

**Volume 5 Issue 1**

**Jan - June '22**

# **HORIZON**

**NEWSLETTER**

**Department of  
Civil Engineering**



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**III YEAR CIVIL ENGINEERING**

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# DEPARTMENT VISION & 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.

# CONSULTANCY

- Dr. R. Kumutha, Professor and Head, Civil Engineering, SVCE, Ms.Ruby Freya, Assistant Professor, Civil Engineering, SVCE and Mr. R.Srinivasan, Estate Engineer, SVCE submitted a Consultancy Report on Inspection of **Water Proofing work at SICCI Building** on 14th May 2022.
- Dr. R. Kumutha, Professor & Head, Ms.Ruby Freya, Assistant Professor, Mr. Gopinath A.V, IIIrd yr student and Mr. Dhanush Aurobindo J, IIIrd yr student submitted the report on **Technical Specifications for the proposed Swimming Pool Complex** as a Consultancy project report GULF ENGINEERING CONSULTANCY on 3rd June 2022.



# RESEARCH ACTIVITES

- Dr.R.Kumutha , Professor & Head, Department of Civil Engineering has **successfully guided** Ms.A.Shalini, Part time research scholar of Anna University and Assistant Professor, Department of Civil Engineering, Sona College of Technology, Salem and the Viva-voce examination was completed on 7th February 2022.
- Dr.R.Kumutha served as the **External Review Committee member** for paper selection in the International Conference on Smart Technologies and Applications-2022 (ICSTA 2022) organized by Ramco Institute of Technology, Rajapalayam on 11th & 12th March, 2022 through online.
- **TNSCST project sanctioned** for funding amount of Rs.7500 to Ms.Ruby Freya, AP/Civil and final year students Mr.Rajarajan V, Mr. Siva P, Mr. Sriram R and Mr. Srinithyan B in March 2022 for the project titled “Low cost speedy recovery of dwellings from disaster”.
- Ms. Ruby Freya, Assistant Professor won **the first prize in the paper presented** titled “Design of Foot Step Power Generation System” in the Faculty Research Day at SVCE on 15th June 2022.

# RESEARCH PUBLICATIONS

- Kumutha Rathinam, Vijai Kanagarajan “**Behaviour of Fly ash and GGBS based Monoblock Prestressed Geopolymer Concrete Composite sleepers**”, Materials Today: Proceedings, Volume 65, 2022, Pages 3321-3327, ISSN 2214-7853, <https://doi.org/10.1016/j.matpr.2022.05.406>. (SCIE & Scopus Indexed).
- Kumutha Rathinam, Sakthivel S., Vigneshwaran S.P., Vinayagamorthy M. and Naveen Kumar U. (2022). “**Properties of Nano silica modified cement less geopolymer composite mortar using fly ash and GGBS**” Materials Today: Proceedings, Volume 62, Part 2, 2022, Pages 535542.
- Shalini Annadurai, Kumutha Rathinam, and Vijai Kanagarajan. (2022). “**An Experimental Study on Strength and Durability Properties for Utilization of Rice Husk Ash (RHA) in Geopolymer Concrete**”. In: Kondraivendhan, B., Modhera, C.D., Matsagar, V. (eds) Sustainable Building Materials and Construction. Lecture Notes in Civil Engineering, vol 222. Springer, Singapore. [https://doi.org/10.1007/978-981-16-8496-8\\_11](https://doi.org/10.1007/978-981-16-8496-8_11).

## CONFERENCE PARTICIPATION

- Dr. R. Sathia, Associate Professor presented the paper on title "**Application of ZrO<sub>2</sub> on corrosion resistance of rebars**" in the 3rd International Conference on Sustainable Environment and Civil Engineering ICSESE'22 at Easwari Engineering College on 18th-19th May 2022.
- Ms. Ruby Freya, Assistant Professor presented the paper on title "**Study on Energy Generation Through Footsteps**" in the 3rd International Conference on Sustainable Environment and Civil Engineering ICSESE'22 at Easwari Engineering College on 18th-19th May 2022.
- Ms. Ruby Freya, Assistant Professor presented the paper on title "**Low Cost Speedy Recovery of Dwellings from Disaster**" in the 3rd International Conference on Sustainable Environment and Civil Engineering ICSESE'22 at Easwari Engineering College on 18th-19th May 2022.
- Mr.G. Arun, Assistant Professor presented the paper on title "**Design Of Sewage Treatment Plant**" in the 3rd International Conference on Sustainable Environment and Civil Engineering ICSESE'22 at Easwari Engineering College on 18th-19th May 2022.



## CONFERENCE PARTICIPATION

- Mr. S. Diravia Balan , Assistant Professor presented the paper on title **“Integrated Remote Sensing and GIS for Groundwater Exploration and Identification of Artificial Recharge Sites”** in the 3rd International Conference on Sustainable Environment and Civil Engineering ICSESE’22 at Easwari Engineering College on 18th–19th May 2022.
- Mr. A. Vijay Vignesh has presented a paper titled **“Value Engineering for the Sustainable growth of the Construction Projects”** in the Virtual International Conference on Sustainable Practices and Innovations in Civil Engineering (SPICE) 2022, held on 16th and 17th March 2022, organized by the Department of Civil Engineering, Sri Sivasubramaniya Nadar College of Engineering, Chennai.

## Expert Lecture delivered

- Dr.R.Kumutha acted as a **Session Chair for the International Conference on Materials Engineering and Manufacturing Systems**, organised by the Mattest Research Academy, Chennai during 28th to 30th January 2022.

# PROGRAMS ORGANISED

A Webinar on "**Career Advancement in Construction, Real Estate, Infrastructure and Project (CRIP) Sector**" in association with Indian Concrete Institute (ICI Chennai Centre) was organized for the faculty members and students on 11.01.2022. Mr. A. Vijay Vignesh, Assistant Professor, has coordinated this program.



# PROGRAMS ORGANISED

A Webinar on "**Scope and Opportunities in Civil Engineering**" in association with Construction Management Training Institute (CMTI), Bengaluru & Indian Concrete Institute (ICI), Chennai Centre was organized for the faculty members and students on 31.01.2022. Mr. A. Vijay Vignesh (AP/Civil) and Ms.K.SathyaPriya (AP/Civil) have coordinated this program.



## PROGRAMS ORGANISED

A Guest Lecture on **“Principles and Scope for Surveying”** was organized for first year civil engineering students on 18th February 2022. Mr.R.Subramanian, District Inspecting Officer, Kancheepuram District and Mr.D.Muthu Special Thasildar Sriperumbudur delivered the lecture. The program was organised by Dr.R.Kumutha, Professor & Head/ Civil Engineering and coordinated by Dr.P.Baskaran, HoD Physics Department and Mr. S. Diravia Balan, Assistant Professor of Civil Engineering Department.



# PROGRAMS ORGANISED

A Webinar on "**Opportunities for Civil, Mechanical and Electrical Engineers in Construction Management Sector**" in association with Indian Concrete Institute (ICI), Chennai Centre was organized for the students and faculty members on 28.02.2022. Mr. A. Vijay Vignesh, Assistant Professor, has coordinated this program.



## PROGRAMS ORGANISED

A Guest lecture on “**Graduate School Admissions**” in association with MAGOOSH was organized for civil engineering students of SVCE on 04th March 2022. Mr.Anand G Shankar, Academic Head delivered the presentation The program was organised by Dr.R.Kumutha, Professor & Head/ Civil Engineering and coordinated by Mr. S.. Diravia Balan, Assistant Professor of Civil Engineering Department.



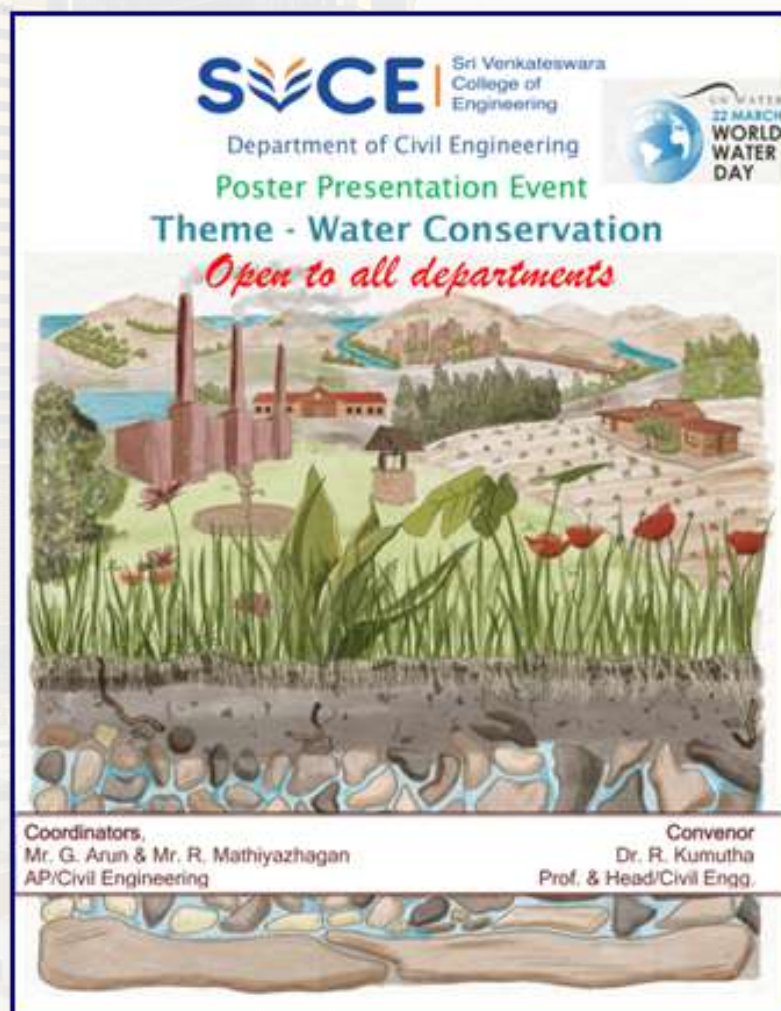
## PROGRAMS ORGANISED

On account of Women's Day 2022, a drawing competition and an essay writing competition was conducted on the theme "**Gender inequality today for a Sustainable Tomorrow**" for the girl students. The event was organised by Ms. Ruby Freya and Ms. K. SathyaPriya, Assistant Professors



# PROGRAMS ORGANISED

A poster presentation event on Water conservation was organized on March 22, 2022 to commemorate **World Water Day**. A total of 19 teams from various departments participated in the event.



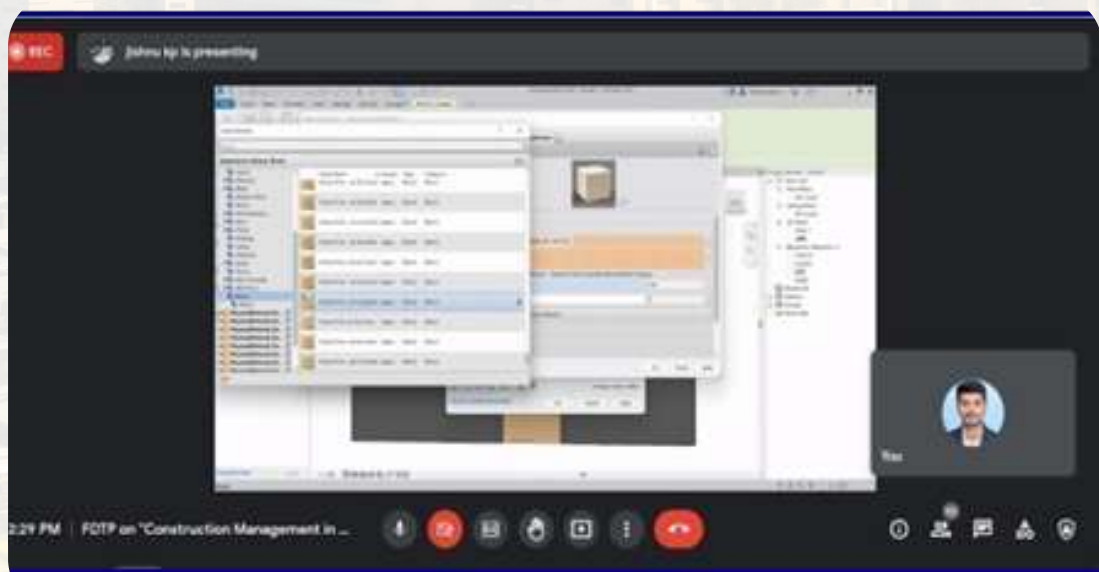


## PROGRAMS ORGANISED

An Online Faculty Development Training Program (FDTP) on “**Construction Management in BIM with Project Management**” was organized for faculty members of SVCE from 28.02.2022 to 12.03.2022. The program was organised by Dr.R.Kumutha, Professor & Head/Civil Engineering and coordinated by Mrs. Ruby Freya (AP/Civil) & Mr. A.Vijay Vignesh (AP/Civil)

Speaker Details:

- 1) Mr.Jishnu, Technical Engineer, BIMLABS
- 2) Ms.S.Seena, Technical Engineer, BIMLABS
- 3) Mr.T. Vishnu, Technical Engineer, BIMLABS
- 4) Ms.A.S.Greeshma, Technical Engineer, BIMLABS



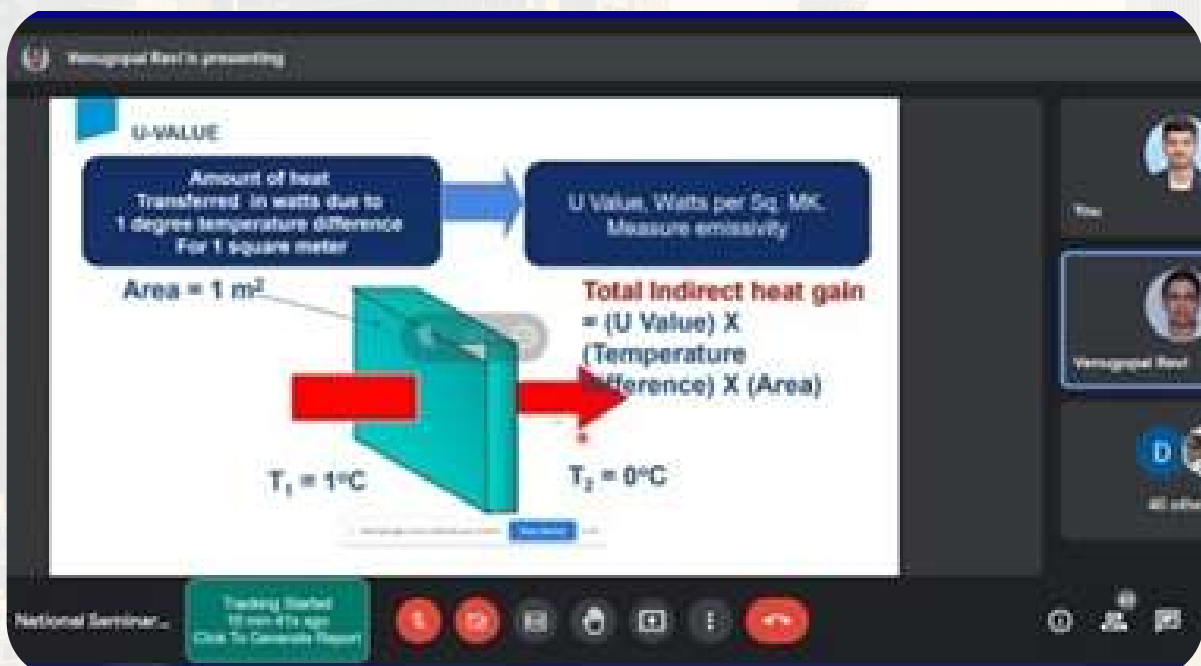
## PROGRAMS ORGANISED

A guest lecture on “**Design Thinking and Inspiration**” was delivered by Ms. R. Kaavya, Alumna (2017-2021 batch), Pursuing Diploma – Interior Designing, International Institute of Fashion Design – FIDA, Chennai on 23rd March 2022 at Video hall, SVCE. The program was organised by Ms. Ruby Freya and Ms. K. SathyaPriya, Assistant Professors.



## PROGRAMS ORGANISED

An Online National Seminar on “**Emerging Trends in Construction Industry**” was organized for students and faculty members from 07.04.2022 - 09.04.2022. The program was organized by Dr.R.Kumutha, Professor & Head/Civil Engineering and coordinated by Mrs. Ruby Freya (AP/Civil) & Mr. A.Vijay Vignesh (AP/Civil).



## PROGRAMS ORGANISED

Speaker Details:

- 1) **Mr. R. Venugopal**, Manager - Design, Saint Gobain India Private Limited, India
- 2) **Dr. Raghuram Ammavajjala**, Postdoctoral Fellow, Department of Civil Engineering, IIT Bombay
- 3) **Dr. V. Rajesh Kumar**, Chief Engineering Manager and Head, Geospatial Technologies, Water and Effluent Treatment IC, Larsen & Toubro, Chennai
- 4) **Dr.C.Rajasekaran**, Assistant Professor, Department of Civil Engineering, NITK, Surathkal
- 5) **Mr.A.Soundararajan**, Assistant General Manager & Head of Engineering, Eversendai Construction Private Limited, Chennai.
- 6) **Mr.Moghul Sirajuddin**, Assistant Technical Service Manager, Wacker Chemie India Private Limited, Mumbai.

## PROGRAMS ORGANISED

A guest lecture on “**Importance of Planning in Construction**” was delivered by Mr. S. G. Ashok Kumar, Founder & CEO, Construction Management Training Institute (CMTI), Bengaluru on 29th March 2022 at Video hall, SVCE. The program was organized by Dr.R.Kumutha, Professor & Head/Civil Engineering and coordinated by Mr. A.Vijay Vignesh (AP/Civil).



# PROGRAMS ORGANISED

An online guest lecture on **“Real Estate Development Process”** by Mr. Arun E Suresh Kumar, Alumnus (2015-2019 batch), Real Estate Construction Analyst, Consolidated Investment Group, Colorado, United States, was organised by Ms. Ruby Freya, Assistant Professor.



## PROGRAMS ORGANISED

A Guest Lecture on “**Digitalization of Construction Projects**” was delivered by Mr. D. Bharathi Pandian, Senior Functional Consultant, Infinity PMC Solutions Private Limited, Chennai on 13th May 2022 at Video Hall, SVCE. The program was organized by Dr.R.Kumutha, Professor & Head/Civil Engineering and coordinated by Mr. A.Vijay Vignesh (AP/Civil).



## PROGRAMS ORGANISED

A Certificate Course (30 Hours) on “**Project Planning and Scheduling using Primavera P6**” is organized in association with Construction Management Training Institute (CMTI), Bengaluru. Course Instructors: Er. S. G. Ashok Kumar, Founder & CEO, CMTI Bengaluru, Mr. A. Vijay Vignesh, AP/CVE. Totally 19 Students (2018-2022 batch) have registered and completed the course.





## PROGRAMS ORGANISED

A **Technical Mock Interview (Screening Test)** was conducted for Third and Final Year students of the Civil Department on 29th March 2022. It was conducted by Mr. S. G. Ashok Kumar, Founder & CEO, **Construction Management Training Institute (CMTI)**, Bengaluru. It was coordinated by Mr. A.Vijay Vignesh (AP/Civil).



# PROGRAMS ORGANISED

**Partial Delivery of Course CE18601 Design of Steel Structures** was conducted from 10th May to 21st May 2022 for the third year students by **Ms. Kalaivani M., Senior Design Engineer, Jacob Engineers LLP.**



## INDUSTRIAL VISITS

Students from First Year Civil Engineering visited **Full Climatic Station** at Karunguzhi, Chengalpet District, Tamil Nadu State on February 16, 2022.



Students from Final Year Civil Engineering visited **Auroville earth Institute** on March 16, 2022. The visit was organized by Mr. G. Arun. .



# INDUSTRIAL VISITS

II and III year Students visited to the **Sathanur Dam**, Thiruvannamalai on March 24, 2022.



# FACULTY DEVELOPMENT

- Mrs. Ruby Freya, Assistant Professor attended AICTE Training And Learning (ATAL) Academy Online Elementary FDP on "**Green Technology & Sustainability Engineering**" conducted by NIT Manipur during 10th January -14th January 2022.
- Ms. Ruby Freya has attended Online Faculty Development Training Program (FDTP) on "**Construction Management in BIM with Project Management**" organised by Sri Venkateswara College of Engineering during 28th February - 12th March 2022.
- Mr. G. Arun has attended Online Faculty Development Training Program (FDTP) on "**Construction Management in BIM with Project Management**" organised by Sri Venkateswara College of Engineering during 28th February - 12th March 2022.
- Mr. R. Mathiyazhagan has attended Online Faculty Development Training Program (FDTP) on "**Construction Management in BIM with Project Management**" organised by Sri Venkateswara College of Engineering during 28th February - 12th March 2022.
- Mr. R. Mathiyazhagan has attended Online Faculty Development Training Program (FDTP) on "**Construction Management in BIM with Project Management**" organised by Sri Venkateswara College of Engineering during 28th February - 12th March 2022.

# FACULTY DEVELOPMENT

- Mr. S. Diravia Balan has attended Online Faculty Development Training Program (FDTP) on **"Construction Management in BIM with Project Management"** organised by Sri Venkateswara College of Engineering during 28th February - 12th March 2022.
- Mr. R. Kalaivannan has attended Online Faculty Development Training Program (FDTP) on **"Construction Management in BIM with Project Management"** organised by Sri Venkateswara College of Engineering during 28th February - 12th March 2022.
- Dr. R. Sathia has participated in Online FDP program on **"Research Pedagogy"** organised by the Research & Development Cell and the Department of Civil Engineering, Jerusalem College of Engineering, Chennai during 07th March - 11th March 2022.
- Dr. M. Selvakumar has participated in FPD on **"Mathematical foundation for Data Science"** organised by NIT, Warangal during 11th March - 15th March 2022.
- Mr.A.Vijay Vignesh enrolled for **ICI Lifetime Membership**. (Membership ID: 13458).

# STUDENTS ACHIEVEMENTS

- Ms.Dharshini G (IV Year) received the “**Outstanding Civil Engineering Award**” for the academic year 2021-2022 on the College Day function held on 10th June 2022.
- Mr.Ajay Krishnamurthy , Mr.S.Naveen and Ms.R.Logeswari received the **Best Paper Award** in the International Conference on “ Sustainable Environment & Civil Engineering ICSECE’22” held on 18th & 19th May 2022 at Easwari Engineering College, Chennai.
- Amaravathy U, Puviarasu S and Jayasurya J have secured a **Third Prize** in the SVCE-INNOVATES 2022, held on 08th April 2022. (Project topic : Instrument to check the tile levels)
- Mr. Mohamed Shafeen, Mr. Padmanaban N and Mr. Hari Prakash J of third year secured **Second place** and won cash prize for Poster presentation at St. Joseph’s College of Engineering on 27th April 2022.
- Ms Jenisha A and Ms. Harshavarthani G secured **Second place** and won cash prize in Technical connection event in the symposium at SRM Easwari Engineering College on 29th April 2022.
- Ms. Viveditha Varshini A G secured **First place** and won cash prize of Rs.750 in Technical Quiz in the symposium at SRM Easwari Engineering College on 29th April 2022.

# STUDENTS ACHIEVEMENTS

- Ms. Viveditha Varshini A G and Mr. D. Laleeth Kumar secured **First place** and won cash prize of Rs.750 in Technical Connection event in the symposium at SRM Easwari Engineering College on 29th April 2022.
- Mr. Siddharth J U, Mr. Gopinath A V and Mr. Gokul K won **Second place** in Students' Research Day, SVCE Innovates on 9th April 2022.
- Ms. Lomina, Ms. Nithila and Mr. Aadeshwar (First Year Student) have secured **Second place** in the SVCE-INSPIRE 2K22, an intercollegiate innovative project contest held on 28th April 2022.
- Ms. R. Logeshwari won **first prize** in the drawing competition held on Women's Day 2022 - 8th March 2022, SVCE
- Ms. V. Monica won **first prize** in the essay writing competition held on Women's Day 202 - 8th March 2022, SVCE



# STUDENTS ACTIVITIES

- Mr. Abishek Murali, Ms. Persia D and Mr. Kaviarasu S completed the project titled Analysis and **Design of G+5 Residential Building** using STAAD Pro under the guidance of RAJPARIS CIVIL CONSTRUCTION, CHENNAI
- Mr. Rajarajan V, Mr. Srinithyan B and Mr. R Sriram completed the project titled **Scheduling and Estimation of Institutional Building using Primavera** under Sri Sai Engineers, Chennai
- Mr. Hiren S, Mr. Sarvesh K and Mr. Sugandhan D completed the project **titled Identifying Barriers to the Adoption of Sustainable Building Materials in Construction Projects** under Sreerosh Properties and Developers, Chennai
- R. Logeshwari, V. Vengadesh, Ajay Krishnamurthy, S. Priyadharshani, M. Jenani have completed the Online Training Programme on "**Rate Analysis**" from 15.02.2022 to 25.02.2022, conducted by Construction Management Training Institute, Bengaluru (CMTI).
- R. Logeshwari, V. Vengadesh, Ajay Krishnamurthy, S.Naveen, P. Kavinselva has completed the Online Training Programme on "**Construction Finishes**" from 01.03.2022 to 05.03.2022, conducted by Construction Management Training Institute, Bengaluru (CMTI).

# STUDENTS ACTIVITIES

- Gokul K, Siddharth J U, Hemalatha R and Gopinath A V have completed the Online Training Programme on **“Industrial Construction”** from 10.03.2022 to 15.03.2022, conducted by Construction Management Training Institute, Bengaluru (CMTI).
- Ms. U. Amaravathy, Ms. R. Logeshwari, Ms. R. Lomina and Ms. M. Nithila participated in the **drawing competition** held on **Women’s Day 2022** - 8th March 2022, SVCE
- Ms. N. Srilekha and Ms. V. Monica participated in the **essay writing competition** held on **Women’s Day 2022** - 8th March 2022, SVCE.
- G.Saravanapandian, Siddharth J U, G. Harshavarthani, Gokul K, Jenisha A (Third Year Students) has completed the Online Training Programme on **“Preparation of Barbending Schedules”** from 31.03.2022 to 20.04.2022, conducted by Construction Management Training Institute, Bengaluru (CMTI).
- A.G Vivedhitha Varshini, Ramanan B B, Murali Manogar Joshi S, Keerthi Vaasan R, Abishek. A (Third Year Students) has completed the Online Training Programme on **“Industrial Warehousing”** from 10.04.2022 to 17.04.2022, conducted by Construction Management Training Institute, Bengaluru (CMTI). Lomina and Aadeshwar (First Year Student) have participated in the SVCE-Student Research Day on 8th April 2022.

# STUDENTS ACTIVITIES

- Mr. D. Laleeth Kumar, Ms. Jenisha A and Ms. Harshavarthani G of third year participated in **technical quiz** at symposium in on SRM Easwari Engineering College 29th April 2022.
- Mr. Gogula Chezhiyan N, Mr. D Laleeth Kumar, Mr. K Guruprakash, Mr. R. Keerthivasan, Mr. Murali Manogar Joshi S, Mr. Siddharth J U, Mr. Gokul K, Mr. Gopinath A V, Mr. A Vignesh and Mr. S. Gowtham of third year participated in **Inspire 2k22** at SVCE on 28th April 2022.
- Mr. Vignesh A, Mr. Gowtham, Ms. Priyadharshini, Ms. Harshavarthani G, Ms. Jenisha A, Mr. Laleeth Kumar D, Ms. Viveditha Varshini A G, Mr. Gogula Chezhiyan N, Ms. Jenani M, Ms. Hemalatha R, Mr. Bharanidharan B, Mr. Mohamed Shafeen E B, Mr. Padmanaban N and Mr. Hari Prakash J of third year participated in **Students' Research Day**, SVCE Innovates on 9th April 2022.
- Mr. Gokul K, Kr. K. Guruprakash, Mr. N. Gogula Chezhiyan, Mr. Dhilip Raj, Ms. R. Ranjana Priyadharshini, Mr. Abishek A, Mr. Siddharth J U, Mr. V. Hariharan, Ms. Viveditha Varshini A G, Mr. Murali Manogar Joshi S, Mr. Rohit V, Mr. Gopinath A V, MR. Saravanapandi G, Mr. Kainselva P, MR. Gowtham S, Mr. Rohan Lewis. A, Mr. Bharanidharan B., Mr. Ramanan B B, Ms. Brithisha S, Ms. M. Jenani, Mr. Vignesh A, Ms. Hemalatha R, MR. Mohammed Shafeen E B, Mr. N Padmanaban, Ms. Priyadharshini S and Mr. J Hari Prakash of third year attended an Online National Seminar on **"Emerging Trends in Construction Industry"** organized by Department of Civil Engineering, SVCE from 07.04.2022 - 09.04.2022.

# STUDENTS ACTIVITIES

- S Naveen (Final Year Student) has completed the Industry Oriented Self Paced Course (Online) on "**Sketchup For Beginners**" conducted by Construction Management Training Institute, Bengaluru (CMTI).
- Ramanan B B, Hemalatha R, Kavinselva P, M.Jenani, Laleeth Kumar D, Vivedhitha Varshini A G (III Year Students) has completed the Online Training Programme on "**Project Planning Using MS Project Software**" from 25.04.2022 to 04.05.2022, conducted by Construction Management Training Institute, Bengaluru (CMTI)
- Dharshini G (IV Year), Gokul K (III Year), Kavinselva P (III Year), Saravanapandi G (III Year), Siddharth JU (III Year) has completed the Online Training SRI KRISHNA COLLEGE OF ENGINEERING AND TECHNOLOGY Kuniamuthur, Coimbatore – 641 008 Programme on "**Rate Analysis**" from 12.05.2022 to 20.05.2022, conducted by Construction Management Training Institute, Bengaluru (CMTI).
- The following students enrolled for **ICI Student Membership**.  
AMARAVATHY U (III Year)  
CHANDRAVASAN P (III Year)  
RAMANA R (III Year)  
MOHAMMAD SALMAAN SHARIFF K N (III Year)  
PREM KUMAR S (III Year)  
HARSHAVARTHANI G (IV Year)  
JENISHA A (IV Year)  
LALEETH KUMAR D (IV Year)  
VIVEDHITHA VARSHINI A G (IV Year)

## 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 entrepreneur with demonstrable attributes to contribute to the societal needs.





