



**SRI MANAKULA VINAYAGAR ENGINEERING COLLEGE**

**(An Autonomous Institution)**

(Approved by AICTE, New Delhi & Affiliated to Pondicherry University)  
(Accredited by NBA-AICTE, New Delhi, Accredited by NAAC with "A" Grade)  
Madagadipet, Puducherry - 605 107



*DEPARTMENT OF CIVIL ENGINEERING*

***BUREAU OF INDIAN STANDARDS  
ANNUAL REPORT***

*(Academic Year: 2022 to 2023)*



Submitted by  
*Department of Civil Engineering*



## Preface

The Bureau of Indian Standards (BIS) is the national standards organization of India responsible for the development and implementation of quality standards across a wide range of industries. Established to ensure the standardization, marking, and certification of goods, BIS plays a vital role in maintaining product quality, safety, and reliability in the country.

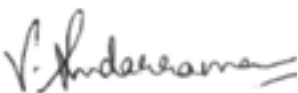
As the backbone of quality assurance in India, BIS works towards the harmonious development of standardization, certification, and testing activities. It formulates Indian Standards that guide manufacturers, engineers, and consumers in achieving consistency and excellence in products and services. These standards are crucial in sectors such as construction, manufacturing, electronics, and consumer goods.

Recognizing the importance of quality in national development, BIS also operates product certification schemes, including the well-known ISI mark, which assures consumers of product conformity to established standards. It provides a platform for stakeholders from industry, academia, and government to collaborate in the formulation and revision of standards, ensuring they remain relevant and up to date.

The organization conducts training programs, awareness campaigns, and technical activities to promote a culture of quality and standardization. Additionally, BIS publishes standards, manuals, and guidelines that serve as essential references for professionals and organizations striving to meet national and international quality benchmarks.



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## ABOUT THE INSTITUTE

Sri Manakula Vinayaga Educational Trust was founded to provide quality and affordable education to the weaker sections of society. The trust established Sri Manakula Vinayagar Engineering College (SMVEC) in 1999. SMVEC is an autonomous institution affiliated to Pondicherry University. It offers 13 undergraduate, 8 postgraduate and 11 Research programs in engineering. SMVEC has been accredited by NAAC with “A” grade and NBA. The institution is also accredited by TATA consultancy services. The college has a good placement record with students getting job offers from top companies in India and abroad. SMVEC students have won many awards and accolades for their academic achievements. To be globally recognized for excellence in quality education, innovation and research for the transformation of lives to serve the society.

### Vision

- To nurture the cornerstone of excellence in engineering education and drive innovation by seamlessly integrating the fundamentals of Science and Humanities

### Mission

**M1: Quality Education :** To provide comprehensive academic system that amalgamates the cutting edge technologies with best practices.

**M2: Research and Innovation :** To foster value-based research and innovation in collaboration with industries and institutions globally for creating intellectuals with new avenues.

**M3: Employability and Entrepreneurship :** To inculcate the employability and entrepreneurial skills through value and skill based training.

**M4: Ethical Values :** To instill deep sense of human values by blending societal righteousness with academic professionalism for the growth of society.



## ABOUT THE DEPARTMENT

The Department of Civil Engineering is a premier department that offers high-quality UG and Ph.D. programs. The UG program B.Tech – Civil Engineering is accredited by the National Accreditation Board, AICTE–New Delhi, and has a strong placement record with graduates widely recognized by leading construction, infrastructure, and consultancy firms. The department’s alumni are highly sought-after by employers in the civil engineering and infrastructure sector. Our department contributes significantly to achieving national development goals through a strong commitment to sustainable infrastructure, innovative construction practices, and responsible engineering solutions, meeting the demands of a rapidly developing and urbanizing world.

### Vision

We envision a world where the civil engineering department will be a home to an intellectual community with good quality education embedded with practical knowledge by inculcating research, strong social commitment and ethical values from its students, staffs and alumni.

### Mission

**Quality Education:** To fulfill the requirements of construction industry, Civil Engineering profession and rural community through dissemination of technical services.

**Practical Knowledge:** To impart quality and real-time education to the students with the knowledge & skills needed for Civil Engineering practice

**Work Efficiency:** To encourage research, development and consultancy through sustained interaction with industry & research organization.

**Societal issues:** To develop graduates to compete at the global level to deal with modern issues.

**Moral & Ethical:** To insist ethical values and professionalism among the students.

### Programmes offered

- B.Tech - Civil Engineering
- Ph.D - Civil Engineering



*“Shaping a stronger world through structures, sustainability, and smart infrastructure.”*

## ABOUT BIS

The Bureau of Indian Standards (BIS) is the national standards organization of India dedicated to the development and implementation of standards to ensure quality, safety, and reliability of products and services. Established with the objective of promoting standardization and quality assurance, BIS serves as a link between industry, government, and consumers.

BIS aims to enhance the quality of goods and services by formulating Indian Standards and promoting their adoption across various sectors. It encourages consistency, innovation, and best practices in manufacturing and construction, while also safeguarding consumer interests. The organization provides a platform for experts, professionals, and stakeholders to contribute to the development and revision of standards in line with technological advancements.

The Bureau undertakes various activities such as standard formulation, product certification, testing services, and quality assurance programs. It also conducts training sessions, workshops, and awareness programs at national and regional levels to promote the importance of standardization.

### Objectives of BIS

**The primary goal of BIS are as follows:**

- To formulate and implement Indian Standards that ensure consistency, quality, and reliability across various sectors.
- To operate certification schemes (like the ISI mark) that guarantee products meet prescribed safety and quality standards.
- To safeguard the interests of consumers by ensuring that goods and services are safe, reliable, and of good quality.
- To support industries by providing standards that enhance product competitiveness in both domestic and international markets.
- To establish and maintain testing laboratories for quality verification and to promote research in standardization and quality control.



## LIST OF EVENTS

S. No	Title of the Events
01	Guest Lecture on “Indian Standard Codal provisions for detailing”
02	Guest Lecture on “Self-compacting concrete”

### Guest Lecture on “Indian Standard Codal provisions for detailing”

A guest lecture on “Indian Standard Codal Provisions for Detailing” was organized to provide students with a clear understanding of the importance of standard codes in structural design and construction. Indian Standard (IS) codes serve as essential guidelines to ensure safety, reliability, and uniformity in engineering practices. Proper detailing based on these codes plays a crucial role in achieving structural strength, durability, and serviceability.

The lecture focused on key aspects of reinforcement detailing such as bar bending, spacing, anchorage, development length, and cover requirements as per relevant IS codes. The speaker emphasized the practical application of these provisions in real-world construction projects and highlighted common mistakes to be avoided.

The session enhanced students’ technical knowledge and helped them understand the significance of following codal provisions for safe and efficient structural design.

Total Number of Participants : 60

Resource Person: G. Amitha Stains Mary, Technical Assistant Engineer, PPA, Puducherry

Date : 18.01.2023

### Objective of the Activity

- To introduce the importance of Indian Standard (IS) codes in structural design and detailing.
- To understand the basic codal provisions related to reinforcement detailing.
- To explain the rules for bar bending, spacing, anchorage, and development length.
- To highlight the role of proper detailing in ensuring structural safety and durability.
- To create awareness about practical applications of IS codes in construction projects.

### Outcome of the Activity

- Students gained knowledge about IS codal provisions for structural detailing.
- They understood the importance of accurate reinforcement detailing in design.
- Awareness of standard practices and guidelines was improved.
- Students learned how to apply codal provisions in real-life construction.
- The lecture enhanced their technical understanding and design skills.

## PHOTO GALLERY



**G. Amitha Stains Mary, Technical Assistant Engineer, PPA, Puducherry  
addressing to the students**

## Guest Lecture on “Self-compacting concrete”

A guest lecture on “Self-Compacting Concrete” (SCC) was organized to provide students with knowledge about advanced concrete technology used in modern construction. Self-compacting concrete is a highly flowable type of concrete that can spread and fill formwork under its own weight without the need for mechanical vibration. It ensures uniform compaction even in heavily reinforced sections, improving the quality and durability of structures.

The lecture focused on the properties, materials, and advantages of SCC, including improved workability, reduced labor requirements, and enhanced surface finish. The speaker also discussed its applications in complex structures and high-performance construction projects.

This session helped students understand the significance of innovative materials in achieving efficient and sustainable construction practices.

- Total Number of Participants : 60
- Resource Person: Er.S. Thirougnaname, Assistant Engineer, PWD, Puducherry, Smart city office
- Date : 19.07.2022

### Objective of the Activity

- To introduce the concept of Self-Compacting Concrete (SCC) and its significance in modern construction.
- To understand the properties and characteristics of SCC such as high flowability and self-compaction.
- To explain the materials and mix design involved in SCC.
- To highlight the advantages of SCC over conventional concrete.
- To create awareness about applications of SCC in complex and heavily reinforced structures.

### Outcome of the Activity

- Students gained knowledge about the behavior and properties of SCC.
- They understood the importance of workability and compaction without vibration.
- Awareness of advanced materials and mix design techniques was improved.
- Students learned the practical applications of SCC in modern construction.
- The session enhanced their understanding of innovative concrete technologies.

**PHOTO GALLERY**

**Er.S. Thirougnaname, Assistant Engineer, PWD, Puducherry, Smart city office interacting with students**

## OVERALL SUMMARY OF AY 2022-23

During the academic year 2022–2023, guest lectures were organized on Indian Standard codal provisions and self-compacting concrete to enhance students' technical knowledge in structural design and modern construction materials.

The sessions focused on the importance of following IS codes for safe and durable structures, along with understanding advanced concrete technologies like SCC for improved workability and efficiency.

Overall, these activities strengthened students' understanding of standard engineering practices, innovative materials, and real-world construction applications, thereby improving their technical and practical skills.

