ISSMGE FOUNDATION
REPORT ON CONFERENCE ATTENDANCE

Your Name: Navuluri Jayasri	***Your Organization:*** Indian Institute of Technology, Mandi, India	***Date of report:*** 17th January 2026
Conference Title: 17th International Conference of the International Association for Computational Methods and Advances in Geomechanics (17th IACMAG)	***Location of Conference:*** Hongkong Polytechnic University, Hongkong	***Dates of Conference:*** 18th to 21st December 2025

What you learned:

Participating in IACMAG 2025 provided exposure to current research on integrating geospatial data with machine learning for improved geotechnical analysis and prediction. Presentations demonstrated how remote sensing data and in-situ measurements are combined with data-driven models to support ground characterization and infrastructure monitoring. Recent advances in granular flow modeling focused on improving numerical simulations through better representation of particle interactions and material behavior. These developments enable more reliable analysis of phenomena such as landslides, debris flow, and ballast performance. The conference also highlighted computational approaches in sustainable railway geotechnics, including numerical modeling of track–ground interaction under repeated loading. Such methods support performance-based design, optimized maintenance planning, and long-term sustainability of railway infrastructure.

People you met:

I have met and interacted with many eminent professors and experts. A few of them are listed below.

1. **Prof. Buddhima Indraratna** (University of Technology Sydney, Australia)
2. **Prof. Lidija Zdravkovic** (Imperial College London, United Kingdom)
3. **Dr. Steve WaiChing Sun** (Columbia University, USA)
4. **Dr. Bo Liu** (Hongkong Polytechnic University)
5. **Prof. DN Singh** (Indian Institute of Technology, Bombay)
6. **Prof. BK Maheswari** (Indian Institute of Technology, Roorkee)

Main features of conference:

The 17th IACMAG 2025 served as a premier international platform for advancing computational and numerical approaches in geomechanics. The conference program was anchored by several distinguished keynote lectures that addressed both foundational theories

and emerging applications. Prof. Phoon delivered a keynote on the integration of geodata with machine learning, emphasizing data-driven and hybrid computational frameworks for geotechnical modeling. Complementing this, Prof. Wei Wu presented recent advances in modeling dense granular flow, highlighting improved numerical formulations to capture particle-scale mechanics. Prof. Buddhima provided a comprehensive keynote on sustainable rail geotechnics, focusing on computational modeling of track–substructure interaction, ballast degradation, and long-term performance under cyclic loading. These keynote contributions were supported by state-of-the-art and specialized technical sessions spanning particle methods, multiscale and multiphysics modeling, digital twins, and intelligent computational geomechanics, collectively underscoring the field's shift toward integrated, data-informed, and sustainability-driven geotechnical analysis.

Your comments on the conference:

IACMAG 2025 was a well-organized conference with high-quality keynote lectures and specialized technical sessions in computational geomechanics. It provided an excellent opportunity to present my research at this globally recognized forum. The technical presentations were of high standard, and the strong participation from both academia and industry enabled valuable exchanges between theoretical developments and practical engineering applications. The conference social events were well organized and offered excellent opportunities for networking and professional interaction. The feedback and discussions following my presentation were highly constructive and provided new insights for further development of my research. The sessions were conducted efficiently and adhered well to the schedule, allowing ample time for discussions and interactions.

I am very grateful to the ISSMGE Foundation for providing the funding support and travel grant that enabled me to attend and participate in IACMAG 2025.

Please attach short report (maximum 400 words) suitable for publication in the ISSMGE Bulletin:

I had the privilege of attending the 17th International Conference of the International Association for Computer Methods and Advances in Geomechanics (IACMAG 2025), held in Hong Kong. The conference brought together leading researchers and practitioners from academia and industry to discuss recent advances in computational geomechanics, numerical modeling, and data-driven approaches for solving complex geoengineering problems. The technical program provided an excellent platform for exchanging ideas on emerging computational methods, multiscale modeling, and sustainable geotechnical design.

The conference featured several high-quality keynote lectures that formed the intellectual foundation of the event. Prof. Phoon delivered an insightful keynote on the integration of geodata with machine learning, highlighting how data-driven and hybrid computational frameworks can be used to improve geotechnical parameter inference and uncertainty-aware modeling. Prof. Wei Wu presented recent advances in modeling dense granular flow, focusing on numerical techniques that enhance the representation of particle-scale interactions and transition between solid-like and fluid-like behavior. Another keynote that particularly interested me was delivered by Prof. Buddhima, who discussed conceptual and computational perspectives on sustainable rail geotechnics. His lecture addressed numerical modeling of track–substructure interaction, ballast degradation, and long-term performance

under cyclic loading, emphasizing sustainability-driven design and maintenance strategies.

In addition to the keynote sessions, the conference included a wide range of state-of-the-art and specialized technical sessions covering particle methods, multiscale and multiphysics modeling, intelligent computational geomechanics, digital twins, and granular material mechanics. The presentations were of excellent technical quality, and the strong participation from both academic researchers and industry professionals enabled valuable discussions linking theoretical developments with engineering practice.

The conference was very well organized, with sessions conducted efficiently and on schedule, allowing ample time for technical discussions and networking. The social events, including the conference dinner, provided further opportunities to interact with experts and peers. Attending IACMAG 2025 significantly enhanced my understanding of advanced computational methods, data-informed modeling, and sustainability-oriented geotechnical analysis. The feedback and discussions following my presentation were particularly valuable and will help shape the future direction of my research. I am very grateful to the ISSMGE Foundation for providing the financial support that enabled me to attend and participate in IACMAG 2025.

***Photographs from Conference**: Attached some of the photos below*



Presenting my research work at the 17th IACMAG, Hongkong



My Oral Presentation Ceretificate



Keynote lecture by Prof. Buddhima Indraratna



Delegates



During Banquet