

SCE e-NEWSLETTER

SCHOOL OF CIVIL ENGINEERING (SCE)

VIT - A Place to Learn; A Chance to Grow



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VISION

- To be internationally recognized in Civil Engineering through groundbreaking contributions and exceptional leadership for sustainable development of the society.

MISSION

- To pioneer the emerging technology in Civil Engineering.
- To address the complex societal scale challenges in areas of resilient infrastructure, smart and sustainable cities, water and energy security, climate change, mobility of goods and people, and environmental protection.
- To inspire and nurture innovative leaders and entrepreneurs.

DEAN'S MESSAGE

It is my immense pleasure to welcome you all to view the ninth issue of SCE e - Newsletter by School of Civil Engineering (SCE), Vellore Institute of Technology (VIT), Vellore, Tamil Nadu, India. This issue brings out the accomplishment of VITians which include the students and faculty of SCE that has transpired between October - December 2021. This issue highlights the active participation and contribution in various outreach activities by faculty members and achievements of undergraduate & postgraduate students and PhD research scholars. I hope you all enjoy reading the updates and achievements of students and faculty members of SCE and extend your co-operation and support for all our future accomplishments..

-Dr. A. S. Santhi

- Dr. S. Shantha Kumar

STUDENTS ACHEIVEMENT

Jithin Jose (16PHD0046) PhD Research Scholar received a Best Paper Award (Second Prize) in the Sixth Indian International Conference on Air Quality Management: Measurement, Modelling, Health Risk, and Public Policy (IICAQM 2021) held in IIT-Guwahati during 16 - 18 December 2021 for a technical paper (Oral) presentation on 'Health risk assessment of potentially toxic elements and their source contribution in urban street dust'. This paper is co-authored by Dr. B. Srimuruganandam, Associate Professor, SCE, VIT, Vellore,

Aaditya Agrahari (18BCL0273), Harini .S (19BCL0123), Sanjay R (19BCL0130), Saroj Kumar Sah Teli (18BCL0268) and Vedant Khanna (18BCL0232) Guided By Dr. L. Vignesh Rajkumar, Assistant Professor Senior were crowned the winners of the Engineering design challenge conducted by University of Queensland, Australia with their "Creating Flood Resilience in Chennai City" design.



FACULTY ACHEIVEMENT

A research paper entitled 'Land use/land cover and land surface temperature analysis in Wayanad District, India, using satellite imagery', by Dr. B. Srimuruganandam (Associate Professor, SCE, VIT, Vellore), Jovish John, G. Bindu, Abhinav Wadhwa and Poornima Rajan published in Annals of GIS, 26(4), 343-360 (Taylor & Francis - Open Access), 2020 won the second place in the most downloaded paper award for papers published in Annals of GIS in 2020.

CONSULTANCY PROJECTS

Dr. S. Thirumalini, Associate Professor, Dr. B. Divya Priya, Assistant Professor, and Mr. M. Hareesh, Assistant Professor, VIT, SCE, Vellore received a consultancy project entitled 'Documentation and Restoration of The Mail Building- Madras 1921' from Aptsorbh Pvt. Ltd., of worth INR 2,07,090.

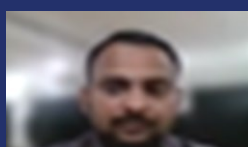
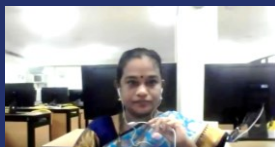
Dr. B. Divya Priya, Assistant Professor, VIT, SCE, Vellore received a consultancy project entitled 'Old Dutch Bungalow Restored and Re-Designed to Tourist Home Stay Building' from Aptsorbh Pvt. Ltd., of worth INR 1,22,720.

Dr. S. Thirumalini, Associate Professor, SCE, VIT, Vellore, Mr. Suryanarayana Murthy (Conservation Architect) and Dr. Sabina Dolenec, Slovenian National Building and Civil Engineering Institute (ZAG) received a fund worth of INR 13,00,000 from ZAG to perform the experimental studies on Material characterization and production technology of floating Brick of Ramappa Temple, Palampet.

INTERNATIONAL CONFERENCE

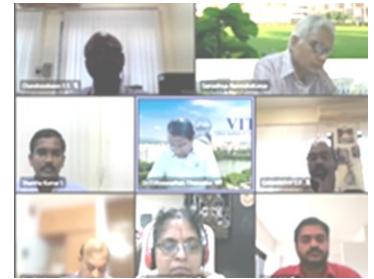
The Second International Conference on Recent Trends in Construction Materials and Structures (ICON2021) was jointly organized by School of Civil Engineering, VIT, Vellore and Swinburne University of Technology Sarawak Campus, Malaysia during 25 - 26 November 2021. The Founder and Chancellor of VIT, Dr. G. Viswanathan, presided the inaugural function in the presence of the Chief Guest Thiru. K. Jayasankar, Senior Vice President, Functional Head, Technical, UltraTech Cement Limited, Mumbai and Prof. Dr. Lau Hieng Ho, Pro Vice-Chancellor (Academic), Swinburne University of Technology, Sarawak, Malaysia.

The organizers from SCE are Dr. A. Sofi, Associate Professor and Dr. R. Prasanna Venkatesan, Assistant Professor, School of Civil Engineering, VIT, Vellore. Three keynote speakers include Dr. M. Yang, North Dakota State University (NDSU) Fargo, USA, Dr. Duc-Hien Le, Ton Duc Thang University, Vietnam, and Dr. Ehsan Nikbakht Jarghouyeh, Universiti Teknologi Petronas, Malaysia delivered keynote lectures in different niche areas. A total of sixty manuscripts were accepted to present their papers in ICON2021. Moreover, the Best Paper Presentation Award has been given to the Best Presenter of all sessions of the event. The selected papers of ICON2021 will be published in Materials Today Proceedings by Elsevier publisher.



INCEPTION OF INDIAN GEOTECHNICAL SOCIETY (IGS)

The School of Civil Engineering (SCE), VIT, Vellore in association with Indian Geotechnical Society (IGS), Vellore Chapter launched IGS Vellore Student Chapter at VIT on 21 December 2021. The Founder & Chancellor of VIT Dr. G. Viswanathan presided the inaugural function. In the presence of the chief guest Prof. Dr. Samadhiya Narendra Kumar, President, Indian Geotechnical Society (IGS), New Delhi & Department of Civil Engineering, Indian Institute of Technology Roorkee.



The guests of honour from Executive Committee of IGS, New Delhi were Mr. Ravi Sundaram, Director, Cengrs Geotechnica Pvt. Ltd., New Delhi, Prof. Dr. M. Rama Rao, Department of Civil Engineering, R. V. R & J. C. College of Engineering, Guntur, Andhra Pradesh and Prof. Dr. K. Premalatha, Department of Civil Engineering, Anna University, Chennai (Organized by Dr. M. Muthukumar, Head & Associate Professor and Dr. B. Divya Priya,

INDUSTRY ACADEMIA CONCLAVE

The School of Civil Engineering (SCE), VIT, Vellore organized a 'Industry Academia Conclave 2021' on 09 October, 2021 for the benefit of young engineering students to interact with the distinguished industry professionals from the wide spectrum of Civil Engineering, and get enlightened the relevant technical skills, essential competencies & emerging avenues to improve their employability in line with the modern industrial requirements. The Founder & Chancellor of VIT Dr. G. Viswanathan inaugurated the event in the presence of the chief guest Dr. M. K. Parthasarathy, Joint General Manager and Head-Project Controls, Larsen & Toubro Construction, Colombo, Srilanka.



The key industry speakers include Mr. Satyakam Sahu, Chief General Manager, LEA Associates South Asia Pvt. Ltd., Guwahati, Mr. Saminathan Chidambaram, Head - BIM, COWI India, Gurgaon, Mr. Chetan Zavari, Executive Director, AECOM, Mumbai, Mr. D. S. Raghavendra, Manager (R & D) / Associate, R & D Division at UHPC India Pvt. Ltd, Mumbai, Mr. Sathyaseelan, Principal Design Manager, Teemage Precast In., Tirupur, Mr. M. S. Raghunathan, Deputy General Manager R & D, FLSmidth, Chennai, Mr. Kishan Khatri, Manager, Design 2 Occupancy Services LLP. Jaipur delivered talks in various niche areas. More than thirty students attended the event. This event was organized by Dr. R. Prasanna Venkatesan, Assistant Professor and Mr. M. Hareesh, Assistant Professor, SCE, VIT, Vellore.

WEBINAR

Dr. M. Muthukumar, Head & Associate Professor and Dr. B. Divya Priya, Assistant Professor, SCE, VIT, Vellore organized one-day Webinar on Geophysics for site characterization and remediation monitoring on 02 October 2021 (Organized by Indian Geotechnical Society, Vellore Chapter - In association with School of Civil Engineering (SCE), VIT, Vellore). The speakers were Mr. Jamaludin Othman, Founder/Owner/Principal Geophysicist, SubMap Geophysical Services Sendirian Berhad, Malaysia, Ms. Silky Agrawal, Founder, GeoCarte Radar Technology Pvt. Ltd., IIEC, IIT Gandhinagar, Gujarat, and Prof. Dr. S. S. Chandrasekaran, Director, Centre for Disaster Mitigation & Management (CDMM), VIT, Vellore. More than 25 members from different states across India were participated.



FACULTY OUTREACH

Dr. A. Sofi, Associate Professor, SCE, VIT Vellore was invited to Chair a session for an International Conference on Advances in Construction Materials and Structures (ICCMS2021) organized during 18 -19 December 2021.

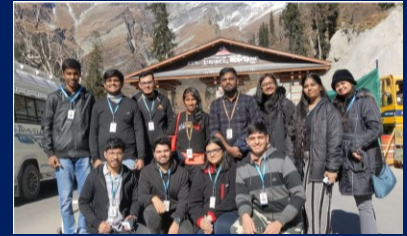
Dr. Sasanka Bhushan Pulipati, Associate Professor, SCE, VIT delivered a lecture on “Transport and Logistics Management” during the Faculty Development Program on Sustainability for Built Environment: Contemporary and Future Challenges organized by V-SPARC, 12 December 2021.

Dr. B. Srimuruganandam, Associate Professor, SCE, VIT, Vellore delivered an invited expert lecture titled ‘Source Apportionment Studies in Air Quality Management’, in a Three Days Winter School on ‘Air Quality Monitoring, Modelling & Health Risk in Indoor & Outdoor Environments’ jointly organized by Indian Institute of Technology Madras (IITM), Indian Institute of Technology Guwahati (IITG), University of Riverside California (USA), University of Bath (UK), and UFZ Helmholtz Centre for Environmental Research (Germany) held at IIT Guwahati, Assam, India on 15 December 2021.

Dr. T. Meena, Associate Professor, SCE, VIT, Vellore delivered a lecture entitled “Disaster Mitigation and Management in a AICTE Sponsored Six Days online STTP on Disaster Risk Management - Phase II” jointly organized by Department of Civil Engineering, University College of Engineering - BIT Campus, Anna University, Tiruchirappalli on 06 December 2021.

FIELD VISIT

A field visit to 'ATAL Tunnel - Himachal Pradesh' funded by AICTE under the scheme of Youth Undertaking Visit for Acquiring Knowledge (YUVAK) was organized for B.Tech (Civil Engineering) undergraduate students of SCE by Dr. J. Visuvasam, Assistant Professor and Dr. S. Parimala Renganayaki, Associate Professor, SCE, VIT, Vellore from 09th to 13th November 2021.



PATENT FILED

The patent entitled 'Production of nano lime using plant extracts for heritage restoration works' by Dr. S. Thirumalini, Associate Professor, SCE, VIT, Vellore has filed under Intellectual Property India (Ref. No. 202141056095)

NATIONAL AND INTERNATIONAL LECTURES

Er. A. Karthikeyan, Structural and Geotechnical Consultant, Karthikeyan Associates, Arumbakkam, Chennai delivered a lecture on 'Importance of Geotechnical Investigation' on 13 October 2021 organized by J. Malathy, Assistant Professor, SCE, VIT, Vellore.

Dr. P. Pravin Kumar Venkata Rao, Assistant Professor, Earthquake Engineering Research Centre (EERC), International Institute of Information Technology, Hyderabad delivered a lecture on 'Seismic Safety and Strengthening of Existing Masonry Buildings using Cementitious and Polymer Composites' on 13 October 2021 organized by Dr. J. Visuvasam, Assistant Professor & Dr. Ajeesh, Assistant Professor, SCE, VIT, Vellore.

Dr. E. R. Raj Kumar, Chief Information Officer (AI-Enabling), Centre for Excellence in Human Factors & Safety Science, Department of Engineering Design, Indian Institute of Technology, Madras delivered a lecture on 'Challenges and way forward for Intelligent Transportation database management system in India' on 17 October 2021 organized by Dr. P. Sasanka Bhushan, Associate Professor, SCE, VIT, Vellore.

Mr. Karthik Natarajan, Senior Section Engineer, Indian Railways, Bengaluru, Karnataka delivered a lecture on 'Design of Steel Pipeline Crossing across Railway Track' on 18th October 2021 organized by Dr. A. Abdul Rahim, Associate Professor & Dr. J. Visuvasam, Assistant Professor, SCE, VIT, Vellore.

NATIONAL AND INTERNATIONAL LECTURES

Mr. Rudrabir Ghanti, CEO -Dura Build Care Pvt. Ltd, Janakpuri, New Delhi delivered a lecture on 'Construction Chemicals with a Focus on Waterproofing Materials' on 13 November 2021 organized by Dr. S. Bala Murugan, Assistant Professor & Dr. K. Srinivasan, Assistant Professor, SCE, VIT, Vellore - under Alumni Lecture Series.

Mr. G. Karthikeyan, Team Leader, PERI Qatar L.L.C, Doha, Qatar delivered a lecture on 'Formwork and Scaffolding' on 12 November 2021 organized by Dr. S. Bala Murugan, Assistant Professor & Dr. K. Srinivasan, Assistant Professor, SCE, VIT, Vellore - under Alumni Lecture Series.

Mr. Sarang Agarwal, Project Engineer, Stantec Consulting Services, Honolulu, Hawaii, USA delivered a lecture on 'Creativity in Consulting Engineering : Role of Civil Engineers' on 17 November 2021 organized by Dr. M. P. Saravana Kumar, Head & Associate Professor, SCE, VIT, Vellore - under Alumni Lecture Series.

Ms. Subraja Ravichandran, Project Manager, Atlantis Underground Services, Ontario, Canada delivered a lecture on 'Agile and Lean in Construction' on 24 November 2021 organized by Dr. R. Prasanna Venkatesan, Assistant Professor & Dr. T. Shanmuga Priya, Associate Professor, SCE, VIT, Vellore.

Mrs. Gayatri Ratnam Rajesh, Chief Architect, Joint General Manager, HUDCO, Regional Office, Chennai delivered a lecture on 'Policies and Schemes of Govt. of India Affordable Housing and Housing Finance Options' on 24 November 2021 organized by Dr. A. Abdul Rahim, Associate Professor & Dr. J. Visuvasam, Assistant Professor, SCE, VIT, Vellore.

Dr.Sunitha Palissery, Assistant Professor, Earthquake Engineering Research Centre, IIT, Hyderabad delivered a lecture on 'Learning from Disasters' by on 01 December 2021 organized by Dr. L. Vignesh Raj Kumar, Assistant Professor, SCE, VIT, Vellore.

Dr.Bibhuti Bhusan Das, Associate Professor, Department of Civil Engineering, National Institute of Technology, Karnataka, Surathkal delivered a lecture on 'Concrete Mix design - ACI 211' on 04 December 2021 organized by Dr. A. Sofi, Associate Professor, SCE, VIT, Vellore.

Mrs. Aswathy Dilip, South Asia Director, Institute for Transportation and Development Policy (ITDP), Chennai delivered a lecture on 'Creating streets for people' on 08 December 2021 organized by Dr. S. Vasantha Kumar, Associate Professor, SCE, VIT, Vellore.

Mr. Vijay K. R, Senior Design Engineering (Geospatial Technologies) L & T, Chennai delivered a lecture on 'Geospatial Technologies in a Water Industry' on 08 December 2021 organized by Dr. B. Divya Priya, Assistant Professor, SCE, VIT, Vellore.

Mr. Ravi Sundaram, Member-Executive Committee IGS, New Delhi & Director, Cengrs Geotechnica Pvt. Ltd., New Delhi delivered a lecture on 'Case Studies in Geotechnical Engineering' on 21 December 2021 organized by Dr. B. Divya Priya, Assistant Professor, SCE, VIT, Vellore.

PUBLICATIONS

Yumnam M., Gupta H., Ghosh D., Jaganathan J. (2021). Inspection of concrete structures externally reinforced with FRP composites using active infrared thermography: A review, Construction and Building Materials. (Impact factor- 6.141)

Jose J., Srimuruganandam B. (2021). Source apportionment of urban road dust using four multivariate receptor models, Environmental Earth Sciences. (Impact factor- 2.784)

Budamala V., Mahindrakar A.B. (2021). Adaptive hybrid architecture for enhancement of the complex hydroclimatic system and assessment of freshwater security, Journal of Hydroinformatics. (Impact factor- 2.376)

Gopu G.N., Sofi A. (2021). Electrical waste fibers impact on mechanical and durability properties of concrete, Civil Engineering and Architecture.

Balamurugan G., Viswanathan T.S.(2021). Prediction of crack width and intermediate-crack-debonding strain of FRP bonded two-way RC slabs - A comparative and novel approach, International Journal of Structural Engineering.

Devarangadi M., Uma Shankar M. (2021). Effect on engineering properties of ground granulated blast furnace slag admixed with laterite soil, cement and bentonite mixtures as a liner in landfill, Journal of Cleaner Production. (Impact Factor - 9.297)

Sai Chaithanya M., Bhaskar D., Vidya R. (2021). Metal transfer and related human health risk assessment through milk from cattle grazing at an industrial discharge area, Food Additives and Contaminants - Part A Chemistry, Analysis, Control, Exposure and Risk Assessment. (Impact Factor - 3.057)

Loganathan P., Mahindrakar A.B. (2021). Intercomparing the robustness of machine learning models in simulation and forecasting of streamflow, Journal of Water and Climate Change. (Impact Factor - 1.90)

Loganathan P., Mahindrakar A.B. (2021). Statistical downscaling using principal component regression for climate change impact assessment at the Cauvery river basin, Journal of Water and Climate Change. (Impact Factor - 1.90)

Jennifer P.D., Porchelvan P (2021). An approach to assessment of post mining-induced seismic hazard in kolar gold fields mines - a review, Journal of Mines, Metals and Fuels.

PUBLICATIONS

Thakur S., Das B. (2021). Investigation on Microbial Fuel Cells Fabricated from Recyclable Materials for Energy Generation and Wastewater Treatment, Nature Environment and Pollution Technology.

Priyanka M., Saravanakumar M.P.(2021). A sustainable approach for removal of microplastics from water matrix using Colloidal Gas Aphrons: New insights on flotation potential and interfacial mechanism, Journal of Cleaner Production. (Impact Factor - 9.297)

Manojkumar N., Srimuruganandam B.(2021). Age-specific and seasonal deposition of outdoor and indoor particulate matter in human respiratory tract, Atmospheric Pollution Research. (Impact Factor - 4.352)

Insights: Jayaprakash Jaganathan, M. P. Salaimanimagudam (2021). Topology Optimized Digital Fabrication in Construction Industry, AM Chronicle (Construction Sector)(<https://www.amchronicle.com/insights/topology-optimized-digital-fabrication-in-construction-industry/>).

Kok Keong Choong, Jayaprakash Jaganathan, Sharifah Salwa Mohd Zuki, Shahiron Shahidan, Nurul Izzati Raihan Ramzi Hannan (2021). Concrete-Filled Double Skin Steel Tubular Column with Hybrid Fibre Reinforced Polymer: Post Fire Repair, Electronic Book ISBN: 978-981-16-2715-6, SpringerBriefs in Applied Sciences and Technology, Springer, Singapore.

EDITORIAL TEAM

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