure'

Industrial Visit to D. K. Nirmithi Kendra, Surathkal

An industrial visit to D. K. Nirmithi Kendra, Surathkal was organized on 28th October 2021. The main objective of the industrial visit was to provide the knowledge on costeffective, alternate, eco-friendly and modern building technologies. The Construction activity is enormously increasing day by day in India which leads to either acute shortage of building materials or to accept the substandard materials which are available in the market which increases not only the cost of construction but also waste of available energies like Fire wood, Petroleum by products which is a burden on National resources.

Dakshina Kannada district administration has established a center called "Dakshina Kannada Nirmithi Kendra" during 1989, which is located at Surathkal and it is functioning under the Chairmanship of Deputy Commissioner, D.K. district.



Final year students were visited "Dakshina Kannada Nirmithi Kendra" as an Industrial visit programme

Industrial Visit to UltraTech Cement Ltd.-RMC Plant, Mangaluru

An industrial visit to UltraTech Cement Limited-RMC Plant, Mangalore was organized on 20th May, 2022. The main objective of the

industrial visit was to provide the knowledge on technical exposure of Concrete Technology, Manufacturing Processes and other Engineering aspects of Concrete Technology Subject.

UltraTech Cement, India's leading manufacturer of cement and amongst the top cement producers globally, one of India's largest producers of RMC and the nation's largest producer of white cement has been instrumental in India's rapid infrastructural growth.



Third year students were visited UltraTech RMC Plant, Mangaluru as an Industrial visit programme

Alumni Entrepreneur Interaction

Alumni Technothon – MITE (Series-I)

Alumni Technothon - MITE, a 2-Days Alumni program conducted on 13th & 14th January 2022 in which the students were participated to gain knowledge on engineering aspects, the attitude of the professional engineer and professional challenges in the current scenario and also the scope for preparation to upgrade the requirements with respect to confidence, personality, communication skills, body languages and technical skills.

MITE, guided by the core value of "family culture", strongly believes Alumni, as an integral part of the MITE family, present achievements and future hope. This firm conviction has encouraged the institution to

develop lifelong commitment through continuous engagement with proud alumni of Engineering and Management Studies spread across the globe, established well in the chosen profession with their global competency, making a positive impact as brand ambassadors of the alma mater.

Session 1

Topic: Communication Skills and Career Guidance

Er. Anup Kumar, Civil Contractor/Writer, Bengaluru, (Alumnus, Batch 2017-18) addressed the students and highlighted the attitude of a professional engineer and professional challenges in the current scenario and the preparation scope to upgrade yourself to the requirements with respect to Confidence, Personality, Communication Skills, Body language, and technical skills. Juniors should concentrate more on their communication and presentation skills, which are vital for a bright career path. The audience had an enriching interaction with him and posed queries regarding various career options available after graduation. He also handed over around five books of "Six in the Evening" to the students authored by him. Around 88 students from various branches participated in the session.

Er. Anup Kumar authored the book "Six in the evening" to relate millennials' mental health relationship with nature and promote domestic tourism. He is working on organic farming using vertical farming to grow cash crops effectively and sustainably. He also served as a Technical Support Associate for IBM, Bangalore, for one year. Worked at Guru Kripa Constructions, Mangalore as an engineer and sales representative for one year and three months. He hosted the Master of Ceremony of Bollywood concerts and ambassador of "Dekho Apna Desh", a project under the Ministry of Tourism, India.



Er. Anup Kumar, Civil Contractor/Writer, Bengaluru, has delivered the session on "Communication Skills and Career Guidance"

Session 2

Topic: Project Management in Civil Engineering Industry

Er. Tushar H Salian, Assistant Project Manager in Colliers International, Bengaluru, (Alumnus, Batch 2016-17) has highlighted the Civil Engineering project management, dedication, work ethics, time-bound project work, and guidance on higher studies opportunities. Around 50 students from various branches participated in the session.

Er. Tushar H Salian handled multiple projects from Initiation to Closeout, have been the account manager for HSBC Hyderabad and Bangalore, worked closely with the delivery lead on the delivery and Project Delivery Timelines, closely monitored the cash flow, coordinated with the client on the requirements. Coordinated with Architect/ Consultants on the details, monitored quality and timeline, Instrumental in Design Development Process, streamline value Helped engineering mechanism for cost control. As a project engineer in "Colliers International", worked with the project manager on planning and scheduling activities, controlling documentation and approvals from Consultants/Architect and clients, was Involved in Quantity verification at the site, involved in

getting the approvals from the architect, Helped in BOQ preparation, Ratified pricing models of materials, Created alternative material and methodology specifications.



Er. Tushar H Salian, Assistant Project Manager in Colliers International, Bengaluru, has delivered the session on "Project Management in Civil Engineering Industry"

Session 3

Topic: User Experience Design

Er. Sachin Kotian UX Designer in Infosys, Mysuru, (Alumnus, Batch 2017-18) started his session on software-based applications, especially on UIX and its application in the software domain, with a few examples to operate the software. He also gave guidance to students on selecting the company, how to search the job, how the student resume should be framed, and whom to send the resume to get back the job vacancy reply. Around 47 students from the Civil and Information Science & Engineering departments participated.

Er. Sachin Koatia, is an UX Designer – Finacle, Gathering and evaluating user requirements in collaboration with the product manager and presenting UX design concepts to the project stakeholders for review and feedback and driving the development and communication of clear design guidelines, patterns, libraries, and assets and working closely with the development team to

implement the vision. Identify potential accessibility issues and recommend best practices based on W3C's Confidential 2.0 Migration of existing applications from salesforce to Mendix (Low code platform) using Atlas UI Design System.



Er. Sachin Kotian, Senior Systems Engineer at Infosys limited, Mysuru, has delivered the session on "User Experience Design"

Alumni Technothon – MITE (Series-II)

Alumni Technothon– MITE (Series II), a 2-DaysAlumni program conducted on 27th & 28th May 2022 in which the students have participated to gain knowledge on engineering aspects, the attitude of the professional engineer and professional challenges in the current scenario and also the scope for preparation to upgrade the requirements with respect to confidence, personality, communication skills, body languages and technical skills.

Session 1

Topic: Personal Branding in the Era of Social Media

Ms. Acharya Akshataa Arun, Adfactors PR, Trainee Account Executive, Mumbai, (Alumnus, Batch 2018-19) addressed on Personal Branding in the Era of Social Media to the students and highlighted her expertise, personality, and passion in a way that brings

value to people's lives and what is personnel branding and how to adapt the personal branding in life. She also highlighted that the first step should be identifying one's area of expertise. Dig deep, and think hard; this will guide towards self-branding for years to come. Once identified that a person can build his personal brand around, narrow them down to a specific niche; it's not enough to say that a person is a rockstar marketer or a yoga expert. Around 90 students from various branches participated during the session.

Ms. Acharya Akshataa Arun completed her B.E in civil engineering from Mangalore Institute of Technology and Engineering in the year 2019 and at present she's pursuing her MA in Media and Communications from Manipal Institute of Communication. She has worked for TATA Consultancy Services as an internal Communications Intern from July 2021 - Sept 2021. She is the Founder and Owner of Celestial: Handmade Treats which focuses on creating brand-specific and compelling content to develop topical stories revolving around celestial. She has been a Media and Publicity Volunteer and Food and Hospitality Volunteer for Namma Angadi from March 2022 - April 2022. Her leadership experience involves Sponsorship Team Lead at Namma Angadi and has been an editor at A.M Plus since March 2021.



Ms. Acharya Akshataa Arun, Adfactors P R, Trainee Account Executive, Mumbai, has delivered the session on "Personal Branding in the Era of Social Media".

Session 2

Topic: Opportunities in Fashion Modelling & Movie

Mr. Deekshith Airody, Project Engineer, Sharadha Associates, Karkala, (Alumnus, Batch 2018-19) addressed on Opportunities in Fashion Modeling & Movie to the students and shared his experience in the Fashion Modeling and Movie industry. He expressed "Fashion" in itself carries a surplus of job options for all because of its versatility and variability. The key areas of the profession in the fashion industry are market research, designing, and manufacturing of garments and textiles. Now the fashion industry has become professional that it embraces a wide range of subjects in design, concept management, design production management, quality control, planning, fabric design, printing, design, etc. Therefore, Fashion designers require to be more artistic, talented, creative and must possess the expertise to interpret ideas and thoughts in sketches. They must also have a keen understanding of colour such as a combination of shades and hues, visual intelligence, knowledge of market trends. Those who acquire these qualities can foster in this field and can get employment with designers professional as trainees apprentices with the manufacturing units, export houses, boutiques, and media. In the same way he highlighted his experience in the Movie industry, hard work, punctuality, time sense ready to travel at any time for the shoot and dieting, dress fittings, skin, patience all are very much essential for the actors. Around 90 students from various branches participated during the session.

Mr. Deekshith Airody is currently working as a project Engineer in Sharada Associates. He has been the runner up of Mr. TULUNADU 2020, title holder of Mr. MITE 2022 organized by Mangalore Institute of Fashion Technology. He is also a national level dancer and a state level athlete and has been the calendar face of SK

interiors 2021, calendar face of VASTRAM fabric Mangalore 2021. He has been a model for CKC JEWELLERY BANGALORE EXPO 2020, FABRANIA 2020 fashion fiesta and many corporate shows. His acting experience involves being a main lead in Kannada Web Series KARMA RETURNS which is now streaming on talkies app and also shared screen with Niveditha Gowda, Mythri Iyyer and PAPA PANDU fame Chidanand for the upcoming web series CHUTKI on talkies app apart from that he has played a supportive role TAT web series and also has been working on few add shoot projects such as fitness wear, ice cream, SK Interiors, VASTRAM fabric etc.



Mr. Deekshith Poojary, Project Engineer, Sharadha Associates, Karkala, has delivered the session on "Opportunities in Fashion Modelling & Movie".

Session 3

Topic: Remote Sensing and GIS Application on Toxicology

Ms. B Raksha Shetty, Research Scholar, Department of Civil Engineering, MIT, Manipal, (Alumnus, Batch 2016-17) addressed on Remote Sensing and GIS Application on Toxicology to the students and shared her experience in the research field of Remote sensing and GIS in the Environmental and Toxicity. She has expressed Remote sensing technique of as an effective tool for systematic survey, analysis, and better management of natural resources (land, soil, water, forests,

mountains) along with the monitoring of desertification, flood, drought, and landform change. It provides a vast scope to explore, identify, and analyse the natural resources of undeveloped regions. It documents the dynamic changes in physical processes and resulting landforms, usually by satellite images. GIS allows better viewing and understanding physical features and the relationships that influence in a given critical environmental condition.

Ms. B Raksha Shetty obtained her Master's degree from Manipal Institute of Technology in Environmental Engineering, thesis entitled on, "Developing System Dynamic Model for mitigation of Climate stress in Agriculture in Udupi Region". She has worked as site engineer in grassland developer in 2017. She has also worked as a CADD engineer in CADD centre Mangalore and Karkala (2017-18), expertise in Autocad, Revit Architecture and 3Ds Max. She was a Research Intern in CSIR-Laboratories, 4PI. National Aerospace Bangalore for an year (2019-20) under the guidance of Principal Scientist, Dr. K V Ramesh. She got enrolled for doctoral program under the guidance of Dr. Jagadeesha Pai B, Department of Civil Engineering and Dr. Salmataj SA, Department of Biotechnology in 2021 February with Dr. TMA Pai Scholarship.



Ms. B Raksha Shetty, Research Scholar, Department of Civil Engineering, MIT, Manipal, has delivered the session on "Remote Sensing and GIS Application on Toxicology".

Technical Talk on "How to tender Government Project"

Ms. Ankitha Jaiwanth Naik, Assistant Engineer at BEL, Bengaluru, (Alumnus, Batch 2019-20) started her session by highlighting the Project tendering is the process by which bids are invited from interested construction contractors to carry out specific packages of construction work. The tendering process is an important means by which a fair price and best value for undertaking the works is obtained. She also briefed the introduction about tendering process and what are the basic criteria for tendering. The tendering procedure promotes a competitive market. This is because each project allows many possible contractors, firms, or suppliers to bid on it.

Ms. Ankitha Jaiwanth Naik working as an Assistant Engineer at BEL, Bengaluru, in the Project Estimation and Tendering division from last 2 years.



Ankitha Jaiwant Naik, addressed the final year Civil Engineering students on "How to tender Government Project"

Technical Talk on "Project Planning and Execution"

Ms. Shivani Shenoy R J, Assistant Engineer, Project Management Division, Tata Project, Mumbai, (Alumnus, Batch 2016-17) started her session by highlighted the construction project management and it is a complex discipline that requires addressing many important concerns, including cost control, scheduling, procurement, and risk assessment. Project managers interact with all team members involved in a construction project, from architects to owners to contractors.

During the project management and execution, there are a variety of different types of construction projects that depend on the construction sector. The two sectors in construction are residential and commercial and there are four different types of projects:

- Residential home building and renovation
- Heavy industrial construction
- Commercial and institutional construction
- Engineering construction

That means there are a wide variety of types of construction projects that require construction management in order to be successful. Construction management might be required for a simple home to a large bridge, from engineering a dam build to an airport seismic retrofit project. Construction project managers, then, manage the beginning and end of a project build, often managing on-site to ensure safe, successful construction.

Ms. Shivani Shenoy R J working as a Assistant Engineer at Tata Project, Mumbai from last 4 years. After her B.E she joined NICMAR (Certification Course) and completed the degree at Pune.



Ms. Shivani Shenoy R J, addressed the final year Civil Engineering students on "Project Planning and Execution"

MITECONS – Department of Civil Engineering Consultancy Services

MITE consultancy services provides the consultancy services in different fields of Civil Engineering for Government, Semi Government and private agencies since from the inception. The basic aim of MITE consultancy services (MITECONS) is to provide quality services for technical problems at reasonable and affordable rates as a service to society.

The MITECONS, provided consultancy services to varies clients, such as KIUWMIP-KUIDFC, KRIDL, GoK, Suez, simplex etc. Expert Faculty members of the department conducted filed investigations such as resistivity meter survey, standard penetration test, collection of soil samples from proposed construction site. Further Investigation team carried out laboratory tests on collected samples and Geotechnical Investigation report is submitted to respective client.

Students are involved in many real time projects including site visit, material testing, Design, Drafting etc. MITECONS is providing internship to the students of Civil Engineering.

ANVESHANA-2022 (Virtual Mode)

Students from the Department of Civil Engineering, Mangalore Institute of Technology and Engineering (MITE) won the second prize at "Anveshana 2022" A state level project championship organised by the Agastya international foundation in association with synopsis.

The project titled **'Eco friendly interlock blocks'** by Glency Roshni D'Souza, Mohammed Salim, Rajat Narayan, Mohammed Alfaz guided by Mr. Suarj Shet and Mr. Akshaya Krishna N. won 2nd place at statelevel with a cash price of worth Rs. 25000/-



The team won 2nd place at state-level 'Anveshana 2022' competition with a cash price of worth Rs. 25000/-

KSCST Funded Projects (Students)

MITE, Department of Civil Engineering students consecutively receiving KSCST financial assistance for their B.E Projects from past five academic years.

2021-22: 4 Project

- 1. Funded Rs. 4500/- for the project title "Utilization of Natural Fibre in the Production of SCC with Addition of KEM Suplast PCL 110". This project proposal submitted by Mr. Rakshan R Hegde and Mr. Anudeep under the guidance of Mrs. Swapna S A and Ms. Prathiksha G, Department of Civil Engineering, MITE.
- 2. Funded Rs. 4500/- for the project title "Experimental Investigation of Concrete by Using Limestones Fines as Replacement to Cement". This project proposal submitted by Ms. Disha, Mr. Keshav Katti, Mr. Akshay Kumar and Mr. Ajat Kumar D under the guidance of Mr. Sagar S, Department of Civil Engineering, MITE.
- 3. Funded Rs. 7000/- for the project title "Structural Damage Detection Using IOT". This interdisciplinary project (CV & ECE) proposal submitted by Mr. Sambhram Shetty Mr. Krishang Mahes and Ms. Sahana Sukanya

Shetty under the guidance of Mr. Akshaya Krishna N and Mrs. Rishma Mary George, Department of Civil Engineering, MITE.

4. Funded Rs. 6500/- for the project title "IoT Based Sustainable Groundwater Supply System for Green India". This interdisciplinary project proposal (CV & ECE) submitted by Ms. Vaishnavi G, Ms. Rithika Shreenivas, Mr. Karkera Prajwal and Mr. Chidanand M T under the guidance of Dr. Jayaprakash M C & Dr. Shrikrishna Shastri C, Department of Civil Engineering, MITE.

VTU Funded Projects (Students)

- 1. Funded Rs. 5,000/- for the research project title "Experimental Investigation on paver blocks by the partial replacement of fine aggregates by plastic waste". This project proposal submitted by Ms. Glency Roshni D'Souza, Mr. Mohammed Salim, Mr. Rajat Narayan Harikantra, & Mr. Mohammed Alfaz under the guidance of Mr. Suarj Shet and Mr. Akshaya Krishna N, Department of Civil Engineering, MITE.
- 2. Funded Rs. 5000/- for the project title "IoT Based Sustainable Groundwater Supply System for Green India". This interdisciplinary project proposal (CV & ECE) submitted by Ms. Vaishnavi G, Ms. Rithika Shreenivas, Mr. Karkera Prajwal and Mr. Chidanand M T under the guidance of Dr. Jayaprakash M C & Dr. Shrikrishna Shastri C, Department of Civil Engineering, MITE.

VTU Funded Projects (Faculty)

1. Funded Rs. 10,00,000/- for the research project title "Experimental Investigation on behavior of GPC block arches and validation using ANN". This project proposal is submitted by Dr. Ganesha Mogaveera, Dr.Umesh S S, & Mrs. Anusha Jain, Department of Civil Engineering, MITE.

National Level Internship Program

MISSION AMRIT SAROVAR – JAL DHAROHAR SANRAKSHAN INTERNSHIP

As part of the commemorative celebration of the 75th anniversary of our independence as Azadi Ka Amrit Mahotsav, the Ministry of Housing and Urban Affairs (MoHUA) in partnership with NEET Cell-AICTE and Ministry of Education launched a 30-Day National level internship programme of Mission Amrit Sarovar - Jal Dharohar Sanrakshan from 1st July 2022 to 5th August 2022 with the sponsorship of Rs. 4,00,000/-. The Government of India, in keeping with the Honorable Prime Minister's vision.

MITE is one of the institutions identified to carry out the Jal Dharohar Sanrakshan internship in two water bodies of Seventeen Jain Tombs, Moodabidri and Jain Statue of Gomateshwara, Karkala. For each water bodies 15 students were selected from 5 branches of Civil Engineering, Mechanical Engineering, Electronics & Communication Engineering, Information Science & Engineering and Mechatronics Engineering, along with 2 Institute Nodal Officers (INOs) of Dr. Jayaprakash M C and Ms. Prathiksha G.

Every day throughout the internship, students visited the designated water body location with INOs and ASIs (Archeological Survey of India) officials, and students were sent a report to AICTE on their daily progress as well as images. As internship deliverable students were prepared the detailed project report (DPR) of the water body with the contents of

- 1. Historical context and geographical setting,
- 2. Spatial and temporal changes of water bodies' assessment of dependence/service to human population,

- 3. Ecological conservation and rejuvenation planning,
- 4. Re-imagining the area as a vibrant public place, and
- Clear cut action plans for rejuvenating the water bodies highlighting the short and medium term action and recommendations.

There were 10 posters has been made by the students as a deliverable to AICTE along with DPR.

On 15th August 2022, as part of the commemorative celebration of the 75th anniversary of our independence known as Azadi Ka Amrit Mahotsav, which is hosted by the ASI-Sub Circle Office, Karkala, the AICTE internship came to a close with the display of posters in the "Chowtaras Palace," Moodabidri.







Group photo of participated interns of Seventeen Jaina tombs, Moodabidri and Jain Statue of Gomateshwara, Karkala.

MoUs With

- 1.National Highways Authority of India (NHAI)
- 2.Karnataka Rural Infrastructure Development Limited (KRIDL)
- 3. Dakshina Kannada Nirmithi Kendra, GOK
- 4. Master Plannery, Puttur, D.K
- 5.SAI CADD, Bangalore
- 6.CAFET Innova Technical Society, Hyderabad
- 7. Paradigm Environmental strategies (P) Ltd, Bangalore

Technical Articles by Students

ECO-FRIENDLY INTERLOCK BLOCKS

Glency Roshni Dsouza, Mohammed Alfaz, Rajat Narayan Harikantra, and Mohammed Salim

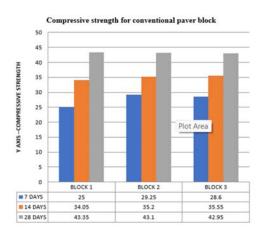
Abstract: Construction Industry plays a vital role in developing the economic growth of a country. Due to the rapid consumption of conventional raw materials such as sand and aggregates has resulted in non-availability of materials at the required time. This has made mankind to choose an alternative material such as Iron Ore Waste in construction projects. Blast furnace manufacturing industries create a huge amount of by-products that are dumped into landfills. During the extraction of Iron ore from mining process, it has resulted in the development of a by-product Iron ore waste during the smelting process .A attempt is made to incorporate Iron ore waste as an alternative material in place of fine aggregate to produce eco-friendly interlock blocks. The concrete mix is designed for M30 grade. Materials such as

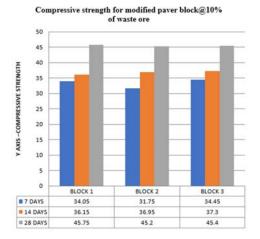
fine aggregate were replaced by Iron Ore. Waste in varying percentages from 10%, 20%, 30%, and 40% respectively. From test results it was found that optimum content of Iron Ore waste that can be replaced is 30% without affecting the strength characteristics of interlock blocks. This project has also analysed the cost involved for conventional and modified paver blocks per square feet.

Methodology:

- Procurement of Raw materials Iron ore Mineral waste from KIOCL Limited (Formerly known as Kudremukh Iron Ore Company Limited).
- 2. Casting interlock block in Moulds of standard size by partial replacement of fine aggregate by iron ore mineral wastes for preparation of concrete interlock blocks.
- 3. Determination of the compressive strength of interlock block at 7, 14 and 28 days by using compressive testing machine of 300 tonne capacity.
- 4. Comparing the conventional interlock block and modified interlock block to analyze cost saving per square feet (Mould size 200x100x80 mm).

Results of Compressive Strength for Conventional & Paver Blocks:











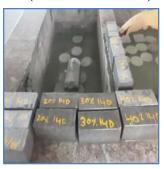








Paver Blocks (30% iron ore waste):



DEVELOPMENT OF SUSTAINABLE CONCRETE BY USING LIMESTONE FINES

Disha, Keshav Katti, Akshay Kumar and Ajat Kumar D

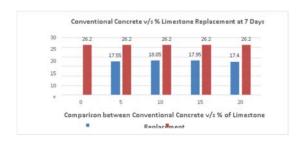
Introduction: The reduction of cement content in concrete is one of the persistent global sustainability concerns of the 21st century. Of all the ingredients in concrete (the primary ones

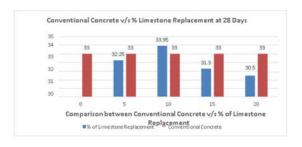
being cement, supplementary cementitious materials, water, and coarse and aggregates), cement has the largest footprints when it comes to both carbon dioxide release and energy consumption. While the feasibility of achieving higher levels (greater than 50 %) of cement replacement using fly ash, a residual product from coal combustion, has been demonstrated in the laboratory and in practice, questions remain about the stability of the supply of quality fly ash and local shortages have indeed been encountered in parts of the recent years. Similarly, U.S. high replacement mixtures using slag have demonstrated good performance, but the worldwide slag supply is quite limited when compared to the annual demand for concrete for new construction and repair.

Methodology:

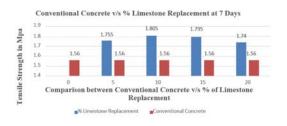
- Basic material testing on ingredients of concrete (cement, fine and coarse aggregate, lime powder dust, Water).
- Mix design of M30 grade of concrete as per IS 10262:2019 codal provision.
- To study fresh properties of convention concrete and limestone powdered concrete (slump test).
- To study hardened properties of conventional concrete and Limestone powdered concrete (compressive strength and split tensile strength).

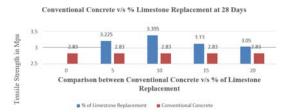
Results: Compressive Strength (IS 516:2021)





Split Tensile Strength (IS 5816:2004)





Editorial Committee



Chief Editor

Dr. Jayaprakash M C

Sr. Assistant Professor Chief Coordinator - ACES

Mr. Mohammad Musthafa K S

President - ACES

Mr. Dheeraj

Vice President - ACES

Mr. Athul Sanil

Treasurer – ACES

Mr. Ashwin Poojary

Ms. Bharghavi S R

News Bulletin & Design

Mr. Hansie Castelino

Ms. Vaishnavi G

Technical & Media

Ms. Shama M P

Mr. Waseem Ahmmed S N

Supporting Team – News Bulletin

Mr. Dhanvin A K

Photography





Mangalore Institute of Technology & Engineering (MITE)

Mijar, Moodabidri, Mangalore, Karnataka. Ph.: 08258-262695 to 99 E-mail: info@mite.ac.in 🖪 MITEedu Website: www.mite.ac.in



Souza Arcade, Balmatta Road, Mangalore, Karnataka. Ph: 0824-2441581, 2441582 Fax: 0824-2441581 E-mail: info@ret.ac.in

Invent Solutions