

>>> DEPARTMENT OF CIVIL ENGINEERING

SPROUT 2024

Showcasing the milestones, achievements, and innovations that shaped our journey last year.
A glimpse into the excellence and impact of the Civil Engineering Department

Academic Year 2023-2024
Annual News Letter July 2024



>>> VISION

Emerge as a centre of excellence in Civil Engineering education.

>>> MISSION

Develop Civil Engineers with commendable knowledge, innovative ideas and leadership qualities, who can appropriate technology and contribute efficiently to the industry and research.

>>> ABOUT THE DEPARTMENT

The Department of Civil Engineering was established in 2004 when only a few colleges offered the program. It currently offers three programs: a B.Tech in Civil Engineering (two batches of 60 students each) and two M.Tech programs, all affiliated with Kerala Technological University (KTU). The B.Tech program is accredited by NBA.

The M.Tech in Geomechanics and Structures blends Geotechnical and Structural Engineering, with curriculum contributions from IITs and other institutions.

Another M.Tech program in Structural Engineering and Construction Management integrates Structural Engineering and Construction Management. The department established an ASCE student chapter in 2018. With 34 experienced faculty members, including industry professionals, the department educates around 400 undergraduate and 45 postgraduate students. It fosters research in Structural, Geotechnical, Water Resources, Transportation, Construction Management, and Environmental Engineering.

Professional bodies like ISTE, ICI, IEI, and ACES help instill teamwork and ethics among students.

The department is a leading civil engineering consultant, serving clients like Indian Railways, Kerala PWD, Cochin Metro, and KSEB. Committed to academic excellence, research, and industry collaboration, it strives to develop skilled engineers with social responsibility and leadership.

DR. SUSAN ROSE,
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ASSOCIATION ACTIVITIES

The ICI Saintgits Student Chapter organized an earthquake simulation competition, "TOWER TEST," on May 14, 2024, at Visvesvaraya Block (VB 505) of Saintgits College of Engineering. Students from all semesters and departments participated in the event.



The ICI Student Chapter of Saintgits College of Engineering (Autonomous) conducted a lecture series on recent advancements in civil engineering in November 2023 for first-year students. The program aimed to provide insights into new practices, developments, and innovations in civil engineering and construction.



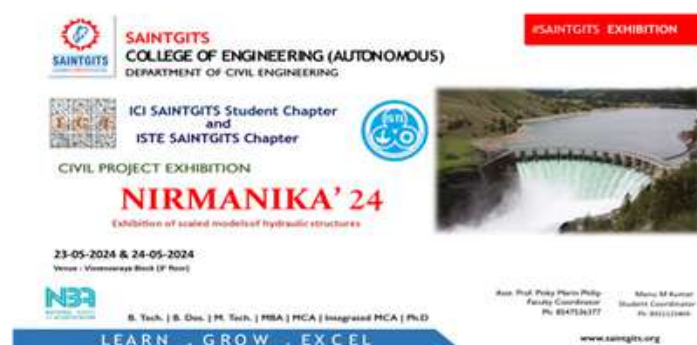
A site visit was jointly organized by the ICI Saintgits Student Chapter, IGS Student Chapter, and GT Stream Committee on May 18, 2024, at Saintgits College of Engineering. Focused on undergraduate students, the visit, led by Er. Pinky Merin Philip and Er. Hanna Paul, included observing a Standard Penetration Test near the old canteen.



An online alumni interaction on "Introduction to Civil Engineering Softwares" was held for first-year students on February 23rd. The session aimed to familiarize students with essential software used in civil engineering.



A Hands on session using BIM was held on January 30th, at Civil Design Studio for the PG students



The ICI Saintgits Student Chapter organized a civil project exhibition, "NIRMANIKA," on May 23rd and 24th, 2024, at Visvesvaraya Block of Saintgits College of Engineering. The event, featuring participation from civil students of all semesters, showcased innovative projects, with a special focus on hydraulic structures.

EXPERT TALKS



The session "Introduction to Construction Management Using BIM" was conducted on 11th September 2023 at VB Seminar Hall by Mr. Justin Antony, Tech Manager, BEXEL-India.

An expert talk on "Project Management Overview" by Er. Sinu Philip Varghese was conducted on 30th October 2023 at VB Seminar Hall.



The inauguration of "ACES 2023-2024 Activities" was held on 18th September 2023 at the Mini Auditorium, inaugurated by Prof. Dr. Reebu Zachariah Koshy, Associate Director (Institutional Development). It was followed by an expert talk on "Artificial Intelligence for Civil Engineers" by Dr. Naveen Punnoose, Associate Director (MED) and Chief Digital Officer.



The ICI Saintgits Students Chapter, in association with SCIE, IEDC, and IIC, organized an expert talk by Mr John Kuriakose, "Beyond Boundaries: The Entrepreneurial Expedition of Dentcare," on 4th December 2023 at VB Seminar Hall.

SITE VISITS

As part of their educational tour, eighth-semester A batch students visited Hyderabad from April 18 to April 24, accompanied by Er. Nirmal John Joy and Er. Arsha Giri, exploring Shobha Construction Site and Wonderla Water Treatment Plant. B batch students traveled to Manali from April 19 to April 25, accompanied by Dr. Ajith Mani Kuriakose and Er. Vincy Koshy, visiting Nehru Planetarium, Lotus Temple, and Atal Tunnel.



As part of their educational tour, sixth-semester students visited Chikmagalur, Belur, and Bangalore from April 13 to April 17, accompanied by Er. Manoj C M, Er. Shyla Joseph, Er. Megha Mariam Shaji, and Mr. Rajesh. They also explored Banasura Dam and Asian Granites.

As part of their educational tour, fourth-semester students visited Munnar on April 12 and 13, accompanied by Er. Nirmal John Joy, Dr. Reebu Z. Koshy, Er. Minu Antony, and Er. Amey Abraham. During the trip, they visited Kundala Dam.



S5 students visited Best Ply and Veneers on December 2nd, 2023, to study pollution issues and propose sustainable practices. The site visit aimed to enhance their understanding of environmental impacts in the industry.



WORKSHOP FOR SCHOOL STUDENTS



DISHA 2023 – Engineering Pathways: Nurturing Future Innovators was held on December 18, 2023, at VB Seminar Hall. The session provided Chinmaya Vidyalaya students with an overview of various engineering disciplines.

WORKSHOPS

Eternia 2024 was held on February 28th, 2024, at VB Seminar Hall, featuring a workshop on good construction practices by Er. Praveen J from Ultratech Cements, a quiz competition, and an idea presentation. The event was conducted for 1st, 2nd, 3rd, and 4th-year B.Tech Civil students.



STUDENT ACHIEVEMENTS

Final-year Civil Engineering students (2020-2024 batch) Muhammed Ashique K P, Suhana Sheeba, Sruthy Manoj, and Nithin K Reghu, guided by Er. Pinky Merin Philip, secured second prize in the state-level intercollegiate competition NIRMAN 2k24. Their innovative ideas in mass urban housing (within 450 sq. ft.) earned them a ₹30,000 cash prize at the Builders' Association of India STATECON function on March 2, 2024.



Ananda Krishnan R, Athwaith Vishnu Prathap, Jeena K Thomas, Krishnaraj Sankar, Omark Nath, Sharon Mariam Philip, Sneha Maria M S, Aleena Mariam Jacob, Alen Joseph, and Amar Nath M of the 2020-24 batch secured placements.



STUDENT ACHIEVEMENTS

Aleena Mariam Jacob and Alen Joseph of S8, along with Dyna Chacko of S6, qualified for GATE 2024.



Cristina Merin Shibu of S8 Civil Engineering was selected for the Summer Research Fellowship Programme 2024 at IIT Delhi. Athwaith Vishnu Prathap of S8 secured a spot in the L&T Long Internship Program, marking significant academic and professional achievements.

FACULTY ACHIEVEMENTS

- Dr. Susan Rose served as a reviewer for IJPE, Taylor & Francis on August 4, 2023, and September 2, 2023.
- Dr. Soosan George T was recognized as one of the TOP 100 Professors 2023 India by the IEA Indian Education Award on September 5, 2023.
- Dr. Susan Rose served as Session Chair for NSS College of Engineering on June 16,17, 2023.
- Dr. Nivin Philip received the International Professional Engineers Certification on November 13, 2023, recognizing his expertise and professional excellence on a global scale.
- Er. Jithin Kurian Andrews received a financial grant to attend the Transportation Research Board – 103rd Annual Meeting (SERB 2024) in the USA, marking a significant achievement in his research and professional development.
- Dr. Reebu Zachariah Koshy served as a reviewer for the Iranian Journal of Science and Technology Transactions of Civil Engineering on July 27, 2023. He was also a Doctoral Committee Member for a KTU research scholar at TKM College of Engineering in March 2024, demonstrating his active role in academic research and mentorship.
- Alice Johny got BIM Certification from KTU in 2024 also served as a reviewer for Materials today proceedings on March 7, 2023
- Sindhu A R won the Art of Teaching Award, jointly organized by G Tech Mu Learn and APJ Abdul Kalam Technological University, on February 23, 2024. This recognition highlights her excellence in teaching and dedication to education.
- Dr. Jithin Kurian Andrews successfully completed his Ph.D. in Civil Engineering on February 20, 2024, from APJ Abdul Kalam Technological University, with Saintgits College of Engineering as the research center. His research was guided by Dr. Reebu Zachariah Koshy and Dr. Vishnu R. from NIT Warangal.
- Ancy Mathew served as a resource person for the expert talk on Seismic Isolation for Earthquake Protection of Structures at Mangalam College of Engineering. She also received the Best Paper Award at SECON 2023, recognizing her contributions to research in civil engineering.

- Rakendu R served as a reviewer for Materials Today: Proceedings on March 7, 2023.



VISION

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PROGRAMME OUTCOMES - POS

1. Engineering knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
2. 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.
3. 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.
4. 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.
5. 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.
6. 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.

PROGRAMME SPECIFIC OUTCOMES - PSOS

1. PSO 1: Apply knowledge of mathematics, science and engineering fundamentals to identify, formulate, analyse and solve civil engineering problems.
2. PSO 2: Design solutions and processes to meet the specified needs of society.
3. PSO 3: Apply appropriate techniques and modern engineering and IT tools to predict and model complex civil engineering activities and to conduct investigations by using research methods to arrive at valid conclusions.

MISSION

Develop Civil Engineers with commendable knowledge, innovative ideas and leadership qualities, who can appropriate technology and contribute efficiently to the industry and research.

7. 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.
8. Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
9. Individual and team work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
10. 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.
11. 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.
12. 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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FACULTY EDITOR: ER ARSHA GIRI
STUDENT EDITOR: MR ANAND HARI