

Department Of Civil Engineering

CIVIL CHRONICLES

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VISION

To grow as a globally recognized centre 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 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.

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 OUTCOMES (POs)

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.

WORKSHOP ON TOTAL STATION



Mr. Ajith Lal & Mr. Bharath Krishna Demonstrating total station to the students

A one day Total station workshop was organized by SAATVA in association with Civil engineering department and IEDC on 29th October 2024 for the academic benefits of 3rd semester B.Tech students of the institution. The workshop was conducted under the guidance of Mr. Ajith Lal S, Surveyor, CILL Associates.

The workshop were designed in accordance with course contents of employing total station for field surveying. 26 no of students participated in the one-day workshop. The proceedings of the Total station began with an introductory session by Mr. Ajith Lal S, Surveyor, CILL Associates. The main objective of the workshop is to make the students

aware of the modern surveying instruments.

Workshop on total station can give them practical operational exposure by experts. The workshop was started from 9.00am to 4.30 pm by Ajith Lal S under the assistance of Asst. Professor Ms Alphy Mathew in coordination with civil department association and IEDC. Overall the workshop was a valuable educational experience for students for preparing them with fundamental skills for their future academic and professional endeavors in the field of engineering and design.

Mr. Ajith Lal S, Surveyor from CILL Associates was the resource person and his guidance led the students gain more knowledge in operating

the total station. He is a well experienced person with a lot of enthusiasm and practical knowledge in the field of survey.

They are carrying out various surveying works throughout Kerala and they are providing training for students as workshops on Total station and DGPS.

This workshop was familiarized with the industry standard software and hardware. It enhanced practical skills in operating total stations, and improved practical skills in operating Total stations. This workshop facilitated the students to gain knowledge on calculating heights, distances and also computing the area using Total Stations and downloading the plot.



Snapshot from Total Station Workshop

Resource Persons



Mr. Ajith Lal S,
Surveyor,
CILL Associates



Mr. Bharath Krishna
CILL Associates

INAUGURATION OF ADDON COURSE IN QUANTITY SURVEYING PROFESSIONAL READINESS LEVEL 2 (CE) Bhai



Welcome speech by Riya Sahi

The session began with a formally welcomed all the dignitaries present on the dais, teaching and non-teaching staff & students, setting a positive tone for the day by Riya Sahi Nhelat, student coordinator of addon course.



HOD addressing the audience

Ms. Vijila Balakrishnan, HOD CE briefed about the importance of the course and our esteemed resource persons. She mentioned about the significance of addon course and its aims about bringing academic excellence to our students along with vision and mission of civil engineering department.



Audience for the inaugural function

The CEO of STM Mr. Rijo Thomas Jose then gave his speech and encouraged the students with his warm and motivating words. He extended his words with immense support for the civil engineering department for the successful completion of addon course and congratulated staff and students for their initiative.



Distinguished guest Mr. Pranam K T

Dr. Shinu Mathew John, respected Principal began the session by delivering an interesting introduction about civil engineering courses and described the importance of civil engineering applications and related fields. He motivated everyone to actively participate in the addon course programme to get benefited.



Lighting the lamp during inauguration

The inaugural ceremony was then declared open with the lighting of the lamp done by the Chief Guest of the day-Mr. Pranam K T, the Principal Dr. Shinu Mathew John, the CEO Mr. Rijo Thomas Jose, the Head of the department, and the Staff and student coordinators. During his speech, Mr Pranam K T highlighted the importance of the software skills and professional and knowledge in civil engineering professional life. He wished for the success of the completion of addon course and inspired the participants for academically rewarding stay in civil engineering profession.



A memento was presented to the Chief Guest by principal on behalf of STM for his presence and guidance

Dr. Anetha Mary Soman, Dean of academics then delivered her address. She spoke with an immense love and respect towards civil department and explained the significance of addon course in academics and the teamwork and dedication that goes into working for the completion of course. Mr. Anwer, founder of carbon blue global described several high-paying employment options in the civil engineering field, both within India and in the Middle East and provided introduction to a career in Quantity Surveying by explaining the course features, emphasizing the importance of course. He also thanked STM for providing all kind of facilities to conduct such course.

WORKSHOP ON AUTO CAD



Students and staffs participated in Autocad workshop



Software training is one of the requirements to be fulfilled in order to obtain the Bachelor's Degree in Technology. Each student needs to do software training of their respective domain. A well planned, properly executed and evaluated software training helps a lot in developing a professional attitude. It develops an awareness of software approach to problem solving, based on a broad understanding of processes. Besides software training build self confidence among students and let students know the technical

knowledge and professionalism. A one-day Auto CAD Workshop was organized by SAATVA in association with Civil Engineering on 4th October 2024 for the academic benefit of students of Second Year B.Tech civil engineering and mechanical engineering. The contents of Auto CAD Workshop were designed in accordance with course contents of the course of Civil engineering Planning and Drafting Lab and Computer Aided Machine Drawing being instructed at Semester-III for Civil and mechanical engineering.

Total 26 students from Civil Dept. and 15 students from Mechanical department participated in the one-day workshop. The Auto CAD basic tools and commands were instructed by the instructors. A session was provided to draw Auto CAD drawings using these basic tools. Overall, Workshop on AutoCAD for B. Tech Second Year Students was a valuable educational experience, preparing students with foundational skills for their future academic and professional endeavors in the field of engineering and design.

KTU F-ZONE TABLE TENNIS TOURNAMENT



Snapshot from the Table Tennis tournament



A Team of 8 Members participated in KTU F-Zone Table tennis Tournament (Men & Women category) on 10/10/2024 Thursday at KMCT Manassery. Both Men and women teams qualified for semifinals, after winning against GCE Calicut. Both teams lost in Semi finals and losers finals and secured Fourth Position in the tournament. Ajay Shaji, Nandhana Pradheep, Alok, Nandhana Das, Akash, shravana, Ayush Sunil, Aswathi are the team members.

EXPERT TALK ON SOIL EXPLORATION METHODS



Expert talk conducted by Ms. Roopa Balakrishnan

The "Soil Exploration Methods" seminar covered essential aspects of site investigation, focusing on evaluating soil and subsurface conditions vital for construction and engineering projects. Topics included the objectives and phases of soil exploration, such as initial

desk studies, on-site testing, and laboratory analysis, all aimed at understanding soil stability, stratigraphy, and groundwater levels. The session also highlighted the importance of detailed reporting to support safe and effective project planning. The resource person for the seminar on "Soil Exploration Methods" is Roopa Balakrishnan, who is currently working as an Assistant Professor at St. Thomas College of Engineering and Technology in Mattanur, Kannur, Kerala. She has a strong academic background in Environmental and Civil Engineering, holding an M.Tech in Environmental Engineering and a B.Tech in Civil Engineering. Her professional experience includes various teaching positions, primarily in civil and environmental engineering,

across several institutions in Kerala. Her areas of expertise include Environmental Engineering, with a focus on subjects like Water Pollution Control, Environmental Impact Analysis, and Hydrology. She has also participated in several workshops and expert talks on topics relevant to civil engineering, such as soil stability, high-performance concrete, and environmental facilities. Ms. Roopa has achieved notable accolades, including a GATE Post Graduate Scholarship and academic excellence awards in teaching. Her PG project focused on "Domestic Grey Water Treatment and Reuse by Electrocoagulation," indicating a strong research interest in sustainable water treatment methods. She is fluent in English, Malayalam, and Hindi, making her well-equipped to communicate effectively in the seminar.

EXPERT TALK ON DESIGN OF EARTHQUAKE RESISTANT STRUCTURE



Ms. Vijila Balakrishnan

The Department of Civil Engineering organized an expert talk titled "Design of Earthquake Resistant Structures" on October 28, 2024, in collaboration with the Civil Engineering Association. This one-hour session, conducted by Ms. Vijila Balakrishnan, Head of the Civil Engineering Department at St. Thomas College of Engineering and Technology, aimed to enhance interdisciplinary research and understanding of

structural damage assessment during earthquakes. The talk emphasized the principles of seismic design, including base isolation systems, energy dissipation devices, advanced modeling tools, and sustainable practices. Attended by 38 students from the S5 CE 2022-26 batch, the event focused on applying engineering knowledge to address real-world challenges in structural stability and sustainability.

Participants benefited from case studies, discussions on emerging technologies, and networking opportunities, fostering a deeper understanding of performance-based designs and future trends in earthquake-resistant construction. This session aligns with academic objectives and program outcomes, bridging theoretical insights and practical applications in civil engineering.

ONAM CELEBRATION 2K24



Welcoming Mahabali



Onam Snapshots



Chendamalam performance at STM



Tug of war