CGC UNIVERSITY

CGC UNIVERSITY
MOHALI
Shaping Tomorrow, Today

Our Legacy

INTERNATIONAL CONFERENCE ON SUSTAINABLE AND INTELLIGENT INFRASTRUCTURE MATERIALS AND TRANSPORTATION SYSTEMS (SIIMTS 2026)



(HYBRID MODE) | (18th - 19th November, 2026)

Organized by:
Advanced Centre of Research and Innovation (ACRI)

ABOUT THE CONFERENCE:

The International Conference on Sustainable and Intelligent Infrastructure Materials and Transportation Systems brings together researchers, engineers, and industry professionals working across civil engineering, materials science, and artificial intelligence. The conference focuses on data-driven and sustainability-oriented approaches for infrastructure, with clear emphasis on real-world engineering applications.

It aims to connect experimental research, computational modelling, and field implementation through machine learning, hybrid AI, and mechanistic engineering principles. The goal is to develop reliable and interpretable models for predicting strength, durability, and lifecycle performance of materials and transportation systems.

Key areas include sustainable concrete, geopolymer and recycled materials, life cycle assessment, uncertainty quantification, and digital design tools. The programalso highlights explainable AI, optimization methods, and advanced statistical techniques for material and infrastructure analysis.

The conference addresses carbon reduction, resource efficiency, infrastructure resilience, and smart mobility systems. It promotes integrated approaches that link environmental impact with engineering performance to support practical decision-making.



ABOUT UNIVERSITY:

CGC University, Mohali was established in 2025 under the Chandigarh Educational Society through the CGC University, Mohali Act, 2025, notified by the Government of Punjab. The University has been officially included in the list of State Private Universities recognized by the University Grants Commission under Section 2(f) of the UGC Act, 1956.

Prior to becoming a full-fledged university, the institution was known as Chandigarh Group of Colleges, Jhanjeri, an institution with a legacy of more than 25 years in higher education. During this period, it earned the prestigious NAAC A Plus accreditation with an outstanding CGPA of 3.46 out of 4.0, reflecting excellence in teaching, research, and institutional performance.

With experienced faculty, advanced infrastructure, innovative pedagogy, and strong industry linkages, CGC University, Mohali continues its commitment to delivering high quality and affordable education. The University focuses on holistic student development, practical learning, and strong career outcomes, making it one of the most promising higher education destinations for students across India.

THEMES:

The theme “International Conference on Sustainable and Intelligent Infrastructure Materials and Transportation Systems” focuses on integrating civil engineering, materials science, and artificial intelligence to develop low-carbon, efficient, and performance-based infrastructure. The conference promotes the use of experimental research and computational modelling to improve strength, durability, and lifecycle performance of materials and transportation systems. It highlights explainable AI and sustainability assessment to support practical engineering decisions and real-world implementation. The conference will also promote industry collaboration and validation of research through live infrastructure projects and applied case studies.



1. Sustainable Concrete Technology and Low-Carbon Cementitious Materials

- Supplementary cementitious materials such as fly ash, slag, silica fume
- Carbon capture and utilization in concrete production
- Alkali-activated and low-clinker binders
- Energy-efficient curing methods
- Mix design optimization for low carbon footprint

2. Geopolymer, Recycled, and Waste-Based Construction Materials

- Fly ash and slag-based geopolymer systems
- Use of construction and demolition waste in concrete
- Plastic, rubber, and glass waste incorporation
- Agricultural waste ash in cementitious materials
- Performance evaluation of recycled aggregates

3. Machine Learning, Hybrid AI, Explainable AI, and Optimization Techniques

- Regression and classification models for material prediction
- Hybrid AI models combining physics and data
- Explainable AI methods for model interpretation
- Optimization algorithms such as genetic algorithm and PSO
- Data preprocessing and feature selection techniques

4. Life Cycle Assessment, Carbon Accounting, and Sustainability Evaluation

- Cradle-to-grave environmental impact analysis
- Carbon footprint calculation methods
- Sustainable material selection strategies
- Energy consumption assessment in construction
- Environmental product declarations and standards

5.Uncertainty Quantification, Sensitivity Analysis, and Reliability Modelling

- Probabilistic modeling of material properties
- Monte Carlo simulation techniques
- Sensitivity analysis for input variables
- Reliability-based design approaches
- Risk assessment in structural systems

6. Structural Performance, Durability, and Material Characterization

- Compressive, tensile, and flexural strength testing
- Durability under chemical and environmental exposure
- Microstructural analysis using SEM and XRD
- Long-term performance and aging behavior
- Crack propagation and fracture mechanics

7.Smart Transportation Systems and Data-Driven Urban Mobility

- Traffic flow prediction using data analytics
- Intelligent transport systems and sensors
- Public transport optimization models
- Autonomous and connected vehicle systems
- Urban mobility planning using big data

CALL FOR PAPERS

Researchers, academicians, and industry experts are invited to submit original articles within the scope of the conference topics. Every paper will undergo a peer review process, with evaluations based on originality, technical proficiency, in-depth content, and conference relevance. All participants need to sign a declaration of originality before final submission.

Note: The Conference will be in Hybrid mode.

The Microsoft CMT service was used for managing the peer-reviewing process for this conference. This service was provided for free by Microsoft and they bore all expenses, including costs for Azure cloud services as well as for software development and support.

SUBMISSION OF PAPERS :

For Full-Length Paper:

The authors are requested to submit their manuscripts, which should not exceed 6000–7000 words, in the form of research and review papers. Every article will go through the standard peer review process, and should adhere to the less than 10% plagiarism guidelines.

Submission Link:

The abstract and Full-length paper will be invited through "Microsoft CMT".

Important Deadlines:

- Paper Submission Start Date: **1st Sep 2026**
- Deadline for Paper Submission: **1st Oct 2026**
- Deadline for Acceptance: **30th Oct 2026**
- Conference Registration Start Date: **31st Oct 2026**
- Deadline for Registration Date: **6th Nov 2026**



Registration:

The authors presenting the papers and others who are interested to participate in the conference must register themselves before the last date of registration. Only the registered persons will be given the certificate. The registration fee for various categories is as follows:

Delegates	Registration Fee (For Full Paper Submission)	Registration Fee (For Participation only)
UG/PG students	10,000 (INR)	1,000 (INR)
Research Scholars/Academicians	12,000 (INR)	1,500(INR)
Corporate/Industry	15,000 (INR)	2,000 (INR)
Foreign Delegates	$ 200	$ 50

Late registration fee of Rs. 300 (for Indians) and $10 (for foreign) delegates-extra will be charged.

Mode of Payment:

The payment for the registration fees can be made via Net Banking to the account below:
REGISTRATION FEES CAN BE PAID

THROUGH NEFT/ONLINE TO:

Account Name :
Chandigarh Engineering College R&D
Bank Name:
State Bank of India Jhanjeri
Account Number : **41809014534**
IFSC Code SBIN0017008
Bank Address Jhanjeri, Sirhind road-140307



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