SVICE Sri Venkateswara College of Engineering

## **Department of Civil Engineering**

# CONNECTIONS

# NEWSLETTER Apr '23, Volume 6 Issue 4

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# **Editorial Board**

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**III YEAR CIVIL ENGINEERING** 

MR. B.RAGHAVENDRA

**II YEAR CIVIL ENGINEERING** 

# **Department Vision and Mission**

### Vision

To become a department of excellence in Civil Engineering education and research producing globally competent civil engineers to serve the industry and society.

### **Mission**

- Providing state-of-the art resources that contribute to an excellent learning environment.
- Imparting necessary skills, cultivating moral and ethical values.
- Establishing regular interaction and collaboration with industries.
- Motivating the students to take up competitive exams and pursue higher education.
- Promoting research and development activities in emerging areas of civil engineering and offering services to society and industry through education, research and consultancy activities.

# **Industry Interaction**

A Workshop was organised on "Mix Design and Applications of Self Compacting Concrete" by the Department of Civil Engineering in association with Indian Concrete Institute (ICI), Chennai Centre on 06.04.2023. This workshop was organised by Dr. R. Kumutha, Professor & Head, Department of Civil Engineering and coordinated by Dr.R.Sathia (ASP/CVE) and Mr. A. Vijay Vignesh, (AP/CVE).

Speaker Details: Er.N.G.Muralidharan Consultant, Radcrete pacific Pvt Ltd. Chairman, ICI Chennai Centre Chennai

Er.Subash Kandasamy Territory manager Technical Customer Solutions UltraTech Cement Limited

Glimpse of workshop









Artifex'23 was organized on 3rd April 2023. Papyrus Blitz, Crack-N-Create, Brain Fest, Technical Hunt & Poster Presentation were the five events conducted in Artifex'23.

Artifex'23 was inaugurated by Dr.N.K.Rajan,M.E.,Ph.D (IIT Madras),Senior Principal Consultant, Shree consultant & Technocrat Associates, Chennai followed by a Guest Lecture on "Opportunities in Civil Engineering" was delivered by Dr.N.K.Rajan

Souveniour book of Artifex'23 was released by the Chief Guest Dr.N.K.Rajan.

Dr.R.Ramesh M.E., Ph.D (IIT Madras), Dean (Academics) & Professor, Department of Mechanical Engineering, SVCE was the chief guest for the valedictory ceremony of ARTIFEX'23.

Glimpse of Artifex '23







Glimpse of Artifex '23







Expert lecture delivered

Dr. R. Kumutha Prof&Head acted as a keynote speaker in the International Conference SCET 2023, held at Yunnan, China. on 22April 2023.

#### Keynote Speech 7: INTRODUCTION TO DEMOUNTABLE R.C.

#### STRUCTURES [Video]

Speaker: Prof. R. Kumutha, Department of Civil Engineering, Sri Venkateswara College of Engineering, India Time: 15:30-16:15, Saturday Afternoon, April 22, 2023 Location: TBD, 3rd Floor, Kunming Jin Jiang Hotel

#### Abstract

Demountable Reinforced Concrete Structure is a prefabricated structure in which components or parts are assembled by properly designed and fully removable dry structural connections with no or almost no cast-in-place

concrete. Structural parts can be demounted with no or little destruction and are suited for reuse. Demounting instead of demolishing leads to less energy consumption, better cost control, better quality management and minimisation of dust and noise. There is a ppossibility to reuse structural components as elements for new buildings either in the original shape or they could be adjusted to new geometries. In seismic regions "upgradability" of the building system with the replacement of critical elements (i.e. beams) with new elements of higher strength is possible in demountable concrete building. Addition of extra elements (i.e. steel braces) to the lateral load resisting frames is possible.

SCET 2023





# Consultancy

• Dr. R. Kumutha Prof& Head Civil Engineering, Mrs. Ruby Freya, G. Arun, and Mr. R. Rajesh carried out third-party verification for a residential layout to be approved by DTCP. (Consultancy amount : Rs.11,800/-)

## **Research Activities**

 Mr. A. Vijay Vignesh presented a paper titled "Exploring the critical barriers to the adoption of sustainable building materials in construction projects of sustainable building materials in construction projects" at the First National Conference on Innovative Materials and Smart Technologies for Sustainable Development (IMSTSD-2023) organized by Sri Krishna College of Engineering and Technology, Kuniamuthur, Coimbatore, during April 05-06, 2023.

# Interaction with outside world

 Dr. R. Kumutha acted as an External Academic expert of the Programme Assessment Committee meeting, held on 01st April 2023 towards the improvement of the curriculum and attainment of course outcomes related to the Department of Civil Engineering at Saveetha Engineering College.

## **Students Activities**

- Siddharth JU (IV Year) has successfully completed the Course on "Python" conducted by Livewire, Chennai from 22.02.2023 to 23.03.2023.
- Mr.B.Ragavendra and Ms.R.Priyadharshini has cleared NPTEL online certification course on "Safety in Construction"



#### **About the Department**

The Department of Civil Engineering has started functioning from the year 2008 offering B.E Civil Engineering and Ph.D Civil Engineering programs.

The Department has expertise and facilities for undertaking consultancy work on testing of building materials, traffic studies, structural analysis and design etc.

#### **Highlights of the Department**

- B.E Civil Engineering programs accredited by National Board of Accreditation (NBA) under Tier I.
- Anna University Recognized Research Centre
- Signed MoUs with NHAI, Construction Management Training Institute (CMTI), Bengaluru and TechApps Consulting, Chennai.
- The Department has received funded projects and external grants from SERB, AICTE, TNSCST, etc.
- Completed consultancy and testing projects associated with various industries.
- Published book chapters and patents.

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### **CONTACT US**

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#### Specializations & Research Domains

- 🕗 Structural Engineering
- 🏈 Transportation Engineering
- 🏈 Environmental Engineering
- 🤣 Construction Management
- 🤣 Water Resources Engineering
- 🧭 Geotechnical Engineering

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## WHY STUDY CIVIL AT SVCE?



- Industry Institute Interaction in terms of Partial delivery of course, Industrial visits, Internships, Guest lectures.
- Well-defined Choice Based Credit System based curriculum with Value added Courses and Certificate courses.
- Well-equipped modern laboratories and Industry Supported Advanced Software Laboratory (supported by TechApps Consulting and Bentley Education).
- Involvement of students in association activities and magazine publications.

#### **OUR MAJOR RECRUITERS**







A BACHELOR'S DEGREE IN CIVIL ENGINEERING WITH SPECIALIZATION IN ANY OF THE FOLLOWING

### MINOR DISCIPLINES



ARTIFICIAL INTELLIGENCE & MACHINE LEARNING



DATA SCIENCE



ROBOTICS & MODERN MATERIAL HANDLING



LOGISTICS & SUPPLY CHAIN MANAGEMENT



BUSINESS DATA ANALYTICS



FINTECH & BLOCK CHAIN

AND MANY MORE.....

### HONOURS



#### STRUCTURAL ENGINEERING



CONSTRUCTION MANAGEMENT



#### GEO-INFORMATICS



GEOTECHNICAL ENGINEERING

### **PROGRAM OUTCOMES (POs)**

Students in the Civil Engineering program should, at the time of their graduation, be able to

- Apply the knowledge of mathematics, science, engineering fundamentals and concepts of Civil Engineering to the solution of complex engineering problems. (Engineering knowledge)
- Identify, formulate, review research literature, and analyse complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences and engineering sciences. (Problem analysis)
- 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. (Design/Development of Solutions)
- 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 for complex problems. (Conduct Investigations of Complex Problems)
- Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modelling to complex engineering activities with an understanding of the limitations. (Modern Tool Usage)
- 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. (The Engineer and Society)
- Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development. (Environment and Sustainability)
- Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice. **(Ethics)**
- Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings. (Individual and Team Work)
- 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. (Communication)
- 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. (Project Management and Finance)
- Recognize the need for, and have the preparation and ability to engage in independent and lifelong learning in the broadest context of technological change. (Life-long Learning)

### **PROGRAM SPECIFIC OUTCOMES (PSOs)**

Students in the Civil Engineering program should, at the time of their graduation, be able to

- Provide solutions for real life problems related to core areas of civil engineering by applying knowledge of mathematics, Basic and Engineering Sciences and by using appropriate engineering tools.
- Plan, analyse, design, execute and manage infrastructure projects considering safety, societal and environmental factors.

#### **PROGRAM EDUCATIONAL OBJECTIVES (PEOs)**

Civil Engineering graduates during the first few years of graduation will:

- Practice civil engineering in construction industry, government or public sector undertakings by applying ethical principles and following norms of civil engineering practice.
- Pursue higher education and research to hone-up latest civil engineering technologies and to adapt to the changing global scenario.
- Exhibit leadership and team working skills as an entreprenuer with demonstrable attributes to contribute to the societal needs.