

**Venue: Assembleia 1**

**Date: Oct 10, 2025. | Time: 2pm to 3:30pm**

**Topics: Slope Stability and Landslides**

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**Thematic Lecture:**

Geotechnical Challenges Associated with Slope Remediation Works

*Thayalan Nall, Taro Hiranuma & Matt Loat*

**Contributed Presentations**

Rainfall-induced Slope Stability Analysis of Madikeri Region in Karnataka using

TRIGRS: A case study of 2018 Landslides

*Mounika Susarla, Siddharth Chanam, Avadh Bihari Narayan & Adapa Murali Krishna*

Modelling of Le Bois De La Glaive 2021's Landslide, Switzerland

*Erika Prina Howald & J. Torche*

Shored Reinforced Soil Structure for Enhancing Accessibility and Infrastructure at  
Taratarini Temple

*Shishir Gupta, Ratnakar Ramesh Mahajan & Rudra Budhbhatti*

Weathering the Future: Climate-Resilient Road Design Lessons from Nepal's BP  
Highway Flood 2024

*Rajan KC, Mandip Subedi, Sumit Adhikari, Kabin Lamichhane, Bijay Raj Marasini, Biraj  
Ojha, Suresh Neupane, Anil Bhattarai, Nitesh Thakur & Karan Budhathoki*

High-strength Steel Mesh Modules as a Rational and Sustainable Coastal Protection  
Solution

*Roberto Luis-Fonseca, Mahan Sheibani, D. Rojas, C. Balg, M. Heidarzadeh & J.  
Mukheja*

Parametric Study on MICP-Enhanced Slope Stability through Numerical Modelling

*Shashikant & Raheena M*

Landslide susceptibility mapping of East Khasi Hills, Meghalaya, using GIS-based  
logistic regression method

*A. Tarafdar, S.R. Satapathy & R. Chakraborty*

Application of GIS-based Logistic Regression for Landslide Susceptibility Mapping in  
Gajapati District, Odisha: A Case Study

*Soumya Ranjan Satapathy, Aditya Tarafdar & Rubi Chakraborty*

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**Venue: Assembleia 2**

**Date: Oct 10, 2025. | Time: 2pm to 3:30pm**

**Topics: Earthquake and Soil Dynamics**

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**Thematic Lecture:**

*to be announced*

**Contributed Presentations:**

Integrated Seismic Risk Analysis for Bharuch and Ankleshwer Cities in Southern Gujarat: DSHA

*Aarohi Ankit Bhadiyadra & Tejaskumar Thaker*

Seismic Fragility Evaluation of Mid-Rise RC Structures Including Soil-Structure Interaction

*Mustafa Mert Eyüpgiller & Shoichi Nakai*

Seismic Ground Response Analysis of Typical Sites in Tirupati Region

*Rubendra D, A Murali Krishna & S. T. G. Raghu Kanth*

Seismic Isolation of High-speed Rail Viaducts using Unconnected Pile-Raft Foundation

*Ladi Kranti Kumar, Brajesh Ranjan Acharya & Sumanta Halder*

Numerical Study on Seismic Performance of Disconnected Piled Raft Foundation in Sandy Soil

*Ankit Kumar Suman & Rajeswari J S*

Packing Index as a Novel Measure for Estimating the Liquefaction Resistance in Granular Soils

*Mujeeb Ul Rehman, Ramesh Kannan Kandasami & Subhadeep Banerjee*

Numerical Investigation of Pile-soil Interaction in Soft Clay under Seismic Condition

*Kuldeep Khichar, Abhishek Ghosh Dastider & Dilip Kumar Baidya*

Directionality Effect of Ground Motions on Seismic Demand of Piled Raft Foundations

*Atul Raj, Sumanta Halder & Shantanu Patra*

Numerical Investigation of Metamaterials for Effective Vibration Isolation under Varied Force and Amplitude Conditions

*Ankita Mazumdar & Debjit Bhowmik*

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**Venue: Assembleia 3**

**Date: Oct 10, 2025. | Time: 2pm to 3:30pm**

**Topics: AI and Computational Geomechanics**

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**Thematic Lecture:**

Progress & obstacles of Artificial Intelligence in Geotechnical Engineering

*P. Samui*

**Contributed Presentations:**

Advancing Liquefaction Susceptibility Assessment with Machine Learning on Cyclic Triaxial Test Data

*Shweta Sah, Vaishnavi Bherde & Umashankar Balunaini*

Prediction of Input Parameters for Design of Flexible Pavements (CBR) of Clay Soil using Optimized Machine Learning Techniques

*Arjun Arjun, Chandan Kumar, Sri Khetwat Saritha & D Kishan*

Predicting Pavement Condition using Ultrasonic Pulse Velocity and AI Techniques

*Jigisha Vashi, Yogesh Bafna & Santosh Bothe*

Machine Learning Methods to Predict Ballast Breakage in Railway Tracks

*Srinivas Alagesan, Buddhima Indraratna, Rakesh Sai Malisetty & Yujie Qi*

Use of Machine Learning for Granular Geomaterials: A Short Critical Review

*Haydn Hunt, Buddhima Indraratna, Rakesh Malisetty, Yujie Qi & Richard Kelly*

Machine Learning based studies on settlement characteristics of soft clayey soil

*Sourabh Choudhary, Gunda Ganesh & Lalit Borana*

Bearing capacity factor prediction of strip footing on spatially varying slope using surrogate model

*Priyanka Sharma & Anindya Pain*

A Comparative Study of ANN Models for the Prediction of Soil Compaction Parameters

*Harish Paneru & Netra Prakash Bhandary*

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**Venue: South 1**

**Date: Oct 10, 2025. | Time: 2pm to 3:30pm**

**Topics: Transportation Geotechnics**

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**Contributed Presentations:**

Comparative Study of Geocell Reinforced C&D waste and Natural Aggregates as Base Layers under Repeated Loading  
*Barmavath Shiva Prasad & Umashankar Balunaini*

Utilization of Rubber Grids Made from Waste Conveyor Belts for Enhanced Ballasted Track Performance  
*Suwan Hettiyahandi, Buddhima Indraratna, Trung Ngo, Yujie Qi & Chathuri Arachchige*

Performance of back-to-back mechanically stabilized earth walls with overlapping reinforcements under train loading  
*Samay Kumar Attara & Balunaini Umashankar*

Efficient Modeling of Train-track and Soil Interactions under Train Loading  
*Yehya Rasool, Ernian Pan, Zhongyang Wu, Chih Ping Lin, Prishati Raychowdhury & Quoc Kinh Tran*

Performance Assessment of Geogrid-Polyurethane Composite-Stabilized Ballast under Cyclic Loading  
*Syed Khaja Karimullah Hussaini & Kandala Venkata Shiva Prasad*

Analytical Estimation of the Dynamic Response of Ballasted Tracks Considering Subgrade Degradation  
*Rakesh Sai Malisetty & Buddhima Indraratna*

Behavior of Geogrid Reinforced Railway Ballast  
*Andrei Petriaev*

Numerical Analysis of Railway Embankment Resting on Soft Soil Reinforced with Partially Encased Granular Columns  
*Anandha Raj Lenin Kumar, Sanjay Nimbalkar & G.R. Dodagoudar*

Performance Enhancement of Railway Ballast using Geocell Reinforcement: A Finite Element Study  
*Shailja Joshi, Shashank Bhatra & Bhuvan Chandra Bhatt*

Numerical analysis of geosynthetic reinforced soil-integrated bridge system considering compaction and surcharge loading  
*Suraj Kumar & Umashankar Balunaini*

Shape Characteristics of Crushed Waste Glass and Crushed Rock Aggregates  
*Aayush Kumar, Prashanth Vangla & Ilakkia Visakan*

**Venue: South 2**

**Date: Oct 10, 2025. | Time: 2pm to 3:30pm**

**Topics: Cold, Coastal and Environmental Geotechnical Engineering**

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**Thematic Lecture:**

Numerical Simulation of Floating Offshore Wind Turbines under Environmental and Seismic Loading

*M. James & S. Haldar*

**Contributed Presentations:**

Torsional dynamic response of offshore wind turbine suction caisson foundations

*Mir Saqib & Bipin Kumar Gupta*

Stability analysis of offshore wind turbine monopiles and hybrid foundations under vertical and lateral loading

*Ravishankar Sahu & Sowmiya Chawla*

Measurement of Pipe-soil Interface Friction at Low Normal Stress using a Modified Direct Shear Machine

*Syed Baqer Mehdi & Santiram Chatterjee*

Unconfined compressive strength of bentonite-based backfill materials

*B.P. Nayak, S. Kumar & R. Bag*

Predicting the Influence of Climate Change on Soil Hydrology and Slope Stability in Cold Regions

*Deepali Anand, Arindam Dey & Ravi K.*

Porewater pressure-based consolidation analysis using field data in a vacuum-preloaded soft soil foundation at Fisherman Island, Australia

*Lami Karagoz, Buddhima Indraratna, Chalachat Rujikiatkamjorn, Binhua Xu & Piotr Kanty*

Microplastic Release from Gabion Mattresses : A Risk evaluation

*Kinjal Dineshkumar Parmar, Gianluca Brocca & Matteo Lelli*

**Venue: West 1**

**Date: Oct 10, 2025. | Time: 2pm to 3:30pm**

**Topics: Ground Improvement and Stabilisation**

**Contributed Presentations:**

Sustainable Foundation Solution for Industrial Structures in Seismic Area: Case Study  
*Teres M Paul, Ramanathan C, Prasad P.V.S.R & K Navaneeth Kumar*

Foundation Bed Improvement for the Reconstruction of Kalyana Mandapa of  
Thousand Pillar Temple

*Hari Krishna Padavala, Ramana Murty Varudu & M.P.R. Rao*

Compaction Grouting and Its Application in Infrastructure Projects: Case Studies  
*Abudaheer A, Madan Kumar Annam & Prasad PVSR*

Foundations Solutions for Structures on Soft Saturated Clays – A case Study  
*Renu Kulkarni, Uday Kulkarni, Farhan Ansari & Anand Katti*

Mitigation of Liquefaction Risk on Silty Sand with Chitosan Bio Polymer Treatment  
*Vaishnavi Dasari, Maniteja Dora T & Kalyan Kumar Gonavaram*

Effect of Sand Rubber Mixture (SRM) - Trenches on Screening of Ground Vibration Due  
to Pile Driving

*Boominathan Adimoolam, J S Dhanya, P J Silpa & Askar Zhussupbekov*

Response of buried pipelines under impact loads from dropped objects  
*Avikal Shrivastava & Abhishek Ghosh Dastider*

Planning and detailed engineering of micro-tunnelling through deep-seated soft  
marine clay for a sewerage project

*Uday Kulkarni, Vinay Kumar Pandey, Renu Kulkarni & M. B. Joshi*

Improvement of Leda clay Stiffness by Columns Installation  
*Z. Guetif*

The Influence of Jute and Polypropylene Geotextiles on Internal Erosion of Clayey Soil  
*Ankit Kumar Yadav & Amarnath Hegde*

Evaluation of Recycled Construction and Demolition Waste as Fillers in Group of  
Stone Columns

*Meenu Krishnan & Anasua Guha Ray*

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