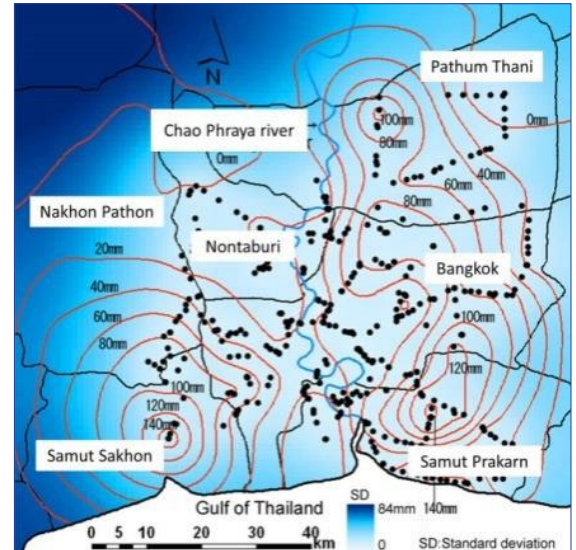


FEBRUARY 2016 NEWSLETTER

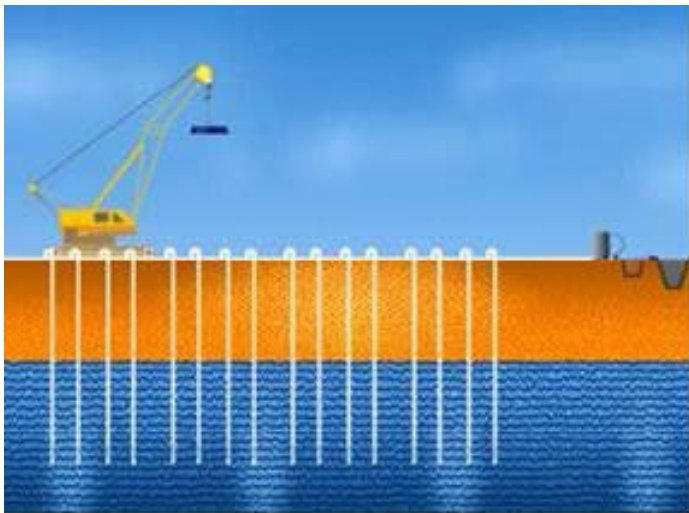
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Relative inundation vulnerability of coastal deltas due to sea level rise
(After IPCC WGII, 2007)



Contour lines of land subsidence in Chao Phraya Delta
(After Yasuhara, Murakami and Mimura 2015)



Vacuum De-Watering and Dynamic Compaction
(After Liang, Xu and Edil 2015)



Reclamation at Rio de Janeiro State, Brazil
(After Barbosa, Barboza de Oliveira and Marques 2015)

What's inside

04 OBITUARY: Ir. Chiam Teong Tee

06 SEAGS-AGSSEA E-Journals

06 ▶ September 2015 Issue

SPECIAL ISSUE ON SOIL BEHAVIOUR AND MODELLING

14 ▶ December 2015 Issue

SPECIAL ISSUE ON PROBLEMATIC SOILS INCLUDING CONTAMINATED SOILS

22 History of SEAGS and AGSSEA

- History
- SEAGS-AGSSEA Partnership
- SEAGS and the Asian Institute of Technology
- International Affiliations

24 Country Events

24 ▶ Taiwan

25 ▶ Hong Kong

29 ISSMGE News & Event Diary

36 Journal of Geotechnical Engineering

36 ▶ Editorial Panel

38 ▶ List of Authors 2010-2015

52 ▶ List of Reviewers 2011 - 2015

57 ▶ Editor-in-Chief & Guest Editors: 1970-2015

59 CONFERENCES

- ICEE-PDRP 2016, Nepal
- 19SEAGC-2AGSSEAC, Malaysia
- EUROSOIL 2016, Turkey
- 6th ICRAAGEE, India
- IC3G 2016, Australia
- COBRAMSEG/SBMR 2016, Brazil

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OBITUARY: Ir. Chiam Teong Tee



Ir. Chiam Teong Tee 1934 - 2016

Ir. Chiam Teong Tee passed away peacefully at the University of Malaya Hospital on Saturday 30th January 2016, aged 82. Ir. Chiam was married to the late Mdm Khoo Siew Choo. He is survived by his daughter, Mdm Elaine Chiam and son, Chiam Chen Yoong.

Ir. Chiam was born in Penang in 1934. He received his secondary school education at Penang Free School. He was one of the first batch of engineering students from the University of Malaya then in Singapore and graduated in 1958. He also obtained a Master in Engineering Science (MEngSc) from the University of New South Wales in 1968 under the UNESCO Fellowship. Ir. Chiam started his career in the Department of Irrigation and Drainage (DID) in 1958. In 1962 he joined a Consulting Engineering firm before going back to the University of Malaya in Kuala Lumpur as a lecturer in 1963. In 1971 he was the Deputy Dean and was appointed the Dean of the Faculty of Engineering in 1973. In 1975, he was a founding member and principal of Perunding Bakti Sdn Bhd, a firm in Engineering Consultancy service in the areas of civil, mechanical and electrical engineering. He was then involved directly in many projects undertaken by the company including Drainage and Irrigation works, Highways, High Rise Buildings and Housing Developments.

Ir. Chiam worked very closely with the late Tan Sri Professor Chin Fung Kee and has been a great student of Prof Chin. In 1972 at the 3rd Southeast Asia Soil Engineering Conference held in Hong Kong Prof Chin brought the 4th Southeast Asia Soil Engineering Conference to Kuala Lumpur and it was successfully held in April 1975 with Prof Chin as Organizing Chairman and Ir. Chiam as the Deputy Organizing Chairman. Ir. Chiam was responsible for the setting up of the Tan Sri Professor Chin Fung Kee annual series of memorial lecture under IEM and the Engineering Alumni of the University of Malaya since 1991. He and his lunch group was responsible for the initiation of the grand dinner celebration held on 12th September 2015 to commemorate the dedicated service of Professor Chin Fung Kee's 63 years of contribution to engineering education and the Engineering Profession and 60 years of the founding of the Faculty in Engineering at the University of Malaya. This event was organized by The Institution of Engineers, Malaysia for the first time and managed by the IEM Academy Sdn Bhd. A DVD on Professor Chin was produced and given as a

door gift to all participants. In this respect Ir. Chiam contributed three articles on

1. The Development of Engineering Education and Professional Practice in Malaysia for the Past 50 years-A Personal Experience and Observations
2. My Thoughts on the restriction of the use of the “Ir” title Vis-à-vis the Professional Engineers qualifications
3. My thoughts on Site Supervision in the Consulting Engineering Practice.

Ir. Chiam has been an Arbitrator since 1981 and is on the IEM Arbitration Panel and also the Regional Centre for Arbitration in Kuala Lumpur (KLRC). He was a Fellow of the Malaysian Institute of Arbitrators. He was also responsible for setting up the IEM Arbitration Committee when he was the IEM President in 1981 and helped prepare the initial draft of the IEM Arbitration Rules.

Ir. Chiam was actively serving the engineering profession through IEM in various capacities. He had been conferred the IEM Honorary Fellowship in 1986 and Fellow Members of other Institutions such as the Institution of Civil Engineers United Kingdom (ICE,UK), Institution of Engineers Singapore (IES) and American Society of Civil Engineers (ASCE).

Apart from being active in IEM, Ir. Chiam also had served in many other Councils and Committees in the private and public sectors such as the President of the Federation of Engineering Institutions of Southeast Asia & the Pacific (FEISEAP) in 1981/1982; Chairman of Government’s Engineering Sub-committee on Uniform Building Bylaws (UBBL) 1974-1995; Council Member of National Productive Centre 1970-1975; President of the Engineering Alumni Association, Universiti Malaya 1968-1969; Chairman and Member of the Industrial Standards Committee of SIRIM 1968-1980; Editor of the UNESCO Journal of Engineering Education in Asia, 1971 and many others of the engineering profession. He is also a founding member of the Engineering Accreditation Council (EAC) and a board member of the BEM, ACEM, and FRIM etc.

In his first year in IEM Council, Ir Chiam initiated the complete redraft of the new IEM Constitution and Bylaws including the use of the title Ingenieur for all the members of The Institution of Engineers, Malaysia, irrespective of their grades of membership. Other relevant professional bodies, such as the Architects, Surveyors etc have subsequently follow suite giving a title to their members!

Ir. Chiam has been a very active member of IEM since early 60s when he joined the Faculty of Engineering as a Lecturer, and served in various capacities in IEM committees for over 50 years. His contribution to the engineering fraternity and various sectors and organizations over the years has impressed the IEM and many others. With due respect and recognition, the Council of the Institution of Engineers, Malaysia (IEM) has unanimously agreed to confer the IEM Engineering Hall of Fame to Ir. Chiam in 2010.

Ir. Chiam will be missed by all those who know him. May his soul rest in peace!

Ir Dr Ooi Teik Aun
President SEAGS

SPECIAL ISSUE ON SOIL BEHAVIOUR AND MODELLING

EDITORS

Prof. Zhen-Yu YIN

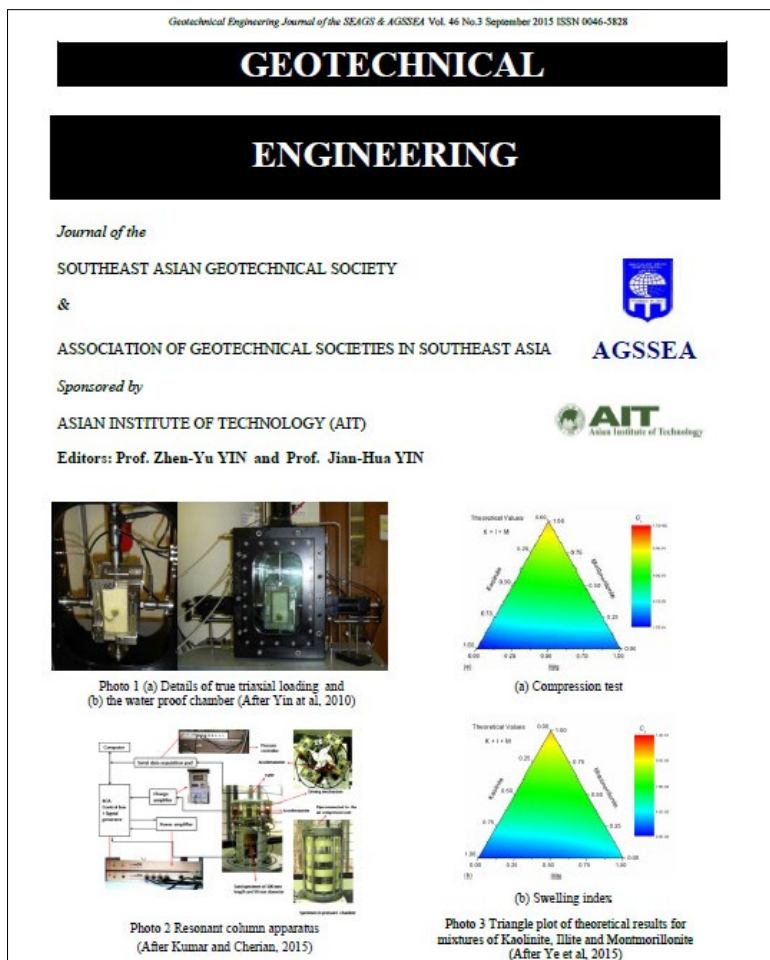
Prof. Jian-Hua YIN

PREFACE

This September 2015 issue of the journal contains fifteen interesting research papers and the details are described below. The time-dependency of the soft clay behaviour is studied in two papers by Wu *et al* and Ye *et al* as overview and interpretation of rate dependency and stress relaxation in soft clays respectively. In these papers, the strain rate dependent behaviour and under 1D and 3D stress conditions under complex loading conditions is studied through triaxial compression and extension tests under different OCR by Wu *et al* and the pore pressure development during stress relaxation by Ye *et al*. The latter paper also used stress relaxation curves in double logarithmic plane resulting in the development of a

stress relaxation coefficient useful in analytical solutions for the 1D stress relaxation. A third paper by Bian *et al* proposes a new stress strain model based on CSSM for re-constituted clays which considers the effects of initial water contents. The model describes the undrained shear behaviour. With the decrease of initial water contents, the reconstituted clays experience enhanced strength, stiffness and dilation, which are not involved in the Modified Cam Clay model. These features can be captured by introducing a new hardening parameter ('quasi-structure' strength) into the conventional critical state model. The 'quasi-structure' strength increases with the decrease of initial water contents. The available test data on the undrained shear behaviour of reconstituted clays at different initial water contents are used to verify the proposed model, and the comparisons between computed and measured results show that the proposed model is able to predict the overall pattern of stress-strain curves, pore pressure variations and effective stress paths reasonably well, especially the ultimate undrained strength and pore pressure response at large strain.

The fourth paper is on the engineering behaviour of Shanghai soft clay by Lu *et al* by statistical analyses of the test data. The goodness-of-fits of normal distribution, log-normal distribution, exponential distribution and uniform distribution are assessed for each parameter using the Kolmogorov-Smirnov (K-S) method. The results show that the normal distribution is suitable for initial water content, specific



gravity, plasticity index, liquidity index and unit weight, the log-normal distribution is suitable for initial void ratio and plastic limit, the exponential distribution is suitable only for liquid limit, and the uniform distribution is not recommended.

Wang *et al* in the fifth paper deal with the dynamic behaviour of frozen soils. The dynamic response of frozen soils is one of the significant factors that should be taken into account when designing and constructing infrastructures in cold regions. This paper firstly reviews the state-of-the-art of dynamic testing techniques including dynamic uniaxial/triaxial test, resonant column test, wave velocity test and the SHPB test. Then the correlations of dynamic indexes for frozen soils with test conditions are analyzed i.e., dynamic modulus, dynamic strength, damping ratio as well as dynamic Poisson's ratio. The typical stress-strain relationships for frozen soils under dynamic loading are summarized such as empirical models, creep modelling and strength criterion for frozen soils. Finally promising prospects of the study in this paper is suggested.

Ye *et al* (in sixth paper) is on the mineral constituents of one dimensional compression behaviour of clayey soils. Only few data are available concerning the effect of the four main clay minerals, kaolinite (K), illite (I), montmorillonite (M) and chlorite (C), on the mechanical properties of clayey soils. This paper discusses the effect of different mineral contents on the compression and swelling indexes of clay mixtures in order to provide correlations between the mineralogical content of a clayey soil and its compressive properties. Four pure clay powders were used to prepare 34 clay mixtures (different proportions of K+I, K+I+M, K+I+C). Conventional oedometer tests were conducted on all the prepared samples. Based on the test results, the evolution of the compressive properties with the proportions of pure clays was estimated and relevant correlations are suggested. All the results demonstrate that the compression and swelling indexes are reasonably well correlated to the proportion of clay minerals. The content in montmorillonite influences significantly the compressive properties of clayey soils, and the contents of illite and chlorite are less influential when added to kaolinite based clayey soils. Moreover, 15 samples with different proportions of K+I+M+C were prepared and tested, and the proposed correlations were validated in light of the results obtained on these materials.

The seventh paper by Fan *et al*, investigates the addition of fine grained Zeolite on the compressibility and hydraulic conductivity of clayey soil treated with calcium bentonite and used as backfills for vertical cut off walls. Vertical cutoff walls, using backfill consisting of on-site sandy soil and Na-bentonite are widely used as engineering barriers for the purpose of achieving relatively low hydraulic conductivity and high contaminant sorption capacity. At some sites, locally available clayey soil, Ca-bentonite and natural zeolite may be considered as an alternate backfill. However, studies on the compressibility and hydraulic conductivity of zeolite-amended clayey soil/Ca-bentonite backfills for vertical cutoff walls are very limited. A series of one-dimensional consolidation tests is performed to evaluate the compressibility and hydraulic conductivity of fine-grained zeolite-amended clayey soil/Ca-bentonite backfills. Kaolin is used as the control clayey soil, and it is amended with various amounts of Ca-bentonite (5, 10, and 15%) and zeolite (2 - 40%) to prepare zeolite-amended kaolin-bentonite backfills. The results indicate that the addition of fine-grained zeolite has insignificant influence on the compressibility and hydraulic conductivity of clayey soil/Ca-bentonite and sandy soil/Na-bentonite backfills. The hydraulic conductivity of the zeolite-amended clayey soil/Ca-bentonite backfills is generally lower than the typical regulatory limit of 10-9 m/s. Two empirical methods, based on the Nagaraj's generalized void ratio (e/e_L) and Sivapullaiah *et al*'s method are assessed to predict the hydraulic conductivity of the backfills. The proposed method based on the Sivapullaiah *et al*'s method is shown to estimate the hydraulic conductivity for the fine-grained zeolite-amended clayey soil/Ca-bentonite backfills with reasonable accuracy.

The eighth paper by Cheng and Saiyouri is titled effect of long term aggressive environments on the porosity and permeability of granular materials reinforced by nano-silica and sodium silicate. Colloidal nanosilica is a kind of new chemical grout materials for filling small pores of fine-grained soil. Compared to traditional sodium silicate material, the advantages and disadvantages of colloidal nanosilica are studied under laboratory conditions for pure gels and sand-gel mixtures for long-term volume stability. Sam-

ples of Fontainebleau sand injected by nanosilica and sodium silicate were conserved in dry air, water, salt solution and acid solution for 8 different time periods. The results show that pure gel of nanosilica is much more stable than pure gel of silicate sodium in all environments studied; from results of porosity, nanosilica does not have manifest advantages compared with sodium silicate; from results of permeability, nanosilica sand has more stable capacity of water-blocking in all environments.

The ninth paper by Deka *et al* is on strength of lime treated flyash using bentonite. The class “F” type Fly ash is non-cohesive and is normally strengthened or reinforced when used in structural fills. This paper deals with strength increase in unconfined compressive tests by pozzolanic reactions with lime and also bentonite.

The tenth paper is by Wang *et al* on soil deformation induced by underground tunnel construction. Development and utilization of underground railways can effectively ease the problem of urban traffic congestion. However, surrounding soil disturbance during tunnel excavation is likely to cause serious accidents. Thus, analyzing soil deformation during tunnel excavation is important. Through numerical simulation, this paper analyzes the influence of the step distance of a single-bore tunnel on the disturbance of the surrounding soil. Based on research on a single-bore tunnel, this paper further examines the effects of various spacing, locations, and excavation methods on the deformation of surrounding soils during parallel tunnel excavation. The results show that longer excavation steps lead to more intense disturbance to the surrounding soils. The most intense disturbance occurs at the ends of the tunnel. During new tunnel excavation, the tunnel crossing angle has stronger influence than the tunnel spacing on the original tunnel. Among the four excavation methods, single-bore advanced through is the most secure, whereas simultaneous excavation from opposite directions can cause the most intense disturbance to the surrounding soils. In practical operations, corresponding excavation methods can be employed according to specific conditions. Moreover, in-situ monitoring at key positions should be enhanced to avoid accidents.

The eleventh paper by Zhou *et al* is on full scale field tests on soil arching triggered during the construction of shallowly buried HDPE pipes. Soil arching significantly affects earth pressures around and above high-density polyethylene (HDPE) pipes in the construction phase. However, few studies have systematically addressed the change of soil arching with respect to soil cover thickness during the installation of HDPE pipes. This paper presents full-scale field investigations on the soil arching above and around three HDPE pipes buried shallowly in trenches. The results demonstrate that the soil arching developed in the backfill above the pipes is getting significant with increasing soil cover thickness. At a given soil cover thickness, more notable soil arching is found at a position closer to the pipe crown. The measured earth pressures acting on the pipe crown are compared with those estimated by the Marston load theory. It is found that the crown earth pressures estimated by the Marston’s trench equation and embankment equation are 8% to 32% and 2% to 14% respectively higher than those obtained from the field tests. The results suggest that a threshold trench width is likely to exist when the Marston load theory is used for calculating the earth pressures on the top of HDPE pipes buried in the trench.

The twelfth paper is on a pollutant migration model considering solute decay in layered soil by Yu and Cai. Organic pollutant solute undergoes significant decay during the migration process in clay liner systems and foundation clay. Liner and foundation soil have layered properties. A one-dimensional computational model is established to calculate pollutant migration by considering the decay in layered soil medium. The separation of variable method is used to obtain the analytical solution. To verify the capability of the developed method, a typical example is illustrated by applying this model. The calculated results are compared with the results obtained from the GAEA Pollute v7. Consistent results demonstrate the reliability and validity of the proposed migration model, which can be a promising tool for landfill liner design when considering the organic pollutant decay.

The thirteenth paper is on effect of cyclic strain history on shear modulus of dry sand using resonant column tests by Jyant Kumar and Achu Catherine Cherian. A number of resonant column tests were

performed on dry sand specimens to examine the effect of cyclic shear strain history, by including both increasing and decreasing strain paths, on the shear modulus (G) for different relative densities (D_r) and confining pressures (σ_3). The specimen was subjected to a series of cycles of increasing and decreasing shear strain paths approximately in a range of 0.001-0.1%. For a particular cycle, with a given strain amplitude, the shear modulus during the increasing strain path becomes always greater than that during the decreasing strain path. For a given cycle, irrespective of relative density of sand, the difference between the values of G associated with the increasing and decreasing strain paths becomes always the maximum corresponding to a certain shear strain level. The maximum reduction in the shear modulus, due to the cyclic variation of the shear strain, was noted to be around one fourth of the maximum shear modulus (G_0). This reduction in the shear modulus on account of the cyclic variation of shear strain increases generally with decreases in the values of both relative density and confining pressure. The study will be useful to examine the response of sand media subjected to earthquake excitation.

Bhattacharya and Kumar are the authors of the fourteenth paper on vertical uplift capacity of circular anchor plates. Experimental and numerical investigations have been carried out to determine the vertical uplift resistance of circular anchor plates embedded in cohesionless soil media. Experimental studies are performed on model circular anchor plates placed at different depths in loose to medium dry sand deposit for two different relative densities, namely, 25% and 65%, respectively. The numerical work has been done by using an axisymmetric lower bound limit analysis in conjunction with finite elements and linear programming to compute the uplift resistance offered by circular anchor plates embedded horizontally in sand. In the case of numerical studies, the internal frictional angle of sand was varied from 20° to 45° . Both experimental and numerical studies clearly reveal that the uplift resistance of the circular plate increases considerably with increases in embedment ratio (H/D), and soil frictional angle (ϕ). The deformation of the anchor plate, corresponding to the failure load, increases with an increase in the values of H/D and relative density of sand. The values of the failure loads obtained from the computational analysis match well with the present experimental results as well with the available data from literature.

In this fifteenth paper by Benson Hsiung and Sy-Dan Dao, a simple method for predicting movements, especially the ground surface settlements, caused by deep excavations in sands is presented. The case history of deep excavation in thick layers of sand is adopted from Kaohsiung, Taiwan as the basis for numerical analyses. In order to improve the inconsistency in prediction of ground surface settlements induced by the deep excavation, the analysis using the simple constitutive model but with additional two factors, α and β is applied. The factor α defines the width of primary strain zone behind the retaining wall, and β indicates the difference of soil stiffness in two zones of the primary strain zone and small strain zone. It is concluded that changing α seems not to induce significant change, and values of β from 3 to 5 shall be taken once such approach intends to be adopted for predicting ground surface settlements caused by deep excavations in sands.

The editors are grateful to the authors and reviewers and are very pleased with the significant contributions made by them in making this Issue feasible to our SE Asian Geotechnical Community and others.

Zhen-Yu Yin
Jian-Hua Yin

Prof. Zhen-Yu Yin

Prof. Yin graduated from Zhejiang University, China in 1997 for his bachelor degree and from Ecole Centrale de Nantes, France in 2003 for his master degree. He got PhD from Ecole Centrale de Nantes, France in 2006 in the field of geotechnical engineering. He was promoted as professor in 2010 at Shanghai Jiao Tong University in China. Prof. Yin's research topics include: (1) constitutive modeling for saturated soils; (2) microstructure and micromechanics for soils; (3) improvement technology for soft soils; (4) finite

element analysis for geotechnical engineering. He has authored more than 50 papers in peer review journals such as Geotechnique, ASCE journals, IJSS, Nag etc.

In 2011, Prof. Yin was awarded “Professor of Exceptional Rank of Shanghai-Dongfang Scholar” by Shanghai Education Committee. Prof. Yin is now serving as committee member for both national and international associations (granular materials committee ASCE, Constitutive Relation and Strength Theory Committee of Chinese Society of Soil Mechanics and Geotechnical Engineering, Soil Mechanics Committee of Chinese Society of Theoretical and Applied Mechanics, Underground Engineering Committee of Shanghai Society of Civil Engineers). From 2010 up to 2012, Prof. Yin has received 8 research grants as main investigator, financed by European Union, Chinese National Science Foundation, Minister of Education of China, Shanghai Science and Technology Committee etc.

Prof. Jian-Hua Yin

Dr Jian-Hua Yin is currently a professor in the Department of Civil and Structural Engineering of The Hong Kong Polytechnic University. Professor Yin received a BEng degree in 1983 in Chinese Mainland, an MSc degree from Institute of Rock and Soil Mechanics of the Chinese Academy of Sciences in 1984, and a PhD from The University of Manitoba, Canada in 1990. Dr Yin has a mix of industrial and academic experiences. He joined Department of Civil and Environmental Engineering, The Hong Kong Polytechnic University in 1995 as an Assistant Professor. He was promoted to an Associate Professor position in 1999, to a Professor position in 2002, and recently to the position of Chair Professor of Soil Mechanics in 2014. Professor Yin has a good track record in research and has played a leading role in development of advanced soil testing equipment, innovative fiber optical sensors, establishing a large-scale multi-purpose physical modeling facility for studying geo-hazards, organization of regional and international conferences. His research interests include (i) testing study of properties and behaviour of soils, (ii) elastic visco-plastic modeling, (iii) soft soil improvement, (iv) soil nails and slope analysis, (v) development and applications fiber optical sensors, (vi) soil-structure interface, and (vii) development of advanced/special lab test apparatus. Currently, Professor Yin serves as a Vice-President of International Association for Computer Methods and Advances in Geomechanics (IACMAG), Co-Editor of International Journal of Geomechanics, Co-Editor of Geomechanics and Geoengineering, and Associate Editor of Canadian Geotechnical Journal. He has received the honours of the prestigious “JOHN BOOKER Medal” in 2008, “Chandra S. Desai Excellence Award” in 2011 from IACMAG, and delivering the high-status 2011 “Huang Wenxi Lecture” in Chinese Mainland.

SPECIAL FEATURE STORY ON “Soil Mechanics at Emmanuel College –Elegant, Rigorous and Relevant”

By John Burland



Professor John Burland

Born in the UK, Professor Burland was educated in South Africa and studied Civil Engineering at the University of the Witwatersrand. He returned to England in 1961 and worked with Ove Arup and Partners for a few years.

After studying for his PhD at Cambridge University, John Burland joined the UK Building Research Station in 1966, became Head of the Geotechnics Division in 1972 and Assistant Director in 1979. In 1980 he was appointed to the Chair of Soil Mechanics at the Imperial College London. He is now Emeritus Professor and Senior Research Investigator at Imperial College.

In addition to being very active in teaching (which he loves) and research, John Burland has been responsible for advising on the design of many large ground engineering projects world-wide including the underground car park

at the Palace of Westminster and the foundations of the Queen Elizabeth II Conference Centre in London. He specialises in problems relating to the interaction between the ground and masonry buildings. He was London Underground's expert witness for the Parliamentary Select Committees on the Jubilee Line Extension underground railway and has advised on many geotechnical aspects of that project, including ensuring the stability of the Big Ben Clock Tower. He was a member of the international board of consultants advising on the stabilisation of the Metropolitan Cathedral of Mexico City and was a member of the Italian Prime Minister's Commission for stabilising the Leaning Tower of Pisa.

He has received many awards and medals including the Gold Medal for engineering excellence of the World Federation of Engineering Organisations and the Gold Medals of the UK Institution of Structural Engineers and of the UK Institution of Civil Engineers. In 1994 he was awarded the Kevin Nash Gold Medal of the International Society of Soil Mechanics and Geotechnical Engineering 'In recognition of outstanding services to ISSMGE, to International Goodwill and to International Geotechnical Practice and Education'. In 1996 he was awarded the Harry Seed Memorial Medal of the American Society of Civil Engineers 'for distinguished contributions as an engineer, scientist and teacher in soil mechanics'. He is a Fellow of both the UK Royal Academy of Engineering and of the Royal Society of London and was appointed Commander of the Most Excellent Order of the British Empire in 2005.

SPECIAL FEATURE STORY ON "Ground Improvement Methods for Port Infrastructure Expansion"

By Indraratna B., Heitor, A and Rujikiatkamjorn, C.



Prof. Buddhima Indraratna, PhD

Buddhima Indraratna is a Civil Engineering graduate from Imperial College, London, and obtained his PhD from the University of Alberta in 1987. He has worked in industry in several countries before becoming an academic at AIT during the period 1988-1991, in which he was an Assistant Professor and then Associate Professor. He was involved in a number of major infrastructure projects in Thailand and Southeast Asia during that time. Subsequently, his contributions to the analysis of 2nd Bangkok International Airport (Suvarnabhumi) are well-known and published in major international journals.

Prof Indraratna's significant contributions to geotechnical and railway engineering have been acknowledged through numerous national and international awards, including the 2016 Inaugural Ralph Proctor Lecture by the International Society of Soil Mechanics and Geotechnical Engineering, the most prestigious award in Transport Geotechnics. In 2009, he delivered the prestigious E.H. Davis Memorial Lecture of Australian Geomechanics Society for distinguished contributions to theory and practice of geomechanics.

In 2014, he received the C.S. Desai Medal from the International Association for Computer Methods and Advances in Geomechanics (IACMAG) for outstanding contribution to geotechnical research and education. For his pioneering contributions to Australian railway innovations, he was honoured with the prestigious Business and Higher Education award by the Australian Government in 2009, Engineers Australia Transport Medal in 2011 and 2015 Australasian Railway Society's Outstanding Individual Award. Over the past two decades, he has also received numerous best paper awards, for example Thomas Telford Premium Award by the Institution of Civil Engineers, UK and Robert Quigley Award by the Canadian Geotechnical Society. He was instrumental in changing the Australian standards the use of vertical drains in soft foundations soils and for revising the standards for railway ballast.

Prof Indraratna currently leads numerous projects funded by the Australian Research Council with over \$15 million dollars over the past decade, and he has been a geotechnical consultant worldwide, and a United Nations consultant. He was also an Advisor to the Ministry of Science and Technology (Thailand)

for new railway network planning and design, and an Advisor to the Government of Sri Lanka on Post-tsunami rehabilitation of railways. He has more than 550 publications including over 230 reputed journal papers, 9 Books and over 45 invited keynote papers. He has supervised over 50 PhD graduates and 30 Postdoctoral Fellows.

Professor Indraratna is a Fellow of the most prestigious Australian Academy of Technological Sciences and Engineering (FTSE), as well as a Fellow of several professional organisations including the Institution of Engineers, Australia (FIEAust), American Society of Civil Engineers (FASCE), Australasian Institute of Mining & Metallurgy (FAusIMM) and the Geological Society of UK (FGS).

ACKNOWLEDGEMENT

This September 2015 Issue is edited by Profs. Zhen-Yu Yin and Jian-Hua Yin. They are to be congratulated for acquiring fifteen excellent papers, which covers a wide range of topics which will be of great value to researchers and practitioners. Details of the contents are in the Preface as compiled by the editors. They cover strain rate effects and stress relaxation with a new Stress strain Model as based on CSSM; the engineering behaviour of Shanghai soft clay is statistically analyzed; the dynamic behavior of frozen soils is studied using dynamic uniaxial/triaxial test, resonant column test, wave velocity test and the SHPB test. The addition of fine grained Zeolite on the compressibility and hydraulic conductivity of clayey soil treated with calcium bentonite and used as backfills for vertical cut off walls is also presented. Additionally, effect of long term aggressive environments on the porosity and permeability of granular materials reinforced by nano-silica and sodium silicate is also presented. The strength of lime treated flyash using bentonite is also studied in detail; the class "F" type Fly ash is non-cohesive and is normally strengthened or reinforced when used in structural fills. Soil deformation induced by underground tunnel construction is of importance. Among the four excavation methods, single-bore advanced through is the most secure, whereas simultaneous excavation from opposite directions can cause the most intense disturbance to the surrounding soils. In practical operations, corresponding excavation methods can be employed according to specific conditions. Moreover, in-situ monitoring at key positions should be enhanced to avoid accidents.

Full scale field tests on soil arching triggered during the construction of shallow buried HDPE pipes is also presented. Soil arching significantly affects earth pressures around and above high-density polyethylene (HDPE) pipes in the construction phase. The paper here presents full-scale field investigations on the soil arching above and around three HDPE pipes buried shallowly in trenches.

Organic pollutant solute undergoes significant decay during the migration process in clay liner systems and foundation clay. Liner and foundation soil have layered properties. A one-dimensional computational model is established to calculate pollutant migration by considering the decay in layered soil medium. The thirteenth paper is on effect of cyclic strain history on shear modulus of dry sand using resonant column tests by Jyant Kumar and Achu Catherine Cherian. A number of resonant column tests were performed on dry sand specimens to examine the effect of cyclic shear strain history, by including both increasing and decreasing strain paths, on the shear modulus (G) for different relative densities (D_r) and confining pressures (σ_3). The study will be useful to examine the response of sand media subjected to earthquake excitation.

Bhattacharya and Kumar are the authors of the fourteenth paper on vertical uplift capacity of circular anchor plates. Experimental and numerical investigations have been carried out to determine the vertical uplift resistance of circular anchor plates embedded in cohesionless soil media. The numerical work has been done by using an axis-symmetric lower bound limit analysis in conjunction with finite elements and linear programming to compute the uplift resistance offered by circular anchor plates embedded horizontally in sand. Finally, Benson Hsiung and Sy-Dan Dao presented a simple method for predicting movements, especially the ground surface settlements, caused by deep excavations in sands. The case history of deep excavation in thick layers of sand is adopted from Kaohsiung, Taiwan.

No doubt, this Issue will be most useful to our Profession and all those who are engaged in Pile Foundation Research and Practice. Sincere thanks to all who have contributed to the success of this issue of our journal under the able leadership of Profs. Zhen-Yu Yin and Jian-Hua Yin.

K. Y. Yong
N . Phienwej
T. A. Ooi
A. S. Balasubramaniam

TABLE OF CONTENTS: September 2015 Journal Issue

List of Papers	Page No.
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. Saiyour</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 C. C. Achu</i>	99
Vertical Uplift Capacity of Circular Anchor Plates <i>By P. Bhattacharya and J. Kumar</i>	105

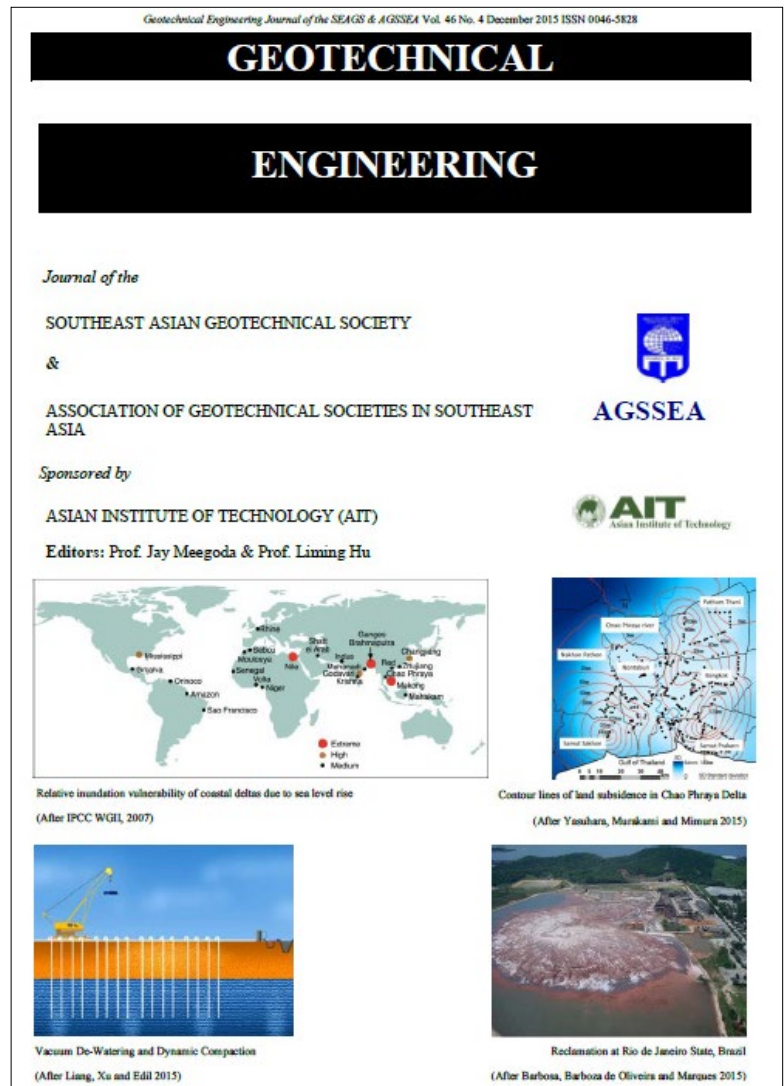
DECEMBER 2015 ▶ <http://seags.ait.asia/journals/seags-agssea-journal-december-2015/>**SPECIAL ISSUE ON PROBLEMATIC SOILS INCLUDING CONTAMINATED SOILS****EDITORS****Prof. Jay Meegoda****Prof. Liming Hu****PREFACE**

Welcome to Geotechnical Engineering Journal of the Southeast Asian Geotechnical Society (SEAGS) and the Association of Geotechnical Societies in Southeast Asia (AGSSEA). It is our great pleasure to serve as the guest editors for the last issue of 2015. It is also a special issue dedicated to on Problematic Soils including Contaminated Soils. This December 2015 issue of the journal contains fifteen interesting research papers and the details are described below.

First six papers are on contaminated soils or groundwater and their remediation. Next two papers are on electro-osmosis drainage. Next three are on ground improvement. Last four are on interesting or emerging topics such as education, impact of rise in sea level, numerical analysis and theoretical analysis.

We specifically requested Professor Chrysochoou to describe Geochemistry in Geotechnical Engineering Problems and set the tone for the issue. In this paper Professor Chrysochoou uses Ettringite, which is a problematic mineral found in soils as well as concrete, as case study to elaborate Geochemistry and how that is related to Geotechnical Engineering.

In the second paper Professor Meegoda and his team describes the Engineering Properties of Chromium Contaminated Soils. The chromite ore processing activities have over 2 million tons of processed chromium ore residue in Hudson County, New Jersey. This is a hazardous waste needing proper disposal. Professor Meegoda and his team explored the feasibility of using as construction



material or to be used as brownfield type remediation.

Dr. Nithya and his team explored heavy metal sorption characteristics of two geo-materials in the third paper. The mobility of heavy metals into the environment as a result of mining, industrial and agricultural activities such as that described in the second paper is of major concern and engineers are exploring ways to absorb those heavy metals. Dr. Nithya and his team performed batch sorption experiments to evaluate suitability of two soils found in India as sorbents for heavy metals.

In the fourth paper Professor Mulligan and her student explored reduction of Chromium in water and soil using a biosurfactant "Rhamnolipid." Rhamnolipid is readily biodegradable biosurfactant with a very low environmental impact. Professor Mulligan and her student performed batch experiments to evaluate the feasibility of using Rhamnolipid for the removal and reduction of hexavalent chromium from contaminated soil and water.

Professor Barbosa and her team describe details of a reclamation project of a brownfield site containing 1.2 million cubic meters of mineral waste pile inside a 260,000 m² liquid waste pond in Rio de Janeiro State, Brazil, the fifth paper of this issue. Professor Barbosa and her team proposed technical solution that included the complete draining of the liquid pond, accompanied by on site treatment, a hydraulic barrier of pump & treat wells and the construction of an engineered waste containment facility using the mineral solid waste as compacted earth fill material combined with geosynthetics.

A review of acidic groundwater remediation in the Shoalhaven floodplain in Australia, is given by Professor Indraratna and his team in the sixth paper. Acidic groundwater generated from acid sulfate soils create unfavorable environmental conditions. Professor Indraratna and his team installed a pilot-scale permeable reactive barrier showing that it is a promising technology for long-term remediation acidic groundwater.

Electro-osmosis is an effective technique for soft ground improvement. However with the continuous application of electrical energy the effectiveness of electro-osmosis decreases with increase in soil resistance. The intermittent application of the current is one way to overcome this problem. Hence Professor Hu and his team describe an experimental and a numerical study of electro-osmosis on kaolinite under intermittent current in the seventh paper.

A new type of electro-kinetic geo-synthetics (EKG) electrode to avoid the electrode corrosion and provide an effective drainage channel was developed for electro-osmosis drainage, and its performance was evaluated by Professor Shen and his coworker in the eighth paper.

The title of the ninth paper is innovative soft soil improvement method through intelligent use of vacuum dewatering and dynamic compaction. This research was performed by Professor Liang and his team.

Professor Shivashankar and his team provide the tenth paper entitled "Some Studies on Engineering Properties, Problems, Stabilization and Ground Improvement of Lithomargic Clays." They performed laboratory studies to determine engineering and strength properties of these lithomargic clays and stabilized soils. Then they reported ways to improve sites containing Lithomargic Clays.

The eleventh paper describes laboratory investigation of stone column reinforcement of a soft South African clay by Professor Kalumba and his coworker.

Professor Bouassida and his team describe the results of a numerical modelling study of Tunis soft clay in the twelfth paper.

A framework for the de-structuring of clays during compression, is the title of thirteenth paper and it is a theoretical study performed by Professor Horpibulsuk and his colleagues.

In the fourteenth paper Professor Yasuhara and his colleagues describe impact of inundation caused by sea-level rise combined with land subsidence, a modern day problem.

Last but not least is the fifteenth paper by Professor Scharle and his colleague. This is an invited paper on challenges of educating our younger generation in Geotechnical Engineering.

The guest editors are grateful to the authors and reviewers for their contributions. We are very pleased with the significant contributions made by authors in making this Issue feasible to our SE Asian Geotechnical Community and others.

Jay N. Meegoda
Liming Hu

Jay N. Meegoda

Dr. Meegoda is the director of Geotechnical Program and a Professor of Civil and Environmental Engineering at New Jersey Institute of Technology. He received his BS (Honors) from University of Sri Lanka and his M.S. and his Ph.D. from the University of California at Davis. He has been working as educator, consultant and researcher in engineering for over 35 years. He utilizes scientific concepts and engineering technologies in his research to provide solutions to real world problems. Dr. Meegoda has worked with state and local governments, and foreign governments to provide technical input for broad range of problems.



Prof. Jay N. Meegoda

Dr Meegoda has worked on three major research areas. His primary research is in Mechanics of Geo-Environmental Engineering, which includes Engineering Properties of Contaminated Soils, Centrifugal Modeling of Contaminant Movement in Soils and Remediation of Contaminated Soils, Micro-mechanics of Soils, Reuse of Contaminated Soils, and Ultrasound. His second major research area is sustainable use of waste, which is still under the broad area of Geo-environmental Engineering. It includes Modeling of Bio-reactor Landfill performance, Sustainable Waste Management and Construction use of waste. Recently Dr. Meegoda initiated his third research area, the sustainable infrastructure initiative, which includes Performance of pipes and development of next generation of pipes, Management of underground infrastructure and Pavement texture and snow/ice management to limit accidents. He has offered numerous short courses worldwide, and teaches graduate and undergraduate courses at New Jersey Institute of Technology on Geotechnical and Geo-environmental Engineering.

Dr. Meegoda as PI has successfully concluded several multidisciplinary research projects worth over \$7M from agencies such as NSF, USEPA, US Army, FHWA, NJDOT and NJDEP that provided broader impact to the society. Some of those technologies are now extensively used while others are to be commercialized. He has published over 150 papers. He has one patent and applied for one provisional patent. He received the research implementation award from the New Jersey Department of Transportation in 2011 for his Culvert Information Management Research, the best theoretical paper award from the Environmental and Water Resources Institute of ASCE in May 2012 for his research collaboration with China and the best practice paper award from the Environmental and Water Resources Institute of ASCE in May 2001 for the paper describing the results of one USEPA SITE demonstration project.

Dr. Meegoda currently serves Associate Editor of the ASCE Journal of Hazardous, Toxic, and Radioactive Waste Management, Editorial Board Member ASTM Geotechnical Testing Journal, Journal of Traffic and Transportation Engineering, Springer Journal on Waste and Biomass Valorization and The Scientific World Journal, Guest editor, Journal of Hazardous Materials, special issue on Contaminated Dredged Sediments and Associate Editor of the 4th International Symposium on Environmental Geotechnology and Global Sustainable Development. He is a guest/research/visiting professor/scholar of six different universities. He has research collaborations spanning all six continents. He was invited to deliver keynote lectures and invited lectures at numerous events around the world. At NJIT, he was instrumental in setting up the NJIT chapter of Engineers without Borders and is currently serving as the faculty advisor.

Prof. Liming Hu

Dr. Hu is an Associate Professor of Geo-environmental Engineering, and the Deputy Director of Institute of Geotechnical Engineering of Tsinghua University in China. He is also the senior Research Scientist at State Key Laboratory of Hydro-Science and Engineering (SKLHSE), and the director of the Geo-environmental Research Centre. He obtained double Bachelors in both Hydraulic Engineering and Environmental Engineering from Tsinghua University in 1995, and MEng and Ph.D. in Geotechnical Engineering from the same university in 2000. Then he worked as post-doctoral Research Associate at the Department of Civil Engineering of Hong Kong University of Science and Technology (HKUST) from 2000 to 2002. Since April 2002, Dr. Hu joined in Tsinghua University. He has supervised 15 Master students and 6 Ph.D. students.



Prof. Liming Hu

Dr. Hu's research interests focuses on contaminant transport, soil/groundwater remediation, valorization of solid waste, and landfill design in field of Geo-environmental Engineering, as well as soft ground improvement and soil-structure interaction in field of Geotechnical Engineering. He has more than one hundred publications in peer-reviewed journals, and owns 12 invention patents and 3 software packages.

Dr. Hu obtained numerous notable honors and awards due to his outstanding research achievements, such as 2013 First-Class State Award for Inventions by Chinese Central Government, 2013 Outstanding Young Scholar at Tsinghua University, 2013 Scientific Research Award from Hubei Province, 2012 Best Theoretical-Oriented Paper by ASCE Environment and Water Resources Institute, and 2012 Outstanding Young Scholar by Chinese Society for Rock Mechanics and Engineering, 2007 New Century Excellent Talents in Chinese Universities by Ministry of Education, 2005 New Star in Science and Technology by Beijing Municipal Government, and so on.

Now Dr. Hu serves as Chair of Committee for Chinese Young Geotechnical Engineers; Chair of Technical Committee on Soil Contamination and Remediation, and Core Member of the Institution of Geo-Environmental Engineering under Chinese Society for Rock Mechanics and Engineering; and Vice-Chairman of Committee for Geo-Environmental Engineering under Chinese Institution of Soil Mechanics and Geotechnical Engineering. He is also the life member of Southeast Asian Geotechnical Society (SEAGS), member of American Society of Civil Engineers (ASCE), Member of International Society of Soil Mechanics and Geotechnical Engineering (ISSMGE), and Member of International Society for Rock Mechanics (ISRM), Member of American Chemistry Society (ACS), etc. Dr. Hu also serves as a member of TC215 (Environmental Geotechnics) of ISSMGE.

SPECIAL FEATURE STORY ON

"Challenges in Going Underground in Big Cities"

By L. John Endicott

Dr. John Endicott has been an Adjunct Professor at Hong Kong University of Science and Technology and at the University of Hong Kong. He has been practicing in Hong Kong since 1975 and is well known as an all-round geotechnical practitioner in South East Asia. He has worked on many projects on underground railway stations, metro lines, major roads, viaducts and foundations in Singapore as well as in Bangkok, Malaysia, Korea, Indonesia, India and China. He has been an expert witness in many projects including the collapse of the Nicoll Highway in Singapore.



Dr. John Endicott

HISTORIC NOTE ON “Underexcavating the Tower of Pisa: Back to Future”

By John Burland, Michele B. Jamiolkowski, and Carlo Viggiani

Professor John Burland

Born in the UK, Professor Burland was educated in South Africa and studied Civil Engineering at the University of the Witwatersrand. He returned to England in 1961 and worked with Ove Arup and Partners for a few years.

After studying for his PhD at Cambridge University, John Burland joined the UK Building Research Station in 1966, became Head of the Geotechnics Division in 1972 and Assistant Director in 1979. In 1980 he was appointed to the Chair of Soil Mechanics at the Imperial College London. He is now Emeritus Professor and Senior Research Investigator at Imperial College.

In addition to being very active in teaching (which he loves) and research, John Burland has been responsible for advising on the design of many large ground engineering projects world-wide including the underground car park at the Palace of Westminster and the foundations of the Queen Elizabeth II Conference Centre in London. He specialises in problems relating to the interaction between the ground and masonry buildings. He was London Underground's expert witness for the Parliamentary Select Committees on the Jubilee Line Extension underground railway and has advised on many geotechnical aspects of that project, including ensuring the stability of the Big Ben Clock Tower. He was a member of the international board of consultants advising on the stabilisation of the Metropolitan Cathedral of Mexico City and was a member of the Italian Prime Minister's Commission for stabilising the Leaning Tower of Pisa.

He has received many awards and medals including the Gold Medal for engineering excellence of the World Federation of Engineering Organisations and the Gold Medals of the UK Institution of Structural Engineers and of the UK Institution of Civil Engineers. In 1994 he was awarded the Kevin Nash Gold Medal of the International Society of Soil Mechanics and Geotechnical Engineering 'In recognition of outstanding services to ISSMGE, to International Goodwill and to International Geotechnical Practice and Education'. In 1996 he was awarded the Harry Seed Memorial Medal of the American Society of Civil Engineers 'for distinguished contributions as an engineer, scientist and teacher in soil mechanics'. He is a Fellow of both the UK Royal Academy of Engineering and of the Royal Society of London and was appointed Commander of the Most Excellent Order of the British Empire in 2005.



Professor John Burland

Professor Michele Jamiolkowski

Professor Michele Jamiolkowski has been the Emeritus Professor of C.E., Technical University of Torino since 2008. In addition, he has also been the Founder and Chairman of the Engineering Consultant Company, Studio Geotecnico Italiano; Foreign Member of the Polish Academy of Science; Member of the Lagrangian Academy of Science, Torino; and Editor in Chief of the International Journal Geomechanics and Geoengineering.

In addition to his outstanding academic record, Professor Jamiolkowski has also been involving in many world famous mega-projects such as Geotechnical Consultant for the Suspension Bridge over Messina Straits, Geotechnical Consultant for the Engineering Company Technital designer of the MOSE Project in Venice for Safeguarding Venice from high tides etc. He was also the President of the International Society for Soil Mechanics and Geotechni-



Professor Michele Jamiolkowski

cal Engineering between 1994 and 1997, and also the Chairman of the International Committee for Safeguard of the Leaning Tower of Pisa between 1999 and 2000. Currently, he is still serving as the Member of the International Advisory Group of the European Bank for Reconstruction and Development for the design and construction of the New Safe Confinement of the reactor in Chernobyl Nuclear Power Plant; the Chairman of the International Board Expert for Development of the Second World Largest Copper Mine Tailings Depository Zelazny Most in Poland; the Geotechnical Consultant for the Venice Defence System against Water; the Chairman of the Technical Committee for Safeguard of Rome Monuments During Construction of the New Subway Line C Underpassing Historical Town Centre; and the Foreign Associate US National Academy of Engineering.

For his outstanding achievement, Prof. Jamiolkowski is the recipient of numerous awards or honors, such as K. Terzaghi and R.B. Peck Awards from the ASCE; E. De Beer Awards from the Belgian Geotechnical Society; Honorary International Member of the Japanese Geotechnical Society; Doctor Honoris Causa: University of Bucharest, University of Ghent, SGGW, Life University (Warsaw); Recipient of the Italian Prize "Savior of the Art"; Honorable International Member of the Japanese Geotechnical Society since 1998; Honorary Professor Academia Sinica of Guangzhou, China; and Commendatore of the Italian Republic bestowed by the President of Italy.

Other distinctions of Professor Jamiolkowski include 1985 Theme Lecturer at the XI International Conference SMFE, San Francisco, US; 1986 James Forrest Lecture, ICE, London, UK ; 1991 Cross Canada Lecture Tour. Canadian Geotechnical Society ; 1994 John Buchanan Lecturter, University of Texas at Austin; 1997 Manuel Rocha Lecture in Lisbon; 2000 George Hendris Memorial Lecturer, University of Western Australia, Perth; 2001 Terzaghi Oration at the XV ICSMGE in Istanbul; 2002 Szechy Memorial Lecture in Budapest; 2002 Kersten Lecture. University of Minnesota US; 2004 Keynote Lecturer at the Skempton Conference at Imperial College in London; 2004 Keynote Lecturer 15th SEAGC, Bangkok; 2006 R.B. Peck Lecturer at the ASCE Geo-Institute in Atlanta; 2006 4th G.A. Leonards Lecture, University of Purdue, US; 2007 XIV ECSMFE, Madrid, Special Lecture; 2009 XVII ICSMGE, Great Project Lecturer, Alexandria; 2010 1st Za-Chieh Moh Lecturer, in Taipei, Taiwan; 2011 3rd V. De Mello Lecturer, in Lisbon; 2013 53rd Rankine Lecturer, in London; 2014 1st Tchegotarioff Lecturer in St. Petersburg; and 2014 6th J. K. Mitchell Lecture.

Professor Jamiolkowski is the author and co-author of more than 250 publications, journal with referee & international conference.

Professor Carlo Viggiani

Professor Carlo Viggiani graduated in Civil Engineering in 1960 at the University of Napoli; PhD in Geotechnical Engineering in Napoli in 1969. He has been teaching in a number of Italian Universities; since 1975, at the University of Napoli Federico II where is, at present, Emeritus Professor of Foundation Engineering. Is Author or Co-Author of 4 books and more than 200 technical papers. He has been Editor of the Italian Geotechnical Journal; component of the Editorial Board of the Journal of Numerical and Analytical Methods in Geomechanics; at present he is editor of the series "Argomenti di Geotecnica" (Issues in Geotechnics) of the publisher Hevelius.

He has been State of the Art Reporter at the ICSMFE in New Delhi, 1994 (Mitigation of Natural Hazards: Landslides and Subsidence) and at the ICSMGE in Osaka, 2005 (Pile foundations).

Chairman of TC19 (later TC301) (Preservation of Monuments and Historic Sites) of the ISSMGE, he participated to the conservation of a number of monuments affected by geotechnical problems. From 1990 to 2002 member of the International Committee for the Safeguard of the Leaning Tower of Pisa; presently member of the Monitoring and Surveillance Committee of the Tower.



Professor Carlo Viggiani

Involved in the design and construction of a number of civil engineering structures; among them earth dams, civil and industrial buildings, bridges, tunnels and underground constructions, stabilisation of landslides. Consultant for Italian Railways and Underground Transportation Systems in Rome, Napoli, Torino, Bologna, Firenze. Involved in the design of the suspension bridge over the Messina Straits.

ACKNOWLEDGEMENT

The December 2015 Issue of the Journal on problematic and contaminated soils are edited by Prof. Jay Meegoda and Prof. Liming Hu. They did an excellent job within a short time and also forwarded all the completed documents well in time for the Journal Production team under the Leadership of Dr. Ooi at IEM, Malaysia.

There are 15 papers in this Issue with a paper on “Characteristics and Consequence of Nepal Earthquake 2015: A Review” by A S M Fahad Hossain, Tuk Lal Adhikari, Mehedi Ahmed Ansary and Quazi Hamidul Bari, a Feature story by Dr. John Endicott on “Challenges in Going Underground in Big Cities” and a historic note on “Underexcavating the Tower of Pisa: Back to Future” by John B. Burland, Michele B. Jamiolkowski and Carlo Viggiani. This historical note was first published in 2000 before full underexcavation of the Tower was carried out. Work on the Tower has now been successfully completed and an up-date on the behavior of the Tower can be found in Burland et al (2009).

The guest editors have adequately covered the important aspects of the papers: First six papers are on contaminated soils or groundwater and their remediation. Next two papers are on electro-osmosis drainage. Next three are on ground improvement. Last four are on interesting or emerging topics such as education, impact of rise in sea level, numerical analysis and theoretical analysis. It is rewarding to note the authors of the papers cover all continents. It is a clear indication of the International nature of the Journal.

There were numerous Guest editors from 2011 to 2015; each and every one of them brought innovation and scholarly contribution both in research and practice. The journal continues to have page lengths suitable for the authors to comprehensively present their contributions. As a cost cutting measure the hard copy of the journal is only produced after all the soft copies are produced and this is a bound volume made available to all in the middle of the subsequent year. The soft copies are released spot on time in March, June, September and December each year. All articles are reviewed by more than two reviewers; Prof. Jay Meegoda and Prof. Liming Hu used an excellent set of reviewers.

The Issues in 2016 are devoted to AGSSEA country contributions and will be released by Taiwan Geotechnical society editors in March 2016, followed by the editors in Singapore, Hong Kong and Malaysia for the June, September and December Issues respectively. This will be followed by the Anniversary Issues in 2017. It is anticipated that the journal will also have a higher level of standard from the 51st year of the formation of SEAGS in 1967.

It is a genuine pleasure to have the excellent contributions in this December 2015 Issue and to record our vote of thanks to the Guest Editors Prof. Jay Meegoda and Prof. Liming Hu, the authors of the articles, the reviewers and all those who have contributed to the success in this Issues as well as the previous such Issues from 2011. It is important to thank Prof. San Shyan Lin for his varied contribution to SEAGS-AGSSEA in addition to his duties in the editorial team as a most valued member.

No doubt the contribution of the articles in this Issue, the Feature story and the historic note will further add prestige to the success story of the journal.

K. Y. Yong
N . Phienweij
T. A. Ooi
A. S. Balasubramaniam

List of Papers	Page No.
Geochemistry in Geotechnical Engineering Problems: Ettringite as Case Study <i>By M. Chrysochoou</i>	01
Engineering Properties of Chromium Contaminated Soils <i>By Wiwat Kamolpornwijit, 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 <i>By A S M Fahad Hossain, Tuk Lal Adhikari, Mehedi Ahmed Ansary and Quazi Hamidul Bari</i>	114
SPECIAL FEATURE STORY ON “Challenges in Going Underground in Big Cities” <i>By L. J. Endicott</i>	121
HISTORIC NOTE: Underexcavating the Tower of Pisa: Back to Future <i>By J. B. Burland, M. B. Jamiolkowski, and C. Viggiani</i>	126

HISTORY of SEAGS and AGSSEA

Website link ► <http://seags.ait.asia/about-us/history/>

HISTORY

This is an attempt to combine the history of [SEAGS](#) founded in 1967 and exist to date and [AGSSEA](#) formed in 2007.

The [Southeast Asian Geotechnical Society \(SEAGS\)](#) was founded in 1967 by Dr. Za Chieh Moh as a regional society to cover Thailand, Malaysia, Singapore, Philippines, Hong Kong, Indonesia and Taiwan. It is affiliated with the International Society for Soil Mechanics and Foundation Engineering (ISSMFE), the International Association of Engineering Geology (IAEG) and the International Society for Rock Mechanics (ISRM).

The [Association of Geotechnical Societies in Southeast Asia \(AGSSEA\)](#) had its origin at the 16th Southeast Asian Geotechnical Conference (16SEAGC) held in Kuala Lumpur in 2007. Currently, it has eight national member societies. They are the Southeast Asian Geotechnical Society (SEAGS), Vietnam Society for Soil Mechanics and Geotechnical Engineering (VSSMGE), Hong Kong Geotechnical Society (HKGES), [Geotechnical Society of Singapore \(GeoSS\)](#), [Thai Geotechnical Society \(TGS\)](#), [Chinese Taipei Geotechnical Society \(CTGS\)](#), Indonesian Geotechnical Society (HATTI) and [Malaysian Geotechnical Society \(MGS\)](#). The current chairman is Prof. Yong Kwet Yew from the National University of Singapore (NUS).

Combining the history of SEAGS which has been so active from the time of inception to date with AGSSEA is not an easy task. It was thought that SEAGS history will be presented first from 1967 to 2007 till the AGSSEA is formed.

- [Biodata of President and Past President of the Southeast Asian Geotechnical Society \(SEAGS\)](#)
- [Biodata of Chairman and Past Chairman – AGSSEA](#)
- [Biodata of Prof. Dennes T. Bergado](#)
- [The Association of Geotechnical Societies in Southeast Asia \(AGSSEA\)](#)
- [Malaysian Geotechnical Society \(MGS\)](#)
- [Chinese Taipei Geotechnical Society \(CTGS\)](#)
- [Singapore Geotechnical Society \(GeoSS\)](#)
- [Thai Geotechnical Society \(TGS\)](#)
- [The development of geotechnical engineering activities in Southeast Asia](#)
- [SEAGS and AIT](#)
- [Southeast Asian Conferences \(1967 – present\)](#)
- [Asian Regional Conferences \(1967 – 2015\)](#)
- [SEAGS participation at International Conferences in the past](#)
- [SEAGS participation at Executive Committee meetings in the past](#)
- [Society Journal editors \(1970 – present\)](#)
- [Symposia and courses \(1977 – 2010\)](#)
- [Editors & Guest Editors \(1970-2015\)](#)
- [Editorial Panel](#)
- [Reminiscence](#)

SEAGS-AGSSEA PARTNERSHIP





From the very inception of the Society, the Secretariat has been located at the [Asian Institute of Technology](#) (AIT) in Bangkok where much of the **geotechnical engineering research** in Thailand has been conducted.

International Affiliations

The objectives of the Society when it was created in 1967 by Dr. Za Chieh Moh was to promote cooperation among engineers, geologists and other scientists in Southeast Asia for the advancement of knowledge in **geotechnical engineering**. This has clearly been fulfilled over the years through periodic meetings within the region for discussion of geotechnical engineering topics, geotechnical engineering conferences, symposia, seminars and lectures held in the region, publication of a journal which contains papers of interest to geotechnical engineers, and collaboration with the International Society for Soil Mechanics and Foundation/Geotechnical Engineering (ISSMFE/ISSMGE), the International Association of Engineering Geology (IAEG), the International Society for Rock Mechanics (ISRM) and such other bodies and societies as appropriate.

The President & past Presidents of the Society

Dr. Za-Chieh Moh (1967 – 1973)
Prof. Chin Fung Kee (1973 – 1975)
Prof. Peter Lumb (1975 – 1977)
Dr. Tan Swan Beng (1977 – 1980)
Dr. E. W. Brand (1980 – 1983)
Dr. Ting Wei Hui (1983 – 1985)
Prof. A. S. Balasubramaniam (1985 – 1987)
Prof. Seng Lip Lee (1987 – 1990)
Dr. Chin Der Ou (1990 – 1993)
Dr. Ooi Teik Aun (1993 – 1996)
Dr. Surachat Sambhandharaksa (1996 – 1998)
Dr. John C.C. Li (1998 – 2001)
Prof. Kwet Yew Yong (2001 – 2007)
Dr. Chung Tien Chin (2007 – 2010)
Dr. Ooi Teik Aun (2010 – present)

The Secretary General & past Secretary-General of the Society

Dr. Robert Mackey (1967 – 1970)
Dr. John Nelson (1970 – 1973)
Prof. A.S. Balasubramaniam (1972 – 2000)
Prof. D.T. Bergado (2000 – 2013)
Dr. Noppadol Phienwej (2013- present)

COUNTRY EVENTS

TAIWAN CHINESE TAIPEI GEOTECHNICAL SOCIETY (CTGS)

Report on 16ARC bid of Chinese Taipei Geotechnical Society

Der-Wen Chang, CTGS Director Board member and SEAGS General Committee member

The fifteenth Asian Geotechnical Conf. on Soil Mechanics and Geotechnical Engineering was held in Fukuoka International Convention Center on Nov. 9-12, 2015. In the late afternoon of November 10, a council meeting of Asian Geotechnical Societies was hosted by the Vice President for Asia of ISSMGE, Prof. Ikuo Towhata. ISSMGE President Prof. Roger Frank was at the Conf. and joined the meeting with the representatives from Asian Societies. A voting was made to decide the host of the sixteenth Conference.

As in the beginning, three societies including Thai Geotechnical Society, Iranian Geotechnical Society and Chinese Taipei Geotechnical Society are in the campaign. After moderations among the AGSSEA council members, Thai Geotechnical Society kindly gave her courtesy and support to CTGS for the bid. Chinese Taipei finally received the permission to host **16ARC**. The result of voting was 16:6 among the 22 Societies who are valid to vote. Taiwan as a young ISSMGE member successfully earned the host of 16ARC.

The Conf. will be held in **Taipei** on **October 21-25, 2019**. The main theme of the Conf. is **Geotechnique for Sustainable Developments and Emerging Market Regions**. The International Advisory Board of 16ARC is chaired by Dr. Za-Chieh Moh while the Organizing Committee will be chaired by CTGS President Prof. Chang-Yu Ou. The Conf. website will be ready in May 2016. It is the sincere wish of CTGS that 16ARC will be warmly supported by Asian Societies and particularly the AGSSEA members. The advance of Geotechnical Technologies in Asia shall be shared again and remarked as a glory in ARCs history.



Group photo taken at Hakata Hyakunen-Kura hosted by CTGS on November 12, 2015

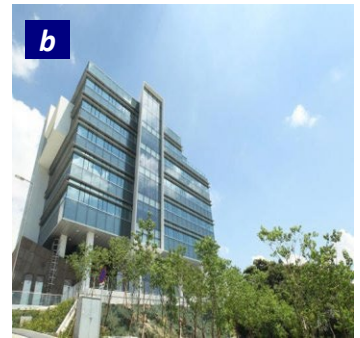
CONFERENCE REPORT: The 1st International Conference on Geo-Energy and Geo-Environment (GeGe2015) in Hong Kong

December 4th – 5th, 2015

The 1st International Conference on Geo-Energy and Geo-Environment (GeGe2015) successfully took place on December 4th–5th, 2015 at the Hong Kong University of Science and Technology (HKUST; Figure 1) Jockey Club Institute for Advanced Study (IAS). The event was jointly organised by the HKUST, the HKUST Jockey Club IAS, the School of Engineering and Department of Civil and Environmental Engineering of HKUST, Chongqing University, Hohai University, Zhejiang University, and the École Polytechnique Fédérale de Lausanne (EPFL). Support was received from the Hong Kong Geotechnical Society, the Geotechnical Division of the Hong Kong Institution of Engineers, and TC215 Environmental Geotechnics and TC308 Energy Geotechnics of the International Society for Soil Mechanics and Geotechnical Engineering (ISSMGE).



Figure 1.
(a) HKUST and (b) IAS,
the conference venue



The conference featured two IAS distinguished lectures and 12 invited keynotes delivered by prominent professors and researchers from around the world.

**IAS distinguished
lecturers**

Prof. J. Mitchell
Prof. R. K. Rowe

Presentation topic

Induced seismicity considerations in geo-energy resource development
Engineered liners in geoenvironmental engineering: from landfills to mining applications

Keynote speakers***Geo-Energy (4th Dec)***

Prof. S. Lacasse	Geo-energy, risk and elements for maintaining sustainability of our resources
Prof. L. Laloui	Analysis of the thermo-mechanical behaviour of geothermal heat exchanger foundations
Prof. H. L. Liu	Model tests on the settlement of energy piles with different tube types
Prof. C. W. W. Ng	Performance of energy piles: centrifuge modelling
Prof. J. C. Satamarina	Energy geo-engineering: storage
Prof. K. Soga	Shallow geothermal energy at city scale
Prof. L. Z. Wang	Recent advances in deep water pipeline geotechnics

Geo-Environment (5th Dec)

Prof. A. Bouazza	GCLs in composite liners subjected to high temperatures: case of brine ponds in unconventional gas extraction sites
Prof. Y. M. Chen	Numerical modelling of biochemical, hydraulic and mechanical behaviours for landfills with high-food-waste-content MSW
Prof. Y. F. Gao	Extension of three-dimensional failure mechanism in stability analysis of earth slopes
Prof. C. W. W. Ng	A new alternative all-weather earthen landfill cover system
Prof. T. L. T. Zhan	Performance of a compacted loess/gravel cover as a capillary barrier and landfill gas emission controller in Northwest China

The first day of the conference (4th Dec) was named the “Geo-Energy day”. After the opening speeches by Prof. Tony Chan, President of the HKUST, and Prof. Charles, W. W. Ng, Chair of the GeGe2015, the IAS distinguished lecture was delivered by Prof. James Mitchell (Figure 2) followed by seven keynote lectures in the same morning. In the afternoon, 19 speakers who submitted extended abstracts presented the key elements of their work in five-minute pitch sessions. During coffee breaks, each speaker had the opportunity to further present their work to the participants through the medium of posters (Figure 3). The presentations covered two main topics: Energy Geo-structures and Storage and Methane Hydrate and Energy Extraction.

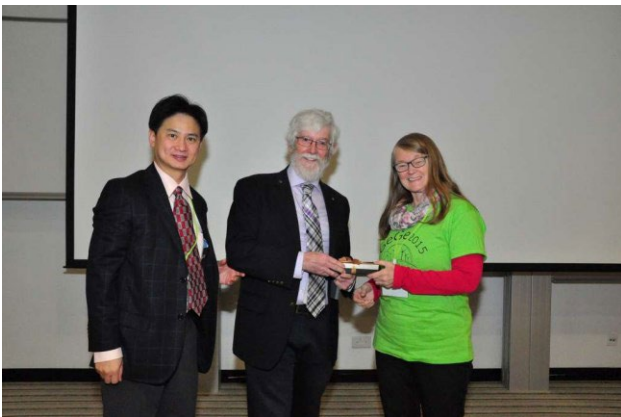


▲ Figure 2. Prof. Mitchell delivers IAS distinguished lecture

The second day of the conference (5th Dec), named the “Geo-Environment day”, had a similar conference format to that on the first day. Prof. Kerry Rowe, another IAS distinguished lecturer, shared his experiences and insights on the engineering design of liners in landfills and mining applications (Figure 4). This was then followed by five keynote presentations and 35 pitch sessions (Figure 5), which covered a wide range of interesting topics including Waste Characterization and Landfill Leachate, Waste Storage Systems, Bio-geotechnology and Green Slopes and Groundwater Protection and Recycled materials.



▲ Figure 3. Speakers engage in poster discussion during coffee break



▲ Figure 4. IAS distinguished lecturer, Prof. Rowe (middle), receives a souvenir from the Chair of GeGe2015, Prof. Ng (left), and the Chair of the lecture session, Prof. Lacasse (right)

Each participant took home a conference proceeding containing extended abstracts of all IAS distinguished lectures, keynote lectures and poster presentations. Authors of some of the selected abstracts will be invited to submit a full paper to be revised and published in one of the following journals: *Canadian Geotechnical Journal*, *Geomechanics for Energy and the Environment*, and *Journal of Zhejiang University—Science A*.

The conference dinner was held at the end of the first day on a Star Ferry sailing the Victoria Harbour of Hong Kong (Figure 6). Delegates took in the wonderful night scene of the harbour from the comfort of the ferry while enjoying a sumptuous dinner.

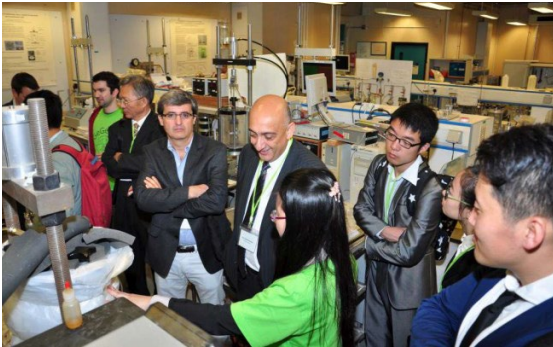


▲ Figure 5. An author who submitted an extended abstract to the conference gives his five-minute pitch



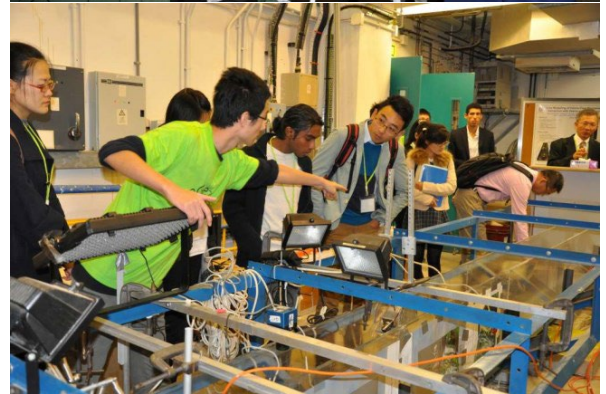
▲ Figure 6. The Star Ferry where the conference dinner was held

The conference also included tours to the Geotechnical Laboratory and Geotechnical Centrifuge Facility (GCF) at HKUST in the afternoon of the Geo-Environment day. Figure 10 shows the student helpers introducing and explaining the working principles of some of the specialized geotechnical testing equipment developed at HKUST. The student helpers also showed the delegates some of the typical centrifuge model test setups in the GCF that are used in geo-energy and geo-environment research (Figure 11(a)). Figure 11(b) shows a unique 5 m long flume apparatus for studying the impact of debris flow on the environment and its remediation.



◀ Figure 10.
Tour of the Geo-
technical Labora-
tory at HKUST

Figure 11. ▶
Tour of the GCF
at HKUST;
(a) the beam
centrifuge and
(b) 5 m-long flume
apparatus



At the end of day two, the two IAS distinguished lecturers, professors J. Mitchell and K. Rowe, and the Chairs of TC215 (Prof. A. Bouazza) and TC308 (Prof. M. Sanchez) gave their closing remarks. The Chairman of GeGe2015 (Prof. C. W. W. Ng; Figure 12) closed with heartfelt thanks to all who contributed to the enormous success of the conference (Figure 13).

At the end of the conference, it has been announced that the 2nd GeGe Conference (GeGe2017) will be held two years later in 2017 at Zhejiang University, Hangzhou, China.

Dr Anthony Leung (*Organising Committee of GeGe2015*)

and

Hong Kong Geotechnical Society

▶ [Click here to view more details and photos from the GeGe2015 conference.](#)



▶ Figure 12. The Chair of GeGe2015,
Prof. C. W. W. Ng, delivers
closing remarks

▶ Figure 13.
Group photo of delegates,
participants, organizers
and helpers of GeGe2015

Vice President for Asia
Professor Ikuo Towhata

Department of Civil Engineering University of Tokyo

7-3-1, Hongo Bunkyo-Ku

Tokyo 113-8656, Japan

Tel: +81-3-5841-6121 / Email: towhata@geot.t.u-tokyo.ac.jp

Hong Kong Geotechnical Society	Hong Kong
Bangladesh Society for Geotechnical Engineering	Bangladesh
CISMGE-CCES	China
Chinese Taipei Geotechnical Society	Chinese Taipei
Indian Geotechnical Society	India
Indonesia Society for Geotechnical Engineering	Indonesia
Iranian Geotechnical Society	Iran
Iraqi Scientific Society for Soil Mechanics and Foundation Engineering	Iraq
Japanese Geotechnical Society	Japan
Kazakhstan Geotechnical Society	Kazakhstan
Kyrgyzstan Geotechnical Association	Kyrgyzstan
Lebanese Geotechnical Engineering Society	Lebanon
Malaysian Geotechnical Society	Malaysia
Nepal Geotechnical Society	Nepal
Pakistan Geotechnical Engineering Society	Pakistan
Geotechnical Society of Singapore	Singapore
Southeast Asian Geotechnical Society	South East Asia
Korean Geotechnical Society	South Korea
Sri Lankan Geotechnical Society	Sri Lanka
Order of Syrian Engineers and Architects	Syria
Tajikistan Geotechnical Society	Tajikistan
Thai Geotechnical Society	Thailand
Uzbekistan Geotechnical Society	Uzbekistan
Vietnam Society for Soil Mechanics and Geotechnical Engineering	Vietnam

Latest ISSMGE News

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► <http://www.issmge.org/en/resources/issmge-bulletin/790-vol-9-issue6-december-2015>

Research Highlights

- Centre for Geotechnical and Materials Modelling, The University of Newcastle, Australia

Major Project

- Design and Case Histories of Large Deep Excavations in Complex Urban Environment in Shanghai

Report from Member Society

- Australian Geomechanics Society

Conference Report

- The 1st International Conference on Geo-Energy and Geo-Environment (GeGe2015) in Hong Kong

Reports from ISSMGE Foundations Recipients



Research Highlights

Centre for Geotechnical and Materials Modelling, The University of Newcastle, Australia

Introduction

The Centre for Geotechnical and Materials Modelling (CGMM) was formally established in 2007 as a Priority Research Centre at The University of Newcastle, Australia. At its inception, the group consisted of sixteen research staff and fifteen research students. Since then, the group has roughly doubled in size to become one of the largest geotechnical research groups worldwide, including thirty staff members and over thirty postgraduate students. In 2011, the CGMM combined with the Centre for Offshore Foundation Systems at The University of Western Australia and the Centre for Geotechnics and Railway Engineering at the University of Wollongong to form the Australian Research Council (ARC) Centre of Excellence for Geotechnical Science and Engineering, a collaborative research centre which has received total funding of approximately \$23M over a seven-year period, including sponsorship from the industry partners Coffey Geotechnics (recently acquired by Tetra Tech), Douglas Partners, and Fugro Advanced Geomechanics.

The CGMM broadly focuses on the development of new models and innovative computational methods, coupled with laboratory and field testing, for predicting the behavior of multiphase geomaterials in infrastructure and mining applications. Its staff possess a diverse range of expertise in computational mechanics, geotechnical engineering, geological engineering, rock mechanics, and environmental engineering. The group's strong background in advanced computational modeling is complemented by proficiency and facilities for sophisticated laboratory testing and field testing. The latter includes the industry-focused research performed using the in situ testing facilities NewSyd and NewTracks, as well as the work being completed at Australia's first National Soft Soil Field Testing

Facility (NFTF) at Ballina, New South Wales. The NFTF includes two heavily-instrumented embankments to proof test new technologies at field scale prior to adoption by industry.

Geotechnical experts from around the world have been invited to forecast the performance of these embankments at an international prediction symposium to be held in Newcastle in September 2016 (cgse.edu.au/eps2016). These predictions will involve cutting-edge numerical modeling based on high quality data, and allow the limitations of current design practice to be identified clearly.

This article provides a sample of recent and ongoing research in the CGMM across nine themes: (1) computational geomechanics, (2) unsaturated soil mechanics, (3) in situ testing, (4) sampling, (5) soft soil engineering, (6) georisk and geohazards, (7) rockfall analysis, (8) buried pipelines, and (9) soil-machine interaction. Additional themes not covered due to space limitations include environmental geotechnics (e.g., georemediation) and multiscale modeling.

[Read more from ISSMGE Bulletin...](#)

EVENT DIARY: ISSMGE Events

Please refer to the specific conference website for full details and latest information.

2016

First South African Geotechnical Conference

Date: Thursday 05 May 2016 - Friday 06 May 2016

Location: Sun City, 25.3403° S, 27.0908° E, South Africa

Language: English

Organizer: Geotechnical Division of the South African Institution of Civil Engineering (SAICE)

E-mail: info@geotechnicaldivision.co.za

Website: www.geotechnicaldivision.co.za

Underground Construction Prague 2016

Date: Monday 23 May 2016 - Wednesday 25 May 2016

Location: Clarion Congress Hotel Prague Prague, Czech Republic

Language: English

Organizer: Czech Tunnelling Association

Contact person: SATRA, spol. s r. o.

Address: Sokolská 32, 120 00, Prague 2, Czech Republic

Phone: +420 296 337 181

Fax: +420 296 337 189

E-mail: ps2016@satra.cz

Website: <http://www.ucprague.com>

NGM 2016, The Nordic Geotechnical Meeting

Date: Wednesday 25 May 2016 - Saturday 28 May 2016

Location: Harpan Conference Centre, Reykjavik, Iceland

Language: English

Organizer: The Icelandic Geotechnical Society

Contact person: Haraldur Sigursteinsson

Address: Vegagerdin, Borgartún 7, IS-109, Reykjavik, Iceland

Phone: +354 522 1236

Fax: +354 522 1259

E-mail: has@vegagerdin.is

Website: <http://www.ngm2016.com>

International Mini Symposium Chubu (IMS-Chubu)

Date: Thursday 26 May 2016 - Saturday 28 May 2016

Location: Disaster Mitigation Research Building, Nagoya University, Nagoya, Aichi, Japan

Language: English

Organizer: The Japanese Geotechnical Society

Contact person: International Affairs Department, Japanese Geotechnical Society

Address: 4-38-2 Sengoku, Bunkyo-ku, 112-0011, Tokyo, Japan

Phone: +81-3-3946-8671 • Fax: +81-3-3946-8678 • E-mail: kokusai@jiban.or.jp

Website: https://www.jiban.or.jp/index.php?option=com_content&view=article&id=1737:2016052628&catid=16:2008-09-10-05-02-09&Itemid

SEAGC2016

Date: Tuesday 31 May 2016 - Friday 03 June 2016

Location: Dorsett Grand Subang, Subang Jaya, Selangor, Malaysia

Language: English

Organizer: Malaysian Geotechnical Society and Institution of Engineers, Malaysia

Contact person: SEAGC2016 Secretariat

Address: c/o IEM Training Centre Sdn Bhd, No.33-1A (1st Floor) Jalan 52/18, PO Box 224 (Jalan Sultan), 46720, Petaling Jaya, Selangor, Malaysia

Phone: +(603) 7958 6851 • Fax: +(603) 7958 2851

E-mail: seagc2016@gmail.com / choy.iemtc@gmail.com

Website: www.mygeosociety.org/SEAGC2016

Fourth International Conference on New Developments in Soil Mechanics and Geotechnical Engineering

Date: Thursday 02 June 2016 - Saturday 04 June 2016

Location: Near East University, Nicosia, North Cyprus, Turkey

Language: English

Organizer: Turkish Society of Soil Mechanics and Geotechnical Engineering and Near East University

Contact person: Cavit Atalar

Address: Near East University, PO Box 670, Nicosia, North Cyprus, Mersin 10, TURKEY

Phone: 0090 392 223 6464 • Fax: 0090 392 223 6461

E-mail: zm2016@neu.edu.tr, zm2016@kibris.net • Website: <http://zm2016.neu.edu.tr/>

12th International Symposium on Landslides

Date: Sunday 12 June 2016 - Sunday 19 June 2016

Location: Naples, Italy

Language: English

Contact person: Italian Geotechnical Association (AGI)

Address: Viale dell'Università, 11 - 00185, Roma, Italy

Phone: +39 064465569 - 0644704349 • E-mail: agi@associazionegeotecnica.it

Website: <http://www.isl2016.it/>

1st International Conference on Natural Hazards & Infrastructure: Protection, Design, Rehabilitation

Date: Tuesday 28 June 2016 - Thursday 30 June 2016

Location: Minoa Palace Resort & Spa, Chania, Crete, Greece

Address: Pampouki 3, N. Psychiko, 15451, Athens, Greece

Phone: +30 210 7723383, +30 210 6721798

E-mail: secretary@iconhic2016.com

Website: <http://iconhic2016.com/>

GeoChina 2016

Date: Monday 25 July 2016 - Wednesday 27 July 2016

Location: Shandong, China

Language: English

Organizer: Shandong University in Cooperation with Shandong Department of Transportation and University of Oklahoma

Contact person: Antony Warden

Address: Shanghai, China

Phone: +86-021-54721773 • E-mail: geochina.sec@gmail.com

Website: <http://geochina2016.geoconf.org/>

1st International Conference on Energy Geotechnics ICEGT 2016

Date: Monday 29 August 2016 - Wednesday 31 August 2016

Location: Auditorium Maximum (Audimax) of Kiel University, Kiel, Germany

Language: English

Organizer: ISSMGE TC308 on Energy Geotechnics

Contact person: ICEGT 2016 Secretariat

Address: Ludewig Meyn Str. 10, 24118, Kiel, Germany

Phone: +49 - (0) 431 - 880 1976 • Fax: +49 - (0) 431 - 880 4376

E-mail: secretary@icegt-2016.de

Website: <http://www.iceg-2016.de/>

3rd ICTG International Conference on Transportation Geotechnics

Date: Sunday 04 September 2016 - Wednesday 07 September 2016

Location: Vila Flor Cultural Centre and University of Minho, Guimaraes, Portugal

Language: English

Organizer: Portuguese Geotechnical Society and University of Minho

Contact person: Prof. A. Gomes Correia (Chair)

Address: University of Minho, School of Engineering, 4800-058, Guimarães, Portugal

Phone: +351253510200 • Fax: +351253510217

E-mail: agc@civil.uminho.pt

Website: <http://www.webforum.com/tc3>

Fifth International Conference on Geotechnical and Geophysical Site Characterisation (ISC'5)

Date: Monday 05 September 2016 - Friday 09 September 2016

Location: QT Hotel, Gold Coast, QLD, Australia

Language: English

Organizer: Leishman Associates

Address: 113 Harrington St, 7000, Hobart, TAS, Australia

Phone: 03 6234 7844 • E-mail: hannah@laevents.com.au • Website: <http://www.isc5.com.au>

13 Baltic States Geotechnical Conference

Date: Thursday 15 September 2016 - Saturday 17 September 2016

Location: Vilnius University, Vilnius, Lithuania

Language: English

Organizer: Baltic Sea states Geotechnical Societies / Main organizer Lithuanian Geotechnical Society

Contact person: Danutė Sližytė

Address: Saulėtekio ave. 15-510, LT-10224, Vilnius, Lithuania

Phone: +37068690044 • Fax: +37052500604

E-mail: danute.slizyte@vgtu.lt • Website: <http://www.13bsgc.lt>

XVIII Brazilian Conference on Soil Mechanics and Geotechnical Engineering - COBRAMSEG 2016

Date: Wednesday 19 October 2016 - Saturday 22 October 2016

Location: Minascentro, Belo Horizonte, MG, Brazil

Language: Portuguese and English

Organizer: ABMS - Brazilian Society for Soils Mechanics and Geotechnical Engineering

E-mail: contato@cobramseg2016.com.br

Website: <http://www.cobramseg2016.com.br/>

SFGE 2016 – Shaping the Future of Geotechnical Education – International Conference on Geo-Engineering Education

Date: Thursday 20 October 2016 - Saturday 22 October 2016

Location: Minascentro, Belo Horizonte, MG, Brazil

Language: English

Organizer: ISSMGE TC306 and ABMS - Brazilian Society for Soil Mechanics and Geotechnical Engineering

Contact person: Michele Calvello

E-mail: sfge2016@cobramseg2016.com.br / michele.calvello@gmail.com

Website: <http://cobramseg2016.com.br/index.php/sfge-sobre/?lang=en>

5th International Conference on Geotechnical Engineering and Soil Mechanics

Date: Monday 14 November 2016 - Wednesday 16 November 2016

Location: Tehran, Iran

Organizer: International Conference on Geotechnical Engineering and Soil Mechanics

Contact person: 009888931328

Address: Unit2, No 14, Eftekharnia Alley, Larestan St, Motahari Ave, 1595914911 Tehran, Iran

Phone: 009888931507

Fax: 009888931275

E-mail: info@igs.ir

Website: www.igs.ir

2017

GeoMEast 2017

Date: Saturday 15 July 2017 - Wednesday 19 July 2017

Location: Sharm El-Sheikh, Egypt

Language: English

Organizer: The Egyptian Housing and Building Research Center (HBRC) in cooperation with the Soil-Structure Interaction Group in Egypt (SSIGE)

Contact person: Hany Farouk Shehata

Address: Tower C, Maamora Towers, 7th District, Nasr City, 11727 ,Cairo, Egypt

Phone: +201110666775

E-mail: hanyfarouk808@gmail.com

Website: <http://www.geomeast2017.org/>

ICSMGE 2017 - 19th International Conference on Soil Mechanics and Geotechnical Engineering, Seoul

Date: Sunday 17 September 2017 - Thursday 21 September 2017

Location: Coex Convention Center, Seoul, Korea

Language: English and French

Organizer: Organising Committee of ICSMGE 2017

Contact person: Ms. Soi LEE

Address: 4F, SUNGJI Building, 192, Bangbae-ro, Seocho-gu, 137-835, Seoul, Republic of Korea

Phone: +82-2-6288-6347

Fax: +82-2-6288-6399

E-mail: secretariat@icsmge2017.org

Website: <http://www.icsmge2017.org>

2018

The 7th International Conference on Unsaturated Soils (UNSAT2018)

Date: Friday 03 August 2018 - Sunday 05 August 2018

Location: The Hong Kong University of Science and Technology (HKUST), Hong Kong, China

Language: English

Organizer: The Hong Kong University of Science and Technology (HKUST)

Contact person: Prof. Charles W. W. Ng (Chair), Miss Shirley Tse (Administrative Secretary)
or Dr Anthony Leung (Technical Secretary)

Address: Geotechnical Centrifuge Facility, The Hong Kong University of Science and Technology,
Clear Water Bay, Kowloon, HKSAR, China

Phone: (852) 2358-0216

Fax: (852) 2243-0040

E-mail: unsat2018@ust.hk

Website: <http://www.unsat2018.org>

ECSMGE 2019 – XVII European Conference on Soil Mechanics and Geotechnical Engineering

Date: Sunday 01 September 2019 - Friday 06 September 2019

Location: Harpa Conference Centre Reykjavik, Iceland

Language: English

Organizer: The Icelandic Geotechnical Society

Contact person: Haraldur Sigursteinsson

Address: Vegagerdin, Borgartún 7, IS-109, Reykjavik, Iceland

Phone: +354 522 1236

E-mail: has@road.is

Website: <http://www.ecsmge-2019.com>

FOR FURTHER DETAILS, PLEASE REFER TO THE WEBSITE OF THE SPECIFIC CONFERENCE

Why join SEAGS, AGSSEA & ISSMGE?

The advantages in joining the SEAGS, AGSSEA and ISSMGE are as follows:

- 1** Receive updated activities, current events and important information regarding geotechnical engineering around the world through the bi-annual SEAGS / AGSSEA Newsletter and 4 issues of Journals annually.
- 2** The opportunity to submit papers for publication and to read up-to-date technical papers through the 4 issues of Geotechnical Engineering Journal annually.



Southeast Asian Geotechnical Society



ISSMGE & ARC

- 3** The ability to attend, participate, and avail of state-of-the-art lectures and papers in the local, regional, and international geotechnical conferences at discounted registration fees.

- 4** The chance to network with other geotechnical engineers, academics, and practitioners around the world as SEAGS member automatically becomes member of ISSMGE.

- 5** The opportunity to fraternize with professionals of related fields of geology, geophysics, and rock mechanics through the association of ISSMGE with the International Society for Rock Mechanics (ISRM) and International Association of Engineering geology (IAEG).

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► <http://seags.ait.asia/submission-services/editorial-panel/>

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Akron University
U.S.A.

Prof. A (Malek) Bouazza
Monash University
Melbourne Australia

Prof. Jin-Chun Chai
Saga University
Saga, Japan

Prof. Y.K. Chow
National University of Singapore, NUS
Singapore

Prof. Roger Frank
Université Paris-Est
École des Ponts ParisTech
Laboratoire Navier-geotechnical team (CERMES)
Marne-la-Vallée cedex 2 France

Prof. Christophe Gaudin
University of Western Australia
Perth Australia

Prof. Jürgen Grabe
Karlsruhe University
Germany

Prof. Jie Han
The University of Kansas
Lawrence, Kansas
USA

Prof. B. Indraratna
University of Wollongong
Wollongong Australia

Dr. Apiniti Jotisankasa
Department of Civil Engineering
Kasetsart University
Bangkok Thailand

Prof. Poul V. Lade
The Catholic University of America
Washington, D.C., U.S.A.

Prof. Chun-Fai Leung
National University of Singapore
Singapore

Prof. Meei-Ling Lin
Department of Civil Engineering
National Taiwan University
Taipei, Taiwan

Prof. San-Shyan Lin
Taiwan Ocean University
Keelung Taiwan

Prof. Tatsunori Matsumoto
Kanazawa University
Kakuma-machi, Kanazawa Japan

Prof. Fusao Oka
Kyoto University,
Kyoto Japan

Prof. Charles W. W. Ng
The Hong Kong University of Science
and Technology
Kowloon Hong Kong

Dr. T.A. Ooi
The Institution of Engineers, Malaysia
Kuala Lumpur Malaysia

Prof. C.Y. Ou
National Taiwan University of Science and
Technology
Taipei, Taiwan

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The University of Texas at Arlington
Texas U.S.A

Professor Paulus P. Rahardjo
Parahyangan Catholic University
Indonesia

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Graz University of Technology
Graz Austria

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Indian Institute of Technology Bombay
Powai, Mumbai, India

Prof. Ikuo Towhata
University of Tokyo
Tokyo Japan

Dr. Dariusz Wanatowski
The University of Nottingham
Ningbo
China

Dr. Albert T. Yeung
University of Hong Kong (HKU)
Hong Kong

Mr. Tom Lunne
Norwegian Geotechnical Institute
Oslo, Norway

Prof. Akira Murakami
Kyoto University
Kyoto Japan

Dr. Farrokh Nadim
Technical Director
Norwegian Geotechnical Institute (NGI)
Oslo, Norway

Dr. Erwin Oh
Griffith University Gold Coast Campus
Gold Coast
Queensland Australia

Prof. Zhen-Yu Yin
Tongji University
China

Dr. N. Phienwej
Asian Institute of Technology
Bangkok Thailand

Prof. Harianto Rahardjo
Nanyang Technology University
Singapore

Dr. Shinji Sassa
Port and Airport Research Institute
Nagase Yokosuka Japan

Prof. Shui-Long Shen
Shanghai Jiao Tong University
Shanghai China

Prof. Mitsutaka Sugimoto
Nagaoka University of Technology
Nagaoka Japan

Prof. B.V.S. Viswanadham
Indian Institute of Technology
Bombay
Powai, Maharashtra, India

Prof. Li-zhong Wang
Zhejiang University
China

Prof. Jian-Hua Yin
The Hong Kong Polytechnic University
Hong Kong

Vol. 41 No.1 March 2010

The Geotechnical Problems of The Second World Largest Copper Tailings Pond at Zelazny Most, Poland

M. Jamiolkowski, Technical University of Torino, Italy
W.D. Carrier, Consultant, U.S.A.
R.J. Chandler, Emeritus Professor, Imperial College, U.K.
K. Hoeg, Norwegian Geotechnical Institute (NGI) and University of Oslo, Norway
W. Swierczynski, Geoteko Ltd, Poland
W. Wolski, M.Sc. KGHM, Poland

Testing in Geotechnical Design

Dennis E. Becker, Golder Associates Ltd., Canada

Shaking Table Tests for Studies of Soil Liquefaction and Soil-Pile Interaction

T.S. Ueng, National Taiwan University, Taiwan

Rainfall-Triggered Landslide: from research to mitigation practice in Thailand

Suttisak Soralump, Kasetsart University, Thailand

Vol. 41 No. 2 June 2010

Bridge Foundation Scour

Jean-Louis BRIAUD, President of ISSMGE and Professor, Texas A&M Univ., USA
Seung Jae Oh, TEXAS A&M University, U.S.A.

Settlements of Embankments in Soft Soils

A.S. Balasubramaniam, Griffith School of Engineering, Australia
H. Cai, Griffith School of Engineering, Australia
D. Zhu, Griffith School of Engineering, Australia
C. Surarak, Griffith School of Engineering, Australia
E.Y. N. Oh, Griffith School of Engineering, Australia

Seismic Performance of Piles from PBEE and EQWEAP Analyses

D.W.Chang, Tamkang University, Taiwan, R.O.C.
T.Y.Yang, Tamkang University, Taiwan, R.O.C.
C.L.Yang, Tamkang University, Taiwan, R.O.C.

Improvement of Prediction Accuracy of System of Real-Time Type Hazard Map of Slope Failure Disasters Caused by Heavy Rainfalls

T. Okimura, Construction Engineering Research Institute Foundation, Japan
N. Torii, Kobe University, Japan
Y. Osaki, Hyogo Prefectural Government, Japan
M. Nanbu, Oyo Corporation, Japan
K. Haraguchi, Kokusai Kogyo Co., Ltd., Japan

A Case Study of Settlement Behavior of Dynamic Compacted High Rock Embankment with Construction Path

Kyung-Tae Bae, Institute of Construction Technology, DAEWOO Engineering & Construction Co. Ltd. Korea
Tae-Hoon Kim, Institute of Construction Technology, DAEWOO Engineering & Construction Co. Ltd. Korea
Young-Jin Kim, Institute of Construction Technology, DAEWOO Engineering & Construction Co. Ltd. Korea

Vol. 41 No. 3 September 2010

Recent Advances in Pile Testing and Diaphragm Wall Construction in Japan

Kenji Ishihara, Chuo University, Japan

Ground Improvement – A Green Technology towards a Sustainable Housing, Infrastructure and Utilities Developments in Malaysia

K. Yee, Menard Geosystems Sdn Bhd, Malaysia
T. A. Ooi, TAO Consult Sdn Bhd, Malaysia

Enhancement of Pile Capacity by Shaft Grouting Technique in Rupsa Bridge Project

Ryuji Manai, Oriental Consultants Co., Ltd

Piled Raft – A Cost -Effective Foundation Method for High-Rises

Phung Duc Long, Vice President, VSSMGE WSP Vietnam

Vol. 41 No.4 December 2010

Foundation Design of the Incheon Bridge

Sung-Min Cho, Korea Expressway Corporation, South Korea

Living with Landslide Risk

S. Lacasse, F. Nadim, International Centre for Geohazards (ICG) / Norwegian Geotechnical Institute (NGI), Norway
B. Kalsnes, International Centre for Geohazards (ICG) / Norwegian Geotechnical Institute (NGI), Norway

Erosion, Slope Stability, Prediction of Future Recession in Actively Eroding Slopes

Tuncer B. Edil, University of Wisconsin-Madison, United States

Engineering Protocols for the Assessment of the Net Moisture Flux at the Ground Surface

D. G. Fredlund, Golder Associates, Canada
H. Q. Vu, Golder Associates, Canada
J. Stianson, Golder Associates, Canada

Response of Porous Seabed to Dynamic Loadings

D-S Jeng, University of Dundee, U. K.

X. L. Zhou, University of Dundee, U.K.

X. D. Luo, Shanghai Jiao Tong University, China

J.H. Wang, Shanghai Jiao Tong University, China

J. Zhang, University of Dundee, U.K.

F. P. Gao, Chinese Academy of Sciences, China

Vol. 42 No.1 March 2011

Some Issues in Geosynthetic Reinforced Walls and Slopes

D. Leshchinsky, University of Delaware, U.S.A.

Advance in Geogrid Reinforced Slopes in Malaysia

T.A. Ooi, TAO Consult Sdn Bhd, Malaysia

C.H. Tee, Mega Geoproducts and Services Sdn Bhd, Malaysia

Embankment Construction with Saturated Clayey Fill Material Using Geocomposites

J. C. Chai, Saga University, Japan

T. Hino, Saga University, Japan

Y. Igaya, Ariake Sea Coastal Road Development Office, Saga Prefecture, Japan

Y. Yamauchi, Kinjo Rubber Co., Ltd, Japan

Numerical Modeling of Geosynthetic-Reinforced Earth Structures and Geosynthetic-Soil Interactions

J. Huang, University of Texas, U.S.A.

A. Bhandari, Terracon, U.S.A.

X. Yang, Louisiana Transportation Research Center, U.S.A.

Geosynthetic Tubes and Geosynthetic Mats: Analyses and Applications

J. Chu, Nanyang Technological University, Singapore

W. Guo, Nanyang Technological University, Singapore

S.W. Yan, Tianjin University, China

Performance-based Design for Geosynthetic Liner Systems in Landfills

Y. M. Chen, Zhejiang University, China

W.A. Lin, Zhejiang University, China

B. Zhu, Zhejiang University, China

L.T. Zhan, Zhejiang University, China

Quantifying the Influence of Geosynthetics on Performance of Reinforced Granular Bases in Laboratory

J. Han Civil, University of Kansas (KU), U.S.A.

Y. Zhang, Texas A&M University, U.S.A.

R.L. Parsons, University of Kansas (KU), U.S.A.

Vol. 42 No.2 June 2011

Field Measurements on Piled Rafts with Grid-Form Deep Mixing Walls on Soft Ground

Kiyoshi Yamashita, R&D Institute, Takenaka Corporation
Chiba, Japan

Junji Hamada, R&D Institute, Takenaka Corporation
Chiba, Japan

Takeshi Yamada, R&D Institute, Takenaka Corporation
Chiba, Japan

Static Axial Reciprocal Load Test of Cast-In-Place Nodular Concrete Pile and Nodular Diaphragm Wall

K. Watanabe, Technical Research Institute, Obayashi Corporation, Japan

H. Sei, Technical Research Institute, Obayashi Corporation, Japan

T. Nishiyama, Technical Research Institute, Obayashi Corporation, Japan

Y. Ishii, Technical Research Institute, Obayashi Corporation, Japan

Vertical Load Test and Settlement Analysis of Cast-In-Place Concrete Nodular Piles Supporting a High-Rise Building

N. Suzuki, Technical Research Institute, Obayashi Corporation, Japan

T. Seki, Technical Research Institute, Obayashi Corporation, Japan

Extended Use Of Spring Hammer Rapid Load Testing

K. Matsuzawa, Kanazawa University, Japan

T. Matsumoto, International Association for Spring Hammer Rapid Load Test, Japan

Push-Up Load Tests Using Uncrushable Particles and its Dem Analyses

SuriyahThongmune, Kanazawa University, Kanazawa, Japan

Shun-ichi Kobayashi, Kanazawa University, Kanazawa, Japan

Tatsunori Matsumoto, Kanazawa University, Kanazawa, Japan

On Design and Construction of Pile Group Foundation of Taipei 101

Ching-Han Yu, Sino Geotechnology, Inc, Taiwan

Capacity Versus Deformation Analysis for Design of Footings and Piled Foundations

Bengt H. Fellenius, Consulting Engineer, Canada

Piled Raft Foundations for Tall Buildings

H.G. Poulos, Coffey Geotechnics, Australia

J.C. Small, Coffey Geotechnics, Australia

H. Chow, Coffey Geotechnics, Australia

Foundation Design of the 151 Story Incheon Tower in a Reclamation Area

Ahmad Abdelrazaq, Samsung C & T, Korea
Frances Badelow, Coffey Geotechnics Pty Ltd, Australia
Sung Ho-Kim, Jinyoung ENC Enterprise, Korea
Harry G. Poulos, Coffey Geotechnics Pty Ltd, Australia

Vol. 42 No. 3 September 2011

Building Damage Assessment for Deep Excavations in Singapore and The Influence of Building Stiffness

K. H. Goh, Land Transport Authority, Singapore
R. J. Mair, University of Cambridge, U.K.

Concept and Design Methodology of Redundancy in Braced Excavations

G. Zheng, MOE Key Laboratory of Coast Civil Structure Safety, China
X. S. Cheng, Tianjin University, China
Y. Diao, Tianjin University, China
H. X. Wang, Tianjin University, China

Three-Dimensional Deformation Behavior of an Over-Sized Excavation in Shanghai Clay

Y. M. Hou, Center for Marine Geotechnical Engineering, Shanghai Jiaotong University, China
J. H. Wang, Center for Marine Geotechnical Engineering, Shanghai Jiaotong University, China
D-S Jeng, Center for Marine Geotechnical Engineering, Shanghai Jiaotong University, China

Numerical Study on the Movement of Existing Tunnel Due to Deep Excavation in Shanghai

J. J. Chen, Shanghai Jiao Tong University, China
J. H. Wang, Shanghai Jiao Tong University, China
G. W. Xiang, Shanghai Jiao Tong University, China
S. L. Wen, Shanghai Tunnel Engineering Co., Ltd, China
Y. Du, Shanghai Tunnel Engineering Co., Ltd, China

Observed Performance of Diaphragm Wall Construction

C.Y. Ou, National Taiwan University of Science and Technology, R.O.C.
L.L. Yang, National Taiwan University of Science and Technology, R.O.C.

Performance of Construction with New Pneumatic Caisson Method in Shanghai Soft Ground

F. L. Peng, Tongji University, P.R.China
H. L. Wang, Key Laboratory of Geotechnical and Underground Engineering, Ministry of Education, P.R.China

Technologies of Micro-Disturbance Construction of Pipe-Jacking

W. Q. Ding, Key Laboratory of Geotechnical and Underground Engineering of Ministry of Education, Tongji University, China

B. Li, Key Laboratory of Geotechnical and Underground Engineering of Ministry of Education, Tongji University, China

S. L. Yuan, Shanghai Municipal Engineering Design General Institute, China

J. K. Ge, Municipal Engineering Co., Ltd, China

Design and Construction of InJe Tunnel, the Longest Road Tunnel of Korea

S. M. Cho, E&T Research Institute, Korea Expressway Corporation, Korea
S. D. Lee, Hongcheon-Yangyang Construction Office, Korea Expressway Corporation, Korea
Y. J. Kwon, Hongcheon-Yangyang Construction Office, Korea Expressway Corporation, Korea

Vol. 42 No. 4 December 2011

Dilation And Stability Of Sand In Triaxial Tests

Andrzej Sawicki, Institute of Hydro-Engineering, Poland

The Strength Anisotropy of a Residual Soil in Singapore

G-H. Meng, University of Wollongong, Australia
J. Chu, Nanyang Technological University of Singapore

Effect Of Boundary Conditions On Shear Banding In True Triaxial Tests On Sand

P.V. Lade, The Catholic University of America, U.S.A.
Q. Wang, RJM Engineering, Inc., U.S.A.

Behavioural Patterns Of Fine Sands

V.N. Georgiannou, National Technical University of Athens, Greece

Simulating Shear Rate-dependent Undrained Stress-Strain Behaviour Of Natural Sedimentary Clayat Kobe Airport

Min Su Jung, Korea Institute of Construction Technology, Korea
Satoru Shibuya, Kobe University, Japan

Experimental Investigation On Settling Behaviour Of Hong Kong Marine Deposits In Settling Column Condition

F. Tong, The Hong Kong Polytechnic University, Hong Kong, China
J.H. Yin, The Hong Kong Polytechnic University, Hong Kong, China
G.F. Zhu, Wuhan University of Technology, China

Development Of A Hollow Cylinder Torsional Apparatus For Pre-failure Deformation And Large Strains Behaviour Of Sand

E. Ibraim, University of Bristol, U.K.
P. Christiaens, University of Bristol, U.K.
M. Pope, University of Bristol, U.K.

Effect Of High Confining Pressure On The Behaviour Of Fibre Reinforced Sand

S. Ud-din, University of Nottingham, United Kingdom

A. Marri, NED University of Engineering and Technology, Pakistan

D. Wanatowski, University of Nottingham, United Kingdom

A Comment On The Ratio Of The Maximum And Minimum Dry Density For Sands

E. Imre, Szent Istvan Uity, Bniversudapest, Hungary

S. Fityus, University of Newcastle, Australia

E. Keszezné, Szent Istvan Uity, Bniversudapest, Hungary

T. Schanz, Ruhr University, Germany

Vol. 43 No.1 March 2012

Some Applications of Unsaturated Soil Mechanics in Thailand: an Appropriate Technology Approach

W. Mairaing, Kasetsart University, Thailand

A. Jotisankasa, Kasetsart University, Thailand

S. Soralum, Kasetsart University, Thailand

Calculation of Heave of Deep Pier Foundations

J.D. Nelson, Engineering Analytics, Inc., U.S.A.

K.C. Chao, Engineering Analytics, Inc., U.S.A.

D.D. Overton, Engineering Analytics, Inc., U.S.A.

R.W. Schaut, Engineering Analytics, Inc., U.S.A.

In-situ and laboratory investigations of stress-dependent permeability function and SDSWCC from an unsaturated soil slope

C. W. W. Ng, Hong Kong University of Science and Technology

A. K. Leung, Hong Kong University of Science and Technology

Measurements of Shrinkage Induced Pressure (SIP) in Unsaturated Expansive Clays

A.J. Puppala, The University of Texas at Arlington, U.S.A.

T. Wejrungsikul, Petroleum Authority of Thailand Public company Limited (PTT), Thailand

V. Puljan, Petroleum Authority of Thailand Public company Limited (PTT), Thailand

T. Manosuthikij, Petroleum Authority of Thailand Public company Limited (PTT), Thailand

Unsaturated Soil Mechanics for Slope Stabilization

H. Rahardjo, Nanyang Technological University, Singapore

A. Satyanaga, Nanyang Technological University, Singapore

E. C. Leong, Nanyang Technological University, Singapore

The Development of Unsaturated Soil Mechanics at Imperial College, London

J.R. Standing, Imperial College, U.K.

Climate change and the role of unsaturated soil mechanics

D. G. Toll, Durham University, U.K.

J. Mendes, Durham University, U.K.

P.N. Hughes, University of Newcastle, U.K.

S. Glendinning, University of Newcastle, U.K.

D. Gallipoli, University of Glasgow, U.K.

Some Mining Applications of Unsaturated Soil Mechanics

D.J. Williams, The University of Queensland, Australia

Vol. 43 No. 2 June 2012

Proposed Changes to the Geotechnical Earthquake Engineering Provisions of the Bangladesh National Building Code

Tahmeed M. Al-Hussaini, Bangladesh University of Engineering & Technology, Bangladesh

Tahsin R. Hossain, Bangladesh University of Engineering & Technology, Bangladesh

M. Nayeem Al-Noman, Bangladesh University of Engineering & Technology, Bangladesh

Analysis of Soil Liquefaction during the Recent Canterbury (New Zealand) Earthquakes

R.P. Orense, University of Auckland, New Zealand

MJ Pender, University of Auckland, New Zealand

LM Wotherspoon, University of Auckland, New Zealand

Numerical Simulation of Seismic Slope Stability Analysis Based on Tension-Shear Failure Mechanism

Yingbin Zhang, Kyushu University, Japan

Guangqi Chen, Kyushu University, Japan

Jian Wu, Kyushu University, Japan

Lu Zheng, Kyushu University, Japan

Xiaoying Zhuang, Tongji University, China

A Real-time Prediction Method for Regional Rainfall-induced Geo-hazards in Post-earthquake Region of Wenchuan Earthquake

Z.Yang, Chinese Academy of Science, China

J. Qiao, Chinese Academy of Science, China

H. Tian, Chinese Academy of Science, China

D. Huang, Chinese Academy of Science, China

M. Wang, Chinese Academy of Science, China

H. Meng, Chinese Academy of Science, China

Effects of Anisotropic Consolidation and Stress Reversal on the Liquefaction Resistance of Sands and Silty Sands

Abbas Galandarzadeh, Perlit Construction Company, Iran

Alireza Ahmadi, University of Tehran, Iran

Characteristics of Slope Failures During Natural Disasters Considering Geographical Features and Groundwater Level: Case Study of the Chuetsu Region of Niigata, Japan

H. Toyota, Nagaoka University of Technology, Japan

Overview of the Geotechnical Damages and the Technical Problems Posed after the 2011 off the Pacific Coast of Tohoku Earthquake

M. Kazama, Tohoku University, Japan
T. Noda, Nagoya University, Japan
T. Mori, Tohoku University, Japan
J. Kim, Tohoku University, Japan

Development of Potential Map for Landslides Induced by the Chi-Chi Earthquake Using Instability Index

Meei-Ling Lin, National Taiwan University, Taiwan
Yu-Huang Shu, National Taiwan University, Taiwan

Geotechnical Hazards with Emphasis on Seismically-Combined Effects on Slopes

I.Towhata, The University of Tokyo, Japan

Monitoring on Earthquake Induced Landslides-A case study in northwest Chengdu, China

Tian Hongling, Chinese Academy of Sciences, China
Qiao Jianping, Chinese Academy of Sciences, China
Taro Uchimura, University of Tokyo, Japan
Wang Lin, Chuo Kaihatsu Corp., Japan

Vol. 43 No.3 September 2012

Waste/Lining System Interaction: Implications for Landfill Design and Performance

N. Dixon, Loughborough University, U.K.
K. Zamara, Golder Associates (UK) Ltd., U.K.
D.R.V. Jones, Golder Associates (UK) Ltd., U.K.
G. Fowmes, FCC Environment, U.K.

Wrinkling of a Geomembrane on a Compacted Clay Liner on a Slope

R. Kerry Rowe, Queen's University, Canada
P. Yang, Tongji University, People's Republic of China
M.J. Chappel, Queen's University, Canada
R.W.I. Brachman, Queen's University, Canada
W.A. Take, Queen's University, Canada

Diffusion of Phenolic Compounds through an HDPE Geomembrane

N. Touze-Foltz, Hydrosystems and Bioprocesses Research Unit, France
M. Ahari, Hydrosystems and Bioprocesses Research Unit, France
M. Mendes, Hydrosystems and Bioprocesses Research Unit, France
C. Barral, Hydrosystems and Bioprocesses Research Unit, France
M. Gardoni, UFMG, Brazil
L. Mazéas, Hydrosystems and Bioprocesses Research Unit, France

Shear-Induced Geomembrane Damage due to Gravel in Underlying Compacted Clay

Patrick J. Fox, University of California-San Diego, U.S.A.
Chris Athanassopoulos, CETCO, U.S.A.
Stuart S. Thielmann, University of California-San Diego, U.S.A.
Alexander N. Stern, Geosyntec Consultants, Huntington Beach, U.S.A.

Evaluation of Mineral Barriers against Acid Rock Drainage

Angelica Naka, Kyoto University, Japan
Takeshi Katsumi, Kyoto University, Japan
Giancarlo Flores, Kyoto University, Japan
Toru Inui, Kyoto University, Japan
Takehiro Ohta, Railway Technical Research Institute, Japan
Takuya Urakoshi, Railway Technical Research Institute, Japan
Tomokazu Ishihara, Railway Technical Research Institute, Japan

Improvement on the Performance of Geosynthetic Clay Liners Using Polymer Modified Bentonite

Y. Liu, Monash University, Australia
W. P. Gates, Monash University, Australia
A. Bouazza, Monash University, Australia

Effect of Settlement Rate and Geogrid Reinforcement on the Deformation Behaviour of Soil Barriers of Landfill Covers: Centrifuge Study

S. Rajesh, Indian Institute of Technology Kanpur, India
B.V.S. Viswanadham, Indian Institute of Technology Kanpur, India

Effect of Differential Settlements on the Sealing Efficiency of GCLs compared to CCLs: Centrifuge Study

B.V.S. Viswanadham, Indian Institute of Technology Bombay, India
S. Rajesh, Indian Institute of Technology Kanpur, India
A. Bouazza, Monash University, Australia

Geosynthetic Lining System for Modern Waste Facilities – Experiences in Developing Asia

H. B. Ng GSE Lining Technology Co., Ltd., Thailand
B. Ramsey GSE Environmental LLC., USA

The Use of Geosynthetics in Major Metropolitan Landfills in Perth, WA– Two Case Studies

L. Du Preez, Golder Associates Pty Ltd, Australia
R. Beaman, Sita Environmental Solutions, Australia
I. Watkins, Mindarie Regional Council, Australia

Evaluation of Existing CPT Correlations in Silt

A. S. Bradshaw, University of Rhode Island, U.S.A.
A. C. Morales-Velez, University of Rhode Island, U.S.A.
C.D.P. Baxter, University of Rhode Island, U.S.A.

Characterisation of Quick Clay at Dragvoll, Trondheim, Norway

A. Emda, Norwegian University of Science and Technology (NTNU), Norway
M. Long, University College Dublin (UCD), Ireland
A. Bihs, Norwegian University of Science and Technology (NTNU), Norway
A. Gylland, Norwegian University of Science and Technology (NTNU), Norway
N. Boylan, Senior Geotechnical Engineer, Perth, Western Australia

Field Response of Push-In Earth Pressure Cells for Instrumentation and Site Characterization of Soils

Alan J. Luteneegger, University of Massachusetts, U.S.A.

Frequent-Interval SDMT and Continuous SCPTu for Detailed Shear Wave Velocity Profiling in Soils

T. Ku, Georgia Institute of Technology, U.S.A.
P.W. Mayne, Georgia Institute of Technology, U.S.A.

In-Situ Testing of Peat –a Review and Update on Recent Developments

M. Long, University College Dublin, Ireland
N. Boylan, University College Dublin, Ireland

Understanding the Stiffness of Soils in Singapore from Pressuremeter Testing

K.H. Goh, Land Transport Authority, Singapore
K. Jeyatharan, Land Transport Authority, Singapore
D. Wen, Land Transport Authority, Singapore

In situ Measurement of Hydraulic Conductivity of Saturated Soils

D.J. DeGroot, University of Massachusetts Amherst, U.S.A.
D.W. Ostendorf, University of Massachusetts Amherst, U.S.A.
A.I. Judge, University of Massachusetts Amherst, U.S.A.

Rate Effect on Cone Penetration Test in Sand

F. A. B. Danziger, Federal University of Rio de Janeiro, Brazil
T. Lunne, Norwegian Geotechnical Institute, Norway

Some Factors Affecting Deep Excavation in Clay Over Gassy Bedrock

Ahmed B. Mabrouk, Golder Associates Ltd., Canada
R. Kerry Rowe, Queen's University, Canada

Effects of Consolidation and Specimen Disturbance on Strengths of Taipei Clays

Richard N. Hwang, Moh and Associates, Inc., Taiwan
Za-Chieh Moh, Moh and Associates, Inc., Taiwan
I-Chou Hu, Moh and Associates, Inc., Taiwan

Lime Stabilisation of Organic Clay and the Effects of Humic Acid Content

N.Z. Mohd Yunus, Universiti Teknologi Malaysia, Malaysia
D. Wanatowski, University of Nottingham, United Kingdom
L.R. Stace, University of Nottingham, United Kingdom

Estimating Wetting-induced Settlement of Compacted Soils using Oedometer Test

E.C. Leong, Nanyang Technological University, Singapore
S. Widiastuti, Nanyang Technological University, Singapore
H. Rahardjo, Nanyang Technological University, Singapore

Compaction Curve with Consideration of Time and Temperature Effects for Mudstones

A. Puttiwongrak, Kyoto University, Japan
H. Honda, INPEX Corporation, Japan
T. Matsuoka, Kyoto University, Japan
Y. Yamada, Kyoto University, Japan

Small strain behavior of sand under various stress paths considering anisotropic initial stress state

Lai Yong, Hohai University, China
Shi Jian-yong, Hohai University, China
Yu Xiao-jun, Hohai University, China
Cao Qiu-rong, Hohai University, China

Study of Joint Effect on Pipe in Pipe Jacking Method

L. G. Le, Nagaoka University of Technology, Japan
M. Takise, Nagaoka University of Technology, Japan
M. Sugimoto, Nagaoka University of Technology, Japan
K. Nakamura, Fujimura Hume Pipe Co., Ltd., Japan

Finite Element Analysis of Ground Behaviour due to Box-jacking Tunnel Work

K. Komiya, Chiba Institute of Technology, Japan
T. Nakayama, Railway Technical Research Institute, Japan

Tunnelling Induced Deformation of a Historic Building in Shanghai

Shi-ping Ge, Tongji University, Shanghai, China
Dong-wu Xie, Tongji University, Shanghai, China
Wen-qi Ding, Tongji University, Shanghai, China
Ya-fei Qiao, Tongji University, Shanghai, China
Jin-chun Chai, Saga University, Japan

In-situ monitoring of internal displacements by FBG sensors and slope stability analysis under rainfall infiltration

Dongsheng Xu, The Hong Kong Polytechnic University, China
Fei Tong, The Hong Kong Polytechnic University, China
Huahu Pei, The Hong Kong Polytechnic University, China
Jianhua Yin, The Hong Kong Polytechnic University, China

Mechanistic-Empirical Pavement Design; A Brief Overview

A. T. Papagiannakis, University of Texas at San Antonio, U.S.A.

Vol. 44 No.2 June 2013

Soil-water-air Coupled Finite Element Analysis on Slope Failure in Unsaturated Soil

Y.L. Xiong, Nagoya Institute of Technology, Japan
X.H.Bao, Shenzhen University, China
F. Zhang, Nagoya Institute of Technology, Japan

Relation between seepage force and velocity of sand particles during sand boiling

K. Fujisawa E, Kyoto University, Japan
A. Murakami, Kyoto University, Japan
S. Nishimura, Okayama University, Japan
T. Shuku, Okayama University, Japan

A density- and stress-dependent elasto-plastic model for sands subjected to monotonic undrained torsional shear loading

G. Chiaro, University of Wollongong, Australia
J. Koseki, University of Tokyo, Japan
L.I. Nalin De Silva, University of Moratuwa, Sri Lanka

1-G Model Test with Digital Image Analysis for Seismic Behavior of Earth Dam

Y. Miyanaga, Kyoto University, Japan
Kobayashi, Kansai University, Japan
A. Murakami, Kyoto University, Japan

X-ray CT imaging of 3-D bearing capacity mechanism for vertically loaded shallow foundations

D. Takano, Port and Airport Research Institute, Japan
J. Otani, Kumamoto University, Kumamoto, Japan
M. Nakamura, Sumitomo Mitsui Construction Co., Ltd., Japan
R. Mokwa, Montana State University, College of Engineering, U.S.A.

Modeling and Bending Test Simulations of Cement Treated Soil

K. Kaneda, Takenaka Corporation, Takenaka Research & Development Institute, Japan
T. Tanikawa, Takenaka Corporation, Takenaka Research & Development Institute, Japan
S. Onimaru, Takenaka Corporation, Takenaka Research & Development Institute, Japan

Modelling Viscous Effects during and after Construction in London Clay

S.D. Clarke, The University of Sheffield, U.K.
C. C. Hird, The University of Sheffield, U.K.

Vol. 44 No.3 September 2013

Numerical Simulation of the Rainfall Infiltration on Unsaturated Soil Slope Considering a Seepage Flow

S. Kimoto, Kyoto University, Japan
F. Oka, Kyoto University, Japan
E. Garcia, Universidad de Antioquia UdeA, Colombia

Seismic Response of Gravity-Cantilever Retaining Wall Backfilled with Shredded Tire

N. Ravichandran, Clemson University, U.S.A.
E. L. Huggins, AMEC Environment & Infrastructure, U.S.A.

Numerical Modeling of Lateral Response of Long Flexible Piles in Sand

Md. Iftekharuzzaman, Memoria University, Canada
Bipul C Hawlader, Memorial University, Canada

A New Sampling Algorithm in Particle Filter for Geotechnical Analysis

T. Shuku, Okayama University, Japan
S. Nishimura, Okayama University, Japan
K. Fujisawa, Kyoto University, Japan
A. Murakami, Kyoto University, Japan

Comparison of Deep Foundation Systems using 3D Finite Element Analysis Employing Different Modeling Techniques

F. Tschuchnigg, Graz University of Technology, Austria
H.F. Schweiger, Graz University of Technology, Austria

Application of a Constitutive Model for Swelling Rock to Tunnelling

B. Schädlich, Graz University of Technology, Austria
T. Marcher, ILF Consulting Engineers, Austria
H.F. Schweiger, Graz University of Technology, Austria

Finite Element Modelling of Seismic Liquefaction in Soils

V. Galavi, Plaxisbv, the Netherlands
A. Petalas, Plaxisbv, the Netherlands
R.B.J. Brinkgreve, Delft University of Technology, the Netherlands

Random Wave-Induced Seabed Responses around Breakwater Heads

Y Zhang, Centre for Marine Geotechnical Engineering, Shanghai Jiao Tong University, China
D-S Jeng, Griffith School of Engineering, Griffith University, Australia
Z-W Fu, Wessex Institute of Technology, Southampton, UK
J Ou, University of Birmingham, Birmingham, UK

Influence of Brittle Property of Cement Treated Soil on Undrained Bearing Capacity Characteristics of the Ground

S. Yamada, Nagoya University, Nagoya, Japan
T. Noda, Nagoya University, Nagoya, Japan
A. Asaoka, Association for the Development of Earthquake Prediction, Japan
T. Shiina, Penta-Ocean Construction Co., Ltd., Japan

Behaviour of Clay Subjecting to Vacuum and Surcharge Loading in an Oedometer

J.-C. Chai, Saga University, Japan
J. P. Carter, The University of Newcastle, Australia
A. Saito, Saga University, Japan
T. Hino, Saga University, Japan

Behaviour of Geogrid Reinforced Abutments on Soft Soil

E.M. Palmeira, University of Brasília, Brazil
A.R.S. Fabel, Samarco Mining Company, Brazil
G.L.S. Araújo, University of Brasília, Brazil

Geocell-Reinforced Granular Fill under Static and Cyclic Loading: A Synthesis of Analysis

X. Yang, Oklahoma State University, U.S.A.
J. Han, University of Kansas, U.S.A.

Electrical Vertical Drains in Geotechnical Engineering Applications

J. K. Lee, University of Western Ontario, Canada
J.Q. Shang, University of Western Ontario, Canada

Design and Performance of Soft Ground Improvement Using PVD with and without Vacuum Consolidation

P.V. Long, Vina Mekong Engineering Consultants JS Company (VMEC), Vietnam
D.T. Bergado, Asian Institute of Technology (AIT), Thailand
L.V. Nguyen Vina Mekong Engineering Consultants JS Company (VMEC), Vietnam
A.S. Balasubramaniam, Griffith University, Australia

Reassessment of Long-Term Performance of Geogrids by Considering Mutual Interaction among Reduction Factors

Han-Yong Jeon, Inha University, Korea (South)
Yuan Chun Jin, Inha University, Korea (South)

Simulations of PVD Improved Reconstituted Specimens with Surcharge, Vacuum and Heat Preloading using Axisymmetric and Equivalent Vertical Flow Conditions

P. Voottipruex, King Mongkut's University of Technology, Thailand
D.T. Bergado, Asian Institute of Technology, Thailand
W. Wongprasarn, Asian Institute of Technology, Thailand

Design Method for Bearing Reinforcement Earth Wall

S. Horpibulsuk, Suranaree University of Technology, Thailand
C. Suksiripattanapong, Suranaree University of Technology, Thailand
A. Chinkulkijniwat, Suranaree University of Technology, Thailand

Reinforced Embankments on Soft Deposits: Behaviour, Analysis and Design

C. Taechakumthorn, SEAFCO Public Company Limited, Thailand
R.K. Rowe, Queen's University, Canada

Current State of Knowledge on Thermal Consolidation using Prefabricated Vertical Drains

H. M. Abuel-Naga, The University of Manchester, U.K.
G. A. Lorenzo, Mindanao State University, Philippines
D. T. Bergado, Asian Institute of Technology, Thailand

Geosynthetic-Reinforced Soil Structures for Railways: twenty Five Year Experiences in Japan

F. Tatsuoka, Tokyo University of Science, Japan
M. Tateyama, Technical Research Institute, Japan
J. Koseki, University of Tokyo, Japan
T. Yonezawa, Hokkaido Shinkansen Construction Bureau, Japan Railway Construction, Transport and Technology Agency

Enhancement of Rail Track Performance through Utilisation of Geosynthetic Inclusions

Buddhima Indraratna, University of Wollongong, Australia
Sanjay Nimbalkar, University of Wollongong, Australia
Cholachat Rujikiatkarnjorn, University of Wollongong, Australia

How to Overcome Geotechnical Challenges in Implementing High Speed Rail Systems in Australia

H. Khabbaz E., University of Technology Sydney (UTS), Australia
B. Fatahi, University of Technology Sydney (UTS), Australia

Maintenance Model for Railway Substructure

Ali Ebrahimim, Geosyntec Consultants, U.S.A.
James M. Tinjum, University of Wisconsin-Madison, U.S.A.
Tuncer B. Edil, Professor Emeritus, University of Wisconsin-Madison, U.S.A.

Dynamic Behaviour of Railway Ballasted Track Structures in Shaking Table Tests and Seismic Resistant Performance Evaluation in Japan

T. Ishikawa, Hokkaido University, Japan
S. Miura, Hokkaido University, Japan
E. Sekine, Hokubu Consultant Co. LTD., Japan

Mechanical Properties of Polyurethane-Stabilized Ballast

A. Keene, University of Texas at Austin, USA
J.M. Tinjum, University of Wisconsin-Madison, U.S.A.
T.B. Edil, Professor Emeritus and Director, Recycled Materials Resource Center and Wisconsin Highway Research Program, University of Wisconsin-Madison, U.S.A.

Dependency of Cyclic Plastic Deformation Characteristics of Unsaturated Recycled Base Course Material on Principal Stress Axis Rotation

A. Inam, National Highway Authority, Ministry of Communications, Pakistan

T. Ishikawa, Hokkaido University, Japan

S. Miura, Hokkaido University, Japan

Quickness Test Approach for Assessment of Flow Slide Potentials

V. Thakur, Norwegian Public Roads Administration, Norway

S. A. Degago, Norwegian Public Roads Administration, Norway

Cement Stabilization for Pavement Material in Thailand

S. Horpibulsuk, Suranaree University of Technology, Thailand

A. Chinkulkijniwat, Suranaree University of Technology, Thailand

A. Suddeepong, Suranaree University of Technology, Thailand

A. Neramitkornburee, Suranaree University of Technology, Thailand

C. Suksiripattanapong, Suranaree University of Technology, Thailand

Stone Columns Field Test: Monitoring Data and Numerical Analyses

Marcio Almeida, Federal University of Rio de Janeiro, Brazil

Bruno Lima, Fluminense Federal University, Brazil

Mario Riccio, Federal University of Rio de Janeiro, Brazil

Holger Jud, Smoltczyk Partner, Germany

Maria Cascão, Federal University of Rio de Janeiro, Brazil

Felipe Roza, VALE Company, Brazil

Numerical Analysis of Response of Geocell Confined Flexible Pavement

Ram Babu, Institute of Science, India

G. L. Sivakumar Babu, Institute of Science, India

Vol. 45 No. 2 June 2014

Numerical Investigation of Passive Loads on Piles in Soft Soils

C. Moormann, University of Stuttgart, Institute for Geotechnical Engineering, Germany

J. Aschrafi, University of Stuttgart, Institute for Geotechnical Engineering, Germany

Numerical Simulation of an Energy Pile Using Thermo-Hydro-Mechanical Coupling and a Visco-Hypoplastic Model

Xiaolong Ma, DB ProjektBau GmbH, Germany

Gang Qiu, Hamburg University of Technology, Germany

Jürgen Grabe, Hamburg University of Technology, Germany

Numerical Studies on Dynamic Load Testing of an Open-ended Pipe Pile and a Case Study

L. Phan Ta, HCMC University of Architecture, Vietnam

T. Matsumoto, Graduate School of Natural Science and Technology, Japan

H. Nguyen Hoang, South Vietnam Bridge Road Building Technology Institute, Vietnam

Performance of Piled Raft Foundation Subjected to Strong Seismic Motion

K. Yamashita, Takenaka Corporation, Chiba, Japan

T. Hashiba, Takenaka Corporation, Tokyo, Japan

H. Ito, International Department, Takenaka Corporation, Japan

T. Tanikawa, Takenaka Corporation, Chiba, Japan

Static Cyclic Load Tests on Model Foundations in Dry Sand

Y.S. Unsever, Middle East Technical University, Turkey

T. Matsumoto, Kanazawa University, Japan

S. Shimono, Kanazawa University, Japan

M.Y. Özkan, Middle East Technical University, Turkey

Axial Bearing Behaviour of a Model Pile in Sand Under Multiple Static Cycles

J. H. Hwang, National Central University, Taiwan

Z. X. Fu, National Central University, Taiwan

P. Y. Yeh, National Central University, Taiwan

D. W. Chang, Tamkang University, Taiwan

Seismic PBD of Piles from Monte Carlo Simulation Using EQWEAP Analysis with Weighted Intensities

D.W. Chang, Tamkang U., Taiwan

Y.H. Lin, Tamkang U., Taiwan

H.C. Chao, Moh and Associates, Inc., Taiwan

S.C. Chu, Tamkang U., Taiwan

C.H. Liu, Tamkang U., Taiwan

Case Studies on Response of Laterally Loaded Nonlinear Piles

Wei Dong Guo, University of Wollongong, Australia

Numerical Analysis of the Effect of Pile Tip Shape on Soil Behavior around Pile

Y. Wu, Hiroshima University, Japan

H. Yamamoto, Hiroshima University, Japan

Shaking Table Test on Superstructure-foundation-Ground System in Liquefiable Soil and Its Numerical Verification

F. Zhang, Nagoya Institute of Technology, Japan

R. Oka, Nagoya Institute of Technology, Japan

Y. Morikawa, Nagoya Institute of Technology, Japan

Y. Mitsui, Nagoya Institute of Technology, Japan

T. Osada, Nagoya Institute of Technology, Japan

M. Kato, Nagoya Institute of Technology, Japan

Y. Wabiko, Nagoya Institute of Technology, Japan

Model Loading Tests on Bearing Behaviour of a Group Pile and Ground Deformation in Sand

S. Aoyama, The University of Tokyo, Japan
B. Liu, The University of Tokyo, Japan
L. Danardi, The University of Tokyo, Japan
W. Mao, The University of Tokyo, Japan
S. Goto, The University of Tokyo, Japan
I. Towhata, The University of Tokyo, Japan

Numerical Study on the Bearing Behaviour of Pile Groups Subjected to Lateral Pressure Due to Soil Movements

O. Reul E, University of Kassel, Germany
J. Bauer, University of Kassel, Germany
C. Niemann, University of Kassel, Germany

Deep Foundation Systems for High-Rise Buildings in Difficult Soil Conditions

R. Katzenbach, Technische Universität Darmstadt, Institute and Laboratory of Geotechnics, Germany
S. Leppla, Technische Universität Darmstadt, Institute and Laboratory of Geotechnics, Germany

Vol. 45 No. 3 September 2014

Centrifuge Modelling of Improved Ground

M. Kitazume, Tokyo Institute of Technology, Japan
Y. Morikawa, Port and Airport Research Institute, Japan
S. Nishimura, Hokkaido University, Japan

Simulation of Soil Movement in Geotechnical Centrifuge Testing – Deep Excavations, Tunnelling, Deposit

D. König, Ruhr-Universität Bochum, Germany
O. Detert, HUESKER Synthetic GmbH, Germany
T. Schanz, Ruhr-Universität Bochum, Germany

Verification of the Generalized Scaling Law for Flat Layered Sand Deposit

T. Tobita Kyoto University, Japan
S. Escoffier, IFSTTAR, Nantes, France
J. L. Chazelas, IFSTTAR, Nantes, France
S. Iai, Kyoto University, Japan

Field Scale Tests for Determination of Pullout Capacity of Suction Pile Anchors under Varying Loading Conditions

Vijaya Ravichandran, National Institute of Ocean Technology, India
R. Ramesh, National Institute of Ocean Technology, India
S. Muthukrishna Babu, National Institute of Ocean Technology, India
G.A. Ramadass, National Institute of Ocean Technology, India
M.V.Ramanamoorthy, National Institute of Ocean Technology, India
M.A. Atmanand, National Institute of Ocean Technology, India

Run-out of Sensitive Clay Debris: Significance of the Flow Behavior of Sensitive Clays

V. Thakur, Aalesund University College
D. Nigussie, Norwegian Public Roads Administration

Performance of Rail Embankments Constructed with Coal Ash as a Structural Fill Material: Centrifuge Study

B.V.S. Viswanadham, Indian Institute of Technology Bombay, India
V.K. Mathur, Ash Management, NTPC Limited, India

A Novel Mobile Information System for Risk Management of Adjacent Buildings in Urban Underground Construction

Hanh Quang Le, University of Transport and Communication, Vietnam
Bin-Chen Benson Hsiung, National Kaohsiung University of Applied Sciences, Taiwan

Comparison between Design Methods Applied to Segmental Tunnel Linings

N.A. Do, Hanoi University of Mining and Geology, Vietnam
D. D Laboratory, LTRE, Grenoble Alpes University, France
P.P. Oreste, Land and Infrastructural Engineering, Politecnico di Torino, Italy
I. Djeran-Maigre LGCI, INSA of Lyon, University of Lyon, France

Challenging Construction Projects Related to Urban Tunnels

R. Katzenbach, Technische Universität Darmstadt, Institute and Laboratory of Geotechnics, Germany
S. Leppla, Technische Universität Darmstadt, Institute and Laboratory of Geotechnics, Germany

Bulk Compression of Dredged Soils by Vacuum Consolidation Method Using Horizontal Drains

Hiroshi Shinsha, Penta-Ocean Construction Co., Ltd., Japan
Takahiro Kumagai, Penta-Ocean Construction Co., Ltd., Japan

Estimating Side Resistance of Bored Pile in Residual Soils

Mutiasani Dianmarti Kusuma, Nanyang Technological University, Singapore
Eng-Choon Leong, Nanyang Technological University, Singapore

Seismic Response of Geosynthetic Reinforced Earth Embankment by Centrifuge Shaking Table Tests

W.Y. Hung, National Central University, Taiwan
J.H. Hwang, National Central University, Taiwan
C.J. Lee, National Central University, Taiwan

Advances in Seabed Liquefaction and Its Implications for Marine Structures

B. Mutlu Sumer, Technical University of Denmark, Denmark

Eulerian–Lagrangian Modeling of Current-Induced Coastal Sand Dune Migration

R. Sun, Virginia Tech, U.S.A.
H. Xiao, Virginia Tech, U.S.A.

Numerical Study of the Penetration Mechanism and Kinematic Behavior of Drag Anchors Using a Coupled Eulerian-Lagrangian Approach

Haixiao Liu, Tianjin University, China
Yanbing Zhao, Tianjin University, China

Cyclic Pore Pressure Generation in Silty Soils under the Action of Combined Waves and Current

Yi-Fa Wang, Chinese Academy of Sciences, China
Fu-Ping Gao, Chinese Academy of Sciences, China
Wen-Gang Qi, Chinese Academy of Sciences, China

A Model for Predicting Pipeline Sinkage Induced by Tunnel Scour

Chengcai Luo, University of Western Australia, Australia
Hongwei An, University of Western Australia, Australia
Liang Cheng, University of Western Australia, Australia
David White, University of Western Australia, Australia

Predicting Spud Can Extraction Resistance in Soft Clay

Omid Kohan, The University of Western Australia, Australia
Christophe Gaudin, The University of Western Australia, Australia
Mark J. Cassidy, The University of Western Australia, Australia
Britta Bienen, The University of Western Australia, Australia

A FE Procedure for Foundation Design of Offshore Structures – Applied to Study a Potential OWT Monopile Foundation in the Korean Western Sea

H.P. Jostad Norwegian Geotechnical Institute, NGI, Oslo, Norway
G. Grimstad Norwegian University for Science and Technology, NTNU, Trondheim, Norway
K.H. Andersen
M. Saue NGI Inc., Houston, Texas, USA
Y. Shin
D. You, GS Engineering & Construction Corp., Seoul, South Korea

Compressibility as an Indicator of Liquefaction Potential

M. Murat Monkul, Yeditepe University, Turkey
Poul V. Lade, The Catholic University of America, U.S.A.
Ehsan Etminan, Istanbul Technical University, Turkey
Aykut Senol, Istanbul Technical University, Turkey

Centrifuge Modelling of the Seismic Responses of a Gently Sloped Liquefiable Sand Deposit Confined within Parallel Walls

C.J. Lee, National Central University, Taiwan
W.Y. Chung, National Central University, Taiwan
W.Y. Hung, National Central University, Taiwan

Eulerian Finite Element Analysis for Uplift Capacity of Circular Plate Anchors in Normally Consolidated Clay

Z. Chen, National University of Singapore, Singapore
K. K. Tho, Fugro Singapore Pte Ltd, Singapore
C. F. Leung, National University of Singapore, Singapore
Y. K. Chow, National University of Singapore, Singapore

Restoration Method of Artificial Tidal Flat by Use of Pressure Injection of Slurry Dredge Clay

Takahiro Kumagai, Penta-Ocean Construction Co., Ltd., Japan
Takashi Tsuchida, Hiroshima University, Japan
Changjin Ko, Research Institute of Technology, Penta-Ocean Construction Co., Ltd., Japan
Hiroaki Sugihara, Chugoku Branch, Penta-Ocean Construction Co., Ltd., Japan

Tsunami-Seabed-Structure Interaction from Geotechnical and Hydrodynamic Perspectives

S. Sassa, Port and Airport Research Institute, Japan

Challenges in the Design of Tall Building Foundations

Harry G. Poulos, Coffey Geotechnics, Sydney

Settlement due to Consolidation

H. Ohta, Research & Development Initiative, Chuo University, Japan

A Simulation of Surface Runoff and Infiltration due to Torrential Rainfall Based on Field Monitoring Results at a Slope Comprising Weathered Granite

H. Ohtsu, Kyoto University, Japan
H. Masuda, Kyoto University, Japan
T. Kitaoka, Kyoto University, Japan
K. Takahashi, Water Resource Consultant, Chiba, Japan
M. Yabe, Oyo Corporation, Tokyo, Japan
S. Soralump, Kasetsart University, Thailand
Y. Maeda, West Nippon Expressway Company Limited, Japan

Calcium Carbide Residue - A Cementing Agent for Sustainable Soil Stabilization

S. Horpibulsuk, Suranaree University of Technology, Thailand

A. Kampala, Rajamangala University of Technology Isan, Nakhon Ratchasima, Thailand

C. Phetchuay, Suranaree University of Technology, Thailand

A. Udomchai, Suranaree University of Technology, Thailand

A. Arulrajah, Swinburne University of Technology, Australia

Soil Parameter Optimization of the NGI-ADP Constitutive Model for Bangkok Soft Clay

B. Ukritchon, Chulalongkorn University, Thailand

T. Boonyatee, Chulalongkorn University, Thailand

Laboratory Investigation of Hot Mix Asphalt Behaviour for Mechanistic-Empirical Pavement Design in Tropical Countries

T. Chompoorat, University of Phayao, Thailand

S. Likitlersuang, Chulalongkorn University, Thailand

Slope Stability and Pore-Water Pressure Regime in Response to Rainfall: a Case Study of Granitic Fill Slope in Northern Thailand

A. Jotisankasa, Kasetsart University, Thailand

K. Mahannopkul, Kasetsart University, Thailand

A. Sawangsuriya, Department of Highways, Thailand

Evaluation of the Hydraulic Conductivity of Clayey Soil Mixed with Calcium-Bentonite Using Oedometer Tests

R.D. Fan, Southeast University Nanjing, China

Y.J. Du, Southeast University Nanjing, China

S.Y. Liu, Southeast University Nanjing, China

Y.L. Yang, Southeast University Nanjing, China

Undrained Shear Strength of Very Soft to Medium Stiff Bangkok Clay from Various Laboratory Tests

W. Ratananikom, Burapha University, Thailand

S. Yimsiri, Burapha University, Thailand

S. Likitlersuang, Chulalongkorn University, Thailand

A Review on Design of Pile Foundations in Bangkok

T. Boonyatee, Chulalongkorn University, Bangkok, Thailand

J. Tongjarukae, STS Pile Testing Co., Ltd, Thailand

T. Uaworakunchai, STS Pile Testing Co., Ltd, Thailand

B. Ukritchon, Chulalongkorn University, Bangkok, Thailand

Structured Cam Clay Model with Cementation Effect

S. Horpibulsuk, Suranaree University of Technology, Thailand

M.D. Liu, University of Wollongong, Australia

Evaluation of Strength of Soft Ground Improved by Vacuum Consolidation

T. Shibata, Okayama University, Japan

S. Nishimura, Okayama University, Japan

M. Fujii, NTC Consultants Co., Ltd., Japan

A. Murakami, Kyoto University, Japan

Chemical Stabilization of Loess in Northeast Thailand Using the Mixture of Calcined Marble Dust Waste and Sugarcane Bagasse Ash Waste

Phongthorn Julphunthong, Naresuan University, Phitsanulok, Thailand

Research Unit for Innovative Construction Materials, Faculty of Engineering, Naresuan University, Phitsanulok, Thailand

Research Center for Academic Excellence in Applied Physics, Faculty of Science, Naresuan University, Phitsanulok, Thailand

Numerical Analyses of Piled Raft Foundation in Soft Soil Using 3D-FEM

K. Watcharasawe, King Mongkut's University of Technology Thonburi, Bangkok, Thailand

P. Kitiyodom, Geotechnical & Foundation Engineering Co., Ltd. (GFE), Bangkok, Thailand

P. Jongpradist, King Mongkut's University of Technology Thonburi, Bangkok, Thailand

Investigation of Shrinkage and Swelling Behaviour of Expansive/Non-Expansive Clay Mixtures

S. Por, Chulalongkorn University, Thailand

S. Likitlersuang, Chulalongkorn University, Thailand

S. Nishimura, Hokkaido University, Japan

Vol. 46 No. 2 June 2015

Operational Soil Stiffness from Back-Analysis of Pile Load Tests within Elastic Continuum Framework

Fawad S. Niazi, Georgia Institute of Technology, U.S.A.

Paul W. Mayne, Georgia Institute of Technology, U.S.A.

Lateral Loading Tests on Piled Rafts and Simplified Method to Evaluate Sectional Forces of Piles

J. Hamada, Research and Development Institute, Takenaka Corporation, Chiba, Japan

T. Tsuchiya, Research and Development Institute, Takenaka Corporation, Chiba, Japan

T. Tanikawa, Research and Development Institute, Takenaka Corporation, Chiba, Japan

K. Yamashita, Research and Development Institute, Takenaka Corporation, Chiba, Japan

Elastic Continuum Solution of Stacked Pile Model for Axial Load-Displacement Analysis

Fawad S. Niazi¹, Georgia Institute of Technology, Atlanta, Georgia, USA

Paul W. Mayne, Georgia Institute of Technology, Atlanta, Georgia, USA

Applicability of Simple Method to Piled Raft Analysis in Comparison with Field Measurements

K. Yamashita, Research and Development Institute,
Takenaka Corporation, Chiba, Japan

T. Tanikawa, Research and Development Institute,
Takenaka Corporation, Chiba, Japan

J. Hamada, Research and Development Institute,
Takenaka Corporation, Chiba, Japan

Engineering Assessment of Ground Vibrations Caused by Impact Pile Driving

K.R. Massarsch, Geo Risk & Vibration Scandinavia AB,
Sweden

B.H. Fellenius, Consulting Engineer, Sidney, Canada

Analysis of Results of an Instrumented Bidirectional-Cell Test

Bengt H. Fellenius, Consulting Engineer, Canada

Case Study of Dynamic Responses of a Single Pile Foundation Installed in Coal Ash Landfills using Effective Stress Analysis and EQWEAP

C.W. Lu, National Kaohsiung First University of Science
and Technology, Taiwan

D.W. Chang, Tamkang University, Taiwan

Deep Barrette Pile Capacity with Aging Effect

W. Teparaksa, Chulalongkorn University, Thailand

The Response of a "Plug" in an Open-Toe Pipe Pile

Bengt H. Fellenius, Consulting Engineer, Sidney, Canada

Effects of Toe Grouting on Axial Performance of Drilled Shafts Socket in Intermediate Geomaterial

San-Shyan Lin E, National Taiwan Ocean University

Yen-Liang Yin, Nan Shan Life Insurance Co., Ltd.

Kuo-Chen Fu, Nan Shan Life Insurance Co., Ltd.

Yung-Kuang Lin, Mice Engineering Consultants Co.,Ltd.

Chin-Jung Kuo, Mice Engineering Consultants Co.,Ltd.

Yu-Heng Chang, Diagnostic Engineering Consultants Co., Ltd.

Reliability-Based Design of Proof Load Test Programs for Foundations

Y. Abdallah, American University of Beirut, Lebanon

S.S. Najjar, American University of Beirut, Lebanon

G. Saad, American University of Beirut, Lebanon

Probabilistic Approaches for Ultimate Resistance of Drilled Shafts in Sands Considering Spatial Variability

Z. Luo, University of Akron, USA

L. Wang, Parsons Brinckerhoff, U.S.A.

W. Gong, Clemson University, U.S.A.

C. H. Juang, Clemson University, U.S.A.

Liquefaction Problems in the 21st Century

Ikuo Towhata, President, Japanese Geotechnical Society,
Former Professor, University of Tokyo, Japan

Vol. 46 No. 3 September 2015

Overview and Interpretation of Rate-Dependency of the Behaviour of Soft Clays

Z. X. Wu, Tongji University, China

Q. Y. Zhu, LUNAM University, Ecole Centrale de Nantes,
France

Z. Y. Yin, China University of Mining & Technology,
Xuzhou, China

Overview and Interpretation of Stress-Relaxation of Soft Clay

L. Ye, Zhejiang University of Science and Technology, China

Q. Y. Zhu, China University of Mining & Technology, China

J. X. Liu, Tongji University, China

P. P. Sun, LUNAM University, Ecole Centrale de Nantes,
France

Z. Y. Yin, Zhejiang University of Water Resources and
Electric Power, China

Modeling Undrained Shear Behavior of Reconstituted Clays considering the Effects of Initial Water Contents

X. Bian, Hohai University, China

L. L. Zeng, Fuzhou University, China

J. W. Ding, Southeast University, Nanjing, China

Z. S. Hong, Southeast University, Nanjing, China

Statistical Analysis on Physical Properties of Shanghai Soft Clay

Y. M. Lu, Shanghai Jiao Tong University, China

Y. F. Jin, Shanghai Jiao Tong University, China

S. L. Shen, Shanghai Jiao Tong University, China

F. Yu, Ecole Centrale de Nantes, France

J. Zhang, Tongji University, China

A Review of the Dynamic Behaviour of Frozen Soils

S. Wang, Xi'an University of Technology, China

J. Qi, Chinese Academy of Sciences, China

Z. Y. Yin, Tongji University, China

Influence of Mineral Constituents on One-dimensional Compression Behaviour of Clayey Soils

L. Ye, Zhejiang University of Science and Technology, China

Y. F. Jin, Shanghai Jiao Tong University, China

Q. Y. Zhu, China University of Mining & Technology, China

P. P. Sun, Zhejiang University of Water Resources and
Electric Power, China

Effects of Addition of Fine-grained Zeolite on the Compressibility and Hydraulic Conductivity of Clayey Soil/Calcium-Bentonite Backfills for Vertical Cutoff Walls

R. D. Fan, Southeast University, Nanjing, China

Y. J. Du, Tongji University, Shanghai China.

S. Y. Liu, Southeast University, Nanjing, China

Effect of Long-term Aggressive Environments on the Porosity and Permeability of Granular Materials Reinforced by Nanosilica and Sodium Silicate

M. Cheng, GeM Laboratory, Research Institute of Civil
Engineering and Mechanics, Ecole Centrale de Nantes,
France

N. Saiyouri, Bordeaux University, France

Strength of Lime-Treated Fly Ash Using Bentonite

S. Deka, Tezpur University, India
 S. K. Dash, Indian Institute of Technology, India
 S. Sreedeeep, Indian Institute of Technology, India

Soil Deformation Induced by Underground Tunnel Construction

L. Wang, Tianjin University, China
 R. Liu, Tianjin University, China
 G. G. Wang, The Third Railway Survey and Design Institute Group Corporation, China

Full-Scale Field Tests on Soil Arching Triggered during Construction of Shallowly Buried HDPE Pipes

M. Zhou, Southeast University, Nanjing, China
 Y. J. Du, Southeast University, Nanjing, China
 F. Wang, Southeast University, Nanjing, China

A Pollutant Migration Model Considering Solute Decay in Layered Soil

C. Yu, Wenzhou University, China
 X. Q. Cai, Wenzhou University, China

Effect of Cyclic Strain History on Shear Modulus of Dry Sand using Resonant Column Tests

J. Kumar, Indian Institute of Science, India
 C. C. Achu, Indian Institute of Science, India

Vertical Uplift Capacity of Circular Anchor Plates

P. Bhattacharya, Indian Institute of Technology, India
 J. Kumar, Indian Institute of Technology, India

Prediction of Ground Surface Settlements Caused by Deep Excavations in Sands

B. C. B. Hsiung, National Kaohsiung University of Applied Sciences, Taiwan
 S. D. Dao, National Kaohsiung University of Applied Sciences, Taiwan

Soil Mechanics at Emmanuel College - Elegant, Rigorous and Relevant

J. Burland, Imperial College London

Ground Improvement Methods for Port Infrastructure Expansion

B. Indraratna, University of Wollongong, Australia
 A. Heitor, University of Wollongong, Australia
 C. Rujikiatkamjorn, University of Wollongong, Australia

Vol. 46 No. 4 December 2015**Geochemistry in Geotechnical Engineering Problems: Ettringite as Case Study**

M. Chrysochoou, University of Connecticut, Storrs, USA

Engineering Properties of Chromium Contaminated Soils

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 Jay N. Meegoda, New Jersey Institute of Technology, USA
 Janitha H. Batagoda, New Jersey Institute of Technology, USA

Study on factors affecting heavy metal sorption characteristics of two geomaterials

K.M. Nithya, Indian Institute of Technology Madras, Chennai, India
 D.N. Arnepalli, Indian Institute of Technology Madras, Chennai, India
 S.R. Gandhi, Indian Institute of Technology Madras, Chennai, India

Reduction of Chromium in Water and Soil Using a Rhamnolipid Biosurfactant

I. Ara, Stantec, Edmonton, Alberta, Canada
 C.N. Mulligan, Concordia University, Montreal, Canada

Reclamation project of a Brownfield site at Rio de Janeiro State, Brazil

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 A.R.M. Barboza de Oliveira, Catholic University of Rio de Janeiro, Rio de Janeiro, Brazil
 M.E.S. Marques, Military Institute of Engineering, Rio de Janeiro, Brazil

A Review of Acidic Groundwater Remediation in the Shoalhaven Floodplain in Australia

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 Udeshini Pathirage, University of Wollongong, Wollongong, Australia
 Laura Banasiak, University of Wollongong, Wollongong, Australia

Experimental and numerical study of electro-osmosis on kaolinite under intermittent current

Liming Hu, Tsinghua University, Beijing, China
 Hui Wu, Tsinghua University, Beijing, China
 Jay N. Meegoda, New Jersey Institute of Technology, USA
 Qingbo Wen, Tsinghua University, Beijing, China

Electro-osmosis drainage effect of a new type of EKG electrode

Yang Shen, Hohai University, Nanjing, China
 Yande Li, Hohai University, Nanjing, China

Innovative Soft Soil Improvement Method through Intelligent Use of Vacuum De-Watering and Dynamic Compaction Techniques

R. Liang, University of Akron, Akron, Ohio, USA
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Some Studies on Engineering Properties, Problems, Stabilization and Ground Improvement of Lithomargic Clays

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Stone column reinforcement of a soft South African clay: A laboratory investigation

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Numerical modelling of Tunis soft clay

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A Framework for the Destructuring of Clays During Compression

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Inundation Caused by Sea-Level Rise Combined with Land Subsidence

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Levels of what and how in the Education of Geo-engineering on Problematic Soils

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International Conference on Earthquake Engineering and Post Disaster Reconstruction Planning

24-26 April 2016, Bhaktapur, Nepal



► <http://seags.ait.asia/news-announcements/international-conference-earthquake-engineering-post-disaster-reconstruction-planning-2016-nepal/>



Message From Chairman



On behalf of ICEE-PDRP 2016 organizing committee, I am honored to welcome you all to the International Conference on Earthquake Engineering and Post Disaster Reconstruction Planning at Bhaktapur, the Cultural Capital of Nepal.

Nepal, being located in the very central part of the active Himalayan Arch, has been witnessing several devastating earthquakes. The devastation of the great 1934 Nepal-Bihar Earthquake and recent 2015 Gorkha Earthquake demands the experts and academicians from around the world to get together with a purpose. The 7.8 Mw Gorkha Earthquake and its aftershocks claimed 8,856 people's lives and 22,309 people got injured. In Bhaktapur district alone, 333 people were killed, and 2,101 people were injured. Total of 613,741 buildings collapsed completely, and 289,316 buildings got partially damaged in the country. In Bhaktapur district, around 19,000 buildings collapsed completely, and 9,125 buildings were partially damaged. At this moment, I believe this conference will serve as the platform to understand earthquake and its effects and aid to build earthquake disaster resilient society in Nepal and in the world.

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19TH SOUTHEAST ASIAN GEOTECHNICAL CONFERENCE & 2ND AGSSEA CONFERENCE (19SEAGC-2AGSSEAC)/(SEAGC2016)

Deep Excavation and Ground Improvement

31 May – 03 June 2016, Kuala Lumpur Malaysia



► <http://seags.ait.asia/news-announcements/19seagc-2agssea-malaysia-2016/>

Organized by Southeast Asian Geotechnical Society (SEAGS), Association of Geotechnical Societies in Southeast Asia (AGSSEA), Malaysian Geotechnical Society (MGS) and The Institution of Engineers, Malaysia (IEM).

INTRODUCTION

The 19th Southeast Asian Geotechnical Conference and 2nd Association of Geotechnical Societies in Southeast Asia will be held in Kuala Lumpur, Malaysia on 31 May – 3 June 2016. A pre-conference short course will be held on 29 May 2016 by Prof K. Ishihara & Prof I. Towhata and a post-conference short course on 3 June 2016 by Prof H. Poulos. The Southeast Asia Young Geotechnical Engineers' Conference will be held on 30 May 2016.

The Southeast Asian Geotechnical Society was founded in 1967 at AIT Bangkok by Dr Za-Chieh Moh. In 2007 the Association of Geotechnical Societies in Southeast Asia was founded also by Dr Za-Chieh Moh.

At the 17SEAGC held in Taipei in 2010, it was decided that the 18SEAGC-1AGSSEA Conference will be held in Singapore in 2013. The Singapore Conference was a great success with more than 350 participants.

This 19SEAGC-2AGSSEAC to be held in Kuala Lumpur, Malaysia is also expected to be well supported and successful.

The Conference will have an Opening Keynote Address, Chin Fung Kee Lecture, Za-Chieh Moh Lecture, S L Lee Lecture, Keynote Lectures, Special Lectures, and Special Session Lectures to be delivered by distinguished geotechnical experts and eminent academicians. Contributed papers from member countries and abroad will also be presented.

[Read more...](#)

OPENING KEYNOTE ADDRESS

Dr. Za-Chieh Moh will deliver the Opening Keynote Address.

CHIN FUNG KEE LECTURE

Prof. Kenji Ishihara will be the Chin Fung Kee Lecturer.

ZA-CHIEH MOH LECTURE

Prof. Harry Poulos will be the Za-Chieh Moh Lecturer.

S L LEE LECTURE

Prof. Jian Chu will be the S L Lee Lecturer.

CONTACT DETAILS:

SEAGC2016 Secretariat

c/o IEM Training Centre Sdn. Bhd.

No. 33-1A (1st floor), Jalan 52/18,

P.O. Box 224 (Jalan Sultan)

46720 Petaling Jaya, Selangor Darul Ehsan,
MALAYSIA

Tel. No.: +(603) 7958 6851

Fax No.: +(603) 7958 2851

E-mail: seagc2016@gmail.com

Website: www.mygeosociety.org/seagc2016

EUROSOIL 2016

17-22 July 2016, Istanbul, Turkey ▶ <http://seags.ait.asia/news-announcements/eurosoil-2016-istanbul/>



Dear Colleagues and Friends,

As President of European Confederation of Soil Science Societies (ECSSS) and of 5th EUROSOIL International Congress, I am delighted to invite you to Istanbul to participate in the EUROSOIL Congress that will be held between 17 July and 22 July 2016.

Following the successful 4th EUROSOIL Congress in 2012 in Bari, we have now a great pleasure to welcome you in Istanbul, one of the most attractive, historical, and cultural cities in the world.

EUROSOIL 2016 will be a unique opportunity to provide an outstanding setting for all participants including young soil scientists, researchers, technical and Professional operators, company representatives and policy makers to share their projects, scientific experiences, innovations and ideas about the soil science.

The choice of the keynotes and invited speakers who will be chosen from not only Europe but all continents of our globe will set high standard and new visions in the field of soil science. Sessions covering all aspect of soil science and social and cultural events will help culminating the success of the Congress.

[Read more...](#)

6th International Conference on Recent Advances in Geotechnical Earthquake Engineering and Soil Dynamics

01-06 August 2016, India

► <http://seags.ait.asia/news-announcements/6th-international-conference-recent-advances-geotechnical-earthquake-engineering-soil-dynamics-2016-india/>

About the Conference

This International Conference is in continuation of the previous five such conferences organized by the Missouri University of Science & Technology, Rolla (US), under the chairmanship of Prof. Shamsheer Prakash. All the conferences have proved to be highly successful events.

The Conference shall have invited Key-note Lectures, State of the Art & Practice (SOAP) lectures, Special Lectures and contributed original research papers for discussion and publication in the proceedings. Contributions are expected from over 40 countries.

[Read more...](#)



IC3G 2016 International Conference on Geo-mechanics, Geo-energy and Geo-resources

28-29 September 2016, Melbourne, Australia

► <http://seags.ait.asia/news-announcements/international-conference-on-geo-mechanics-geo-energy-and-geo-resources-ic3g-2016-australia/>



“Challenge the limits with knowledge”

Advances in physical processes in subsurface earth materials to enhance deep Earth energy and mineral extractions, and greenhouse mitigation

Conference Themes

To date, deep Earth resources remain poorly understood and entirely under-utilised. There is a growing appreciation of the important role deep Earth will play in future sustainability, particularly in opportunities for new and sustainable large-scale energy alternatives, and extraction of resources through mining and greenhouse mitigation.

This conference is aimed at promoting discussion of strategies to address challenges in developing geo-energy

and geo-resources extraction, and greenhouse mitigation measures through deep earth from the perspective of geomechanics and geophysics.

We warmly encourage researchers in the broad geomechanics and geophysics communities to join this event.

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COBRAMSEG/SBMR 2016

19 to 22 October 2016, Brazil



► <http://seags.ait.asia/news-announcements/cobramseg-sfge-2016/>

COBRAMSEG/SBMR is the most important event of the Brazilian geotechnical community and a unique opportunity to present and discuss new advances and challenges imposed increasingly on the practice of Geotechnics.

In its 18th edition, COBRAMSEG/SBMR 2016 will host four great events:

XVIII Brazilian Conference on Soil Mechanics and Geotechnical Engineering

VII Brazilian Symposium on Rock Mechanics

VII Brazilian Symposium and V South American Young Geotechnical Engineers Conference

International Conference on Geo-Engineering Education – Shaping the Future of Geotechnical Education

About

In 2016 we will be celebrating the legacy of 62 years since our first COBRAMSEG, and 50 years since Belo Horizonte had the honor of hosting the most important event of Brazil's Geotechnical calendar. Much has passed since, and our country underwent a complete transformation since the distant year of 1966, when Minas Gerais embraced with our traditional hospitality the "3º Congresso Brasileiro de Mecânica dos Solos", our 3rd National Conference. Even then, the Brazilian Geotechnical community already hinted its upcoming major role in the worldwide Geo-technical scenario, with Professor Costa Nunes being elected vice-president of the International Society of Rock Mechanics (ISRM) for South America, and Odair Grillo appointed honorary president of the Brazilian Geotechnical Society (ABMS).

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INTERESTING WEBSITES

SGI - Line



► http://www.swedgeo.se/templates/SGIStandardPage____184.aspx?epslanguage=EN

► http://www.swedgeo.se/templates/SGIStandardPage____186.aspx?epslanguage=EN

The SGI-Line is a literature database containing references to international geotechnical and geoenvironmental literature in a broad context, from practical solutions to theoretical analysis. The database is one of a small number in the world specialized in geotechnical and goenvironmental engineering. The database contains some 70,000 references from 1976 up to present. The database is continuously updated and expanded with about 2,000 references a year. Several

references added during the recent years links to further information, full-text documents or abstracts/table of contents.

SGI-Line is produced by the Swedish Geotechnical Institute, Sweden. Most of the documents, books, articles in journals, papers in conference proceedings, reports, theses, ets, referred to in the database are available in the SGI Library.

Link to more information on the Database (Information sheet):

► <http://www.swedgeo.se/upload/SGI-tjanster/pdf/SGILine-english-2007.pdf>

QuadSearch



► <http://delab.csd.auth.gr/~lakritid/index.php?lan=1&s=2>

QuadSearch are metasearch engines that are web services designed to transfer the user's queries to multiple existing search engines. A metasearch engine does not maintain its own index of documents.

It collects and reorganizes the result lists (top-k lists), then it returns the processed data to the user. Compared to a classic single search engine, a metasearch engine offers increased web coverage, improved retrieval effectiveness, effortless invocation of multiple search engines.

ICE Virtual Library



The ICE Virtual Library hosts all the content from ICE Publishing, the publishing division of the Institution of Civil Engineers (ICE).

This site is an online journal service. It provides the opportunity to stay on top of cutting-edge issues in all aspects of civil engineering with papers and articles. It contains large amount of civil engineering journals. All Proceedings of the Institution of Civil Engineering journals are listed on this site. Abstracts and table of contents are freely available to all.

► <http://www.icevirtuallibrary.com/content/journals>

Geotechnical software sites

The following sites contain geotechnical software's indispensable to geotechnical engineers.

► <http://www.usucger.org>

This site's mission is to provide advocacy for the continued development and expansion of high quality geomechanical, geotechnical and geo-environmental engineering research and education which will enhance the welfare of humankind.

► <http://alert.epfl.ch>

The Alliance of Laboratories in Europe for Research and Technology (ALERT) "Geomaterials" has been created to develop a European School of Thinking in the field of the Mechanics of Geomaterials. The generic name "Geomaterials" is viewed as gathering together materials, whose mechanical behaviour depends on the pressure level, which can be dilatant under shearing and which are multiphase because of their porous structure.

► <http://www.geoengineer.org>

The site started as a personal effort to provide useful information for engineers, students, and academia by taking advantage of the opportunities provided by the internet. Consecutively, it provides a cost-free resource for the engineers to learn about the latest news in their field and keep up with the progress of research.

► <http://www.ascelibrary.org>

In this site you can find and download full-text civil engineering research and applications-oriented articles. You can choose only the content you need from across a universe of 260,000 pages of content; journal papers from 1993 to present, proceedings papers from 2003 to present, 28,000 articles-4,000 new articles added each year. You can quickly have the information thru Research Library gold Card.

Other Links:

The Engineer Explains ► <http://engineerexplained.com/VincentChuColumn/#T1>

Ask An Expert ► <http://engineeringcivil.com/ask-an-expert>

Ask a Civil Engineer ► <http://aboutcivil.com/answers/>

RockWare ► <http://www.rockware.com/home/lobbyMod.php?id=3&mod=industry>

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GAEA Technologies ► <http://www.gaea.ca/>

TAGAssoft ► <http://www.tagasoft.com/TAGAssoft>

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2.		Proceedings of the International Symposium on Geotechnical Engineering. Ground Improvement and Geosynthetics for Sustainable Mitigation and Adaptation to Climate Change including Global Warming. Conference CD, 3 to 4 December 2009	50	10	15
3.		Proceedings of the 16 th Southeast Asian Geotechnical Conference, 8 to 11 May 2006, Kuala Lumpur (Vol. 1 = 964 pages)	150	21	29
4.		Proceedings of the International Symposium on Geotechnical Aspects of the Suvarnabhumi Airport Thailand	50	10	20
5.		Proceedings of the 15 th Southeast Asian Geotechnical Conference, 22 to 26 November, 2004, Bangkok (Vol. I = 1,000 pages/ Vol.2 = 210 pages)	100	21	29
6.		Proceedings of the Malaysian Geotechnical Conference 2004, The Institute of Engineering Malaysia, 16-18 March 2004 (524 pages)	100	14	21
7.		Proceedings of the 14 th Asian Regional Conference on Geotechnical Engineering Meeting Society's Needs, Hong Kong, 10-14 December 2001 (2 Volumes)	100	10	15
8.		Proceedings of the GEOTECH-YEAR 2000, Developments in Geotechnical Engineering, Bangkok, Thailand, November 2000. All Volumes.	100	16	22
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10.		Proceedings of the 13 th Southeast Asian Geotechnical Conference, Taipei, Taiwan, R.O.C, 16-10 November, 1998. Vol. 1 (851 pages), Vol. 2 (212 pages), Hard bound.	100	22	30
11.		Proceeding of the 30 th Year Anniversary Symposium on Deep Foundations, Excavations, Ground Improvements and Tunneling, Bangkok, Thailand, 03-07 November, 1997. 645 pages.	100	16	22
12.		Proceedings of the 12 th Southeast Asian Geotechnical Conference and the 4 th International Conference on Tropical Soils, Kuala Lumpur, Malaysia, May 1996. Vol. 1 (618 pages), Vol.2 (332 pages).	80	21	29
13.		Proceedings of the 11 th Southeast Asian Geotechnical Conference, Singapore, March 1993. Hard bound (864 pages).	80	16	22
14.		Proceedings of the Symposium on Developments in Geotechnical Engineering (From Harvard to New Delhi, January 1936-1994) Bangkok, Thailand. (694 pages).	80	10	15

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Please direct all correspondence to:

Dr. Noppadol Phienwej

Hon. Secretary - General

Southeast Asian Geotechnical Society c/o Asian Institute of Technology

Room No. 211, AIT Library

P.O. Box: 4, Klong Luang, Pathumthani 12120, THAILAND

Tel: (66) 02 524 5864; (66) 02 524 5512

Fax: (66) 02 516 2126; (66) 02 524 5509

E-mail: seags@ait.ac.th

Homepage: <http://www.seags.ait.ac.th>

or

Ir. Kenny Yee

Hon. Secretary General

Association of Geotechnical Societies in Southeast Asia

c/o IEM Training Centre Sdn. Bhd.

No. 33-1A, Jalan SS 52/18

P.O. Box 224 (Jalan Sultan)

46200 Petaling Jaya, Selangor Darul Ehsan

MALAYSIA

Tel: (60) 03 7958 6851

Fax: (60) 03 79582851

E-mail: kenny.yeeks@gmail.com

Homepage: <http://www.agssea.org>

<http://www.iemtc.com>

SOUTHEAST ASIAN GEOTECHNICAL SOCIETY (SEAGS)

President: *Dr. Ooi Teik Aun*

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Editor-in-Chief of

Geotechnical Engineering Journal: *Prof. A.S. Balasubramaniam*



Secretariat at Asian Institute of Technology, Km. 42, Paholyothin Highway, Klong Luang, Pathumthani 12120, Thailand

c/o A.I.T., P.O. Box 4, Klong Luang, Pathumthani 12120, Thailand ☎ Tel: 66-02-524-5864 ☎ Fax: 66-02-524 5865 ☎ E-mail: <seags@ait.ac.th>

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P.O. Box 4, Klong Luang
Pathumthani 12120, Thailand
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