



**INSTITUTE OF SCIENCE & TECHNOLOGY**  
(Deemed to be University u/s 3 of UGC Act, 1956)

# Civil Engineering - Newsletter

October - December 2021

*(For private circulation only)*



**SRM Nagar, Kattankulathur - 603 203, Chengalpattu District, Tamil Nadu.**

# Inception of Civil Engineering at SRM

*Being one of the oldest and well-established departments of SRM Institute of Science and Technology, the mission of the Civil Engineering department is to become a frontier in research to meet national and global challenges, demands, and expectations and create outstanding engineers who can compete at the global level. The department is accredited by NBA, ABET, NAAC, and NIRF. The department offers one basic and advanced undergraduate programs of Civil Engineering, namely B.Tech Civil Engineering and B.Tech Civil Engineering with computer applications. Within each degree program, various concentrations are chosen to meet the student's career objectives. In addition to undergraduate degrees, the department offers multiple post-graduation, and Ph.D. programs in all Civil Engineering disciplines, including international students. Among 220+ companies visiting every year to hire students, the top placement companies are TATA, Wipro, Cognizant, UltraTech, Infosys, and AFCON.*

*The department is established with the basic and advanced laboratory facilities and is embraced with seven well-equipped laboratories of advanced research established from the seven external and internal funded projects by DST and SRM Institute of Science and Technology in the last five years. The total outlay of the entire research facility is approximately 2 Crores INR.*

*The department has five student chapters that serves as a gateway to forums, panel discussions, and symposia that further a student's professional development. The department has signed four Memorandum of Understanding's (MoU's) with the reputed national and international institutes and industries to collaborate and share knowledge in academic and research activities. The department consists of a group of experienced and well-equipped faculties who have published 184 articles in the SCI and Scopus indexed journals and 9 Indian and International patent applications in the emerging field of science and technology. They also contribute to the social and academic development for both the department and the university by organizing and participating in campaigns and events of social relevance.*



# HOD's Message

*Wish you a very happy 2022!*

*Dr. APJ Abdul Kalam was fond of saying, "Creativity is seeing the same thing but thinking differently." In our department, we develop future leaders with creative thinking skills and abilities who can contribute to the nation's growth.*

*In the same spirit, with immense pleasure, we are publishing the department newsletter highlighting various activities and events held from October to December 2021. Our department has 12 basic and advanced student laboratories, four MOU signed, nine patents, seven external funded projects, and five student chapters. We have well-equipped research facilities that support the research activities of the scholars and faculty members in the department. I thank all the faculty members and students for their support in organizing and conducting departmental activities. I congratulate and thank the editorial board members for extending their support for making this newsletter successful. I am incredibly thankful to all the faculty members of our department for sharing the necessary information on the time that helps us bring this newsletter eventful.*

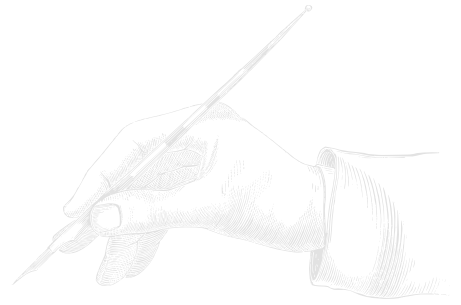
*We have many new things to talk about in the months ahead, including excellence in teaching and learning and exciting career initiative accomplishments. We need to continue telling the story of all the great things we do, especially how we engage students, businesses, and communities!*



**Dr. P. T Ravichandran**



*From  
HOD's desk*



***“A leader is not  
a searcher for  
consensus but a  
molder of  
consensus.”***

*Editors desk*



***“Xplociv is not  
just to circulate  
information but to  
penetrate the  
mind with desires  
and beliefs.”***

*Greetings from Xplociv Newsletter's Editorial Team.*

*With immense pleasure, we are flashing our department's newsletter comprising the activities between October and December 2021. We appreciate the efforts of the faculty members to share the materials for the purpose of newsletter preparation on time. We hope this issue will be one of the things that benefit and encourage your day.*



# Department at a glance

## Facilities

**Structural Engineering Laboratory**

**Structural Testing Laboratory**

**Computer Laboratory**

**Soil Mechanics Laboratory**

**Transportation Engineering Laboratory**

**Fluid Mechanics and Machinery Laboratory**

**Strength of Materials Laboratory**

**Concrete Technology Laboratory**

**Survey Laboratory**

**Environmental Engineering Laboratory**

**Remote Sensing and GIS Laboratory**

**Coconut Shell Concrete Research Laboratory**

**Earthquake Research Cell**

**Centre for Advanced Concrete Research**

**Asphalt Research Laboratory**

**Coastal Resource Exploration Lab**

**Microwave Remote Sensing Research Facility for  
Natural Resource Modeling and Management**

## Laboratory facilities



## Research facilities





# Projects

2019-2022



A Novel Approach to Model Soil Desertification Risk in Vellore District using Multispectral and Microwave Remote Sensing Techniques

**Dr. P. Shoba**  
**Rs. 21.16**  
**DST-SERB**

2019-2021



Climate Change Studies in Indian Context - A Scientiometric Analysis

**Dr. R. Sathyanathan**  
**Dr. P. Rajendran**  
**Rs. 12.254**  
**DST-NSTMIS**

2018-2021



Innovative Utilization of Lignosulphonate - A Non-Traditional Stabilizer on Control and Management of Swell-Shrink Behavior of Expansive Clays

**Dr. S. Bhuvaneshwari**  
**Rs. 19.82**  
**DST-SERB**

2018-2021



A multi-scale approach for characterization of fatigue of bituminous materials

**Dr. J. MuraliKrishnan (IITM)**  
**Dr. A. Padma Rekha**  
**Rs. 23.24**  
**DST-SERB**

2018-2021



Investigation on temperature susceptibility of unmodified and modified bituminous binder

**Dr. A. Padma Rekha**  
**Rs. 31.00**  
**DST-SERB**

2017-2021



Hyperspectral and multispectral approaches for the delineation and characterisation of coastal dune ecosystem and its habitats in certain parts of Tamil Nadu

**Dr. Aparna S. Bhaskar**  
**Dr. Sachikanta Nanda**  
**Rs. 30.426**  
**DST-SERB**

2016-2021



Water quality studies of Rivers and Reservoirs/lakes using Hyperspectral remote sensing

**Dr. R. Sivakumar**  
**Dr. S. S. Sridhar**  
**Rs. 36.124**  
**DST- ICPS/BDA**

# Patents

29.10.2021

**Making of Compression earth Blocks using Solid Waste Incinerator Fly-Ash and Coconut Shell Carbon**  
**Dr.M.Balasubramanian**  
**202141048222 A**

01.11.2021

**A Panel Assembly**  
**Mr.S.Pradeep and Mr.S.Srinivasa Senthil**  
**202041028384**

19.11.2021

**Effect of Steel on Reinforcement Corrosion**  
**Mrs.S.Mary Rebekah Sharmila**  
**202141050405**

03.12.2021

**A system to predict labour productivity and a method thereof**  
**Dr.L.Krishnaraj**  
**202141027098 A**

03.12.2021

**A waste block and a method of preparation thereof**  
**Dr.L.Krishnaraj**  
**202141027097 A**

24.12.2021

**Device and method for processing and cutting of natural fibres, for amalgamating them to concrete and obtaining desirable enhanced properties**  
**Dr.S.Anandh, Dr.S.Sindhu Nachiar, Dr.P.T.Ravichandran, and Dr.K.Gunasekaran**  
**202141059141 A**

03.12.2021

**A Testing system for testing of building structures**  
**Dr.V.Thirumurugan and Dr.K.S.Satyanarayanan**  
**202141017613 A**

03.12.2021

**A Triangular Truss system for vertical distributed loading of Planar frames**  
**Dr.N.Parthasarathi, Dr.M.Prakash, Dr.K.S.Satyanarayanan, Dr.V.Thirumurugan and Mr.S.Srinivasa senthil**  
**202141029050 A**

03.12.2021

**A Pyramidal Truss system for vertical distributed loading of Three Dimensional Symmetrical and Asymmetrical frames**  
**Dr.M.Prakash, Dr.N.Parthasarathi, Dr.K.S.Satyanarayanan, Dr.V.Thirumurugan and Mr.S.Srinivasa senthil**  
**202141029051 A**



# Achievements



*Certificate of recognition for educationist and Professional award -  
Mrs. T. M. Jeyashree*



## Activities



*Faculty members Dr. P. T. Ravichandran, Dr. S. Senthil Selvan, Dr. S. Anandh, Ms. V. Janani, Dr. S. Durga Devagi, Dr. A. Manimaran, Dr. S. Gopinath, Dr. M. Prakash and Dr. N. Parthasarathi gave training to the Assistant Executive Engineers in the programme on "Advanced Construction Maintenance and Pavement Evaluation Techniques related to Roads and Bridges," organized by the State Institute of Rural Development & Panchayat Raj, Maraimalai Nagar, Chengalpattu District, between 24-26 November, 01-03 December, 06-08 December, 13-15 December 2021.*



*Faculty members Dr. A. Manimaran, and Dr. S. Durga Devagi Conducted IT and GIS Technical Training Programme for Assistant Engineers on 9th & 16th November 2021.*



*Faculty members Mr. S. Pradeep and Dr. S. Muthukumar participated in the Design the Thinking, Faculty Development Workshop from 31st October to 2nd November 2021 at SRM College of Agricultural Sciences Campus.*



*Dr. R. Nagalakshmi organized coastal cleanup program at Kovalam Beach and awareness rally on Kovalam streets with the collaboration of National Centre for Coastal Research and SRM Institute of Science and Technology.*





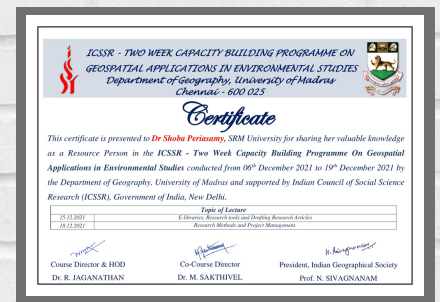


*Dr. Karuppasamy Sudalaimuthu delivered a talk on "Spatial variation analysis of Iron, Manganese, Zinc and Copper existence at Anaimalai, Coimbatore" in the 11th AGSE Summer School and Conference, Applied Geoinformatics for society and Environment, between 24 and 26 November 2021, at Kathmandu University, Nepal and Stuttgart University of Applied Sciences, Germany.*

*Invited by NIDM for the standardization of curriculum on Disaster Risk Reduction for Undergraduate level - Dr. R.Sivakumar*

*Video lesson prepared for Green Campus Initiatives coordinated by NITTTR, Chennai at SRM Campus and Video shooting at NITTTR for Online Course offered to College faculty members.*

*Dr. Shoba Periasamy delivered a talk in the ICSSR - Two Week Capacity Building Programme on Geospatial Applications in Environmental Studies conducted from 6 to 19 December 2021, by the Department of Geography, University of Madras, with the financial support of Indian Council of Social Science Research, Government of India, New Delhi.*



## Recent Events

*Short Term Training Programme on Novelties in concrete and construction techniques (NCCT), from 06 to 10 July, 2021.*

*World Habitat Day Webinar on Accelerating Urban Actions for a Carbon free World on October 4, 2021.*

*Short Term Training Program on Steel Concrete Composite Structures, from 22 to 27 November 2021.*

*Six days online Short-Term Training Program on Steel-Concrete Composite Structures (STTP-SCCS 2021), between December 13 and 18, 2021.*

*Technical Webinar on Fundamentals of Aseismic Design on December 16, 2021.*

*International Technical Webinar on Silicomanganese Slag Concrete in Marine Environment on December 28, 2021.*





## Ph.D's Awarded



*Dr. T. S. Lakshmi under the guidance of Dr. K. Gunasekaran*



*Dr. Suresh Babu under the guidance of Dr. S. Senthil Selvan*



*Dr. Rajprasad under the guidance of Dr. N. Panneer Selvam*



*Dr. Balasubramanian under the guidance of Dr. Paromita Chakraborty*

## Papers



Microstructural pore analysis using SEM and Image Job the absorption of treated coconut shell aggregate  
**Journal of Cleaner Production**

IF  
9.29



Utilization of shell-based agricultural waste adsorbents for removing dyes: A review  
**Chemosphere**

IF  
7.08



Delineation of groundwater potential zones for Arkavathi sub-watershed, Karnataka, using Remote sensing and GIS  
**Environmental Challenges (a companion journal of Journal of Environmental Management)**

IF  
6.78



A state-of-the-art on development of geopolymer concrete and its field applications  
**Case studies in construction materials**

IF  
3.32



Study on Plastic shrinkage of coconut shell concrete slab made with M-Sand  
**Innovative Infrastructure Solutions**

IF  
1.97



Structural behavior of hybrid double-skin tubular FRP-concrete-steel column: State-of-the-art review  
**Innovative Infrastructure Solutions**

IF  
1.97



A comparative study on fly ash pozzolanic cement mortar and ambient-cured alkali-activated fly ash-GGBS cement mortar after exposure to elevated temperature  
**Innovative Infrastructure Solutions**

IF  
1.97



Innovative sustainable coconut husk mortar for ferrocement infrastructure solution  
Innovative Infrastructure Solutions

IF  
1.97



Drought severity assessment using automated land surface temperature retrieval technique  
Arabian Journal of Geosciences

IF  
1.82



Behaviour of Precast coconut shell concrete column-beam junction under static load  
Asian Journal of Civil Engineering

IF  
1.60



Study on seismic performance of reinforced concrete multi-storey building considering soil-structure interaction effect  
Materials Today Proceedings

IF  
1.24



Comparative study on seismic performance of steel-concrete composite structure without and with buckling-restrained braces  
Materials Today Proceedings

IF  
1.24



Microstructure study of various grades of High Performance concrete  
Journal of Environmental Protection and Ecology

IF  
0.57



Numerical Investigation on Behavior of Steel I-Column with varying cross-sections  
AIP Conference Proceedings

IF  
0.4



A review on utilizing the marine Biorefinery waste in construction raw materials to reduce land pollution and enhance green environment  
Advances in Material Science

IF  
0.31

24

papers in Lecture Notes in Civil Engineering

IF  
0.27

## Students Chapters

American  
Concrete  
Institute

Indian  
Geotechnical  
Society

Indian  
Concrete  
Institute

American  
Society of  
Civil  
Engineers

The  
Institution of  
Engineers  
(India)





# Outstanding Alumni



*K.R.S. Narayan*  
**Fuels Marketing  
Group- O2C**



*Ashwin Ramkumar*

**K.S.Venkatraman & Co.  
Pvt. Ltd**



*Joel Ruban  
Thomas G*  
**AMAZE Concrete Products  
Private Limited**



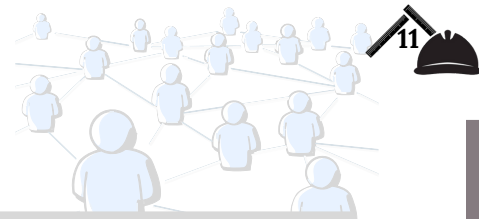
## Video tour



<https://www.youtube.com/watch?v=vHqRn5bsRIg>



# Social media



<https://www.facebook.com/SRMUniversityOfficial/>



[https://twitter.com/SRM\\_Univ](https://twitter.com/SRM_Univ)



<https://www.instagram.com/accounts/login/?next=/SRMUniversityOfficial/>



<https://www.linkedin.com/company/srm-ist-chennai/>



<https://www.youtube.com/user/SRMeducation>

## Editorial Board



**Dr. P. Shoba**

Research Assistant Professor



**Dr. S. Sindhu Nachiar**

Assistant Professor



**Ms. T. M. Jeyashree**

Assistant Professor



**Ms. V. Janani**

Assistant Professor



**Mr. S. Dhanasekar**

Assistant Professor

