

GEOTECHNICAL ENGINEERING

TABLE OF CONTENTS

Special Issue on Geosynthetic-reinforced Earth Structures

Guest Editor: Jie Han

<u>Paper Title</u>	<u>Pages</u>
Some Issues in Geosynthetic Reinforced Walls and Slopes <i>by D. Leshchinsky</i>	1 – 8
Advance in Geogrid Reinforced Slopes in Malaysia <i>by</i> <i>T.A. Ooi and C.H. Tee</i>	9 – 34
Embankment Construction with Saturated Clayey Fill Material Using Geocomposites <i>by J.-C. Chai, T. Hino, Y. Igaya, and Y. Yamauchi</i>	35 – 41
Numerical Modeling of Geosynthetic-Reinforced Earth Structures and Geosynthetic-Soil Interactions <i>by J. Huang, A. Bhandari, and X. Yang</i>	42 – 55
Geosynthetic Tubes and Geosynthetic Mats: Analyses and Applications <i>by J. Chu, W. Guo, and S.W. Yan</i>	56 – 65
Performance-based Design for Geosynthetic Liner Systems in Landfills <i>by Y.M. Chen, W.A. Lin, B. Zhu, and L.T. Zhan</i>	66 – 73
Quantifying the Influence of Geosynthetics on Performance of Reinforced Granular Bases in Laboratory <i>by J. Han, Y. Zhang, and R.L. Parsons</i>	74 – 83

GEOTECHNICAL ENGINEERING

TABLE OF CONTENTS

Special Issue on Pile Foundations

Guest Editor: Tatsunori Matsumoto

<u>Paper Title</u>	<u>Pages</u>
Field Measurements on Piled Rafts with Grid-Form Deep Mixing Walls on Soft Ground <i>by Kiyoshi Yamashita, Junji Hamada and Takeshi Yamada</i>	1-10
Static Axial Reciprocal Load Test of Cast-in-place Nodular Concrete Pile and Nodular Diaphragm Wall <i>by K. Watanabe, H. Sei, T. Nishiyama and Y. Ishii</i>	11-19
Vertical Load Test and Settlement Analysis of Cast-in-place Concrete Nodular Piles Supporting a High-Rise Building <i>by N. Suzuki and T. Seki</i>	20-28
Extended Use of Spring Hammer Rapid Load Testing <i>by K. Matsuzawa and T. Matsumoto</i>	29-42
Push-up Load Tests Using Uncrushable Particles and Its DEM Analyses <i>by SuriyahThongmunee, Shun-ichi Kobayashi and Tatsunori Matsumoto</i>	43-55
On Design and Construction of Pile Group Foundation of Taipei 101 <i>by Ching-Han Yu</i>	56-69
Capacity versus Deformation Analysis for Design of Footings and Pile Foundations <i>by Bengt H. Fellenius</i>	70-77
Pile Raft Foundations for Tall Buildings <i>by H.G. Poulos, J.C. Small and H. Chow</i>	78-84
Foundation Design of the 151 Story Incheon Tower in a Reclamation Area <i>by Ahmad Abdelrazaq, Frances Badelow, Sung Ho-Kim, Harry G. Poulos</i>	85-93

GEOTECHNICAL ENGINEERING

Special Issue on DEEP EXCAVATIONS

Guest Editor: Prof. Chang-Yu Ou

TABLE OF CONTENTS

List of Papers	Page
Building Damage Assessment for Deep Excavations in Singapore and the Influence of Building Stiffness <i>by K.H. Goh and R.J. Mair</i>	1-12
Concept and Design Methodology of Redundancy in Braced Excavation and Case Histories <i>by G. Zheng, X.S. Cheng, Y. Diao, and H.X. Wang</i>	13-21
Three-Dimensional Deformation Behavior of an Over-sized Excavation in Shanghai Clay <i>by Y. M. Hou, J. H. Wang and D-S. Jeng</i>	22-29
Numerical Study on the Movement of Existing Tunnel Due to Deep Excavation in Shanghai <i>by J. J. Chen, J. H. Wang, G. W. Xiang, S. L. Wen, and Y. Du</i>	30-40
Observed Performance of Diaphragm Wall Construction <i>by C.Y. Ou and L.L. Yang</i>	41-49
Performance of Construction with New Pneumatic Caisson Method in Shanghai Soft Ground <i>by F.L. Peng and H.L. Wang</i>	50-58
Technologies of Micro-disturbance Construction of Pipe-Jacking <i>by W. Q. Ding, B. Li, S. L. Yuan and J. K. Ge</i>	59-64
Design and Construction of InJe Tunnel, the Longest Road Tunnel of Korea <i>by S. M. Cho, S. D. Lee, and Y. J. Kwon</i>	65-74

GEOTECHNICAL ENGINEERING

Special Issue on Soil Behaviour
Guest Editor: Dr. Dariusz Wanatowski

TABLE OF CONTENTS

<u>List of Papers</u>	<u>Page</u>
Research Papers:	
Dilation and Stability of Sand in Triaxial Tests <i>by A. Sawicki</i>	1 - 9
The Strength Anisotropy of a Residual Soil in Singapore <i>by G. Meng and J. Chu</i>	10 - 18
Effect of Boundary Conditions on Shear Banding in True Triaxial Tests on Sand <i>by P.V. Lade and Q. Wang</i>	19 - 25
Behavioural Patterns of Fine Sands <i>by V.N. Georgiannou</i>	26 - 41
Simulating Shear Rate-Dependent Undrained Stress-Strain Behaviour of Natural Sedimentary Clay at Kobe Airport <i>by M.-S. Jung and S. Shibuya</i>	42 - 52
Experimental Investigation on Settling Behavior of Hong Kong Marine Deposits in Settling Column Condition <i>by F. Tong J.H. Yin and G.F. Zhu</i>	53 - 57
Development of a Hollow Cylinder Torsional Apparatus for Pre-failure Deformation and Large Strains Behaviour of Sand <i>by E. Ibraim, P. Christiaens and M. Pope</i>	58 - 68
Effect of High Confining Pressure on the Behaviour of Fibre Reinforced Sand <i>by S. Ud-din, A. Marri and D. Wanatowski</i>	69 - 76
<u>TECHNICAL NOTE</u>	
A Comment on the Ratio of the Maximum and Minimum Dry Density for Sand <i>by E. Imre, S. Fityus, E. Keszeyne and T. Schanz</i>	77 - 82

GEOTECHNICAL ENGINEERING

Special Issue on Unsaturated Soil Mechanics And Engineering

Guest Editors: Charles W. W. Ng & Apiniti Jotisankasa

TABLE OF CONTENTS

<u>List of Papers</u>	<u>Page</u>
Some Applications Of Unsaturated Soil Mechanics In Thailand: An Appropriate Technology Approach <i>by W. Mairaing, A. Jotisankasa and S. Soralump</i>	1 - 11
Calculation Of Heave Of Deep Pier Foundations <i>by J.D. Nelson, K.C. Chao, D.D. Overton and R.W. Schaut</i>	12 -25
In-Situ And Laboratory Investigations Of Stress-Dependent Permeability Function And SDSWCC From An Unsaturated Soil Slope <i>by C. W. W. Ng and A. K. Leung</i>	26 -39
Measurements Of Shrinkage Induced Pressure (Sip) In Unsaturated Expansive Clays <i>by A.J. Puppala, T. Wejrungsikul, V. Puljan and T. Manosuthikij</i>	40 - 47
Unsaturated Soil Mechanics For Slope Stabilization <i>by H. Rahardjo, A. Satyanaga, E. C. Leong</i>	48 - 58
The Development Of Unsaturated Soil Mechanics At Imperial College, London <i>by J.R. Standing</i>	59 - 75
Climate Change And The Role Of Unsaturated Soil Mechanics <i>by D.G. Toll, J. Mendes, P.N. Hughes, S. Glendinning and D. Gallipoli</i>	76 - 82
Some Mining Applications Of Unsaturated Soil Mechanics <i>by D.J. Williams</i>	83 - 98

GEOTECHNICAL ENGINEERING

Special Issue on Geotechnical Earthquake Engineering

Guest Editors: Prof. Ikuo Towhata, Prof. Der Wen Chang & Dr. Ivan Gratchev

TABLE OF CONTENTS

<u>List of Papers</u>	<u>Page</u>
Proposed Changes to the Geotechnical Earthquake Engineering Provisions of the Bangladesh National Building Code <i>by Tahmeed M. Al-Hussaini, Tahsin R. Hossain and M. Hayeem Al-Noman</i>	01 - 07
Analysis of Soil Liquefaction during the Recent Canterbury (New Zealand) Earthquakes <i>by RP Orense, MJ Pender and LM Wotherspoon</i>	08 - 17
Numerical Simulation of Seismic Slope Stability Analysis based on Tension-Shear Failure Mechanism <i>by Yingbin Zhang, Guangqi Chen, Jian Wu, Lu Zheng, Xiaoying Zhuang</i>	18 - 28
A Real-time Prediction Method for Regional Rainfall-induced Geohazards in Post-earthquake Region of Wenchuan Earthquake <i>by Z. Yang, J. Qiao, H. Tian, D. Huang, M. Wang and H. Meng</i>	29 - 32
Effects of Anisotropic Consolidation and Stress Reversal on the Liquefaction Resistance of Sands and Silty Sands <i>by Abbas Galandarezadeh and Alireza Ahmadi</i>	33 - 39
Characteristics of Slope Failures During Natural Disasters Considering Geographical Features and Groundwater Level: Case Study of the Chuetsu Region of Niigata, Japan <i>by H. Toyota</i>	40 - 48
Overview of the Geotechnical Damages and the Technical Problems Posed after the 2011 off the Pacific Coast of Tohoku Earthquake <i>by M. Kazama, T. Noda, T. Mori and J. Kim</i>	49 - 56
Development of Potentail Map for Landslides Induced by the Chi-Chi Earthquake Using Instability Index <i>by Meei-Ling Lin and Yu-Hung Shu</i>	57 - 64
Technical Notes:	
Geotechnical Hazards with Emphasis on Seismically-Combined Effects on Slopes <i>by Ikuo Towhata</i>	65 - 70
Monitoring on Earthquake Induced Landslide - A Case Study in Northwest Chengdu, China <i>by Hongling Tian, Jianping Qiao., Taro Uchimura and Lin Wang</i>	71 - 74

GEOTECHNICAL ENGINEERING

Special Issue on Geosynthetics and Sanitary Landfill

Guest Editor: Prof. Abdelmalek Bouazza

TABLE OF CONTENTS

<u>List of Papers</u>	<u>Page</u>
Waste/Lining System Interaction: Implications for Landfill Design and Performance <i>by N. Dixon, K. Zamara1, D.R. V. Jones and G. Fowmes</i>	1-10
Wrinkling of a Geomembrane on a Compacted Clay Liner on a Slope <i>by R. K. Rowe, P. Yang, M.J. Chappel, R.W.I. Brachman , W.A. Take</i>	11-18
Diffusion of phenolic compounds through an HDPE geomembrane <i>by N. Touze-Foltz, M. Ahari, M. Mendes, C. Barral, M. Gardoni and L. Mazéas</i>	19-29
Shear-Induced Geomembrane Damage due to Gravel in Underlying Compacted Clay <i>by P. J. Fox, C. Athanassopoulos, S. S. Thielmann, and A. N. Stern</i>	30-34
Evaluation of mineral barriers against acid rock drainage <i>by A. Naka, T. Katsumi, G. Flores, T. Inui, T. Ohta, T. Urakoshi, and T. Ishihara</i>	35-42
Improvement on the Performance of Geosynthetic Clay Liners Using Polymer Modified Bentonite <i>by Y. Liu, W. P. Gates and A. Bouazza</i>	43-45
Effect of Settlement rate and Geogrid reinforcement on the Deformation Behaviour of Soil barriers of Landfill Covers: Centrifuge Study <i>by S. Rajesh and B. V.S. Viswanadham</i>	46-54
Effect of differential settlements on the sealing efficiency of GCLs compared to CCLs: Centrifuge Study <i>by B.V.S. Viswanadham, S. Rajesh and A. Bouazza</i>	55-61
Geosynthetic Lining System for Modern Waste Facilities – Experiences in Developing Asia <i>by H. B. Ng and B. Ramsey</i>	62-67
The Use of Geosynthetics in Major Metropolitan Landfills in Perth, WA – Two Case Studies <i>by L. Du Preez, R. Beaman and I. Watkins</i>	68-70

GEOTECHNICAL ENGINEERING

Special Issue on In-situ Testing of Soils
Guest Editors: Tom Lunne and Don J. DeGroot

TABLE OF CONTENTS

<u>List of Papers</u>	<u>Page</u>
Evaluation of existing CPT correlations in silt 1 - 10 <i>by A. S. Bradshaw, A. C. Morales-Velez and C.D.P. Baxter</i>	
Characterisation of quick clay at Dragvoll, Trondheim, Norway11 - 23 <i>by A. Emdal, M. Long, A. Bihs, A. Gylland and N. Boylan</i>	
Field response of push-in earth pressure cells for instrumentation and site characterization of soils24 - 33 <i>by Alan J. Lutenege</i>	
Frequent-interval SDMT and continuous SCPTu for detailed shear wave velocity profiling in soils34 - 40 <i>by T. Ku and P.W. Mayne</i>	
In situ testing of peat – a review and update on recent developments41 - 55 <i>by M. Long and N. Boylan</i>	
Understanding the stiffness of soils in Singapore from pressuremeter testing 56 - 62 <i>by K.H. Goh, K. Jeyatharan and D. Wen</i>	
In situ measurement of hydraulic conductivity of saturated soils 63 - 71 <i>by D.J. DeGroot, D.W. Ostendorf and A.I. Judge</i>	
Rate effect on cone penetration test in sand72 - 81 <i>by F. A. B. Danziger and T. Lunne</i>	

GEOTECHNICAL ENGINEERING

March 2013: Contributed papers

Editors: D W Chang and Dariusz Wanatowski

TABLE OF CONTENTS

<u>List of Papers</u>	<u>Page</u>
Some factors affecting deep excavation in clay over gassy bedrock 1 - 8 <i>By Ahmed B. Mabrouk and R. Kerry Rowe</i>	
Effects of Consolidation and Specimen Disturbance on Strengths of Taipei Clays 9 - 18 <i>By Richard N. Hwang, Za-Chieh Moh and I-Chou Hu</i>	
Lime Stabilisation of Organic Clay and the Effects of Humic Acid Content 19 - 25 <i>By N.Z. Mohd Yunus, D. Wanatowski and L.R. Stace</i>	
Estimating Wetting-induced Settlement of Compacted Soils using Oedometer Test 26 - 33 <i>By E.C. Leong, S. Widiastuti and H. Rahardjo</i>	
Compaction Curve with Consideration of Time and Temperature Effects for Mudstones 34 - 39 <i>By A. Puttiwongrak, H. Honda, T. Matsuoka and Y. Yamada</i>	
Small strain behavior of sand under various stress paths considering anisotropic initial stress state 40 - 46 <i>By Lai Yong, Shi Jian-yong, Yu Xiao-jun and Cao Qiu-rong</i>	
Study of Joint Effect on Pipe in Pipe Jacking Method 47 - 56 <i>By L. G. Le, M. Takise, M. Sugimoto and K. Nakamura</i>	
Finite Element Analysis of Ground Behaviour due to Box-jacking Tunnel Work 57 - 60 <i>By K. Komiya and T. Nakayama</i>	
Tunneling Induced Deformation of a Historic Building in Shanghai 61 - 67 <i>By Shi-ping Gea, Dong-wu Xied, Wen-qi Dinga, Ya-fei Qiao and Jin-chun Chai</i>	
In-situ monitoring of internal displacements by FBG sensors and slope stability analysis under rainfall infiltration 68 - 74 <i>By Dongsheng Xu, Fei Tong, Huahu Pei, and Jianhua Yin</i>	
Mechanistic-Empirical Pavement Design; A Brief Overview 75 - 82 <i>By A. T. Papagiannakis</i>	

GEOTECHNICAL ENGINEERING

June 2013: Modelling Aspects of Soil Behaviour

Editors: Akira Murakami

Dariusz Wanatowski

TABLE OF CONTENTS

<u>List of Papers</u>	<u>Page</u>
Soil-water-air coupled finite element analysis of model test on slope failure in unsaturated soil	1 - 8
<i>By Y.L. Xiong, X.H. Bao and F. Zhang</i>	
Relation between seepage force and velocity of sand particles during sand boiling	9 - 17
<i>By K. Fujisawa, A. Murakami, S. Nishimura and T. Shuku</i>	
A density-and stress-dependent elasto-plastic model for sands subjected to monotonic undrained torsional shear loading	18 - 26
<i>By G. Chiaro, J. Koseki and L.I. Nalin De Silva</i>	
1-G model test with digital image analysis for seismic behavior of earth dam	27 - 34
<i>By Y. Miyanaga, A. Kobayashi and A. Murakami</i>	
X-ray CT imaging of 3-D bearing capacity mechanism for vertically loaded shallow foundations	35 - 41
<i>By D. Takano, J. Otani, M. Nakamura, and R. Mokwa</i>	
Modeling and bending test simulations of cement treated soil	42 - 47
<i>By K. Kaneda, T. Tanikawa and S. Onimaru</i>	
Modelling viscous effects during and after construction in London Clay	48 - 54
<i>By S. D. Clarke and C. C. Hird</i>	

GEOTECHNICAL ENGINEERING

September 2013: Numerical Analyses

Guest Editors:

Prof. Fusao Oka & Prof. Helmut F. Schweiger

TABLE OF CONTENTS

<u>List of Papers</u>	<u>Page</u>
Numerical Simulation of the Rainfall Infiltration on Unsaturated Soil Slope Considering a Seepage Flow <i>By S.Kimoto, F.Oka and E.Garcia</i>	1 – 13
Seismic Response of Gravity-Cantilever Retaining Wall Backfilled with Shredded Tire <i>By N. Ravichandran and E. L. Huggins</i>	14 – 24
Numerical modeling of lateral response of long flexible piles in sand <i>By Md. Iftekharuzzaman and Bipul C Hawlader</i>	25 – 31
A New Sampling Algorithm in Particle Filter for Geotechnical Analysis <i>By T. Shuku, S. Nishimura, K. Fujisawa and A. Murakami</i>	32 – 39
Comparison of deep foundation systems using 3D finite element analysis employing different modeling techniques <i>By F. Tschuchnigg & H.F. Schweiger</i>	40 – 46
Application of a constitutive model for swelling rock to tunnelling <i>By B. Schadlich, T. Marcher and H.F. Schweiger</i>	47 – 54
Finite element modelling of seismic liquefaction in soils <i>By V. Galavi, A. Petalas and R.B.J. Brinkgreve</i>	55 – 64
Random Wave-Induced Seabed Responses around Breakwater Heads <i>By Y Zhang, D-S Jeng, Z-W Fu and J Ou</i>	65 – 83
Influence of brittle property of cement treated soil on undrained bearing capacity characteristics of the ground <i>By S. Yamada, T. Noda, A. Asaoka and T. Shina</i>	84 – 93

GEOTECHNICAL ENGINEERING

**December 2013: Commemorative Issue on
Prof. D. T. Bergado's Retirement from AIT**
Editors: Prof. Jinchun Chai & Prof. Shui-Long Shen

TABLE OF CONTENTS

<u>List of Papers</u>	<u>Page</u>
Part I General papers	
Behaviour of Clay Subjecting to Vacuum and Surcharge Loading in an Oedometer <i>By J.-C. Chai, J. P. Carter, A. Saito and T. Hino</i> -----	1
Behaviour of Geogrid Reinforced Abutments on Soft Soil <i>By Ennio M. Palmeira, André R.S. Fahel and Gregório. L. S. Araújo</i> -----	9
Geocell-Reinforced Granular Fill under Static and Cyclic Loading: A Synthesis of Analysis <i>By X. Yang and J. Han</i> -----	17
Electrical Vertical Drains in Geotechnical Engineering Applications <i>By J. K. Lee and J.Q. Shang</i> -----	24
Design and Performance of Soft Ground Improvement Using PVD with and without Vacuum Consolidation <i>By P.V. Long, D.T. Bergado, L.V. Nguyen and A.S. Balasubramaniam</i> -----	36
Reassessment of Long-Term Performance of Geogrids by Considering Mutual Interaction among Reduction Factors <i>By Han-Yong Jeon and Yuan Chun Jin</i> -----	52
Part II State-of-the-art (review type) papers	
Simulations of PVD Improved Reconstituted Specimens with Surcharge, Vacuum and Heat Preloading using Axisymmetric and Equivalent Vertical Flow Conditions <i>By P. Voottipruex and D.T. Bergado, and W. Wongprasan</i> -----	61

Reinforced Embankments on Soft Deposits: Behaviour, Analysis and Design <i>By C. Taechakumthorn and R.K. Rowe</i> -----	69
Current State of the Art in Vacuum Preloading for Stabilising Soft Soil <i>By C. Rujikiatkamjorn and B. Indraratna</i> -----	77
Jet Grouting Practice: an Overview <i>By Z.F. Wang, S.L. Shen, C.E. Ho and Y.H. Kim</i> -----	88
Deep Mixing Method in Japan <i>By Masaki Kitazume</i> -----	97
Recent Studies of Geosynthetic Tubes and Matterres: an overview <i>By Wei Guo, Jian Chu and Shuwang Yan</i> -----	115
Design Method for Bearing Reinforcement Earth Wall <i>By S. Horpibulsuk, C. Suksiripattanapong and A. Chinkulkijniwat</i> -----	125
Current State of Knowledge on Thermal Consolidation using Prefabricated Vertical Drains <i>By H. M. Abuel-Naga, G. A. Lorenzo and D. T. Bergado</i> -----	132

GEOTECHNICAL ENGINEERING

March 2014: Geotechnics for Advancing Transport Infrastructure

Editors: Prof. Buddhima Indraratna & Dr. Chalachat Rujikiatkamjorn

TABLE OF CONTENTS

<u>List of Papers</u>	<u>Page</u>
Geosynthetic-Reinforced Soil Structures for Railways: Twenty Five Year Experiences in Japan.....	01
<i>by F. Tatsuoka, M. Tateyama, J. Koseki and T. Yonezawa</i>	
Enhancement of Rail Track Performance through Utilisation of Geosynthetic Inclusions	17
<i>by Buddhima Indraratna, Sanjay Nimbalkar, and Chalachat Rujikiatkamjorn</i>	
Railway Track Transition Dynamics and Reinforcement Using Polyurethane GeoComposites.....	28
<i>by P. Woodward, O. Laghrouche and A. El-Kacimi</i>	
How to Overcome Geotechnical Challenges in Implementing High Speed Rail Systems in Australia	39
<i>by H. Khabbaz and B. Fatahi</i>	
Maintenance Model for Railway Substructure	48
<i>by Ali Ebrahimi, James M. Tinjum, and Tuncer B. Edil</i>	
Dynamic Behaviour of Railway Ballasted Track Structures in Shaking Table Tests and Seismic Resistant Performance Evaluation in Japan.....	56
<i>by T. Ishikawa, S. Miura and E. Sekine</i>	
Mechanical Properties of Polyurethane-Stabilized Ballast.....	67
<i>by A. Keene, J.M. Tinjum, and T.B. Edil</i>	
Dependency of Cyclic Plastic Deformation Characteristics of Unsaturated Recycled Base Course Material on Principal Stress Axis Rotat.....	74
<i>by A. Inam, T. Ishikawa, and S. Miura</i>	
Quickness Test Approach for Assessment of Flow Slide Potentials	85
<i>by V. Thakur and S. A. Degago</i>	
Cement Stabilization for Pavement Material in Thailand.....	95
<i>by S. Horpibulsuk, A. Chinkulkijniwat, A. Suddeepong, and A. Neramitkornburee</i>	
Stone Columns Field Test: Monitoring Data and Numerical Analyses	103
<i>by Marcio Almeida, Bruno Lima, Mario Riccio, Holger Jud, Maria Cascão, Felipe Roza</i>	
Technical Note: Numerical Analysis of Response of Geocell Confined Flexible Pavement	113
<i>by G. L Sivakumar Babu and Ram Babu</i>	

GEOTECHNICAL ENGINEERING

JUNE 2014: SPECIAL ISSUE ON DEEP FOUNDATION

Editors: Tatsunori Matsumoto, Jurgen Grabe & Der Wen Chang

TABLE OF CONTENTS

<u>List of Papers</u>	<u>Page</u>
Numerical Investigation of Passive Loads on Piles in Soft Soils <i>By C. Moormann and J. Aschrafi</i>	01
Numerical Simulation of an Energy Pile Using Thermo-Hydro-Mechanical Coupling and a Visco-Hypoplastic Model <i>By Xiaolong Ma, Gang Qiu, Jürgen Grabe</i>	12
Numerical Studies on Dynamic Load Testing of an Open-ended Pipe Pile and a Case Study <i>By L. Phan Ta, T. Matsumoto and H. Nguyen Hoang</i>	17
Performance of Piled Raft Foundation Subjected to Strong Seismic Motion <i>By K. Yamashita, T. Hashiba, H. Ito and T. Tanikaw</i>	33
Static Cyclic Load Tests on Model Foundations in Dry Sand <i>By Y.S. Unsever, T. Matsumoto, S. Shimono and M.Y. Özkan</i>	40
Axial Bearing Behaviour of a Model Pile in Sand Under Multiple Static Cycles <i>By J. H. Hwang, Z. X. Fu, P. Y. Yeh, D. W. Chang</i>	52
Seismic PBD of Piles from Monte Carlo Simulation Using EQWEAP Analysis with Weighted Intensities <i>By D.W. Chang, Y.H. Lin, H.C. Chao, S.C. Chu and C.H. Liu</i>	62
Case Studies on Response of Laterally Loaded Nonlinear Piles <i>By Wei Dong Guo</i>	70
le Tip Shape on Soil Behaviour Around Pile <i>By Y. Wu and H. Yamamoto</i>	78
Shaking Table Test on Superstructure-foundation-Ground System in Liquefiable Soil and Its Numerical Verification <i>By F. Zhang, R. Oka, Y. Morikawa, Y. Mitsui, T. Osada, M. Kato and Y. Wabi</i>	90
Model Loading Tests on Bearing Behaviour of a Group Pile and Ground Deformation in Sand <i>By S. Aoyama B. Liu L. Danardi W. Mao S. Goto and I. Towhata</i>	96
Numerical Study on the Bearing Behaviour of Pile Groups Subjected to Lateral Pressure due to Soil Movements <i>By O. Reul, J. Bauer and C. Niemann</i>	106
Deep Foundation Systems for High-rise Buildings in Difficult Soil Conditions <i>By R. Katzenbach and S. Leppla</i>	115

GEOTECHNICAL ENGINEERING

SEPTEMBER 2014: SPECIAL ISSUE ON CENTRIFUGE MODELLING OF GEOTECHNICAL INFRASTRUCTURE

Editors: B.V.S. Viswanadham, Christophe Gaudin & Tom Schanz

TABLE OF CONTENTS

<u>List of Papers</u>	<u>Page</u>
Centrifuge Modelling of Improved Ground By M. Kitazume, Y. Morikawa and S. Nishimura	01
Simulation of Soil Movement in Geotechnical Centrifuge Testing – Deep Excavations, Tunnelling, Deposit By D. König, O. Detert and T. Schanz	12
Run-out of Sensitive Clay Debris: Significance of the Flow Behavior of Sensitive Clays By V. Thakur and D. Nigussie	22
Verification of the Generalized Scaling Law for Flat Layered Sand Deposit By T. Tobita, S. Escoffier, J. L. Chazelas and S. Iai	32
Performance of Rail Embankments Constructed with Coal Ash as a Structural Fill Material: Centrifuge Study By B.V.S. Viswanadham and V.K. Mathur	40
Field Scale Tests for Determination of Pullout Capacity of Suction Pile Anchors Under Varying Loading Conditions By Vijaya Ravichandran, R. Ramesh, S. Muthukrishna Babu, G.A. Ramadass, .M.V.Ramanamoorthy and M.A. Atmanand	49
A Novel Mobile Information System for Risk Management of Adjacent Buildings in Urban Underground Construction By Hanh Quang Le and Bin-Chen Benson Hsiung	52
Comparison Between Design Methods Applied to Segmental Tunnel Linings By N.A. Do, D. Dias, P.P. Oreste, I. Djeran-Maigre	64
Challenging Construction Projects Related to Urban Tunnels By R. Katzenbach and S. Leppla	71
Bulk Compression of Dredged Soils by Vacuum Consolidation Method Using Horizontal Drains By Hiroshi Shinsha and Takahiro Kumagai	78
Mechanical Behavior of Energy Piles in Dry Sand By A.M. Tang, J.M. Pereira, G. Hassen, N. Yavari	86
Estimating Side Resistance of Bored Pile in Residual Soils By Mutiasani Dianmarti Kusuma and Eng-Choon Leong	90
Seismic Response of Geosynthetic Reinforced Earth Embankment by Centrifuge Shaking Table Tests By W.Y. Hung, J.H. Hwang, C.J. Lee	96

GEOTECHNICAL ENGINEERING

DECEMBER 2014: SPECIAL ISSUE ON Offshore and Coastal Geotechnics

**Editors: Shinji Sassa, Poul V. Lade, Lizhong Wang, Yean K. Chow, Dong S. Jeng,
Christophe Gaudin & Fuping Gao**

TABLE OF CONTENTS

<u>List of Papers</u>	<u>Page</u>
Recent Advances in Seabed Liquefaction and Its Implications for Marine Structures By B. Mutlu Sumer	01
Eulerian–Lagrangian Modeling of Current-Induced Coastal Sand Dune Migration By R. Sun, J. Wang, Y. Sakai and H. Xiao	15
Numerical Study of the Penetration Mechanism and Kinematic Behaviour of Drag Anchors Using a Coupled Eulerian-Lagrangian Approach By Haixiao Liu and Yanbing Zhao	29
Cyclic Pore Pressure Generation in Silty Soils under the Action of Combined Waves and Current By Yi-Fa Wang, Fu-Ping Gao, and Wen-Gang Qi	40
A Model for Predicting Pipeline Sinkage Induced by Tunnel Scour By Chengcai Luo, Hongwei An, Liang Cheng and David White	46
Predicting Spudcan Extraction Resistance in Soft Clay By Omid Kohan, Christophe Gaudin, Mark J. Cassidy, and Britta Bienen	53
A FE Procedure for Foundation design of Offshore Structures – Applied to Study a Potential OWT Monopile Foundation in the Korean Western Sea By H.P. Jostad, G. Grimstad, K.H. Andersen, M. Saue, Y. Shin, and D. You	63
Compressibility as an Indicator of Liquefaction Potential By M. Murat Monkul, Poul V. Lade, Ehsan Etminan, Aykut Senol	73
Centrifuge Modelling of the Seismic Responses of a Gently Sloped Liquefiable Sand Deposit Confined within Parallel Walls By C.J. Lee, W.Y. Chung, and W.Y. Hung	78
Eulerian Finite Element Analysis for Uplift Capacity of Circular Plate Anchors in Normally Consolidated Clay By Z. Chen, K. K. Tho, C. F. Leung and Y. K. Chow	88
Restoration Method of Artificial Tidal Flat by Use of Pressure Injection of Slurry Dredge Clay By Takahiro Kumagai, Takashi Tsuchida, Changjin Ko and Hiroaki	93
Tsunami-Seabed-Structure Interaction from Geotechnical and Hydrodynamic Perspectives By S. Sassa	102
Feature Storey on “Challenges in the Design of Tall Building Foundations” By Harry G. Poulos	108

GEOTECHNICAL ENGINEERING

March 2015 Issue: Special Country Issue of Thailand

– Dr. Surachat Sambhadharaksa Memorial Issue

Advances in Geotechnical Engineering for Infrastructure Developments in Thailand

**Edited by : Suched Likitlersuang, Suksun Horpibulsuk, Suttisak Soralump,
Tirawat Boonyatee Suchatvee Suwansawat, and Thanakorn Chompoorat**

TABLE OF CONTENTS

List of Papers

	<u>Page</u>
Settlement due to Consolidation <i>By H. Ohta</i>	01
A Simulation of Surface Runoff and Infiltration due to Torrential Rainfall Based on Field Monitoring Results at a Slope Comprising Weathered Granite <i>By H. Ohtsu, H. Masuda, T. Kitaoka, K. Takahashi, M. Yabe, S. Soralump and Y. Maeda</i>	12
Calcium Carbide Residue – A Cementing Agent for Sustainable Soil Stabilization <i>By S. Horpibulsuk, A. Kampala, C. Phetchuay, A. Udomchai and A. Arulrajah</i>	22
Soil Parameter Optimization of the NGI-ADP Constitutive Model for Bangkok Soft Clay <i>By B. Ukritchon and T. Boonyatee</i>	28
Laboratory Investigation of Hot Mix Asphalt Behaviour for Mechanistic-Empirical Pavement Design in Tropical Countries <i>By T. Chompoorat and S. Likitlersuang</i>	37
Slope Stability and Pore-Water Pressure Regime in Response to Rainfall: A Case Study of Granitic Fill Slope in Northern Thailand <i>By A. Jotisankasa, K. Mahannopkul and A. Sawangsuriya</i>	45
Evaluation of the Hydraulic Conductivity of Clayey Soil Mixed with Calcium-Bentonite Using Oedometer Tests <i>By R.D. Fan, Y.J. Du, S.Y. Liu and Y.L. Yang</i>	55
Undrained Shear Strength of Very Soft to Medium Stiff Bangkok Clay from Various Laboratory Tests <i>By W. Ratananikom, S. Yimsiri and S. Likitlersuang</i>	64
A Review on Design of Pile Foundations in Bangkok <i>By T. Boonyatee, J. Tongjarukae, T. Uaworakunchai and B. Ukritchon</i>	76
Structured Cam Clay Model with Cementation Effect <i>By S. Horpibulsuk and M.D. Liu</i>	86
Evaluation of Strength of Soft Ground Improved by Vacuum Consolidation <i>By T. Shibata, S. Nishimura, M. Fujii and A. Murakami</i>	95

Chemical Stabilization of Loess in Northeast Thailand Using the Mixture of Calcined Marble Dust Waste and Sugarcane Bagasse Ash Waste <i>By P. Julphunthong</i>	103
Numerical Analyses of Piled Raft Foundation in Soft Soil Using 3D-FEM <i>By K. Watcharasawe, P. Kitiyodom and P. Jongpradist</i>	109
Investigation of Shrinkage and Swelling Behaviour of Expansive/Non-Expansive Clay Mixtures <i>By S. Por, S. Likitlersuang and S. Nishimura</i>	117

GEOTECHNICAL ENGINEERING

JUNE 2015: SPECIAL ISSUE ON PILE FOUNDATIONS

Editors: San-Shyan Lin, Charng Hsein Juang, and Robert Liang

TABLE OF CONTENTS

<u>List of Papers</u>	<u>Page</u>
Operational Soil Stiffness From Back-Analysis of Pile Load Tests Within Elastic Continuum Framework <i>By Fawad S. Niazi and Paul W. Mayne</i>	01
Elastic Continuum Solution of Stacked Pile Model For Axial Load-Displacement Analysis <i>By Fawad S. Niazi and Paul W. Mayne</i>	20
Lateral Loading Tests on Piled Rafts and Simplified Method to Evaluate Sectional Forces of Piles <i>By J. Hamada, T. Tsuchiya, T. Tanikawa and K. Yamashita</i>	29
Applicability of Simple Method to Piled Raft Analysis in Comparisons With Field Measurements <i>By K. Yamashita, T. Tanikawa, and J. Hamada</i>	43
Engineering Assessment of Ground Vibrations Caused by Impact Pile Driving <i>By K. Rainer Massarsch and Bengt Fellenius</i>	54
Analysis of results of an instrumented bidirectional-cell test <i>By Bengt Fellenius</i>	64
Deep Barrette Pile Capacity with Aging Effect <i>By W. Teparaksa</i>	68
Case study of dynamic responses of a single pile foundation installed in coal ash landfills using effective stress analysis and EQWEAP <i>By C. W. Lu and D. W. Chang</i>	77
The Response of A “Plug” in An Open-Toe Pipe Pile <i>By Bengt H. Fellenius</i>	82
Effects of Toe Grouting on Axial Performance of Drilled Shafts Socket in Intermediate Geomaterial <i>By S.S. Lin, Y.L. Yin, K.C. Fu, Y.K. Lin, C.J. Kuo, and Y.H. Chang</i>	87
Reliability-Based Design of Proof Load Test Programs for Foundations <i>By Y. Abdallah, S.S. Najjar and G. Saad</i>	94
Probabilistic approaches for ultimate resistance of drilled shafts considering spatial variability <i>By Z. Luo, L. Wang, W. Gond, and C. Hsein Juang</i>	102
SPECIAL FEATURE STORY ON “Liquefaction Problems in the 21st Century” <i>By I. Towhata</i>	111

GEOTECHNICAL ENGINEERING

SEPTEMBER 2015: SPECIAL ISSUE ON SOIL BEHAVIOUR AND MODELLING

Editors: Prof. Zhen-Yu Yin and Prof. Jian-Hua Yin

TABLE OF CONTENTS

<u>List of Papers</u>	<u>Page</u>
Overview and Interpretation of Rate-Dependency of the Behaviour of Soft Clays. <i>By Z. X. Wu , Q. Y. Zhu, Z. Y. Yin</i>	01
Overview and Interpretation of Stress-Relaxation of Soft Clay. <i>By L. Ye, Q.Y. Zhu, J.X. Liu, P.P. Sun and Z.Y. Yin</i>	12
Modeling Undrained Shear Behavior of Reconstituted Clays considering the Effects of Initial Water Contents <i>By X. Bian , L. L. Zeng, J. W. Ding and Z. S. Hong</i>	24
Statistical Analysis on Physical Properties of Shanghai Soft Clay <i>By Y. M. Lu, Y. F. Jin, S. L. Shen, F. Yu and J. Zhang</i>	31
A Review of the Dynamic Behaviour of Frozen Soils <i>By S. Wang, J. Qi and Z. Yin</i>	37
Influence of Mineral Constituents on One-dimensional Compression Behaviour of Clayey Soils <i>By L. Ye, Y.F. Jin, Q.Y. Zhu and P.P. Sun</i>	46
Effects of Addition of Fine-grained Zeolite on the Compressibility and Hydraulic Conductivity of Clayey Soil/Calcium-Bentonite Backfills for Vertical Cutoff Walls <i>By R.D. Fan, Y.J. Du and S.Y. Liu</i>	54
Effect of Long-term Aggressive Environments on the Porosity and Permeability of Granular Materials Reinforced by Nanosilica and Sodium Silicate. <i>By M. Cheng and N. Saiyouri</i>	62
Strength of Lime-Treated Fly Ash Using Bentonite <i>By S. Deka, S.K. Dash and S Sreedeeep</i>	73
Soil Deformation Induced by Underground Tunnel Construction <i>By L. Wang, R. Liu and G. G. Wang</i>	82
Full-Scale Field Tests on Soil Arching Triggered during Construction of Shallowly Buried HDPE Pipes <i>By M. Zhou,Y. J. Du and F. Wang</i>	89
A Pollutant Migration Model Considering Solute Decay in Layered Soil <i>By C. Yu and X.Q. Cai</i>	94
Effect of Cyclic Strain History on Shear Modulus of Dry Sand using Resonant Column Tests <i>By J. Kumar and A. C. Cherian</i>	99

Vertical Uplift Capacity of Circular Anchor Plates <i>By P. Bhattacharya and J. Kumar</i>	105
Prediction of Ground Surface Settlements Caused by Deep Excavations in Sands <i>By B. C. B. Hsiung and S. D. Dao</i>	111
SPECIAL FEATURE STORY ON “Soil Mechanics at Emmanuel College - Elegant, Rigorous and Relevant ” <i>By John Burland</i>	119
SPECIAL FEATURE STORY ON “Ground Improvement Methods for Port Infrastructure Expansion” <i>By B. Indraratna, Heitor, A and Rujikiatkamjorn, C.</i>	125

DECEMBER 2015: SPECIAL ISSUE ON PROBLEMATIC SOILS INCLUDING CONTAMINATED SOILS

Editors: Prof. Jay N. Meegoda and Prof. Liming Hu

TABLE OF CONTENTS

List of Papers	Page
Geochemistry in Geotechnical Engineering Problems: Ettringite as Case Study <i>By M. Chrysochoou</i>	01
Engineering Properties of Chromium Contaminated Soils <i>By Wiwat Kamolpornwitt, Jay N. Meegoda, Janitha H. Batagoda</i>	08
Study on factors affecting heavy metal sorption characteristics of two geomaterials <i>By K.M.Nithya, D.N.Arnapalli and S.R.Gandhi</i>	16
Reduction of Chromium in Water and Soil Using a Rhamnolipid Biosurfactant <i>By I. Ara and C.N. Mulligan</i>	24
Reclamation project of a Brownfield site at Rio de Janeiro State, Brazil <i>By M.C. Barbosa, A.R.M. Barboza de Oliveira and M.E.S. Marques</i>	32
A Review of Acidic Groundwater Remediation in the Shoalhaven Floodplain in Australia <i>By Buddhima Indraratna, Udeshini Pathirage and Laura Banasiak</i>	41
Experimental and numerical study of electro-osmosis on kaolinite under intermittent current <i>By Liming Hu, Hui Wu, Jay N. Meegoda, and Qingbo Wen</i>	47
Electro-osmosis drainage effect of a new type of EKG electrode <i>By Yang Shen and Yande Li</i>	52
Innovative Soft Soil Improvement Method through Intelligent Use of Vacuum De-Watering and Dynamic Compaction Techniques <i>By R. Liang, S. Xu and T. Edil</i>	57
Some Studies on Engineering Properties, Problems, Stabilization and Ground Improvement of Lithomargic Clays <i>By R. Shivashankar, A. U. Ravi</i>	68
Stone column reinforcement of a soft South African clay: A laboratory investigation <i>By L. Sobhee-Beetul and D. Kalumba</i>	81
Numerical modelling of Tunis soft clay <i>By Mnaouar Klai, Mounir Bouassida and Seifeddine Tabchouche</i>	87
A Framework for the Destructuring of Clays During Compression <i>By M. D. Liu, S. Horpibulsuk, and Y. J. Du</i>	96
Inundation Caused by Sea-Level Rise Combined with Land Subsidence <i>By K. Yasuhara, S. Murakami and N. Mimura</i>	102
Levels of what and how in the Education of Geo-engineering on Problematic Soils <i>By R. Ray, P. Scharle, R. Szepesházi</i>	110
Characteristics and Consequence of Nepal Earthquake 2015: A Review	114

By A S M Fahad Hossain, Tuk Lal Adhikari, Mehedi Ahmed Ansary and Quazi Hamidul Bari

SPECIAL FEATURE STORY ON “Challenges in Going Underground in Big Cities” 121
By L. J. Endicott

HISTORIC NOTE: Underexcavating the Tower of Pisa: Back to Future 126
By J. B. Burland, M.Jamiolkowsky and C.Viggiani

TABLE OF CONTENTS: 2016 Issues: PAPERS ONLY

March 2016: VIETNAM SPECIAL ISSUE

Editors: Dr. Phung Duc Long & San Shyan Lin

- 1: Prediction of Piled Raft Foundation Settlement – A Case Study
By Phung Duc Long
- 2: Geotechnical Adaptation to the Vietnamese Coastal and Riverine Erosion in the Context of Climate Change
By K. Yasuhara, M. Tamura, Trinh Cong Van and Do Minh Duc
- 3: Bidirectional Tests on Two Shaft-Grouted Barrette Piles in Mekong Delta, Vietnam
By H. M. Nguyen, B. H. Fellenius, A. J. Puppala, P. Aravind, and Q. T. Tran
- 4: Soil Characterization and Land Subsidence Prediction for the First MRT Line in HCM City
By Pham Huy Giao and Ta Thi Thoang
- 5: Soft Ground Improvement by Deep Cement-Mixing Technique in Southern Vietnam
By Dinesh Raj Shiwakoti and Ryuji Manai
- 6: Over Consolidation Feature of Clayey Soils in Southern Vietnam According to Piezocone
By Bui Truong Son, Le Hong Quang, Lam Ngoc Qui
- 7: Ground Improvement Using Soil-Cement Method: A Case Study with Laboratory Testing and In-Situ Verification for a Highway Project in Southern Vietnam
By Phan To Anh Vu
- 8: Wide Storage Tanks on Piled Foundations
By Bengt H. Fellenius and Mauricio Ochoa
- 9: Discrete Modelling of Excavation in Fractured Rock by NSCD Method
By Tran Thi Thu Hang and Frederic Dubois
- 10: A Method for Estimating Pile Group Settlement Considering Distribution of Pile Shaft Friction (SDF) – Application for Pile Groups in Vietnam
By Duong Diep Thuy, Pham Quang Hung, and Le Thiet Trung
- 11: Mechanical behaviour of Hai Duong Medium Sand in Triaxial Test and its DEM Simulations
By Nguyen Quang Tuan and Heinz Konietzky
- 12: Influence of Geometrical Parameters of Soil-Cement Columns on the Average Settlement of Embankment on Reinforced Soft Soil – Numerical Analysis
By Tran The Truyen, Nguyen Van Hung, and Tran N. Hoa
- 13: Evaluation of Performance of Diaphragm Walls by Wall Deflection Paths for Deep Excavations in Central Ha Noi
By Benson Hsiung, Dao Sy Dan, and William Cheang
- 14: Effect of Vacuum Pressure Distribution on Settlement Analysis Results for an Improved Thick Soft Clay Deposit at Sai Gon-Hiep Phuoc Terminal Port, South of Vietnam
By Hoang Hiep and Pham Huy Giao
- 15: Characteristic of Unsaturated Soil of Earth Fill Dams in Vietnam
By Nguyen Thi Ngoc Huong and Trinh Minh Thu
- 16: Settlement management for urban tunnels: an example from France
By Alain Guilloux and Hervé Le Bissonnais

June 2016: CHINESE TAIPEI SPECIAL ISSUE

Editor: Professor Meei-Ling Lin

- 1: Rock Tunneling Applied to Steady Water Resources Supply in Taiwan: Challenges and Examples
By Chia-Han Lee, Tai-Tien Wang, Shih-Hsien Chang, Shang-Yao Lien and Shih-Wei Huang
- 2: State-of-the Art of the Tunnel Maintenance in Taiwan and Challenges to Sustainable Development
By Ya-Chu Chiu, Tai-Tien Wang, Tsan-Hwei Huang
- 3: Tunneling Issues Regarding the Rock Tunnel-Shaft Intersection in Taiwan
By Tai-Tien. Wang, Tzu-Tung. Lee, Shun-Min. Lee, Kwei-Shr. Li and Cheng-Hsun. Chen
- 4: Assessment of Hard Rock Tunnel Stability: A Note on the Influence of Post-peak Strength Degradation
By F. Y. Hsiao, H. C. Kao and S. Y. Chi
- 5: Deep Excavations in Taipei Basin and Performance of Diaphragm Walls
By R. N. Hwang, C. H. Wang, C. R. Chou and L. W. Wong
- 6: Hydraulic Characteristics of Jingmei Formation and Dewatering for Deep Excavations in Taipei Basin
By G. R. Yang, L. W. Wong and R. N. Hwang
- 7: Forensic Investigation of A Subway Tunnel Construction Failure
By W. F. Lee, C. C. Wang, K. Ishihara, R. N. Hwang
- 8: Case Study of Renovation on Alishan Route 18 after Typhoon Morakot
By Kung-Tai Chou, Wen-Long Wu, Chiao-An Hsiao, Kun-Hsien Chou
- 9: Combining rainfall parameter and landslide susceptibility to forecast shallow landslide in Taiwan
By C.F. Lee, C.M. Huang, T.C. Tsao, L.W. Wei, W.K. Huang, C.T. Cheng, and C.C. Chi
- 10: Dynamic Analyses for Performance-Based Seismic Design of Geotechnical Structures with Examples in Deep Foundations
By D.W. Chang, C.W. Lu, S.S. Lin and J.R. Lai
- 11: Time-Dependent Dynamic Characteristics of Model Pile in Saturated Sand during Soil Liquefaction
By Chia-Han Chen, Yung-Yen Ko, Cheng-Hsing Chen and Tzou-Shin Ueng
- 12: Geological Investigation and Sliding Mitigation in Jiufen Area
By Lee-Ping Shi, Jen-Cheng Liao, Sheng-Hsiung Hung and Chien-Shui Huang
- 13: Interpretation and Analysis of Potential Fluidized Landslide Slope
By H. M. Shu, T. C. Chen, W.C. Yang and Y.X. Luo

September 2016: HONG KONG AND SINGAPORE SPECIAL ISSUE

Edited by

Sing Lok Chiu ,Tiong Guan Ng and Prof. San-Shyan Lin

- 1: Challenges in Improving Slope Safety in Hong Kong through the Landslip Prevention and Mitigation Programme
By Ken K.S. Ho and Raymond W.M. Cheung

- 2: Rock Caverns – Hong Kong’s Hidden Land
By K.C. Ng, K.J. Roberts and Y.K. Ho
- 3: The First Subsea TBM Road Tunnel in Hong Kong
By Albert Liu, Stephen Chan, Conrad Ng, Joseph Lo, C. K. Tsang and Dunson Shut
- 4: Achievements of and Challenges to the Hong Kong Landslide Risk Management
By Rick CK Tam and Michael MK Chang
- 5: Subsea Horizontal Directional Coring (HDC)
By C. K. Tsang, S. F. Chau and Jimmy Chan
- 6: 7th Lumb lecture 10th October 2012 “Peter Lumb’s legacy, Soil Mechanics
= Simple concepts + mathematical processes + lateral thinking”
By John Endicott
- 7: Singapore Case Histories on Omission of Strut by Observation Approach For Circle Line and
Down Town Line Projects
By David Ng C. C. and Simon Low Y. H.
- 8: Vacuum preloading methods: an update
By Jian Chu, Shuwang Yan and Wei Guo
- 9: A New Lithostratigraphical Framework Proposed for Singapore
By K.K Lat, K.H Goay, S.G Lau, S.L Chiam and K.C Chew
- 10: Economical Design for NSF Piles in Soft Clays using Soil-Structure Interaction
By Siew Ann Tan
- 11: Towards a Design Framework for Spatial Variability in Cement Treatment for Underground Construction
By Y. Liu, Y. Jiang and F. H. Lee
- 12: Advances and Challenges in Underground Space Use in Singapore
By Y. Zhou and J. Zhao
- 13: Effect of Ageing Environment on Fiber-Reinforced Polymer/Granular Interface Shear Behaviour**

By H.A. Shaia and H.M. Abuel-Naga
- 14: Groundwater Flow Modeling and Slope Stability Analysis for Deepening of Mae Moh Open Pit Lignite
Mine
By A.B.N. Dassanayake, N. Phien-wej and P. H. Giao
- 15: A Study on Internal Erosion of Low-Plasticity Silty Sand
By Jing-Wen Chen, Bo-Rung Lin, Wei F. Lee and Yie-Ruey Chen
- 16: Analysis of Influencing Factors on Brazilian Test Results Based on A Complex-shaped Grain Model
for Brittle Rock
By Guangcheng Yang and Xinghua Wang
- 17: Effect of Infill Moisture Content and Thickness on Shear Behavior of Planar and Rough Rock Joints By
Tsu-Chiang Cheng, Shuh-Gi Chern, Shin-Ru Wu and Yu-The Lin

- 18: Role of Bentonite in Improving the Efficiency of Cement Grouting in Coarse Sand
By T.G.Santhoshkumar, Benny Mathews Abraham, A, Sridharan, and Babu T Jose

December 2016: MALAYSIA SPECIAL ISSUE

Edited by

Thien Seng Yee, Swee Huat Chan and Teik Aun Ooi

1. Professionalism and Ethics of Geotechnical Engineering
By Z.C. Moh
2. Recent Advances in Pile Testing
By K. Ishihara
3. Innovations in Soil Improvement Method
By J. Chu
4. Lessons Learned from Designing High-rise Building Foundations”
By H. Poulos
5. Advancements in Rail Track Geotechnology at Increased Speeds and Axle Loads
By Buddhima Indraratna, Sanjay Nimbalkar and Chalachat Rujikiatkamjorn
6. Performance and Analyses of Thick Soft Clay Deposit Improved by PVD with Surcharge Preloading and Vacuum Consolidation - A Case Study at CMIT
By P.V. Long, L.V. Nguyen and A.S. Balasubramaniam
7. Characteristics of Hardpan Calcrete of the Nyalau Formation and Impact on Design of Shallow Foundations
By Sim, A.C.Y., Ong, D.E.L., Tai, L.Y., Ting, W.H., Chai, E.P.S and Bachat, J.
8. Ground Improvement via Vacuum Consolidation Method in Vietnam
By Seah, T.H., Kim, T.B. and Nguyen, T.D.
9. Laboratory Study on Dynamic Properties of Residual Soil in Malaysia
By Tanaka, Y. and Lee, M.L.
10. On The Preconsolidation Pressure: Experience based on testing the Holocene Marine Clay of Peninsula Malaysia
By Dobie, M.J.
11. Tunnelling past critical structures in Kuala Lumpur: A Discussion of Case Histories with Insights from Finite Element Analysis and t-z Load Transfer Analyses
By Boon, C.W. and Ooi, L.H.
12. A Comparison of Performance of Deep Excavation using the Top Down and Bottom Up Methods in Kenny Hill Formation
By Tan, J.G. and Ooi, L.H.
13. Fallacy of Capacity Performance & Innovation Improvement of Jack-In Piling in Malaysia
By Liew, S.S. and Ho, S.F.
14. Overviews of Rainfall-induced Landslides in Malaysia
By M.L. Lee, Y. Tanaka and S.Y. Chong

15. The Considerations of Deep Excavation in Kenny Hill and Kuala Lumpur Limestone Formations at the KVMRT
By Joon Gei Tan, Lean Hock Ooi & Hin Kok Yeoh
16. Grain Crushing Under Pile Tip Explored by Acoustic Emission
By Ikuo Towhata and Wuwei Mao
17. A Vibro Stone Column Supported Test Embankment for a High-speed Rail Project in Malaysia
By Yee, Y.W., Ooi, L.H. and Daramalinggam, J.