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CIVIL CHRONICLES

The newsletter of the department of civil engineering

VISION:

To grow as a globally recognized center in Civil Engineering with a focus on innovation and research by combining technical and ethical qualities.

MISSION:

M1: Professional Skills

To provide a better environment to encourage innovative and research thinking among students.

M2: Life-Long Learning

Instill in students contemporary knowledge in order to achieve academic and professional excellence with global perspective through experience of lifelong learning.

M3: Engage with Society

Impart a sense of community responsibility and leadership qualities to better meet the challenges of sustainable growth.

PROGRAM SPECIFIC OUTCOMES (PSOs)

PSO1

To solve engineering problems related to Civil Engineering by systematic techniques, skills and tools to meet the ever growing needs of sustainable infrastructural development.

PSO2

Design and build Civil Engineering-based systems in the context of structural, geotechnical, transportation and environmental requisites.

PROGRAM EDUCATIONAL OBJECTIVES (PEOs)

PEO1

Achieve excellence in the professional practices of Civil Engineering by utilizing the acquired knowledge and technical skills supported by modern day tools.

PEO2

Participation in decision making and nation building by adopting energy efficient and sustainable practices in Civil Engineering.

PEO3

Encourage innovative thinking and entrepreneurship by research and higher studies in advanced areas of Civil Engineering.

Quantity surveying workshop

19/05/2022

Photos from the workshop

A workshop was conducted on Quantity Surveying. The resource person of the workshop, Mr. Anwar C.M., was an alumni at IIM Lucknow, an ex-Amazon employee, and a budding software entrepreneur. The Bangalore-based young engineer, with his extraordinary eloquence, won a mindful attention from the final year students at the workshop. During the session, the participants made awareness of software such as Cubit Pro, costX. 'Quantity Surveying is performed either manually or using conventional software such as AutoCAD or Revit; however, it takes the top-ended tools to render it more professional'- the orator says. Students got aware of the software packages to execute the manual procedures of rate analysis, valuation, and so on. The conventional classroom study based on the rate schedule has left behind a base idea among the students.

'We have to build up the software awareness from the base'- commented the orator, emphasizing the accuracy, speed, and user-friendliness of the software compared to the manual methods. Within the short duration of the workshop, students learn to install and operate the software. The department felicitated the orator at the end of the session. The students were provided with certificates as well.

Photos from the expert talk

Project Management with BIM: Insights and Career Opportunities

01/06/2022

An expert talk by Mrs. Vijayata Malla, Assistant Professor at NICMAR Hyderabad, was held online on June 1, 2022. Titled "Glimpses of Project Management Using BIM and Job Opportunities in the Industry Sector," the session drew a keen audience interested in civil engineering advancements.

Mrs. Malla, speaking fluent English with a Telugu accent, provided an in-depth overview of Building Information Modelling (BIM). She covered essential topics like building information systems and health monitoring, delivering insights into modern construction practices.

The session was particularly valuable for final-year students, sparking innovative project ideas and broadening their understanding of career opportunities. Inspired by her presentation, students expressed interest in further engagement and requested Mrs. Malla's contact details for additional guidance. This informative session left a lasting impression, highlighting the importance of BIM in project management.

Joining hands with NATPAC for a Parking-friendly Chirakkuni

28/06/2022

Surveying team at Chirakkuni intersection

It was just another ramble for the onlookers, on the fine morning of 28th June 2022 along the footpaths of the Chirakkuni Intersection-Kannur, but for the four civil engineering students from STM has some allegiance behind their ramblings. It was part of their duty to conduct a parking survey at the intersection, as the department has joined hands with NATPAC- a centrally funded institution under the Government of Kerala.

'We were at our wit's end amidst the busy schedules of the Project 'Traffic Congestion Measures of Chirakkuni Intersection', which demands several field surveys including parking survey, traffic volume count, as well as OD studies'- the Project Supervisor Ebin Samuel says. 'It was at this juncture, we requested for a even though it was hectic and tiresome to work on site. Moreover, it was their pleasure to receive certificates of participation from NATPAC. consultation from the nearby Engineering Colleges, and the Civil Engineering Department of STM accepted the proposal immediately'- the Scientist cum Project Coordinator added. Four students along with a faculty coordinator comprised of the surveying team. Amidst their academic pursuits, the students themselves processed the raw data obtained in the form of vehicle count, converted them into the respective 'Passenger Car Units', and submitted the entire discourse to the authorities. A wholehearted applause was bestowed on the department for the accuracy of work and timely submission of the processed data. 'We made several rounds of discussions with local politicians, panchayat authorities, and all, but everyone shrugged off. Now we have hope on the coming engineers like you in such endeavors'- the shopkeepers at the intersection says to the students during the survey. The comments from the stakeholders like this, made the day for the four-member team,

Along the beachside with NATPAC

04/09/2022

Syrveying team at Muzhuppilangad

Due partly to the proximity of the college from the survey location or the professionalism shown by our students at Chirakkuni, NATPAC opted for the students at STM to assess their survey for a second time. This time it was at Muzhapilangadu. Being the longest drive-in beach in Asia, Muzhapilangadu is notorious for roads with heavy traffic blocks during the weekends, due to the arrival of vehicles from places quite far away. Similar conditions prevail during the peak hours of the weekdays as well.

NATPAC cleverly selected the date 04/09/2022, a weekend, for their traffic survey analysis as the roads at its maximum capacity during holidays here. The beach road, road from Edakkad beach, and the road connecting the beach with NH66 were surveyed separately with various aspects. It involved traffic volume studies, parking surveys, and various kinds of origin and destination studies which require a lot of manpower. NATPAC envisages a congestion-free atmosphere at the location, which demands further widening of the existing road and construction of new roads. A 16-member team comprised of 2nd year students, guided by Assistant Professor Sreenath M.K, conducted the surveys from the early hours of the day to 6:00 PM. Students got the first-hand experience of conducting traffic surveys, which might help them during their final year project. Likewise, the marvelous sunset at the beachside and the music from the waves of the Arabian Sea made the day more enjoyable. The day ended up with a bag full of data sheets from various traffic studies in terms of vehicle count. The entire data got successfully rearranged and processed during the succeeding days and submitted to NATPAC. The participatory certificates, along with appreciations, made its way towards STM, this time too. Suffice it to say that, a lot of new instruments are capable of replacing much manpower in surveying in these days. However, the decision made by NATPAC to incorporate students in its studies demands appreciation too.

GROUP PHOTO 2018-22

PPROGRAM OUTCOMES (POs)
Engineering Graduates will be able to:

PO1:
Engineering knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.

PO2:
Problem analysis: Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.

PO3:
Design/development of solutions: Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.

PO4:
Conduct investigations of complex problems: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.

PO5:
Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.

PO6:
The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.

PO7:
Environment and sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.

PO8:
Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

PO9 Individual and team work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

PO10:
Communication: Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.

PO11:
Project management and finance: Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.

PO12:
Life-long learning: Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

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