VIT®
Vellore Institute of Technology
(Deemed to be University under section 3 of UGC Act, 1956)

NEWSLETTER

ISSUE NO. 26 — JAN - MAR — 2026

School of Civil Engineering



"Science can amuse and fascinate us all, but it is engineering that changes the world."

CONTENTS

01	Vision, Mission & PEO	01
02	Dean's Message	02
03	QS Ranking	03
04	Guest Lectures & Expert Sessions	04
05	Facuty Outreach	07
06	Consultancy Projects	07
07	SCE Events & Activities	08
08	Student Achievements	10
09	SCE Chapter Events	11
10	Patents & Journals	12
11	Editorial Board	17



School of Civil Engineering Office Inaugration

VISION

To excel in Civil Engineering education and research with a global perspective and commitment to sustainability.

MISSION

- M1. Academic Excellence : Impart high-quality Civil Engineering education through innovative teaching methodologies and modern laboratory facilities
- M2. Research : Promote research, consultancy, and innovation addressing real-world civil engineering challenges with emphasis on sustainable infrastructure and societal needs.
- M3. Global Perspective & Industry Engagement : Prepare globally competent civil engineers through industry interaction and collaboration with national and international institutions
- M4. Ethics, Sustainability & Lifelong Learning : Produce socially responsible Civil Engineers with strong ethical values and leadership skills, dedicated to sustainable development and lifelong learning.

PROGRAM EDUCATIONAL OBJECTIVES

- PEO 1: Graduates will be successful Civil Engineering professionals / entrepreneur.
- PEO 2: Graduates will pursue higher studies and research for professional development.
- PEO 3: Graduates will demonstrate civic responsibility in addressing societal and environmental challenges

A Message from the DEAN



It gives me immense pleasure to present edition of the Newsletter of the School of Civil Engineering (SCE), VIT, which captures the achievements, initiatives, and milestones of our students and faculty members.

At SCE, we are committed to nurturing future-ready civil engineers who can address these challenges through strong fundamentals, innovation, technology, and a deep sense of social responsibility.

Students of the School of Civil Engineering actively engage in academic, research, co-curricular, and extracurricular activities, demonstrating their creativity, leadership, and commitment to holistic development. Our faculty members continue to make meaningful contributions through impactful research, high-quality publications, funded projects, industry collaborations, consultancy, and professional engagements, strengthening the school's academic excellence and its connection with the wider professional community.

I sincerely appreciate the contributions of our faculty members and students whose commitment and perseverance continue to strengthen the school. Their achievements bring recognition and pride to SCE and reinforce our shared commitment to excellence.

Together, let us continue to build on the strong legacy of the School of Civil Engineering and create a future driven by knowledge, innovation, sustainability, and societal impact. I look forward to witnessing many more accomplishments from the SCE community in the coming months.

With my best wishes for continued success and excellence.

With warm regards,

Dr. Saravanakumar M P

Dean

School of Civil Engineering

VIT, Vellore

GLOBAL BENCHMARK



VIT Vellore Recognised Globally for Civil Engineering

VIT Vellore has achieved a proud milestone by securing a place in the 201-275 band globally for Civil & Structural Engineering in the QS World University Rankings by Subject 2026. This recognition highlights VIT's growing presence on the global stage and reflects the continuous efforts of its faculty and students in teaching, research, innovation, and industry engagement. The QS rankings consider factors such as academic and employer reputation, research citations, and H-index.For the School of Civil Engineering, this achievement is a testament to the dedication and commitment towards building a strong academic and research environment. It is a moment of pride for the entire VIT community and an encouragement to keep striving for greater excellence in the field of civil engineering.

GUEST LECTURES & EXPERT SESSIONS

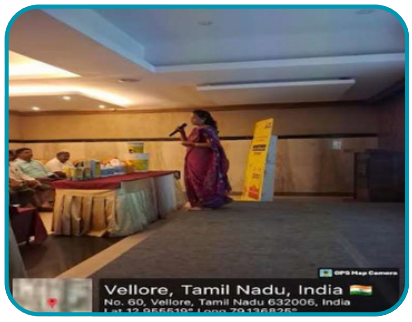
LECTURES DELIVERED BY FACULTY

FIBRE REINFORCED CONCRETE ITS ENHANCED PROPERTIES AND APPLICATIONS

Dr. Sofi A 30th Jan, 2026

Ultra Tech cements ltd,
Vellore, India

The session explored enhanced structural performance, toughness properties, and practical construction applications of fibre-reinforced concrete.

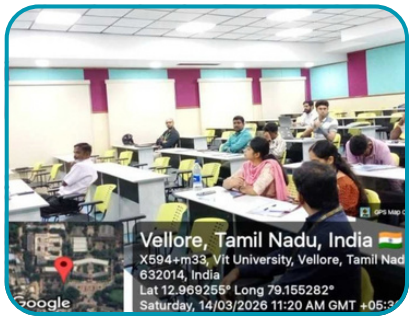


BASIC OF WATER RESOURCES ENGINEERING

Dr. Jagadeesh P 14th March, 2026

Vellore Institute of Technology,
Vellore, India

The session introduced fundamental principles of hydrology, water management systems, and hydraulic structure analysis.

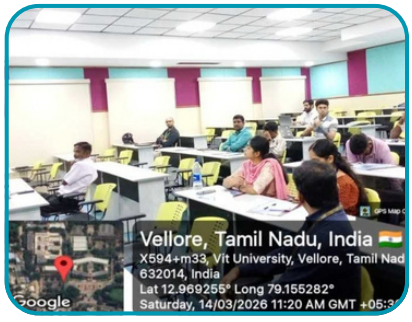


INTRODUCTION TO REMOTE SENSING AND GIS

Dr. Vasantha Kumar S 23rd March, 2026

SRM TRP Engineering College Trichy,
Trichy, India

The session covered satellite image processing, spatial data visualization, and real-world mapping applications using Geographic Information Systems.



GUEST LECTURES & EXPERT SESSIONS

LECTURES ORGANISED

STEEL STRUCTURES: CONSTRUCTION METHODOLOGY AND ITS DESIGN CONSIDERATIONS

Mr. D Kaviarasan 21st Jan, 2026
Infra Structure Design
Engineer Founder

The session focused on structural design principles, load safety considerations, and practical construction techniques for steel structures.

Faculty Coordinators: Dr. Hareesh M, Dr. K S Karthik Reddy.

INTRODUCTION TO VARIOUS BRIDGES AND THEIR LOAD CAPACITIES

Er. Kottala Chandri Naidu
MIDAS R and D Private Ltd India
Chennai
20th Feb, 2026

The session provided an overview of bridge classifications, structural mechanics, and methods for evaluating load capacity.

Faculty Coordinators: Dr. Senthil Kumar N, Dr. Mohan Ganesh G.

RESEARCH INTEGRITY AND PUBLISHING IN HIGH IMPACT FACTOR JOURNALS

Dr. Ashok Kumar Pandey 3rd March, 2026
IIIT Hyderabad

The session covered research ethics, manuscript preparation, and strategic practices for publishing in high-impact journals.

Faculty Coordinators: Dr. Sasikumar P, Dr. Rajasekaran C, Dr. Uma Shankar M



GUEST LECTURES & EXPERT SESSIONS

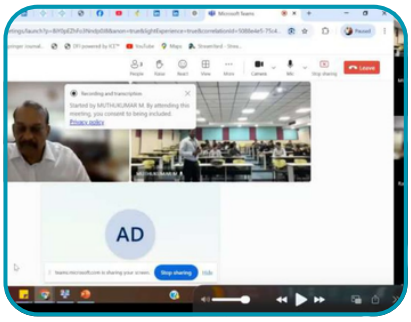
GEOTECHNICAL INVESTIGATION AND FOUNDATION ANALYSIS - CASE STUDIES

Dr. Ravi Sundarm 11th March, 2026

Cengrs Geotechnica Pvt Ltd

The session highlighted satellite-based monitoring of river and coastal sediments and its relevance to water conservation.

Faculty Coordinators: Dr. Muthukumar M.



FLEXURAL STRENGTH AND BEHAVIOUR ASSESSMENT OF COLD-FORMED STEEL BUILT-UP I-BEAMS COMPRISING FOUR CHANNELS

Dr. Anbarasu M 24th March, 2026

Government College of Engineering Dharmapuri

The lecture explored accelerated carbonation curing of pervious concrete and its dynamic performance in reinforced.

Faculty Coordinators: Dr. Punitha Kumar A, Dr. Mohan Ganesh G



OUTCOME BASED EDUCATION COURSE AND PROGRAMME ARTICULATE MATRICES

Dr. Reshmi Devi 25th March, 2026

BMS College of Engineering Bangalore

An industry-oriented session providing insights into tendering processes and contract management practices in infrastructure projects.

Faculty Coordinators: Dr. Shanmuga Priya T.



FACULTY OUTREACH

INTERNATIONAL

GEHCO UNIVERSITY OF TOURS

Tours, France 01th Jan – 03rd July 2026

Faculty: Dr. Vignesh Rajkumar L

An engagement highlighting SCE faculty expertise through professional interaction and collaboration with industry and infrastructure-sector organisations.



CONSULTANCY PROJECTS

CONDITION ASSESSMENT OF CIVIL STRUCTURES AT 100 MLD DESALINATION PLANT

Mohan Associates

Duration: 01st December 2025 – 21st January 2026

Consultancy Value: ₹3,00,000

Condition assessment of civil structures at the 100 MLD desalination plant, involving evaluation of structural condition and assessment of the existing civil infrastructure.

Faculty: Dr. Prasanth S., Dr. Sekar S. K.

GEOTECHNICAL INVESTIGATION FOR GUIDANCE HOME NEAR RANIPET, CMC CAMPUS

Mar Thoma Fellowship and Guidance Home, Vellore

Duration: 19th January – 18th March 2026

Consultancy Value: ₹1,51,200

Geotechnical investigation for the proposed development near Ranipet, CMC Campus, involving assessment of subsurface soil conditions and providing geotechnical recommendations to support safe and appropriate construction.

Faculty: Dr. Chandrasekaran S., Dr. Visuvasam J.



SCE EVENTS AND ACTIVITIES

OUTCOME BASED CURRICULUM DESIGN : COURSE OUTCOME FORMULATION AND MAPPING TO PROGRAMME OUTCOME

Faculty Development Program 30th Jan, 2026

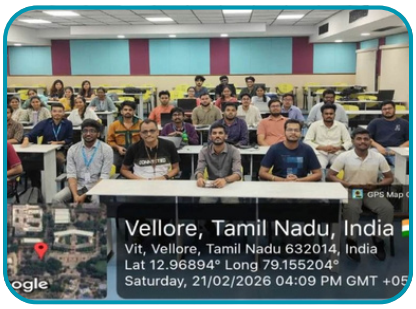


A faculty development programme focused on outcome-based curriculum design, with emphasis on course outcome formulation and mapping of course outcomes to programme outcomes.

Faculty Coordinator: Dr. Shanmuga Priya T.

ADVANCED ANALYSIS OF BRIDGES USING MIDAS CIVIL NX

Workshop 19th – 21st Feb, 2026



A three-day workshop focused on the advanced analysis of bridges using MIDAS Civil NX, providing participants with practical exposure to modern bridge analysis techniques.

Faculty Coordinator: Dr. Mohan Ganesh G. ,
Dr. Senthil Kumar N.

TWO DAYS WORKSHOP ON JMP STATISTICAL DISCOVERY SOFTWARE

Workshop 25th – 26th Feb, 2026



A two-day workshop focused on JMP Statistical Discovery Software, providing participants with practical exposure to statistical analysis and data-driven methods.

Faculty Coordinator: Dr. Uma Shankar M.,
Dr. Rajasekaran C. & Sasikumar P.

SCE EVENTS AND ACTIVITIES

ARTIFICIAL INTELLIGENCE APPLICATIONS IN WATER RESOURCES

Workshop 14th March, 2026

A workshop focused on the application of artificial intelligence in water resources, introducing participants to AI-based approaches for addressing challenges in water resource management.

Faculty Coordinator: Dr. Parimala Renganayaki S. ,
Dr. Mahenthiran S.



HACKATHON ON SMART URBAN LANDSCAPE USING AI AND DIGITAL TWIN

Hackathon 26th March, 2026

An innovation-focused hackathon bringing together participants to develop solutions for smart urban landscapes using artificial intelligence and digital twin technologies.

Faculty Coordinator: Dr. Punitha Kumar A. ,
Dr. Mahenthiran S





Industry - Academia Partnership Convention 2026

STUDENT ACHIEVEMENTS

AKAAR'26

IIT Bombay

Members of ASCE-VIT represented the institution at Aakaar 2026, the 18th Annual Civil Engineering Technical Festival hosted by IIT Bombay on March 15, 2026. Competing across two national events, the student team demonstrated strong design modeling and structural analysis skills.





1. Infrastructure Design Project (IDP) — 3rd Place
2. Bridge-It Competition

The experience offered hands-on application of software-driven civil engineering, structural testing mechanics, and national networking.

ASCE INDIA SYMPOSIUM 2026

Chandigarh, Punjab & Dehradun, Uttrakhand

The annual ASCE India Student Symposium unites civil engineering student chapters from all over the nation. Through technical challenges, creative presentations, and networking with seasoned professionals, the event champions a culture of collaboration, shared learning, and outstanding engineering achievements.

ASCE VIT Vellore participated with 19 students, this year's performance from the team has been exceptionally good. The team came home with a lot of awards which reflect the sincere effort and hard work of the team.

Society Wide Competitions:

- UESI Surveying Competition – 1st Position
- Sustainable Solutions Competition – 1st Position
- Timber-Strong Design-Build Competition – 1st Position
- Construction Institute Competition – 2nd Position
- Paper Presentation – 2nd Position

Local Events:

- Retro FitX – teams – 1st Position





SCE CHAPTER EVENTS

AMERICAN SOCIETY OF CIVIL ENGINEERS

BUILD WITH TRUST 12th Feb, 2026

The Build With Trust Ideathon explored civil engineering failure analysis through Web3 solutions. This inclusive, code-free competition challenged individuals and pairs to analyse major construction failures and present their ideas through digital technical posters, emphasizing UI/UX design, visual storytelling, and professional presentation.



INDIAN GEOTECHNICAL SOCIETY

MODEL MAYHEM : REVIT EDITION 11th - 12th Feb, 2026

Model Mayhem: Revit Edition, held as part of Yantra'26, was a hands-on workshop introducing students to Building Information Modelling (BIM) and Autodesk Revit, highlighting their practical applications in modern construction.



INDIAN CONCRETE INSTITUTE

BLOCKCHAIN UNCHAINED: THEORY TO APPLICATION 12th Feb, 2026

Blockchain: Chain Unchained showcased a Blockchain-Based Degree Verification System designed to replace paper-based credential checks with secure, tamper-proof digital verification. Using Solidity smart contracts and a web-based dashboard, the system enables authorized administrators to issue digital degrees and employers to verify their authenticity instantly.



PATENTS & JOURNALS

PATENTS

A Machine Learning Based System For Automated Classification Of Pozzolanic Reactivity Of Supplemantary Cementitious Materials (SCMS)
Published: 30th Janruary 2026
Inventors : Dr. Abdul Rahim A, Madhumitha S K

Sulphuric Acid Assisted Hydrothermal Carbonization For The Reduction Of Volume And Chromium From Chrome Tanned Leather Shavings
Published: 18th Janruary 2026
Inventors : Dr. Shantha Kumar S; Saira G Chandy (*20PHD0313, SCE*)

JOURNAL PUBLICATIONS

JANRURAY 2026

A. V. A. and D. K. Barik, "A Novel Approach for the SCS-CN Method by Updating Curve Numbers for the Antecedent Soil Moisture Conditions (ASMCs) and Improving its Performance," *Water Resources Management*, **vol. 40**, Article 46, 2026. DOI: 10.1007/s11269-025-04452-8.

A. T. Venkatesh, V. Velvizhi, L. Lagudu, S. Rajkumar, U. Rathnayake, and U. S. Masilamani, "Numerical Modelling of Fate and Transport of Heavy Metal Contaminant in an Open Dumping Yard, South India," *Environmental Monitoring and Assessment*, **vol. 198**, Article 80, 2026. DOI: 10.1007/s10661-025-14920-8.

V. Prabaharan and P. K. Akhas, "Structural Performance Evaluation of Sigma Section Cold-Formed Steel: Experimental and Numerical Study," *Innovative Infrastructure Solutions*, **vol. 11**, Article 69, 2026. DOI: 10.1007/s41062-025-02448-2.

PATENTS & JOURNALS

Korrapati P. S. K. et al., "Experimental Evaluation of Interface Bond Strength Between Concrete-Concrete and Concrete-Grout in Adjacent Reinforced Box Girder Bridges: A Material-Level Investigation," *Construction and Building Materials*, 2026.

D. Nayak, S. Tiwari, A. Dutta, R. Elakkiya, and M. Priyadarshini, "Methylene Blue Removal from Synthetic Wastewater Using a Vertical Flow-Constructed Wetland with Organic Waste-Based Substrate Integrated with UV/HOCl Treatment: Experimental Evaluation and Life Cycle Assessment," *Journal of Environmental Chemical Engineering*, 2026.

K. M. Chanchal, K. S. Singh, and S. Nayak, "Investigation of the Role of Model Integration Time Step Size in Numerical Simulation of Kerala Heavy Rainfall Events in a Cloud Resolving Scale," *All Earth*, 2026.

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S. Lawrence and S. Bhathmanabhan, "Harnessing Deep Learning for Air Pollution Forecasting: Trends, Techniques, and Future Prospects," *Artificial Intelligence Review*, **vol. 59**, Article 104, 2026. DOI: 10.1007/s10462-026-11496-8.

S. L. Lafiya and M. Sambasivam K., "Valorization of Mango Seed Waste into Hydrochar: Optimization, Characterization, and Potential for Energy and Environmental Applications," *Biomass Conversion and Biorefinery*, **vol. 16**, Article 66, 2026. DOI: 10.1007/s13399-025-06949-8.

S. Kotey and S. Thangaraj, "Developing a Sustainable Construction Workforce: A Structural Equation Modelling Approach to Integrating Apprenticeships in Ghana," *Sustainability*, **vol. 18**, no. 3, Article 1579, 2026. DOI: 10.3390/su18031579.

G. D'Angelo, G. P. Ganapathy, S. Shanthakumar, and F. Chiampo, "Environmental Impacts and Sustainability of Tannery: A Case Study," *Sustainability*, **vol. 18**, no. 3, Article 1218, 2026. DOI: 10.3390/su18031218.

M. B. Beerabbi Eshapurada and K. S. K. K. Reddy, "Development of Fragility Curves for Tuned Mass Damper Inerter (TMDI) Systems Under Pulse-Like Ground Motions from the 2024 Noto Earthquake (Mw 7.6)," *Frontiers in Built Environment*, 2026. DOI: 10.3389/fbuil.2025.1746271.

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A. Gupta and P. V. Ramani, "BIM Maturity Assessment for Tunnel Infrastructure in India," *Innovative Infrastructure Solutions*, **vol. 11,** Article 126, 2026. DOI: 10.1007/s41062-026-02517-0.

A. Joseph and S. Balamurugan, "Pozzolanic Synergy of Sugarcane Bagasse Ash and Alccofine in High Strength Self-Compacting Concrete: Mechanical Advancements and Microstructural Transformations," *Innovative Infrastructure Solutions*, **vol. 11**, Article 79, 2026. DOI: 10.1007/s41062-025-02453-5.

N. H. R. Khan and S. V. Kumar, "Use of Apple iPhone LiDAR for Geometric Measurement of Road Potholes Using Polynomial Regression Based Stack Profile Method," *Innovative Infrastructure Solutions*, **vol. 11**, Article 93, 2026. DOI: 10.1007/s41062-025-02481-1.

K. Thatiparthi, S. Bonthu, V. R. Ch., P. K. Bhaskaran, K. R. Bhimala, and K. S. Singh, "A Numerical Study on the Oceanic Response to Intense Tropical Storms over the Bay of Bengal Using a High-Resolution Coupled Atmosphere-Ocean Model," *Ocean Dynamics*, **vol. 76,** Article 15, 2026. DOI: 10.1007/s10236-025-01765-5.

R. Ramadoss, S. Mani, T. S. Viswanathan, R. P. Borg, and S. Thirumalini, "Characterization Study of the 19th-Century Indo-Saracenic Bulbous Dome at the Madras High Court, Tamil Nadu," *Materials and Technology*, **vol. 60**, no. 1, pp. 91–103, 2026. DOI: 10.17222/mit.2025.1408.

M. K. Prabha and G. Ganesh, "An Integrative Analysis of Steel Wool Fibre-Reinforced Self-Compacting Concrete: Experimentation, Abaqus Modelling and ANN Prediction," *Construction and Building Materials*, 2026.

A. Sofi, P. Nagarajan, and T. S. Kumanan, "Machine Learning Approach for Predicting the Influence of Pulverized Waste Tire Rubber Fines as a Sustainable Cement Alternative in Concrete," *Waste Management*, 2026.

S. I. L. Lafiya and M. Sambasivam K., "Sustainable Cementitious Materials from Bamboo Leaf-Derived Hydrochar: Process Optimization and Mechanical Performance," *Case Studies in Construction Materials*, 2026.

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A. N. Raheem and R. M. R. Pannem, "Synergistic Effect of Carbon Fiber, Fly Ash, and M-Sand on the Performance of Engineered Cementitious Composites (ECC)," *Ain Shams Engineering Journal*, 2026.

M. R. Apoorva and N. Vaani, "Geometric Features Extraction and Automated Classification for Damage Assessment Using LiDAR Data," *Journal of Civil Structural Health Monitoring*, 2026.

M. S. Reshma, K. S. Singh, S. K. Behera, and P. K. Bhaskaran, "Prediction of Rapid Intensification, Eyewall Replacement Cycle, and Inner-Core Structure of ESCS Phailin," *Weather and Forecasting*, 2026.

MARCH 2026

R. C. Malladi, J. Czerwinski, K. Patyna, R. P. Borg, and T. Selvaraj, "Carbon Capture and Performance Enhancement of Lime Putty Finishes with Organic Additives: Implications for Sustainable Construction and Heritage Conservation," *Results in Engineering*, **vol. 29**, Article 109698, 2026. DOI: 10.1016/j.rineng.2026.109698.

S. Loganathan and M. Sathiyamoorthy, "Evaluating Groundwater Potential in Industrial Areas: A Fuzzy-AHP Approach Incorporating Water Quality Considerations," *Applied Water Science*, **vol. 16**, Article 97, 2026. DOI: 10.1007/s13201-026-02763-8.

K. Krishnanjana and G. M. Ganesh, "Efficacy of Punica granatum Peel Extract on Thermo-Mechanically Treated Steel Bar Corrosion Through Electrochemical Noise Analysis," *Results in Surfaces and Interfaces*, 2026.

E. S. Junaid Ahmed and G. Mohan Ganesh, "Neem Leaf Extract as a Sustainable Green Inhibitor for Corrosion Inhibition in RCC and Strength Improvement in Concrete, in Conjunction with Spectroscopic Characterization and Statistical Evaluation," *Results in Surfaces and Interfaces*, 2026.

S. Rathnaswamy and P. Jagadeesh, "Enhancing the Performance of Recycled Aggregate Concrete Using Graphene Oxide," *Frontiers in Built Environment*, 2026. DOI: 10.3389/fbuil.2025.1740790.

PATENTS & JOURNALS

K. Kai and A. A. Abdul Rahim, "Multi-Output Optimisation of Geopolymer Mortar Using Taguchi and TOPSIS Method," *Frontiers in Built Environment*, **vol. 12**, 2026. DOI: 10.3389/fbuil.2026.1741555.

K. K. Mohan, D. Tomy, A. Vasukuttan, P. V. Ramani, and B. B. Akornah, "Improving Construction Efficiency Through Lean Techniques and Digital Tools: Case of a Real-Time Implementation in an Institutional Building Construction," *Frontiers in Built Environment*, 2026.

R. Ashok and K. S. Singh, "Role of Air-Sea Flux Parameterization Schemes and Sea Surface Temperature on the Prediction of Arabian Sea Cyclonic Storms Using the ARW-WRF Model," *Pure and Applied Geophysics*, **vol. 183**, pp. 2653–2679, 2026. DOI: 10.1007/s00024-026-03951-y.

P. Saradha and T. Meena, "Properties and Development of Industrial Waste-Based Artificial Aggregate for Sustainable Construction: A Systematic Review," *Frontiers in Built Environment*, **vol. 12**, 2026. DOI: 10.3389/fbuil.2026.1746167.

N. Doredla and N. S. Kumar, "Influence of Operating Frequency on Fatigue and Fracture Characteristics of E350 and S690QL Steel Coupons with Tangentially Blended Fillets: An Experimental Study," *Bulletin of Materials Science*, **vol. 49**, 2026.
DOI: 10.1007/s12034-026-03581-z.

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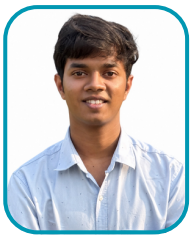
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