GeoMandu 2024 Conference Program Schedule

Day 1: 28 November 2024

Opening Keynote Lecture Session (8:30 - 9:50)	**Main Hall**
8:30 - 8:35	**Opening Address:** Netra Prakash Bhandary, Chair, GeoMandu 2024 Organizing Committee
	Session Chairs: Dr. Anil Joseph, Dr. Dhundi Raj Pathak
8:40 - 9:05	**Keynote Lecture I:** Spatial Assessment and Mitigation of Landslide Hazards in Mountain Area Prof. Dr. Keh-Jian (Albert) Shou (Vice President, ISSMGE/Professor, National Chung-Hsing University, Taiwan)
9:05 - 9:30	**Keynote Lecture II:** Net Zero Initiatives: A Geomechanical Perspective Prof. Dr. Devendra Narain Singh (Indian Institute of Technology, Bombay, India)
9:30 - 9:35	**Q&A**
9:35 - 9:50	**Sponsor presentations**
Conference Inauguration Program (10:00 - 11:00)	**Main Hall**
10:00 -	Details to be notified separately
Keynote Lecture Session II (11:05 - 12:40)	
Main Hall	**Session Chairs: Prof. Dr. Netra Prakash Bhandary, Dr. Mandip Subedi**
11:05 - 11:40	**Keynote Lecture III:** *30th Buchanan Lecture* "Geotechnical Engineering Marriage between Theory and Practice" Dr. Marc Ballouz (President, International Society for Soil Mechanics and Geotechnical Engineering - ISSMGE, USA)
11:40 - 12:05	**Keynote Lecture IV:** *Impact mechanisms and rational design of debris flow resisting multiple barriers* Prof. Dr. Charles W. W. Ng (Vice-President, Hong Kong University of Science and Technology - HKUST, Hong Kong)
12:05 - 12:30	**Keynote Lecture V:** *Thoughts on Faults and Slope Instability* Prof. Dr. Ikuo Towhata (Visiting Professor, Kanto Gakuin University, Japan)
12:30 - 12:35	**Q & A**
12:35 - 12:40	**Sponsor presentation**
12:40 - 13:40	**Lunch Break**
Keynote Lecture Session III (13:45 - 15:10)	
Main Hall	**Session Chairs: Er. Keshab Kumar Sharma, Assoc Prof. Dr. Ranjan Kumar Dahal**
13:45 - 14:10	**Keynote Lecture VI:** *Landslide Risk Evaluation: Tools and Tips for Risky Decisions* Dr. Alex Strouth (Principal Geological Engineer, BGC Engineering Inc., Canada)

14:10 - 14:35	**Keynote Lecture VII:** *Bio-stabilisation of Soil for Ground Improvement* Prof. Dr. Md. Mizanur Rahman (Professor, University of South Australia, Australia)
14:35 - 15:00	**Keynote Lecture VIII:** *Forensic Analysis in Infrastructure Projects and Vibration Measurement in the Construction Industry: Case Studies* Dr. Anil Joseph, President, Indian Geotechnical Society
15:00 - **15:**10	**Q & A**

Day 1 Parallel Sessions (15:15-18:05)

Hall / Time	Hall A	Hall B	Hall C	Hall D
15:15-16:55	Parallel Session I	Parallel Session II	Parallel Session III	Parallel Session IV
17:10-18:05	Parallel Session V	Parallel Session VI	Parallel Session VII	Parallel Session VIII

Parallel Session I: Seismic Design of Geotechnical Structures	
Hall A	**Session Chairs: Dr. Keshab Sharma, Er. Sujan Maka**
15:15 - 15:30	**Distinguished Lecture I:** *Ethical Geotechnical Practices by Engineering Consulting Firms for Sustainable and Resilient Infrastructure* Er. Thakur Prasad Sharma (President, Society of Consulting Architectural and Engineering Firms, Nepal - Member Association of FIDIC)
15:30 - 15:45	**Distinguished Lecture II:** *Planning of infrastructures on the Dynamic landscape of Himalayas* Dr. Mohan Prasad Acharya **(**Senior Geotechnical Engineer, NEA Engineering Company)
15:45 - 15:55	ID: 150 Multiple Linear Regression-Derived Stability Equations for MSE Walls against Base Sliding Failure: Insights from Static and Pseudo-Static Analyses *Tulika Rani, Saikat Kuili, Ravi S. Jakka*
15:55 - 16:05	ID: 190 Evaluation of Retaining Wall with Compressible Inclusion Under Static Loading Using PLAXIS 2D *Priya Basnet, Pramisa Adhikari, Subasna B.K., Suvarna Singh Raut*
16:05 - 16:15	ID: 284 The modified approach to address the dynamic behavior of retaining wall *Sushree Paritwesha Pradhan, Amrendra Thakur, Vishwas Sawant*
16:15 - 16:25	ID: 045 Slope Stability Studies in IGM at a High-Altitude Site in Pakistan - A Case Study *Sohail Kibria, Sadaf Saeed*
16:25 - 16:35	ID: 106 Effects of Tire Waste Type on Seismic Performance of Retaining Wall with a Tire Waste-Sand Cushion Layer *Ayşe Edinçliler, Bilge Sultan Demirtaş*

16:35 - 16:45	ID: 309 Stability Analysis of Gabion Revetment for River Bank Protection Based on Field Investigation *Suresh Laudari, Tadashi Hara, Hiroshi Hakazawa*
16:45 - 16:55	ID: 031 A Case Study of Design and Construction of a GeoTrel® Reinforced Earth® Retaining Structure for a Land Development Project in Chhaling, Nepal *SK Dilip, Sunip Barman, Kunal Sarkar*

Parallel Session II: Ground Improvement

Hall B **Session Chairs: Prof. Dr. Jong-Sub Lee, Dr. Ramamohan Pokhrel**

15:15 - 15:30	**Distinguished Lecture III:** Roadside Slope Stability in Nepal: Challenges and Way Forwards Er. Keshab Kumar Sharma (Secretary, Government of Nepal)
15:30 - 15:40	ID: 023 Enhancing the Geotechnical Properties of Micaceous Sand using Bentonite Slurry: An Eco-Friendly Substitute for Traditional Stabilizers *Anjali S, Seethalakshmi P*
15:40 - 15:50	ID: 038 Assessing the impact of the polyethylene terephthalate on subgrade properties of high-plasticity clay soil *Yafet Samuel Olmedo Lara, Mauricio Joaquin Cano Nieto, Marko Antonio Lopez Bendezu*
15:50 - 16:00	ID: 062 An Experimental Study on Enhancement of Bearing Capacity of Soft Soil using Stone Column with Composite Material of Jute-Geotextile and Cane-Geogrid *Saggela Bala Raju, Shantanu Dutta, Nirmali Borthakur*
16:00 - 16:10	ID: 093 Implementation of poultry waste as a calcium source for Microbial-induced calcite Precipitation (MICP) treatment of Ganga River sand *Abhishek Tarun, Arvind Kumar Jha*
16:10 - 16:20	ID: 102 Optimal PVDs Spacing for Enhancing Soft Ground: A Review of Previous Analytical Studies *Khrawboklang Kharsyiemiong, Vishwas Sawant, Satyendra Mittal*
16:20 - 16:30	ID: 127 Improving Embankment Performance Built on Soft Clay: Influence of Vehicle Characteristics *Balbir Kumar Pandey, Vinod Kumar*
16:30 - 16:40	ID: 131 Performance Assessment of Jute-Cell Reinforced Sand Bed Under Circular Footing *Tanmoy Sarkar, Sk Ajfar Hossain, Arghadeep Biswas*

16:40 - 16:50	ID: 178 Use of Construction Waste to Enhance the Performance of Soft Clay *Srijan Srijan, Abhijeet Gupta, Gautam Narula, Shashwat Singh, Rohit Kumar, Rishikesh Kanitker*

Parallel Session III: Geohazards and Climate Change

Hall C **Session Chairs: Er. Emily Mark, Er. Udaya Raj Neupane**

15:15 - 15:30	**Distinguished Lecture IV:** *Engineering Geomorphology and Geotechnics in Roads of Nepal* Dr. Ranjan Kumar Dahal (Vice President, IAEG; Associate Professor, Tribhuvan University)
15:30 - 15:45	**Distinguished Lecture V:** *Safeguarding the Himalayas: leveraging geohazard investigation for sustainable risk mitigation* Dr. Basanta Raj Adhikari (Director, Centre for Disaster Studies, IOE, Tribhuvan University, Nepal)
15:45 - 15:55	ID: 082 A national-scale automated landslide map for Nepal in Google Earth Engine: Challenges and future outlook *Erin Harvey, Nick Rosser, Mark Kincey, Alex Densmore, Dammar Singh Pujara, Ram Shrestha, David Milledge, Alex Dunant, Max Van Wyk de Vries, Katherine Arrell, Katie Oven, Gopi Basyal*
15:55 - 16:05	ID: 142 Effect of Heavy Rainfall on the Reinforced Structure of a Earthfill Dam Using Double Steel Sheet Pile Walls *Hiroyoshi Yamazaki, Tadashi Hara, Namihiko Tanaya*
16:05 - 16:15	ID: 251 Geotechnical assessment of a failed slope in Udhampur, Jammu and Kashmir *Mohmmad Umar Rasool, Prasun Halder, Riya Bhowmik*
16:15 - 16:25	ID: 265 Geotechnical Deformations during February 6, 2023 Earthquakes in Kahramanmaraş-Türkiye *Ayfer Erken, Aytaç Yaşargün, Gülçin Şengül Nomaler, Selda Atarod*
16:25 - 16:35	ID: 270 Stability Analysis of a Typical Landslide Under Rainfall Event: Triggering Mechanism and Remedial Measure *Aman Alok, Surender Singh, Abhishek Kumar*
16:35 - 16:45	ID: 281 Exploring the use of remote sensing to enhance geo-disaster management in Nepal *Prabin Acharya, Fangzhou Liu*
16:45 - 16:55	ID: 162 Effects of Gravel on Strength Characteristics of Clay on Slip Surface in Ring Shear Test *Ryusei Takeda, Motoyuki Suzuki*

Parallel Session IV: Geotechnical Engineering for Sustainable Transportation System	
Hall D	**Session Chairs: Dr. AP Singh, Er. Rajendra Raj Sharma**
15:15 - 15:30	**Distinguished Lecture VI:** *Development of risk reduction strategies for transportation corridors using cost-benefit and lifecycle cost analysis* Er. Lauren Hutchinson (Senior Geotechnical Engineer, R&D Lead BGC Engineering Inc.)
15:30 - 15:40	ID: 003 Strength and Durability Characteristics of Reclaimed Pavement Material using Full Depth Reclamation (FDR) Technique *Shilpa Mary Sam, Prateek Negi, Seethalakshmi Palanisamy*
15:40 - 15:50	ID: 047 Performance outcome of geosynthetic stabilized pavement constructed on expansive subgrade *Sagun Shrestha, Md Mizanur Rahman, Md. Rajibul Karim, Hoang Bao Khoi Nguyen*
15:50 - 16:00	ID: 054 Determining the optimal location of geogrid and modulus improvement factor using finite element analysis *Rakesh Peaka, S U S Sai Bhaskar Kalyanapu, Umesh Chandra Sahoo*
16:00 - 16:10	ID: 091 Performance of geopolymer and cement stabilized expansive soil as road materials *Datla Neeraj Varma, Suresh Prasad Singh*
16:10 - 16:20	ID: 126 Finite Element Based Design of Unreinforced Unpaved Roads Resting on Deformable Marginal Soil Subgrade *Nayan Sarma, Anu Tamang, Arindam Dey*
16:20 - 16:30	ID: 132 Bio-enzymatic stabilization of subgrade soil for road construction *Nelson Sanasam, Arunaditya Das, Monowar Hussain*
16:30 - 16:40	ID: 009 Enhancing Strength Behaviour of Fly Ash Using Geopolymerization Technique as a Replacement of Cement in Producing Construction Material *Uday Yadav, Arvind Kumar Jha*
16:40 - 16:50	ID: 216 Design of Geomats for erosion control using RUSLE equation *Ratnakar R Mahajan, Manab Rijal, Piyush Parikh*

Parallel Session V: Environmental Geotechnics	
Hall A	**Session Chairs: Dr. Saurav KC, Er. Ujjwal Niraula**
17:10 - 17:25	**Distinguished Lecture VII:** *Application of PSHA in High-Seismicity Areas: A Case Study from the Sichuan-Yunnan Region* Prof. Dr. Hu Zheng (Director, Institute on Environmental Engineering Geology, Tongji University, China)

17:25 - 17:35	ID: 195 Probabilistic Assessment of Water Table Variation in Engineered mine Waste dump *Rahul Shende, Srinivasan V, Omkar Navagire, Harshit Gupta*
17:35 - 17:45	ID: 269 Characterizing Tropical Indian Peat: In Situ and Laboratory Analysis *Ashim Kanti Dey*
17:45 - 17:55	ID: 312 Settlement Behaviour of Municipal Solid Waste Fines Below Foundation on Staged Loading: A FEM Approach *Abhay Kumar Verma, Bini Samal, Shivani Dhriyan, Prof. Arun Prasad*
17:55 - 18:05	ID: 310 A Comprehensive Review on Characterization and Utilization of Industrial By-products and Municipal Solid Waste *Bibek Chand, Prithvendra Singh, Surender Singh, Devendra N. Singh*

Parallel Session VI: Geohazards and Climate Change

Hall B **Session Chairs: Dr. Basanta Raj Adhikari, Er. Sohail Kibria**

17:10 – 17:25	**Distinguished Lecture VIII:** Translating multi-hazard risk assessment to compounding and cascading disaster risk management for resilient infrastructure Dr. Bhesh Raj Thapa (Principal, Universal Science and Engineering College)
17:25 – 17:35	Road Tunnel Construction in the Himalayan Orogenic Belt – Countermeasures for Geotechnical Problems *Sagar Paudel, Masashi Nakaya, Kenichi Inoue* Hazama Ando Corporation, Nagdhunga Tunnel Construction Project, Nepal
17:35 – 17:45	ID: 286 GMS3 (GPR Mobile mapping System 3D) a unified surface and subsurface spatial information system *José Maria Rodrigues Neto, Jun Shinohara*
17:45 – 17:55	ID: 240 Numerical investigation of suction profiles under cracked soil conditions *Bikash Devkota, Md Rajibul Karim, Md Mizanur Rahman, Hoang Bao Khoi Nguyen, Donald A Cameron*
17:55 – 18:05	ID: 254 Post-Event Monitoring of 2024 Catastrophic Liangshui Landslide (China) using Time Series of Sentinel-1 Imagery with Persistent Scattered Interferometry *Diwakar Khadka, Jie Zhang, Atma Sharma, Shuangyi Wu*

Parallel Session VII: Earthquake Geotechnical Engineering

Hall C **Session Chairs: Dr. Narayan Prasad Marasini, Dr. Subeg Man Bijukchhen**

17:10 – 17:25	**Distinguished Lecture X:** Dam Safety Emergency Management Program for Residual Risk Reduction Global Perspective with Nepalese Context Dr. Keshab Sharma (Geotechnical Engineer, BGC Engineering Inc., Canada)

17:25 – 17:35	ID: 267 Integrated Seismic Hazard Assessment of Moradabad Region, Northern India *Anurag Tiwari, Shashank Shekhar, J L Gautam, G P Singh, Shikha Verma*
17:35 – 17:45	ID: 259 Comparative study of non-linear and equivalent linear Site Response Analysis in Kathmandu valley soil *Saroj Adhikari, Ram Chandra Tiwari, Rajan Karki*
17:45 – 17:55	ID: 287 Static liquefaction under constant shear drained conditions: an evaluation in direct simple shear space *Mohammad Emdadul Karim, Md Mizanur Rahman, Md Rajibul Karim*
17:55 – 18:05	ID: 222 Analysis of Nonlinear Elastic Behaviour of Fibre-reinforced Expansive Soil under Cyclic Loading using Theoretical Analytical Models *Muthukumar Mayakrishnan, S Reehana*

Parallel Session VIII: Geohazards and Climate Change

Hall D — **Session Chairs: Dr. Bhesh Raj Thapa, Dr. Md Rajibul Karim**

17:10 – 17:25	**Distinguished Lecture IX:** *Hazard, Exposure and Vulnerability – A Framework for Geohazard Risk Management in Challenging Terrain* Er. Emily Mark **(**Senior Geological Engineer, BGC Engineering Inc., Canada)
17:25 – 17:35	ID: 083 Multi-temporal clustering method to detect individual landslide response to the 2015 Gorkha Earthquake *Ram Shrestha, Erin Harvey, Mark Kincey, Nick Rosser, Katherine Arrell, Gopi Basyal, Dammar Singh Pujara, Sarmila Paudyal, Alex Densmore, Max Van Wyk de Vries, Ganesh K. Jimee*
17:35 – 17:45	ID: 215 Slope stability and Landslide Mitigation Approach for Structures on Slope – A Case Study *Vishnu G, Tadikonda Venkata Bharat*
17:45 – 17:55	ID: 283 Potential for Landslide Dam Breaching and the Effectiveness of Jure Debris Flow Channel Structures *Sudip Bastola, Aanchal Tiwari, Ram Chandra Tiwari*
17:55 – 18:05	ID: 224 Understanding the Soil Geology in Landslide-Prone Areas in Mauritius *Chetan Keshav Bhuckory, Raj Kumar Dreepaul, Slobodan B. Mickovski*

18:30 – 20:30 **Reception Dinner**

Day 2: 29 November 2024

Day 2 Parallel Sessions (8:30 – 11:05)

Hall / Time	Hall A	Hall B	Hall C	Hall D
8:30-9:45	Parallel Session IX	Parallel Session X	Parallel Session XI	Parallel Session XII
10:00-11:05	Parallel Session XIII	Parallel Session XIV	Parallel Session XV	Parallel Session XVI

Parallel Session IX: AI in Geotechnical Engineering	
Hall A	**Session Chairs: Dr. Albert Liu, Dr. Manita Timalsina**
8:30 – 8:45	**Distinguished Lecture XI:** *Challenges in foundation design of long elevated highway corridor in soft soil* Dr. AP Singh (Honorary Secretary, Indian Geotechnical Society)
8:45 – 8:55	ID: 032 Assessing Landslide Susceptibility in Central Nepal Himalaya: A Comparative Study of Frequency Ratio and Random Forest Machine Learning Approaches *Tulasi Ram Bhattarai, Netra Prakash Bhandary*
8:55 – 9:05	ID: 052 Estimation of Swelling Pressure of Buffer Material Under Adverse Chemical Conditions Using Machine Learning *Sharad Dadhich, Bharat Venkata Tadikonda*
9:05 – 9:15	ID: 130 Development of Prediction Equations for Static and Pseudo-static Stability of Slopes using Regression and Machine Learning Techniques *Rubi Chakraborty, Farquan Ahmad, Arindam Dey, Pijush Samui*
9:15 – 9:25	ID: 172 Application of Bivariate Statistical and Multicriteria Decision Analysis Models for Landslide Susceptibility Mapping: A Case of Palungtar, Gorkha *Shreya Maharjan, Pratik Singh Thakuri*
9:25 – 9:35	ID: 233 Application of CDW materials to enhance the compressive and microstructural characteristics of flexible pavement structure using artificial neural network (ANN) *Krishnaraj Khatri, Shailendra Kumar, Chandresh Solanki*
9:35 – 9:45	ID: 263 Predictive Modeling of Site Amplification using Machine Learning: A Linear Regression Approach *Jaisingh Verma, Aniket Desai, Ravi S. Jakka*

Parallel Session X: Ground Improvement	
Hall B	**Session Chairs: Prof. Dr. Binod Tiwari, Er. Mandakini Karki**
8:30 – 8:45	**Distinguished Lecture XII:** *Developing a Framework for Sustainable and Scientific Extraction of Riverbed Materials from the Chure-Terai Rivers in Nepal* Er. Saroj Karki (Ministry of Water Supply, Irrigation and Energy, Koshi Province, Nepal)
8:45 – 8:55	ID: 183 Curtain Grouting in the Himalayan Rockmass – the Upper Tamakoshi Dam Case Study, Nepal *Sanjib Sapkota*
8:55 – 9:05	ID: 234 Laboratory Evaluation of Stiffness in Prefabricated Vertical Drains for Consolidation of Soft Kaolin Soil under Radial Flow *Dr. Ruchi Pankaj Shrivastava*
9:05 – 9:15	ID: 242 Reliability Assessment of Stone Column Improved Soft Ground Using the First Order Reliability Method *Aditya Kr. Rai, Subhadeep Metya, Gautam Bhattacharya*
9:15 – 9:25	ID: 247 Soil Embankment Stability Improvement by Using Stone Column: A Review *Nitesh Bhange, Prasad Dahale*
9:25 – 9:35	ID: 249 Uplift Behavior of Granular Anchor Pile in Sandy Soil *Shweta Singh, Vishwas Sawant*
9:35 – 9:45	ID: 258 Utilisation of Sand as a Reinforcing Material for Improving the Capacity of Soft Soil *Kevin Somra, Pooja Kharra, Srijan Srijan*

Parallel Session XI: Sustainable Foundation Design and Construction	
Hall C	**Session Chairs: Dr. Rajan Suwal, Er. Kamal Raj Regmi**
8:30 – 8:45	**Distinguished Lecture XIII:** *Climate change and geotechnical structures on expansive soils, challenges and opportunities – An Australian perspective (ID: 313)* Dr. Rajibul Karim (Senior Lecturer, University of South Australia)
8:45 – 8:55	ID: 014 Evaluation of settling behavior of sand particles in stabilizers for cast-in-place piles *Sudip Shakya, Shinya Inazumi, Nakao Koki*
8:55 – 9:05	ID: 066 Finite Element Analysis of Piled Raft Foundation System *Kamalika Das, Akhileshwar Kumar Singh, Yadavendra Pratap*

9:05 – 9:15	ID: 070 Understanding the Effect of Soil Types in Bearing Capacity for Shallow Square Footings *Ujjwal Niraula, Shreya Shrestha, Upendra Shrestha, Meera Neupane, Suresh Raj Joshi*
9:15 – 9:25	ID: 133 Bearing Capacity of Bored Pile Using Semi-Analytical and Numerical Modeling *Amit Kumar Varma, Sanjay Jha*
9:25 – 9:35	ID: 232 Effect of Pile Diameter on the Response of Combined Pile Raft Foundation *Shailja Gupta, Vishwas Sawant, P K Gupta*
9:35 – 9:45	ID: 244 A Review on Geothermal Energy Piles – An Alternative Geotechnical Solution for Sustainable Infrastructure *Hari Krishna P, Sai Venkata Bharath Puppala*

Parallel Session XII: Tunnel Engineering and Underground Construction

Hall D **Session Chairs: Dr. Gyanendra Lal Shrestha, Er. Kalpana Adhikari**

8:30 – 8:45	**Distinguished Lecture XIV:** *Assessment of Water Leakage in Low-Pressure Headrace Tunnel: A Case Study of the Sanjen Hydroelectric Project* Dr. Chhatra Basnet (Chief Executive Officer, Clean Energy Consultants, Nepal) With: *Darshan Babu Adhikari, Arpan Bahadur Singh*
8:45 – 8:55	ID: 123 Integration of Adaptive Design, Construction & Instrumentation for Underground structure: A case study of Surge Tank of Tanahu Hydropower Project, Nepal *Raja Bhai Shilpakar*
8:55 – 9:05	ID: 128 Impact zoning and construction control technology for cross operation tunnels during the construction of new tunnels *Lianjin Tao, Bohan Song, Guangyao Cui*
9:05 – 9:15	ID: 134 Review of D Wall Trench Stability for an Underground Metro Shaft based on Analytical and 2D & 3D Numerical Methods *Sowmiyaa V S, Doraswamy Raju*
9:15 – 9:25	ID: 223 Impact of Multilayered Fiber Reinforced Shotcrete on Structural Integrity: A Study in Underground Mining *Greg You, Thomas Hocking*
9:25 – 9:35	ID: 299 Assessment of Underground Powerhouse for Seti Nadi-3 Hydroelectric Project *Darshan Babu Adhikari, Mohan Prasad Acharya, Gyanendra Lal Shrestha*
9:35 – 9:45	ID: 184 Effectiveness of driving a pilot tunnel coaxially to the main tunnel in low-permeability ground *Alexandros Nordas, Thomas Leone, Georgios Anagnostou*

Parallel Session XIII: Earthquake Geotechnical Engineering

Hall A — **Session Chairs: Dr. Bijaya Jaishi, Er. Rajan KC**

10:00 – 10:15	**Distinguished Lecture XV:** *Data-driven post-earthquake recovery estimation* Dr. Albert Liu (Assistant Professor, University of Alberta, Canada)
10:15 – 10:25	ID: 005 Effect of Liquefaction on Pile-Raft Foundation *Manendra Singh, Mahipal Singh*
10:25 – 10:35	ID: 257 Enhancing Flexible Pavement Performance through Geogrid Reinforcement in 3D Finite Element Analysis *Lokraj Pant, Anchal Tiwari, Arjun Poudel, Ram Chandra Tiwari*
10:35 – 10:45	ID: 136 Seismic Response Analysis of Typical Rectangular Sections of Underground Metro Stations *Sudhir Bikram KC, Guobo Wang, Udaya Raj Neupane, Kreeti Bajracharya*
10:45 – 10:55	ID: 140 Seismic Performance Evaluation for Continuous Use of an Existing Bridge in Nepal *Amit Kumar Varma, Tatsuya Azuhata*
10:55 – 11:05	ID: 175 Evaluating Seismic Impact on Vertical Pipelines Using Laminar Shear Box Modeling *Himanshu Jangir, Anirban Mandal, Srinivasan V*

Parallel Session XIV: Ground Improvement

Hall B — **Session Chairs: Er. Lauren Hutchinson, Er. Darshan Babu Adhikari**

10:00 – 10:15	**Distinguished Lecture XVI:** *Impact Assessment of Overlooking Geotechnical Risk on sustainable road design and construction in challenging terrain throughout the project cycle – A Practice based Approach* Er. Mandakini Karki (Technical Director, Soil Test (P) Ltd.)
10:15 – 10:25	ID: 260 Evaluation of the shear resistance of stone columns using construction demolition waste *Prashant B.Mali, Nithin Jacob John, Amit H Padade, Anjan Patel*
10:25 – 10:35	ID: 264 Performance Evaluation of Expansive Soil Treated with MICP and Industrial waste Materials *Hu Dhorey, Shreyash Nikose, Anjan Patel*
10:35 – 10:45	ID: 278 Analysis of Jet Grouting Performance in Heterogeneous Alluvial Deposits *Akhilesh Chandra Joshi, R D Garg, V A Sawant, Madhukar Agarwal*
10:45 – 10:55	ID: 285 Behaviour of Shallow Footing Rested on Fly Ash-Lime-Clay Stabilized Layer over Deep Seated Cohesive Soil Bed *Sitanshu Rajak, Nirmali Borthakur*

10:55 – 11:05	ID: 308 Characterization and Stabilization of Dispersive Soils in Irrigation Projects *Binod Pun, Mohan Acharya, Rajan KC, Kabin Lamichhane*

Parallel Session XV: Sustainable Foundation Design and Construction

Hall C **Session Chairs: Er. Tuk Lal Adhikari, Er. Birendra Mahaseth**

10:00 – 10:15	**Distinguished Lecture XVII:** *Construction of Pilot Low-Cost High Performance (Base Isolation) School Building in Nepal* Dr. Narayan Prasad Marashini **(**Deputy Executive Director, NSET)
10:15 – 10:25	ID: 283 Potential for Landslide Dam Breaching and the Effectiveness of Jure Debris Flow Channel Structures *Sudip Bastola, Aanchal Tiwari, Ram Chandra Tiwari*
10:25 – 10:35	ID: 288 Benefits of Including CPTu in Geotechnical Investigation Program – A Case Study *Ravi Sundaram, Sorabh Gupta, Sanjay Gupta*
10:35 – 10:45	ID: 061 Geotechnical Study, Design of Landslide Mitigation Measure at CH 27+00 of Pokhara – Baglung Highway *Manab Rijal*
10:45 – 10:55	ID: 303 Behavior of Axially and Laterally Loaded Pile in Layered Soil *Sushil Acharya, N.P. Kaushik, Bhashkar Pathak*
10:55 – 11:05	ID: 304 Seismic Bearing Capacity Analysis of Skirted Footing on Cohesive-Frictional Soil Slopes *Neelagiri Vallaba Datta, Sunil Khuntia*

Parallel Session XVI: Geotechnical Engineering for Sustainable Transportation System

Hall D **Session Chairs: Prof. Dr. Padma Bahadur Shahi, Er. Bhimarjun Adhikari**

10:00 – 10:10	ID:296 Stability Analysis of Roadside Landslide: A Case Study of Bajura *Udaya Raj Neupane, Samana Bhattarai, Achyut Koirala, Bhashkar Pathak, Rajan KC*
10:10 – 10:20	ID: 200 Characterization of Mine Overburden Materials for Pavement Applications: A Microstructural and Small-Scale Study *Jagdish Gouda, Ayush Dudhabaware, Rahul Shende, Sita Rami Reddy, Srinivasan V*
10:20 – 10:30	ID: 248 Numerical Analysis of Highway Embankment constructed using a lightweight fill: A Case Study *Vaibhav Butle, Parvathi G. S, Anirban Mandal, Srinivasan V*
10:30 – 10:40	ID: 250

	Towards enhancing durability of hill roads: numerical investigations on modulus improvement of geocell confined Jammu soil *Aman Sharma, Prasun Halder, Riya Bhowmik*
10:40 – 10:50	ID: 266 Comparative Study on the Effectiveness of Granulated Blast Furnace Slag (GBFS) and Steel Slag (SS) in Improving Engineering Properties of Black Cotton Soil *Anurag Khadse, Amit Padade, Anupam Pande, Prashant Mali*
10:50 – 11:00	ID: 291 Mitigation of railway induced vibrations: A state of art *Utkarsh Mishra, Vishwas Sawant, Jagdish Sahoo*
11:00 – 11:10	Road tunnel construction in the Himalayan orogenic belt -Convergence measurement and ground behavior *Sanjil Khanal, Masashi Nakaya, Kenichi Inoue* Hazama Ando Corporation, Naghdhunga Tunnel Construction Project, Nepal

11:15 – 12:45	**Poster Session**

12:15 – 13:00	**Lunch Break**

Keynote Lecture Session IV (13:00 – 14:30)	
Main Hall	**Session Chair: Prof. Dr. Amod Mani Dixit, Dr. Mohan Prasad Acharya**
13:00 – 13:25	**Keynote Lecture IX:** Rapid and long runout landslides triggered by different liquefaction mechanisms Prof. Dr. Fawu Wang (Professor, Tongji University, China)
13:25 – 13:50	**Keynote Lecture X:** *Lightweight Cellular Concrete (LCC) – Sustainable Solution to Geotechnical Applications* Prof. Dr. Binod Tiwari (Associate Vice President, California State University, Fullerton, USA)
13:50 – 14:15	**Keynote Lecture XI:** *Sustainable gabion technology adapted to developing countries* Prof. Dr. Tadashi Hara (Professor, Kochi University, Japan)
14:15 – 14:25	**Q & A**
14:25 – 14:30	**Sponsor Presentations**

Keynote Lecture Session V (14:30 – 16:05)	
Main Hall	**Session Chairs: Assoc. Prof. Dr. Indra Prasad Acharya, Er. Prabhat Kumar Jha**
14:30 – 14:55	**Keynote Lecture XII:** Physical and numerical modeling of Debris Flow Behavior, Runout, and Deposition: Insights from Indian Case Studies Prof. Dr. Neelima Satyam (Professor, Indian Institute of Technology – IIT, Indore, India)
14:55 – 15:20	**Keynote Lecture XIII:** *Comprehensive Subsurface Characterization in Extreme Regions*

	Prof. Dr. Jong-Sub Lee (Professor, Korea University, South Korea)
15:20 – 15:45	**Keynote Lecture XIV:** *Key aspects of the liquefaction potential of gravelly soils: insights from laboratory investigations* A/Prof. Dr. Gabriele Chiaro (Associate Professor, University of Canterbury, New Zealand)
15:45 – 15:55	**Q & A**
15:55 – 16:05	**Sponsor Presentations**

HTC Special Session (16:10 – 17:20)	
Main Hall	**Session Chair: Prof. Dr. Neelima Satyam**
16:10 – 16:20	Introduction to HTC Project of ISSMGE Prof. Dr. Neelima Satyam
16:20 – 17:00	Status of HTC project (focusing at Geohazards) with the participating national member societies (India, Japan, Korea, Nepal, Pakistan, Sri Lanka, etc.), 3-minute one slide presentation by each representative
17:00 – 17:15	Floor Discussion
17:15 – 17:20	Closing Remarks Prof. Dr. Neelima Satyam

Closing Session (17:20 -17:50)	
17:20 – 17:50	Details to be notified later.
Gala Dinner (18:00 – 20:30)	
18:00 – 20:30	Details to be notified later.

Poster Presentation Papers

Title and Authors
ID: 018 Lessons Learned from the 2023 Jajarkot Earthquake (Mw 5.7): Insights for Future Major to Mega-Scale Earthquake Preparedness *Kabin Lamichhane, Rajan KC, Mandip Subedi, Jibendra Misra, Keshab* Sharma, *Keshab Sharma*
ID:079 Effect of Dielectric Constant of pore fluids on free swell potential of bentonite and kaolinite clays *Unnikrishnan S, N. K. Samadhiya*
ID: 297 Liquefaction Hazard Mapping in Terai Region of Nepal *Richa Pokhrel, Santosh Pokhrel, Luna Pokhrel, Kishor Paudel, Rajan KC*
ID: 198 Parametric Optimization of Design Factors for Driven Soil Nail Structure using Finite Element Method Framework *Ram Chandra Tiwari, Prabhat Kumar Jha, Niraj Chapagain, Samyak Shrestha, Prashant Bist, Mahesh Khanal, Mohammad Baseer Miya, Manoj Mukhiya, Aanchal Tiwari*
ID: 245 The relationship between a power plant site's 1D site-specific analysis conducted prior to and following ground improvement.

Anan Das Bristi

ID: 049
Attenuation of seismic waves through geogrids
Ashutosh Adhikari, Bibek Maharjan, Bineet Raj Kuikel, Laxman 15handra, Rajendra Pangeni, Anup Lamichhane, Ram Chandra Tiwari, Aanchal Tiwari

ID: 268
Geological Mapping and Rock Mass Classification along Barghat to Dumkibas Road Tunnel (Part of Mahendra Highway)
Bhim Raj Neupane, Bishwas Sharma, Prakash Das Ulak, Narayangopal Ghimire

ID: 294
Analysis of Roadside Landslides in Nepal: A Case Study of the Inarpani Landslide on the Midhill Highway
Kalpana Adhikari, Kiran Kumar Maharjan, Rajan KC, Susmita Timalsina, Biraj Ojha

ID: 246
Slope Stability in Colluvial soil: Understanding the problems and solutions
Kumar Bhandari

ID: 277
Prediction of Rock spalling or rock bursting problem in Tunnel
Chet Nath Neupane, Trilok 15handra Bhatta, Bhagawan Shrestha

ID: 164
Design and Case Studies of Polymeric Strip Reinforced Soil True Abutment
Harshith PS, Manab Rijal, Ratnakar R Mahajan

ID: 300
A case study on stability and economic analysis of earthen dam
Milan Paudel, Bikash Devkota

ID: 272
Improving Soil Strength with Plastic Materials: A Study on California Bearing Ratio (CBR) Tests using Advanced Techniques
Vijay Shalini Gondwal, Bhishm Singh Khati, Ashish Gupta

ID: 202
Deep Excavation Support in Soft Ground with Parametric Variations for Adjacent Structures.
Madan Puri, Ujjwal Niraula, Bhim Dahal

ID:311
Regarding Ground Disasters Caused by the 2024 Noto Peninsula Earthquake
Nobuaki Kitamura, Nishikawa Toru

ID: 293
Slope Stability Assessment in Cut Slope: Kanti Lokpath Road Section Case Study
Karan Budhathoki, Laxman KC, Samana Bhattarai, Bichin KC, Bala Mahar, Avishek Karki, Survarna Singh Raut

ID: 065
Performance of Ordinary and Geotextile Encased Stone Columns in Soft Soil – Laboratory Experiment and Numerical Modelling
Imalka Weerawardana

ID: 087
Jute Reinforced Geo-Structures – A Critical Review Towards Sustainability
Sk Ajfar Hossain, Sarkar Tanmoy, Arghadeep Biswas, Rahaman Obaidur

ID: 149

Exploring the Influence of Fly Ash, Rice Husk Ash, and Recycled Concrete Aggregates on Sustainable Concrete Production
Uday Yadav, Prashanta Poudel, Kishor Paudel, Ujjwal Upadhayay

ID: 298
Stability Analysis of Transmission tower foundation in hilly area of Nepal
Bhashkar Pathak, Udaya Raj Neupane, Prakash Dhungana

ID: 276
Evaluation of stone column as liquefaction mitigation
Bishal Bimali, Bishal Mahara, Aditya Baniya, Laxmi Adhikari, Bhim Dahal

ID: 148
Durability Assessment of River Aggregate in Natural, Immersed, and Chemically Treated Conditions
Uday Yadav, Prashanta Poudel, Kishor P Paudel, Ujjwal Upadhayay

ID: 067
Stress and Deformation in Twin Tunnel and Support Design Optimization at Sanga Pass – Nepal using Numerical Modeling
Susmita Aryal, Satyam Yadav, Swostika Dhakal, Tanuj Bhatta , Sudarshan Gautam

ID: 273
Combined Piled Raft Foundation (CPRF) on the Soft Ground Improved Prefabricated Vertical Drain: Review
Shweta Sagole, Prasad Dahale

Road tunnel construction in the Himalayan orogenic belt -Study of supports using 2D FEM analysis-
Susmita Aryal, Mikio Ikemura, Kenichi Inoue
Hazama Ando Corporation, Nagdhunga Tunnel Construction Project, Kathmandu, Nepal

Road tunnel construction in the Himalayan orogenic belt – NATM theory and geological characteristics
Sajal Shrestha, Masashi Nakaya and Kenichi Inoue
Hazama Ando corporation, Nagdhunga Tunnel Construction Project, Kathmandu, Nepal

ID:209
Internal stability analysis of geosynthetic reinforced soil wall using pseudo-static method with non-linear failure surface compared with finite element analysis
Gopal Das, Manojit Samanta

ID: 290
Slope Stability Techniques for Old dump sites in Developing Countries
Sudeepta Malakar, Abhishek Kumar, Anil Kumar Mishra

ID: 295
Possibilities of Geo-phones in Slope Failure and Landslide Monitoring
Saiichi Sakajo, Netra Prakash Bhandary and Takashi Kato

ID:306
Soil Structure Interaction Effect In Foundations
Khemraj Pokharel, Sushan Prajapati, Unisha Ghimire, Kundan Sharma, Ramesh Karki, Prem Nath Maskey

ID:180
Use of Waste Fly Ash as a Reinforcing Material for Soft Clay
Srijan, Shashwat Singh, Gautam Narula, Rohit Kumar, Abhijeet Gupta, Rishikesh Kanitker

ID:209
Internal stability analysis of geosynthetic reinforced soil wall using pseudo-static method with non-linear failure surface

Gopal Das, Manojit Samanta

ID:122

Development Of Mechanistic-Empirical Seismic Design Method For Estimation Of Low Volume Flexible Road Pavement Thickness Without Bituminous Binder Base

Sourav Paul, Partha Pratim Biswas, Manoj Kumar Sahis

ID: 074

Determine the Criteria Weights of Geotechnical Parameters of Over Burden Dump Slope by Implementation of Fuzzy Analytic Hierarchy Process – A Case Study

Prasad Dahale, Sumit Geete, K. H. Singh, TN Singh