

Volume 1, Issue 9

CIVIL BYTES 2024

D E P A R T M E N T M A G A Z I N E

*A VERSATILE AND PRACTICAL BRANCH OF ENGINEERING
THAT HAS STOOD THE TEST OF TIME*



HOD's Message



Dr.B Yajnheswaran

Infrastructure and technology are key drivers of progress, improving economies, logistics, and living standards in both rural and urban contexts. The Civil Engineering Department at SJEC has been committed to strengthening students' skills and preparing them for the industry through training programs, aptitude sessions, faculty development programs, industrial visits, and internships.

Our faculty continue to lead with empathy and dedication, ensuring impactful learning and excellent placement outcomes. Civil Bytes serves as a platform for students and faculty to showcase creativity, talent, and aspirations. We extend our gratitude to the editorial team, faculty, students, and alumni for their support in bringing out this edition.

Editor's Message

Dear Faculty and Students,

It gives me immense joy to present Civil Bytes 2024, a reflection of the creativity, achievements, and aspirations of our Civil Engineering fraternity. A magazine is more than just a collection of articles—it is a mirror of our collective journey, our spirit of innovation, and our commitment to excellence. This edition captures not only the academic accomplishments of our department but also the vibrant energy of our students and faculty in research, industry interactions, and co-curricular activities. Each contribution highlights the curiosity, hard work, and passion that define our community.



Mr Ajeeth B



Mr SuryaKiran
Third Year
Student Editor



Ms Bhaghashree S
Third Year
Student Editor

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ABOUT THE DEPARTMENT

A vibrant Department, established in 2012, with the first batch of undergraduate students graduating in 2016, the Civil Engineering department aims to produce graduate engineers equipped for careers in the public and private sector encompassing areas such as structural engineering, geotechnical engineering, water resources, transportation, environmental and construction industries. The faculty is well trained in all major specializations of Civil Engineering. Spacious and well equipped state-of-the-art laboratories and computing facilities are the mainstay of the Department. Frequent visits by professionals from the construction industry and guest lectures by visiting faculty provide practical experience and keep students abreast with the latest advancements. Apart from the syllabus, extra activities like manual modeling and 3D AutoCAD modeling of structures are also conducted. The Department also offers consultancy services for soil testing and concrete testing to construction sites in and around Mangaluru. Department is accredited with NBA from the year the year 2021.

DEPARTMENT VISION

TO IMPART TECHNICAL EDUCATION AND NURTURE RESEARCH IN CIVIL ENGINEERING TO MEET THE NEEDS OF THE SOCIETY.

DEPARTMENT MISSION

1. Deliver curricula for students to meet the national and global demands of industry, society and research.
2. Strengthen the practical skills of students through interaction with industry.
3. Promote research and consultancy in all aspects of Civil Engineering.
4. Provide skilled training in emerging aspects of design and construction.
5. Develop in students and staff the spirit of innovation and professional ethics.

BEST PRACTICES OF DEPARTMENT

*DRIVEN BY EXCELLENCE, DEFINED BY
PRACTICE*



1. *Knowledge Enhancement through Technical Talks, Industrial Visits*
2. *International Conferences, Hands on Workshops*
3. *Collaboration with Industries (MOU's)*
4. *Career Guidance Through Motivational Talks by Alumni*
5. *Innovative Teaching Learning Practices*
6. *Department E-Newsletter*
7. *Conduction of various Technical Activities under Department Association "NIRMAN"*
8. *Initiating Research through Mini Projects*

It is a time when we come together as a Civil Engineering community to reflect, connect, and celebrate our shared achievements. Whether it's the excitement of groundbreaking innovations, the satisfaction of completing a well-designed project, or the camaraderie built through collaboration, there's something truly special about being part of a profession that shapes the world around us.

DEPARTMENT DYNAMICS

WORKSHOPS AND TECHNICAL TALKS



The Department of Civil Engineering, SJEC, organized a three-day workshop on “Bacterial Concrete - New Era for Construction Industry” from 7th to 9th February 2024 at Prerana Hall. The event was inaugurated by the HoD, Dr. B. Yajnheswaran, along with faculty members and the resource person, Dr. K. Krishna Prasad. Sessions covered microbiology basics, bio-cementation through MICP, carbon sequestration, self-healing concrete, and included hands-on training in bacterial culture techniques. Lab demonstrations and interactive discussions enriched the learning.

The NIRMAL Civil Engineering Students Association, along with the ISTE student chapter, organized a one-day workshop on “Building Information Modelling (BIM) using Revit Software” on 21st May 2024 at the CAD Lab, Academic Block IV. The session, coordinated by Ms. Pranamy K, featured Mr. Jackson Jebadurai, Director of CADD TECHLABS, Mangalore, who delivered a technical talk on BIM and its applications. Participants received hands-on training in Revit modeling and its conversion to BIM, gaining practical insights into industry applications.



Message by Alumni



I am deeply grateful for the valuable skills and knowledge I acquired during my time at SJEC. The rigorous training and guidance provided by SJEC have equipped me with a strong engineering foundation, empowering me to tackle challenges with confidence and achieve successful outcomes.

Mr Alen Baptist D'Souza
2012-2016 Batch
Alen & Johnsons
Civil Engineering Consultant

DEPARTMENT DYNAMICS

WORKSHOPS AND TECHNICAL TALKS



A technical talk on “Plastic Waste Management” was held on 24th May 2024 from 2:00 PM to 3:00 PM at Spoorthi Hall for first-year engineering students. Dr. Nishitha D’Souza welcomed the resource persons Ms. Rita D’Souza and Ms. Nikeetha Fernandes, with a floral welcome by Dr. Ramananda H. S. The session highlighted plastic waste as one of the fastest-growing waste streams worldwide, its impact on India’s waste management system, and possible mitigation strategies. Students also participated in activities, including a demonstration on plastic bottle compaction and its applications.

A technical talk on “E-Waste Management” was organized on 14th June 2024 from 2:00 PM to 3:30 PM at Prerana Hall for second-year Civil and ICBS students. The session, coordinated by Ms. Shamitha, featured Mr. Vinayaka Bhatta as the resource person, with a floral welcome by Dr. Nishitha. Mr. Bhatta highlighted India’s position as the third-largest e-waste generator (3.2 million tonnes annually), the role of the ICT sector, and the challenges of informal recycling practices. He emphasized sustainable strategies to reduce e-waste and its environmental impact. .



The Department of Civil Engineering organized a “Three-Day Training on DCET 2024” from 18th to 20th June 2024 for diploma students preparing for the exam. Coordinated by Mr. Chitharanjan M, the sessions covered Engineering Mathematics, IT Skills, Fundamentals of Electrical and Electronics Engineering, and Project Management, handled by faculty from various disciplines. The program concluded with remarks by Dr. B. Yajnheswaran and Ms. Pranamya K, along with a campus tour. MCQs shared via Google Forms further supported students in gaining confidence for DCET 2024.

DEPARTMENT DYNAMICS

ISTE SJEC

in association with
Department of Civil Engineering
organizes

ALUMNI INTERACTION *with*

Alvina Vanessa Mendonca
(Civil Batch - 2023)
Association Executive,
Stratum OAM, Dubai

Topic

**THE SCOPE OF
CIVIL ENGINEERING IN
DUBAI, UAE FOR FRESHERS**



An online alumni interaction was organized by the ISTE-SJEC Student Chapter on June 21, 2024, in association with the Department of Civil Engineering.

Ms. Alvina Vanessa Mendonca, an Association Executive at Stratum OAM in Dubai and a 2023 Civil Engineering graduate from SJEC, served as the guest speaker.

The program aimed to address the initial challenges faced by graduates entering the job market in Dubai, UAE. The target audience included students from the IV, VI, and VIII semesters. The session was well-received by the aspiring engineers and fostered a fruitful discussion that motivated students to focus on their academics and pursue job opportunities in Dubai.

The Department of Civil Engineering, with ISTE-SJEC Student Chapter, organized a two-day workshop on "AI Tools for Engineers" on 5-6 September 2024. Dr. Pijush Samui (NIT Patna) and Prof. Ritaparna conducted sessions on MATLAB, R Studio, and Python. Coordinated by Mr. Govinda Krishna and Dr. Prakash K. G., the workshop concluded with a valedictory by Prof. Ramananda and was well appreciated by participants.



Vigama 2024 - Civil Engineering Farewell was held on 24th May 2024, coordinated by Mr.

Chitharanjan M. The event was organized for the final-year Civil Engineering students, marking their memorable send-off from the department.

The program included cultural activities, speeches, and sharing of experiences by the outgoing batch. Faculty members offered words of encouragement and wished the students success in their future endeavors. The farewell concluded with mementoes presented to the graduates and a vote of thanks.



Many ancient cities were marvels of engineering, showcasing advanced planning, construction techniques, and infrastructure that continue to inspire modern civil engineering. Whether you're studying historical developments, designing sustainable cities, or reflecting on the past, it's important to approach ancient urban planning with respect and appreciation for the ingenuity of early engineers.

CIVIL ENGINEERING STUDENTS' ASSOCIATION – NIRMAN

BLOOM WHERE YOU ARE PLANTED.

The inauguration of the Civil Engineering Students Association – NIRMAN was held on 06 January 2024, coordinated by Mr. Chitharanjan M. This significant event marked the launch of a dedicated platform to empower Civil Engineering students through academic enrichment, technical skill-building, and active community involvement. NIRMAN aims to serve as a bridge between classroom learning and industry exposure by organizing technical events, workshops, field visits, and outreach activities. The inauguration set the tone for a vibrant year ahead, fostering leadership, innovation, and collaboration among budding civil engineers at SJEC.



EXTENSIVE SURVEY CAMP 2024



The Extensive Survey Camp is a cornerstone experience for civil engineering students, providing immersive, hands-on training in the essential skills of land measurement, data collection, and mapping. Through this intensive field exercise, students translate classroom concepts into real-world applications, gaining confidence in using surveying instruments and interpreting terrain.

This camp not only hones technical precision but also fosters teamwork, critical thinking, and problem-solving under authentic site conditions. It serves as a vital bridge connecting academic learning with industry-ready expertise, preparing future engineers to design and build with accuracy and insight. By engaging directly with the environment they will shape, students deepen their understanding of Civil Engineering fundamentals and develop the foundation for responsible, innovative infrastructure development.

SkillBridge Visit

PREPARING TODAY'S STUDENTS FOR
TOMORROW'S CHALLENGES



An industrial visit to Varahi and Shyamili Hydel Power Stations was organized on 1st February 2024 for the second-year Civil Engineering students. The visit was coordinated by Dr. Nishitha J. D'souza and Mr. Rohith P. Veigas. Students were given the opportunity to observe hydel power operations closely, which helped them connect classroom learning with real-world applications. The visit enhanced their understanding of power generation processes and its role in sustainable energy.

An industrial visit to Nirmithi Kendra was organized on 7th March 2024 for the third-year Civil Engineering students. The visit was coordinated by Dr. ESTR Chandra Sekhar B, Dr. Prakash K. G., and Ms. Pranamya K. During the visit, students were exposed to various innovative and sustainable construction practices adopted at the center. The experience offered them valuable practical insights, bridging the gap between academic learning and industry applications, and strengthening their preparedness for professional practice.



SkillBridge Visit

PREPARING TODAY'S STUDENTS FOR TOMORROW'S CHALLENGES



An industrial visit to Kochi and Munnar was organized from 2nd to 6th July 2024 for the third-year Civil Engineering students. The visit was coordinated by Mr. Ajeeth B and Ms. Chitra M. Over five days, students had the opportunity to explore different industrial practices and ongoing engineering projects in the region. The visit provided a broader perspective on field applications, complementing their academic learning and enriching their industry exposure. It also helped students understand real-world challenges in civil engineering and sustainable development practices.

An industrial visit to Mysore and Ooty was organized from 8th to 10th July 2024 for the second-year Civil Engineering students. The visit was coordinated by Dr. Prakash K. G. and Dr. Nishitha D'Souza. During the three-day program, students were exposed to various industrial practices and engineering projects in the region. The visit enriched their practical knowledge, offered firsthand exposure to real-world applications, and enhanced their overall industry readiness.

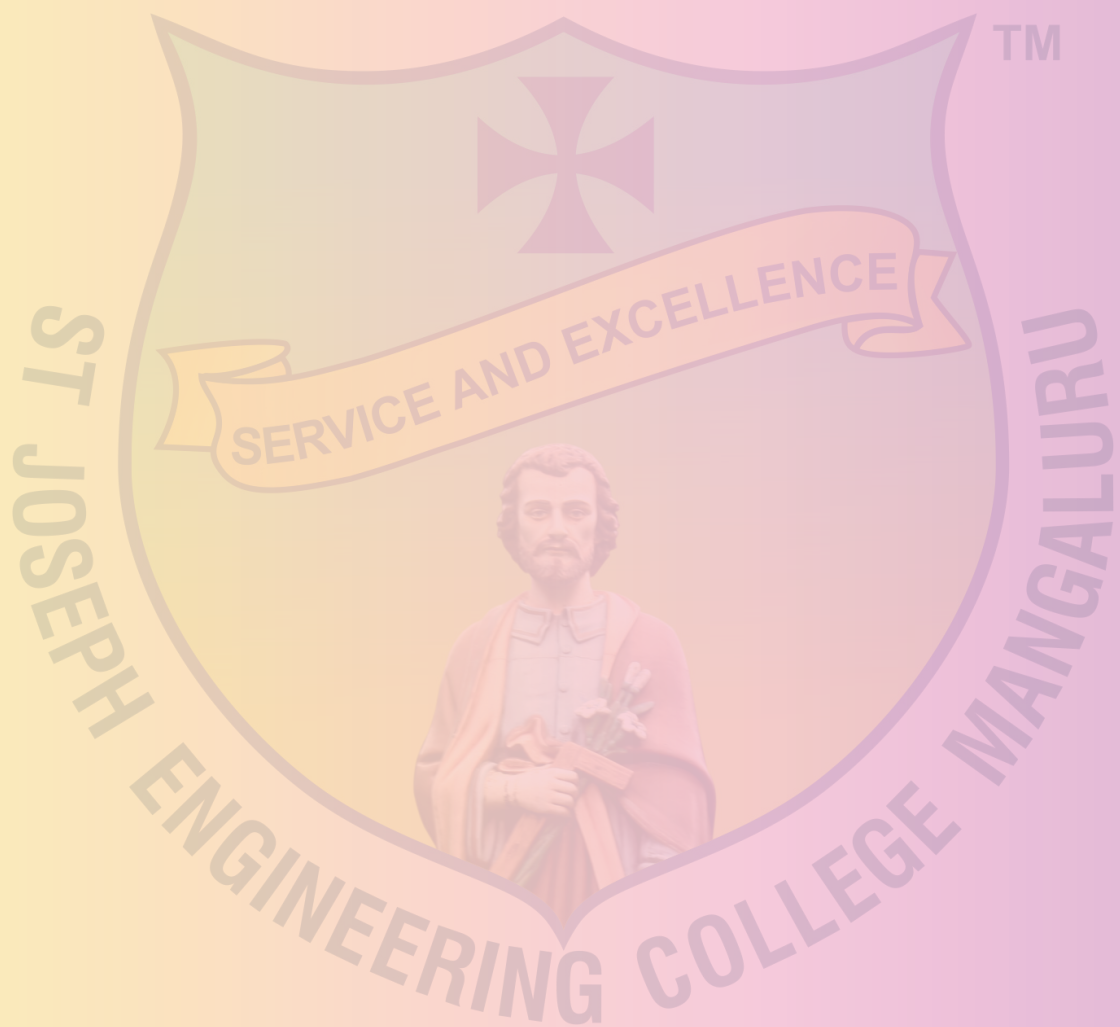


An industrial visit to the Indian Council of Agricultural Research - Cashew Centre, Puttur was organized on 19th July 2024 for the second-year Civil Engineering students. The visit was coordinated by Mr. Govinda Krishna. Students had the opportunity to understand the infrastructure facilities, research setup, and technologies adopted at the centre. The visit highlighted the link between agriculture and engineering, broadening students' perspectives on interdisciplinary applications and sustainable practices in civil engineering.



ST JOSEPH ENGINEERING COLLEGE

(AN AUTONOMOUS INSTITUTION)



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