

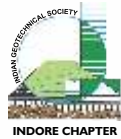


# 4<sup>th</sup> Indo-Japan Pre-Conference Workshop on HIGH SPEED RAIL & GEOTECHNICAL CHALLENGES



**Wednesday, 18<sup>th</sup> December 2024**

ORGANISED BY



**MIT**  
A group of Academic & Research Institutions

WORKSHOP SPONSOR



(In Blended Mode)

Indian Geotechnical Society Indore Chapter &  
Indian Geotechnical Society Aurangabad Chapter  
In Association with

Civil Engineering Department

MIT, Chhatrapati Sambhajnagar (Aurangabad)- 431010



## About the Pre-Conference Workshop

The Indian Geotechnical Society (IGS) and the Japanese Geotechnical Society (JGS) have established a collaborative agreement to foster the exchange of technical, scientific, and professional knowledge in the field of geotechnical engineering. This partnership has led to a series of successful workshops aimed at promoting advancements in geotechnical engineering and facilitating meaningful interactions between researchers from both countries. Notable past workshops include:

- First Indo-Japan Workshop on "Advances in Earthquake Engineering" held on December 14, 2011, at Kochi, India, organized by the IGS Kochi chapter.
- Second Indo-Japan Workshop on "Geotechnics for Resilient Infrastructure" conducted on November 14, 2015, in Fukuoka, Japan.
- Third Indo-Japan Workshop on "Geotechnics for Natural Disaster Mitigation and Management" hosted at IIT Guwahati, India on December 13, 2017.

Building on this foundation, the upcoming Pre-Conference Workshop on "High Speed Rail and Challenges Associated" is scheduled for Wednesday, December 18, 2024. This workshop will focus on the geotechnical aspects of the latest advancements in the design and operation of high-speed rail while addressing the complex challenges involved. (In Blended Mode)

## Challenges in High-Speed Rail

High-speed rail in India faces several general challenges that need to be addressed for successful implementation. Important challenges include,

- Land acquisition, which often encounters legal and community resistance,
- Engineering challenges arise from the need for advanced infrastructure, including tunnels and bridges, which must navigate diverse geological and environmental conditions.
- Economic viability is also a concern, as attracting sufficient ridership at competitive fare rates is crucial for sustainability.
- Additionally, the high costs associated with developing high-speed rail infrastructure, along with the need for technological advancements and efficient project management, further complicate progress.

Addressing these challenges requires a comprehensive approach that prioritizes community engagement, sustainable development, and robust financial planning.

Key issues to be discussed in the proposed workshop include maintaining stability and safety at high velocities, minimizing noise and vibrations for enhanced passenger comfort, optimizing aerodynamics, developing suitable track and infrastructure, and ensuring the overall safety and reliability of the train system. Successfully overcoming these challenges will pave the way for a world-class high-speed rail system, like that developed in Japan. The workshop provides a significant opportunity for researchers and practitioners to collaborate and share insights on the vital geotechnical challenges posed by high-speed rail system.

## KEY NOTE SPEAKERS



**Dr. Susumu Yasuda**  
Professor Emeritus  
Tokyo Denki University, Japan  
Topic : Assessment of the environmental impact of constructing a maglev ultrahigh-speed railway in mountainous areas



**Dr. Reiko Abe**  
Project Management Specialist, Japan  
Topic : Upgradation & Development Of Railway Infrastructure In India



**Prof. Ikuo Towhata**  
Visiting Professor,  
Kanto Gakuin University, Japan  
Topic : Problems illustrated by high-speed railway projects in two countries



**Dr. Susumu Nakajima**  
Head- Foundation & Geotechnical Engineering Laboratory, Railway Technical Research Institute, Japan  
Topic : Development & recent trend of design & construction of earth structures supporting Japanese high-speed railway



**Prof. Fumio Tatsuoka**  
Tokyo University of Science Japan  
Topic : Developments of GRS structures & their applications to High-Speed Railway in Japan and India

**Prof. G. V. Rao**  
Guest Professor,  
IIT Gandhinagar, India  
Topic : Geotechnical Challenges in implementation of Japanese HSR system in India



**Dr. R. P. Singh**  
DGM, NHRCL, Mumbai, India  
Topic : Geotechnical Investigation for Mumbai Ahmedabad High Speed Trains: A Paradigm Shift



**Prof. J. T. Shahu**  
Professor IIT Delhi, India  
Topic : Developments in Track Geotechnics



**Er. M. Kumaran**  
General Manager & Head Marine & Intake Structures, L&T Geo Structure Pvt Ltd, Chennai, India.  
Topic : Indian perspective on Geotechnical aspects for High-Speed Trains



**Prof. Amit Prashant**  
Indian Institute of Technology Gandhinagar, India.  
Topic : Rigid Fascia GRS Walls for HSR in India



## REGISTRATION

For registration to Pre-Conference Workshop, kindly pay the fee at the bank as detailed below and upload the payment receipt to registration link.

### REGISTRATION LINK

<https://forms.gle/SzdJXwLLFrjVxDi37>

NAME OF ACCOUNT HOLDER : IGS Aurangabad Chapter  
BANK ACCOUNT NUMBER : 5434101001278  
IFSC : CNRB0005434  
NAME OF BANK : Canara Bank, Beed Bypass, Aurangabad.

### WHO SHOULD ATTEND ?

The workshop will be beneficial for academicians, industry practitioners, research scholars and students.

Delegate Category	Early bird up to 31 <sup>st</sup> Oct 2024	After 31 <sup>st</sup> Oct 2024
Students	₹700	₹800
Professionals	₹1000	₹1200
Students Online	₹500	₹600
Professionals Online	₹800	₹1000



SCAN FOR PAYMENT

## ORGANISING TEAM

**Prof. Neelima Satyam**  
Convener

**Prof. S. K. Prasad**  
Co - Convener

**Dr. Manish S. Dixit**  
Organising Secretary

Civil Engineering Department MIT, Chhatrapati Sambhajnagar (Aurangabad), Maharashtra, India - 431 010.

**Venue : Anand Hall**

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