

## HOD Message

“Civil engineering is a noble profession that should be pursued for the public good.” -Leonardo da Vinci, Artist

The Department of Civil Engineering is pleased to announce the release of the 6th edition of our E-magazine, "Civil Bytes 2022." As SJEC celebrates 22 years of delivering high-quality technical education, we take pride in presenting this publication. Our journey towards Service and Excellence has been marked by numerous milestones, and we are committed to maintaining the same level of dedication to providing quality education and fostering overall personality development. As we continue to enhance expertise and facilities within our institute and department, we are mindful of our responsibility to serve society diligently. Through our efforts, we aim to contribute significantly to nation-building. We are delighted to share that our department has engaged in meaningful interactions with industry and academia, including technical talks, industrial visits, and alumni engagement, all aimed at enriching our students' exposure to real-world challenges. This newsletter provides insights into the various activities conducted within the department. Of real-world challenges. This newsletter highlights the various activities conducted in the department.



Dr Yajnheswaran B

## Editorial Message

Dear Faculty and Students, As the editor, I thank you for your contributions to our magazine, reflecting the excellence of St. Joseph Engineering College. Our institution, renowned for its academic prowess and commitment to research, boasts a talented faculty and modern infrastructure offering diverse engineering courses. Many alumni have secured prestigious positions globally, a testament to our quality education. It's heartening to see faculty and students showing keen interest in contributing to learning excellence. Your contribution to the department, especially for research, unique projects, community work and academic excellence is crucial for the holistic growth of the department. Let's collaborate to showcase the brilliance of our community. I'm happy to be the editor of this magazine. Thank you for your anticipated contributions; let's make Civil Bytes 2022 a remarkable success.



Mr Chitharanjan M

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### Special points of interest:

- UNIVERSITY RANK
- INTERNATIONAL CONFERENCE
- TECHNICAL APPITUDE
- CENTRE FOR CONSULTANCY SERVICES
- RESEARCH PROPOSAL

## Department Vision

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

## Department Mission

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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.

## Programme Educational Objectives

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1. To impart to students in depth knowledge of Civil Engineering subjects to solve practical problems using modern techniques.
2. To develop in students the ability to plan, analyze, design and construct structures from the foundation to the superstructure level with cost effective design methods.
3. To develop in students the ability for successful careers as entrepreneurs and to pursue research.
4. To enable in students the ability to identify issues related to the environment and find suitable solutions.
5. To train students to understand the ethical responsibility of Civil Engineering profession and apply relevant code for engineering practice while delivering service to the nation.

## Programme Specific Objectives (PSOs)

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### Graduates in Civil Engineering will be able to

1. Explore domain knowledge in order to solve real-time field challenges, and to pursue research in novel areas of Civil Engineering.
2. Qualify in competitive exams and succeed in obtaining opportunities in the public and private sectors.

## About The Department

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The department was established during the year 2011-2012. It offers a Bachelor of Technology degree in Civil Engineering stream with an annual intake of 60 students. The vision of the department is to achieve national and international recognition in Teaching, Research and Development, and Consultancy in Civil Engineering and to fulfil our obligations to the community to provide graduates to serve the Civil Engineering Industry in India. The Department boasts a highly qualified team of faculty members who have been academicians and industry professionals for many years. State-of-the-art laboratories and computing facilities are the mainstays of the department. . The department hosts an Indian Green Building Council (IGBC) and under which forum, Expert Lectures, Students Seminars, Field Visits, Students symposia and Technical competitions are organized by the students under the guidance of the Faculty. The Department Library facilitates quick access of Books and Journals by Faculty & Students.

## Best Practices in the Department

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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.



## University Rank

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**Mr Ovin Royal Rodrigues**

*Secured 4th Rank in Civil Engineering at VTU level. With CGPA 9.61.*

## Testimonial from Alumni

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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**  
**Civil Engg - 2012-2016 Batch**  
**Alen & Johnsons**  
**Civil Engineering Consultant**



## Testimonial from Alumni

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SJEC is a prestigious institution that nurtures and shapes individuals into creative yet strategic engineers, preparing them to overcome challenges in the professional market. The Civil Engineering department stands out with its exceptional faculty, cutting-edge technology, and emphasis on moral values, fostering success and societal improvement.

**Mohammed Owaish**  
**Civil Engg - 2013-17 Batch**  
**Managing Director**  
**Elite Consultancy Services**



# First International Conference

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## Novel Sustainable Concepts and Technologies in Civil Engineering (NSCTCE – 22).



Department of Civil Engineering in association with ISTE, IGBC, ACCE (I), IEI hosted the first of its kind International Conference on Novel Sustainable Concepts and Technologies in Civil Engineering (NSCTCE – 22).

This conference aims to present the latest advances in engineering, particularly in the field of civil engineering, among researchers, scientists, engineers, and practitioners. This conference also included presentations of technical papers, discussions, and keynote lectures by experts in the field of civil engineering.

The Department of Civil Engineering has been actively involved in planning and organizing this event. Organizing an event of such a huge magnitude also requires financial resources which were supported by our esteemed sponsors Marian Projects Pvt ltd, Magna TMT bars, Sri Mangala Enterprises, Acebond, KTC, Muliya, IRC, Projectile, Mangaluru.

A total of 12 renowned academicians and Industrialists across the world accepted our invitation to be the keynote speaker and presented their expertise and knowledge in the field of civil engineering.

The conference received 94 abstracts from India, Canada, Iran, and other parts of the world. These abstracts were thoroughly reviewed by internal and external reviewers. About **48 abstracts** were shortlisted to submit full-length papers and for the final presentation. The full-length paper was reviewed by the empaneled experts from academia and the comments were sent to the participants to incorporate the corrections.

The conference was held for three days from 23<sup>rd</sup> September 2022 to 25<sup>th</sup> September 2022 in a Hybrid mode (Both Offline and Online).

## Alumni Interaction

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### Alumni Talk on “The Next Step after Civil Engineering”



Our proud alumnus Mr. Sheik Mohammad Zunain, who secured 4th rank in VTU Examination 2020-2021. Addressed our students to create awareness with respect to the study strategies to crack the GATE examination, various opportunities after civil engineering and to brief about Build India Scholarship-LNT, the Department of Civil Engineering in association with SJEC Alumni Cell had organized a talk on the topic "The Next Step after Civil Engineering" for the 5th and 7th semester Civil Engineering students of SJEC on 22nd March from 2:30 pm to 4:00 pm at Prerana Hall. Ms Vishikha K. , the civil engineering department's Alumina coordinator, coordinated this event.

### Survey Camp– 2022

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Third year students actively participated in Survey Camp in One Week Survey Camp from 7th to 13th April 2022 Near Karkala.

## Workshops

### Two days hands on workshop on "Advanced survey using total station"



In association with NIRMAN Civil Engineering Students Association, for the faculty of SJEC Hands on Workshop on Total Station was conducted from 05th to 06th April 2022. The resource person for the workshop was Mr S S Pasha, Managing Director, AS Technologies, Hyderabad. The workshop was coordinated by Mr Govinda Krishna M and Mr Sachin U, Assistant Professors, Department of Civil Engineering. The workshop aimed at developing skills and providing hands on experience to expertise in Total Station operation. The workshop provided a deep insight on the Total Station operation and its applications. Total 14 faculty members and two lab assistants had registered for the workshop and successfully completed the training.

### Workshop on MATLAB Civil Engineering Applications

On May 5th, 2022, the Civil Engineering Department in collaboration with MATLAB SJEC, organized a workshop on "MATLAB Civil Engineering Applications". The workshop, led by Mr. Rakshith B S, Senior Application Engineer-UPT Technology Solutions Division, CoreEL Technologies-Bengaluru, provided faculty and students with practical insights into utilizing MATLAB for structural analysis, geotechnical engineering, transportation engineering, water resources engineering, and environmental engineering. Through hands-on sessions and demonstrations, participants gained valuable skills applicable to real-world civil engineering projects, fostering innovation and excellence within the academic community.

**Research and Facilities Group**  
in association with  
**Civil Engineering Department  
and SJEC MATLAB**  
organizes  
**Workshop on**

**MATLAB  
CIVIL ENGINEERING  
APPLICATIONS**  
For Faculty of SJEC

**KEY AREAS OF FOCUS FOR THE WORKSHOP**

- Computational Mathematics
- Statistical Techniques and Optimization
- Analyzing SFD and BMD
- Structural Analysis
- Rigid Body Modeling and Analysis
- Artificial neural network

**Rakshith B S**  
Senior Application Engineer-UPT  
Technology Solutions Division  
CoreEL Technologies-Bengaluru

Joining Link  
[bit.ly/matcivil05](https://bit.ly/matcivil05)

**MAY 5  
2022**  
3:00 pm to  
5:00 pm

## Workshops

### A workshop on "Modern Industrial Tools"



A workshop on "Modern Industrial Tools" was organized by the Student Association of the Civil Engineering Department, NIRMAN, in association with BOSCH, which took place on 2nd December 2022. The workshop aimed to familiarise faculty and students from various departments with the latest tools and equipment used in the industrial sector.

The workshop was held at the Prerana Hall and Concrete Lab of our institution. The event commenced with a technical seminar delivered by trainers from BOSCH, a renowned name in the industrial tools industry. The seminar focused on introducing the participants to modern industrial tools, their applications, and technological advancements.

Following the informative seminar, practical demonstrations of the equipment were conducted to provide a hands-on experience to the attendees. The trainers from BOSCH showcased a wide range of cutting-edge tools, including power tools, measuring instruments, construction machinery, and automation systems. Participants were able to observe the equipment in action and understand their functionality, efficiency, and safety features. Mr Chitharanjan M, Assistant Professor from the Department of Civil Engineering Coordinated this Workshop.



## Technical Talk

### Talk on “Safety aspects in structural engineering” and "Global warming and climate change”



The Department of Civil Engineering in association with NIRMAN organized a technical talk on "Safety aspects in structural engineering” and "Global warming and climate change on the occasion of Techno-Week 2022 for the final year Civil Engineering students by Er Anil Hegde and Dr Palakshappa on 28 September 2022 from 10.00 AM to 12:00 PM.

The talk began with Mr Ajeeth B, Assistant Professor, Civil Engineering Department welcoming the gathering. Dr Palakshappa interacted with the students about global warming and climate change's effect on the earth and preventive measures for sustainable development and Er Anil Hegde spoke about the importance of safety in structural engineering. Overall the session was very informative and the session ended with a brief Q&A. Mr Sachin U Assistant Professor, Civil Engineering Department coordinated the program.

### Webinar on “Mode Martials in Construction' ”



The Department of Civil Engineering in association with SJEI Industry and Innovation conducted an online webinar on 'Mode Martials in Construction' for the II and III year Civil Engineering students by 'ConCroc'. Nagesh Puttaswamy, Zonal Head White Topping - Mass Housing Technology South Zone, UltraTech Cement Ltd., Bengaluru on 22 Aug 2022 from 12.00PM to 1:00PM.

Mr Nagesh Puttaswamy interacted with the students about

Mode materials that are used in the Civil Engineering field, such as 3D Graphene, 3D printing materials, construction and demolition waste, carbon fiber, new types of cement, steel, plastics etc., he suggested to know more about these materials and how by using such materials people can acutally obtain a better sustainable solution in construction field. He guided the students about the preparation required for procuring these materials by suggesting them to refer some websites. 'Smart construction is no longer just a buzz but a reality and Sustainable is a permanent prefix' he said. He also said the importance of sustainable construction where sustainability is a property of any system to remain diverse and productive indefinitely.

He also stressed about the pyramid of construction process and the hierarchy which has be followed when doing any construction. He said how the market of property and real estate have changed drastically as more and more young people come asking for property values and enquire about building a home and the average age of their clients has reduced by 15 to 20 years and are well exposed to the world. Overall the session was very informative and the session ended with a brief Q&A

### “Industrial visit to Master Plannery Puttur”



The Department of Civil Engineering in association with NIRMAN organized an industrial visit to Master Plannery Puttur for third year Civil Engineering students as part of their curriculum. Total 50 students participated in the industrial visit on 01-06-2022 accompanied by faculty members Mr Go-vinda Krishna M, Mr Sachin U and Ms Reena James Rodrigues. The students could see the casting of different precast elements manufactured by the company. Manufacturing of paver blocks and ferroce-ment structures was covered during their visit to Master Plannery Rural Development Centre Alike Majilu. The students could connect their curriculum with the industry. This visit enhanced the knowledge of the students and helped them gain practical exposure in the field of precast ele-ments. He also stressed about the pyramid of construction process and the hierarchy which has be fol-lowed when doing any construction. He said how the market of property and real estate have changed drastically as more and more young people come asking for property values and enquire about build-ing a home and the average age of their clients has reduced by 15 to 20 years and are well exposed to the world. Overall the session was very informative and the session ended with a brief Q&A

## Industrial Visits

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### “Industrial Visit to Chennai”



38 students of final year Civil Engineering visited two of the premier educational and research institutes of the country in Chennai namely Indian Institute of Technology Madras (IIT Madras) and Council of Scientific and Industrial Research-Structural Engineering Research Center (CSIR-SERC), Chennai. The industrial visit was organized from 22 April to 25 April, 2022. Three faculty members, Ms Reena James Rodrigues, Ms Pranamya K and Mr Bhojaraja M accompanied the students. They visited IIT Madras on the first day, Friday, 22 April. The students could visit different labs namely Geotechnical Engineering laboratory, Structural Engineering laboratory, Transportation Engineering laboratory and Structural Glass and Research Facility. During the second part of their visit to IIT Madras, they visited India's first 3D printed house in the campus and IITM research park. On the second day, Saturday, 23 April, they visited the historical town of Mahabalipuram. They also visited the Tiger Headed Rock Cut Temple, Shore Temple, Pancha Rathas and the Light House. On the third day, Sunday, 24 April, they had been to Auroville and visited the Matrimandir. On the last day, Monday, 25 April, they visited CSIR-SERC. After securing entry to research center they moved to the academic section where Mr Ashok Kumar gave us brief explanation about the history, goals, past achievements and ongoing activities of the institute. Then we were sent to different laboratories in the campus namely Advanced concrete testing and evaluation laboratory (ACTEL), Advanced material laboratory (AMT), Advanced Seismic Testing and Research Lab (ASTAR) and Wind Engineering Laboratory (WEL).



NIRMAN

STUDENT ASSOCIATION

DEPARTMENT OF CIVIL ENGINEERING



*Service & Excellence*

**Dynamic  
Civil Engineering**

*The Department has got a student association in the name “NIRMAN” to provide a solid platform for the students to organize a variety of technical and non-technical events which aims at grooming the students academically as well as professional. NIRMAN is very much committed to the overall development of CIVIL students by organizing various events such as Technical Quiz, Seminar, Workshop and Expert lecture and Industrial Visits. In addition through NIRMAN we celebrate “Engineers Day”. To welcome new students to our department we organize “Freshers Day” as well as to bid a farewell to final year BE students we organize “Farewell Function”.*



**ST JOSEPH ENGINEERING COLLEGE**  
**(AN AUTONOMOUS INSTITUTION)**

Affiliated to VTU, Belagavi and recognised by the AICTE, New Delhi. B.E.—CSE, ECE, EEE, ME  
Accredited by NBA, New Delhi)

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Karnataka, India

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