

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

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

Venue: Assembleia 2

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

Topics: Earthquake and Soil Dynamics

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Thematic Lecture:

Evaluation of Dynamic Parameters of Tropical Peat

Ashim Kanti Dey, Rajat Debnath & Soumitra Kumar Kundu

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

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:

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

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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

Response of buried pipelines under impact loads from dropped objects

Avikal Shrivastava & Abhishek Ghosh Dastider

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

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Venue: West 1

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

Topics: Ground Improvement and Stabilisation

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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

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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