

Technical Sessions

Session 1A: Seismic geotechnics 1

25 October 2023	
Session 1A: Seismic geotechnics 1	
Time:	10:15 - 11:30 Room: World Ballroom A
Chairperson(s):	Asst. Prof. Dr.Susit Chaiprakaikeow Asst. Prof. Dr.Suriyon Prempramote
Dynamic Shear Modulus in Jakarta	
<i>Paper ID: 750</i>	Rara Novianti, Chriswini Tanaka, Annisa Tadiyana and Erizka Ramdhiani
Seismic Liquefaction Risk and Damage Assessment of Low- rise Building in Urban City	
<i>Paper ID: 1651</i>	Chih-Wei Lu, Bo-Cheng Chen and Li-Ya Huang
Direct Method of Soil-pile Rows interaction Seismic Analysis	
<i>Paper ID: 2536</i>	Rigoberto Rivera Constantino, Carmelino Zea Constantino and Germán López Rincón
Seismic Hazard Risk Assessment of Farm Ponds	
<i>Paper ID: 3833</i>	Chi-Cheng Wu, Chia-Hsin Cheng, Chih-Wei Lu, Yu-Feng Lin and Wei-Lin Lee

Session 1B: Admixture in geotechnics 1

25 October 2023			
Session 1B: Admixture in geotechnics 1			
Time:	10:15 - 11:30	Room:	World Ballroom B
Chairperson(s):	Assoc.Prof.Dr.Peerapong Jitsangiam		Dr. Thanon Bualuang
Influence of Curing Time and Temperature on Strength Development of Artificial Clay with Cement-Based Binder Material			
<i>Paper ID: 2497</i>	Afif Fauzan Muslim, Toshiyuki Himeno, Hirofumi Usui, Mathiro Jose Sindete and Takenori Hino		
Investigating the Suitability of Bentonite Sludge from Deep Foundation Construction for Landfill Applications			
<i>Paper ID: 3039</i>	Nuttachai Prongmanee, Thayanan Boonyarak, Sereyroath Chea, Narong Thasnanipan, Zaw Zaw Aye and Amorndech Noulmanee		
Improvement of High-Water Content Sludges using Ordinary Portland Cement as Construction Materials			
<i>Paper ID:3056</i>	Thanet Thongdetsri, Nattapas Khumsuprom, Sittinon Noipasee, Path Pongpayuha, Apiniti Jotisankasa, Shinya Inazumi and Supakij Nontananandh		
Flexural Strength Properties of Compacted Cement - Fly Ash from Municipal Solid Waste - Polypropylene Fiber Sand			
<i>Paper ID:5547</i>	Chalermpon Wungsumpow, Sakol Pochalard, Keeratikan Piriyakul and Killian Bardet		

Session 1C: Foundations 1

25 October 2023			
Session 1C: Foundations 1			
Time:	10:15 - 11:30	Room:	World Ballroom C
Chairperson(s):	Dr.Jitesh T. Chavda	Assoc.Prof.Dr.Sompote Youwai	
Instability of Ground Settlement in Infrastructure Area induced by Seepage Erosion			
<i>Paper ID:8500</i>	Watchara Srisakul, Thitinan Indhanu, Thanakorn Chompoorat, Chayutpong Manakul and Tanan Chub-Uppakarn		
Case Study of Settlement Analysis in Kaohsiung Railway Project			
<i>Paper ID:714</i>	Dofran Winner Luhulima and Chung-Ren Chou		
Finite Element Analysis of Circular Skirted Footing in Granular Soil			
<i>Paper ID:455</i>	Rakesh Kumar, Arati Pradhan, Abhijeet Shukla, Akash Jaiswal, Neeraj Kumar and Vaishali Yede		
Case Study on Capacity of Bored Piles Using Bi-directional Load Cell			
<i>Paper ID:681</i>	San-Shyan Lin, Chih-Yu Su, Chen En Chiang and Chwen-Huan Wang		
FELA Evaluation of Undrained Vertical Bearing Capacity of Ring footings with Skirts			
<i>Paper ID:2242</i>	Hitesh Rupani and Jitesh Chavda		

Session 2A: Seismic geotechnics 2

25 October 2023			
Session 2A: Seismic geotechnics 2			
Time:	11:30 - 12:30	Room:	World Ballroom A
Chairperson(s):	Asst. Prof. Dr.Susit Chaiprakaikew	Asst. Prof. Dr.Suriyon Prempramote	
Influence of Induced Anisotropy on Re-Liquefaction Resistance in Terms of Void Characteristics: An Image Analysis Study			
<i>Paper ID:4181</i>	Rawiwan Sukhumkitcharoen, Junichi Koseki and Masahide Otsubo		
The effect of damping on a simulation for the dispersion curve of the surface wave			
<i>Paper ID:4422</i>	Zane Zhou and Thomas M.H. Lok		
Comparison of Various Liquefaction Triggering Procedures Conducted for a Reclamation Project in Laguna Lake			
<i>Paper ID:4830</i>	Roodney Ortal, Andre Pineda, Gian Reyes and Roy Luna		
Effects of Loading Frequency on Panel-Faced GRS Walls for Railways			
<i>Paper ID:4902</i>	Bala Harsha Srusti and Amit Prashant		
2D Dynamic Numerical Modelling of a Tunnel – Soil – Building System Subjected to Seismic Loading			
<i>Paper ID: 4001</i>	Zhengyao He and S.P. Gopal Madabhushi		

Session 2B: Admixture in geotechnics 2

25 October 2023			
Session 2B: Admixture in geotechnics 2			
Time:	11:30 - 12:30	Room:	World Ballroom B
Chairperson(s):	Assoc.Prof.Dr.Peerapong Jitsangiam	Dr. Thanon Bualuang	
Investigation on the Difficulty of Stirring and Mixing in Soil Improvement with Slurry Binder			
<i>Paper ID:6251</i>	Kimihiro Mitsuse, Takenori Hino and Hirohumi Usui		
Some geotechnical properties of acetone-contaminated bentonite and kaolinite-bentonite mixture			
<i>Paper ID:7305</i>	Riya Roy and Anil Kumar Mishra		
Unconfined Compressive and Splitting Tensile Strength of Improved Hasuiké and Ariake Clay for Use as Slab			
<i>Paper ID:7332</i>	Mathiro Jose Sindete, Hirofumi Usui, Donzala David Some, Afif Fauzan Muslim and Takenori Hino		
Effect of Solid Waste on Swell–Shrink Behaviour of Clay with Intermediate Plasticity			
<i>Paper ID:8300</i>	Apurv Kumar Prajapati and Hasan Rangwala		
Strength Development Characteristics of Improved Soil with Different Water-Cement Ratios and Mixing Times in Hasuiké Clay			
<i>Paper ID:8812</i>	Kazuma Aso, Hirofumi Usui, Mathiro Jose Sindete, Donzala David Some, Afif Fauzan Muslim and Takenori Hino		

Session 2C: Foundations 2

25 October 2023			
Session 2C: Foundations 2			
Time:	11:30 - 12:30	Room:	World Ballroom C
Chairperson(s):	Dr. Jitesh T. Chavda	Assoc.Prof.Dr.Sompote Youwai	
Exploring the Response of Single Piles and Pile Groups to Lateral Loading in Sand using 3D FEM Analysis			
<i>Paper ID:2784</i>	Thawatwong Phatsak and Warat Kongkitkul		
The Effect of Groundwater Level on the Bearing Capacity of Shallow Foundation			
<i>Paper ID:2948</i>	Chartrabhumi Viratjandr		
The Failure of Driven Piles Construction in the Thickness of Soft Sensitive Clay along the Canal: A Case Study in Nonthaburi Province, Thailand			
<i>Paper ID:5523</i>	Taweephong Suksawat, Salisa Chaiyaput, Jakkaphong Wongkumchun, Jiratchaya Ayawanna and Thanadol Kongsomboon		
Compressive and Tensile Behavior of a pre-bored grouted planted pile in silty sand from instrumented load tests			
<i>Paper ID:3324</i>	Chwen-Huan Wang, San-Shyan Lin, Yi-Fang Wang and Chia-Chun Tsai		

Session 3A: Seismic geotechnics 3

25 October 2023	
Session 3A: Seismic geotechnics 3	
Time:	14:45 - 16:00
Room:	World Ballroom A
Chairperson(s):	Dr. Jitrakon Prasomsri Dr. Weeradetch Tanapalungkorn
Effects of silt content on the cyclic stress-strain behavior of cohesive soils	
<i>Paper ID:8203</i>	Paritta Suphakowit and Pongpipat Anantanasakul
Evaluation of soil liquefaction using non-linear ground response analysis and semi-empirical approach	
<i>Paper ID:8975</i>	Suman Puja, Navnit Kumar and Shiv S. Kumar
A Study on the Liquefaction-Induced Uplift of Buried Pipelines Using Shaking Table Tests	
<i>Paper ID:9285</i>	Yung-Yen Ko, Tung-Ying Tsai and Kun-Yan Jheng
The effect of sand wave on the holding capacity of drag embedded anchor	
<i>Paper ID:3028</i>	Yu-Shu Kuo, Ping-Hsien Chin, Chao-Ming Chi, Shang-Chun Chang and Yu-Hsiu Tseng
Comparative Study of Equivalent Linear and Non-linear Site-Specific Ground Responses of Amaravati Soils, India	
<i>Paper ID: 801</i>	Rambha Satyannarayana and Giridhar Rajesh Bande

Session 3B: Admixture in geotechnics 3

25 October 2023			
Session 3B: Admixture in geotechnics 3			
Time:	14:45 - 16:00	Room:	World Ballroom B
Chairperson(s):	Prof.Dr.Panich Voottipruex	Dr.Raksiri Sukkarak	
Strength development in cement and fly ash admixed Bangkok clay with considering shear wave velocity			
<i>Paper ID:9301</i>	Sakol Pochalard, Chalermpon Wungsumpow and Keeratikan Piriyaikul		
Pinhole Test of Dispersive Soil treated with Cement Content by Deep Mixing Method: A Case Study on Morasuab Dam			
<i>Paper ID:9509</i>	Suraj Bhattarai and Suttisak Soralump		
Characterization of coal mine waste in North East collieries of India			
<i>Paper ID:9512</i>	Syamili Sarma and Anil Kumar Mishra		
Geotechnical interpretation of the interlayered structure of fine-grained and coarse-grained soil adopted in Japanese old tumuli 'Kofun'			
<i>Paper ID:9546</i>	Yutaro Hara and Reiko Kuwano		

Session 3C: Foundations 3

25 October 2023			
Session 3C: Foundations 3			
Time:	14:45 - 16:00	Room:	World Ballroom C
Chairperson(s):	Dr. Erwin Oh	Asst. Prof. Dr.Pongpipat Anantanasakul	
Laterally Loaded Piled Raft Foundation in Bangkok Clay			
<i>Paper ID:7598</i>	Sommart Swasdi, Samsudin Lateh, Tanan Chub-Uppakarn and Chayutpong Manakul		
Pile load settlement prediction by using non-linear load-transfer curves			
<i>Paper ID:9508</i>	Yong Ping Oh, Poh Hai Ooi, Jon Sinnreich, Yeong Kang Lee, How Hock Wong Oscar and Kar Weng Wong		
Casting Test and Fluid Analysis for Cast-in-Place Concrete Piles with Vertically Varying Strength			
<i>Paper ID:9748</i>	Sadayuki Ishizaki, Natsumi Tomita, Toru Watanabe and Hiroyuki Narihara		
Back analysis of some design parameters for bored piles in Phnom Penh cohesive soils			
<i>Paper ID:9885</i>	Khhok Ing and Pongpipat Anantanasakul		
Effect of Soil Slope on Lateral Response of Piled Raft Foundations in Cohesive Soil			
<i>Paper ID:969</i>	Samsudin Lateh, Sommart Swasdi, Tanan Chub-Uppakarn, Pornkasem Jongpradist and Chayutpong Manakul		

Session 4A: Ground improvement 1

26 October 2023	
Session 4A: Ground improvement 1	
Time:	9:00 - 10:15
Room:	World Ballroom A
Chairperson(s):	Assoc.Prof.Dr.Supakij Nontananandh Dr.Nipon Teerachaikulpanich
Serviceability limit state design of gabion walls and GSC concept	
<i>Paper ID:684</i>	Petrucio Santos Junior, Matteo Lelli and Norawat Rattananungsan
Soil Improvement by Dynamic Compaction of Various Trial Techniques on Sandy Soil with High Fines Content and High Ground Water Table	
<i>Paper ID:1240</i>	Diandri Fakhri Alditra, Susit Chaiprakaikeow, Suriyon Prempramote and Suttisak Soralump
Consideration of Multiple Factors for Quality Control of Improved Clay from Vacuum Consolidation Method	
<i>Paper ID:1796</i>	Suttisak Soralump, Avidha Shah and Sartsin Phakdimek
Mathematical equations for soil freezing characteristic curve	
<i>Paper ID:2519</i>	Bakytkul Serikbek, Alfrendo Satyanaga, Jong Kim and Sung Moon

Session 4B: Numerical analysis 1

26 October 2023			
Session 4B: Numerical analysis 1			
Time:	9:00 - 10:15	Room:	World Ballroom B
Chairperson(s):	Prof. Louis Ge	Dr.Chortham Srinil	
Study the Ground Settlement of Soft Clay using Discrete Element Method			
<i>Paper ID:343</i>	Pairoj Kajojilertsakul, Suriyon Prempramote and Suttisak Soralump		
Empirical and Numerical Settlement Analysis Comparison for Horizontal Directional Drilling (HDD) works			
<i>Paper ID:5713</i>	Atiqah Azmi, Allan L.Y Chwee, Sharmeelee Subramaniam and Eg Balakrishnan		
The Response of the Railway Bridge End-Support Region to Moving Load: A Brief Numerical Study			
<i>Paper ID:8080</i>	Aritra Bagchi and Prishati Raychowdhury		
Computer Vision for Particle Size Analysis of Coarse-Grained Soils			
<i>Paper ID:4008</i>	Sompute Youwai and Parachya Makam		

Session 4C: Sustainability in geotechnics

26 October 2023	
Session 4C: Sustainability in geotechnics	
Time:	9:00 - 10:15
Room:	World Ballroom C
Chairperson(s):	Dr.Thayanan Boonyarak Asst. Prof. Dr.Arwan Apriyono
Modeling tree-induced soil movement in compacted clay: An analysis of the influence of contrasting tree species	
<i>Paper ID:1551</i>	Yuliana Yuliana, Arwan Apriyono, Viroon Kamchoom and Anthony Kwan Leung
Applying electrokinetic technology coupled with biological permeable reactive barrier to Cu- and Pb-contaminated loess remediation	
<i>Paper ID:2264</i>	Wen-Chieh Cheng, Lin Wang and Zhong-Fei Xue
Numerical Study of Water Infiltration in Biochar-Amended Landfill Covers Under Extreme Climate	
<i>Paper ID:3081</i>	Arwan Apriyono, Yuliana Yuliana, Zhongkui Chen and Viroon Kamchoom
Alkali-activated, cementless, controlled low-strength materials (CLSM) performance utilizing industrial by-products supporting a high-volume asphalt pavement	
<i>Paper ID:9726</i>	Thanakit Thepumong, Anupong Khamplod, Worathep Sae-Long, Thanakorn Chompoorat and Suched Likitlersuang
Instability of Ground Settlement in Infrastructure Area induced by Seepage Erosion	
<i>Paper ID:8500</i>	Watchara Srisakul, Thitinan Indhanu, Thanakorn Chompoorat, Chayutpong Manakul and Tanan Chub-Uppakarn

Session 5A: Ground improvement 2

26 October 2023	
Session 5A: Ground improvement 2	
Time:	10:45 - 12:00
Room:	World Ballroom A
Chairperson(s):	Dr. Erwin Oh Dr.Nipon Teerachaikulpanich
Applicability of simple settlement and water content change formulae for settlement of very soft clay under preloading	
Paper ID:2907	G. Ong, H. Chen, S. Wu, and J. Chu
A Field Prototype Test of Rapid Impact Compaction for Ground Improvement and Backfill Compaction at U-Tapao Airport	
Paper ID:2657	Sompote Youwai, Sirasak Detcheewa and Athasit Sirisonth
Evaluation of Bottom Grouting Quality for the Metropolitan Waterwork Authority (MWA) project	
Paper ID:4202	Thanaphon Saelao, Kuo Chieh Chao, Shih-Hao Cheng, Ricky K. N. Wong and Morris Wang
Effect of viscosity agent on spoil flushed out in jet grouting	
Paper ID:5994	Arashi Shimano, Min Ju Li, Wong Ricky K. N., Chao Kuo Chieh and Nakanishi Yasuhara
Failure of grouting at utility gaps interfacing with ERSS at reclaimed land in Singapore	
Paper ID:6096	Sreenivasan Sreenath

Session 5C: Construction & Excavation 1

26 October 2023			
Session 5C: Construction & Excavation 1			
Time:	10:45 - 12:00	Room:	World Ballroom C
Chairperson(s):	Mr. Zaw Zaw Aye	Dr.Thayanan Boonyarak	
Evaluation of excavation stability with a strut-free retaining system in soft clays			
<i>Paper ID:406</i>	Ari Surya Abdi and Chang-Yu Ou		
Temporary working platforms - designs and site verification methods			
<i>Paper ID:657</i>	Katarzyna Ria Zamara		
Relative Density Evaluation in Non-compacted Embankment Layers using Embedded Measurement			
<i>Paper ID:2372</i>	Jong-Sub Lee, Younggeun Yoo and Namsun Kim		
Digitization management systems for obstacle removal by grouting improvement on an underpass pipe-roof tunneling project in clayey layers			
<i>Paper ID:6387</i>	Shih-Hao Cheng, Ricky K. N. Wong, Min-Ju Li and Liao Hung-Jiun		

Session 6A: Ground Improvement 3

26 October 2023			
Session 6A: Ground improvement 3			
Time:	13:45 - 15:00	Room:	World Ballroom A
Chairperson(s):	Prof. Dr.Pitthaya Jamsawang	Dr.Chana Phutthananon	
PVD's to dissipate excess pore pressures during Dynamic Compaction of Clayey Sands with 30-45% Fines Content			
<i>Paper ID:6679</i>	Francisco Baez, Phatthana Pansaen and Jansen Rementilla		
Study the Behavior of Excess Pore Water Pressure in Sand Subjected to Dynamic Compaction			
<i>Paper ID:8314</i>	Chayakorn Jangsakul, Susit Chaiprakaikew, Suriyon Prempramote and Suttisak Soralump		
Numerical Back Analysis from Observational Method for Consolidation Settlement due to the Preloading			
<i>Paper ID:9957</i>	Mahabub Sadiq		
Investigation on Strength Development Characteristics of Improved Soil Based on the Relationship Between Consistency and Shear Strength			
<i>Paper ID:6105</i>	Yusei Matsuo, Hiruhumi Usui, Takenori Hino and Toshiyuki Himeno		

Session 6B: Slope stability

26 October 2023			
Session 6B: Slope stability			
Time:	13:45 - 15:00	Room:	World Ballroom B
Chairperson(s):	Dr. Mark Zarco	Assoc.Prof.Dr.Viroon Kamchoom	
Development of IoT Slope Monitoring System and a Case History of Kratu-Patong Road Landslide in Phuket, Thailand			
<i>Paper ID: 5801</i>	Apiniti Jotisankasa, Washirawat Praphatsorn, Isaranu Janthong, Auckpath Sawangsuriya and Poranic Jitareekul		
Evaluation of the Impact of Expansive Clay Heaving on Seepage and Stability of an Earth Dam			
<i>Paper ID:775</i>	Faheem Shah, Kuo-Chieh Chao and Suttisak Soralum		
Selection of Ideal Landslide Mitigation Technique for a Region- A Case Study			
<i>Paper ID:3335</i>	Vishnu G and Bharat Tv		
Evaluation of Rock Slope Failure Mechanism for the PHPA-I Dam in Bhutan			
<i>Paper ID:3011</i>	Rinchen Lhamo and Kuo Chieh Chao		
Mechanism of Rainfall - Triggering Slope Failure of Volcanic Soil in Caok, Purworejo, Indonesia			
<i>Paper ID:6188</i>	Agus Setyo Muntohar and Farid Nur Bahti		
Groundwater Response to Rainfall at a Natural Hillside in Hong Kong			
<i>Paper ID:1611</i>	Florence Ko, Lotty Lee and D.S. Chang		

Session 6C: Construction & Excavation 2

26 October 2023			
Session 6C: Construction & Excavation 2			
Time:	13:45 - 15:00	Room:	World Ballroom C
Chairperson(s):	Mr. Zaw Zaw Aye	Assoc.Prof.Dr.Salisa Chaiyaput	
Collapse risk evaluation of subsurface cavities -Cavity behaviour on a full-scale test road			
<i>Paper ID:6792</i>	Reiko Kuwano and Jiro Kuwano		
Penetration Rate Prediction Models for Hard Rock TBM using Deep Learning and Block Model Techniques in the Construction Phase: A Focus on the Mae Tang-Mae Ngad Tunnel Project in Northern Thailand			
<i>Paper ID:8747</i>	Nantapol Monthanopparat and Tawatchai Tanchaisawat		
Design and Feedback Analyses of Deep Excavation in Mixed Ground A Case Study of Taipei MRT Projects			
<i>Paper ID:9519</i>	Jung-Feng Chang, Chung-Ren Chou and Sri Ratna Wahyuningsih		
Effects of wall system stiffness on movement of diaphragm wall in soft marine clay			
<i>Paper ID:9649</i>	Thayanan Boonyarak, Zaw Zaw Aye and Aye Yadana Aung		
Engineering Challenges on Deep Excavation, Column and Viaduct Pier Foundation in Karstic Limestone Formation – Using Case Studies			
<i>Paper ID:2731</i>	Komma Srinivasulu, Sharmeelee Subramaniam and Weng Kwen Ho		
Time-Dependent Sheet Pile Wall Deformation for Braced Excavation during One-Month Construction Pause			
<i>Paper ID:3256</i>	Jirat Teparaksa		

Session 7A: Geosynthetics

26 October 2023	
Session 7A: Geosynthetics	
Time:	15:45 - 17:15 Room: World Ballroom A
Chairperson(s):	Asst. Prof. Dr.Tawatchai Tanchaisawat Dr.Chana Phutthananon
Prediction of Creep Behaviour for a Polypropylene Geogrid using Temperature-Accelerated Stress Relaxation Test Results	
<i>Paper ID:285</i>	Rawiwan Eakintumas and Warat Kongkitkul
Stability of hidden cavity in base course reinforced by geosynthetics	
<i>Paper ID:639</i>	Jiro Kuwano, Jion Hashimoto and Ryusei Terauchi
Model study on the application of geosynthetics surface cover for erosion control of soil slope against overtopping flows	
<i>Paper ID:2525</i>	Muhammad Monirul Islam, Muhammad Umer Afzal, Masayasu Hirai and Jiro Kuwano
Static and Cyclic simple shear tests on Pond ash reinforced with geogrid	
<i>Paper ID:6841</i>	Ghanta Naga Sireesha and Prishati Raychowdhury
Innovative geotextiles with enhanced drainage performance in unsaturated soils	
<i>Paper ID:9434</i>	Tack Weng Yee

Session 7B: Ground investigation

26 October 2023			
Session 7B: Ground investigation			
Time:	15:45 - 17:15	Room:	World Ballroom B
Chairperson(s):	Dr. Mark Zarco	Assoc.Prof.Dr.Viroon Kamchoom	
Investigation on acidity distribution by peat soil in South Kalimantan, Indonesia			
<i>Paper ID:1581</i>	Siti Rizkyna Noorsaly, Yuichiro Mishima and Maya Amalia Achyadi		
Development of in-situ direct shear test apparatus and its application to Dozou-sawa volcanic pumice soil			
<i>Paper ID:7104</i>	Makoto Kuno, Akira Sato, Reiko Kuwano and Hiroyuki Hashimoto		
Fundamental Study on Distribution of Crust Layer and Groundwater Level in Saga Lowland			
<i>Paper ID:9816</i>	Aika Kurishima, Hiroki Ariyama, Mathiro Jose Sindete and Takenori Hino		
Verification of piezo drive cone data against standard penetration and cone penetration tests: a case study in Taiwan			
<i>Paper ID:4532</i>	Yu-Syuan Jhuo, Nobuyuki Hiruma, Mitsuru Yabe, Shih-Hao Cheng, Chih-Jung Chien and Louis Ge		