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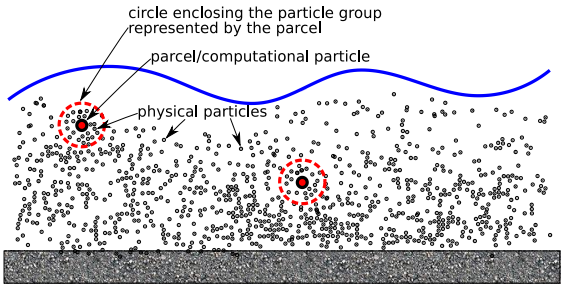
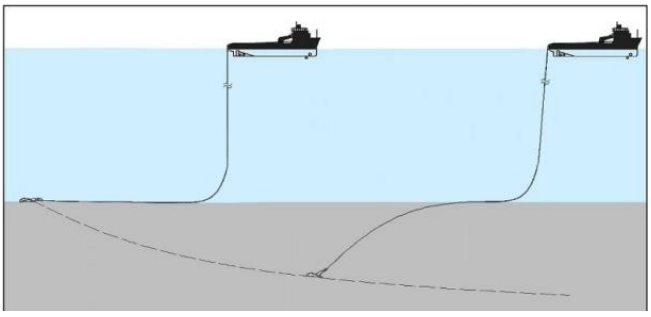
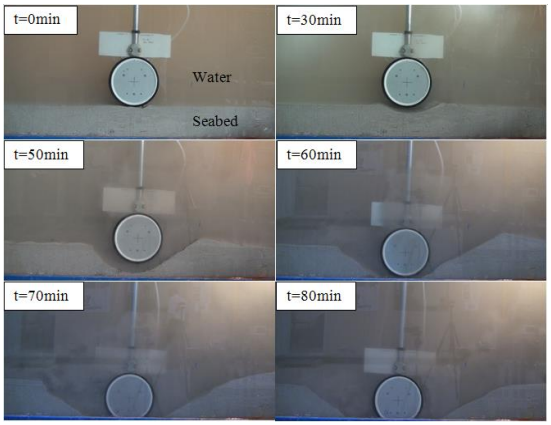
Editors: Shinji Sassa, Poul V. Lade, Li-zhong Wang, Y.K. Chow, Dong Sheng Jeng, Christophe Gaudin & Fuping Gao



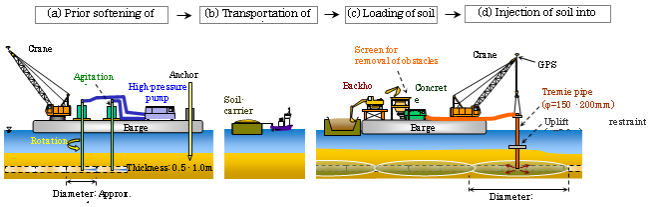
Computational representation of sand particles in the Eulerian -Lagrangian Modeling of coastal sediment transport (After Sun et al., 2014)



Sketch of the drag anchor installation and its FE model (After Liu and Zhao, 2014)



Seabed mobility and pipe movement modelled in the Large O-tube flume (After Luo et al., 2014)



Construction sequence for restoration of tidal flat (After Kumagai et al., 2014)

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EDITORIAL PANEL

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Preface

The theme of the 2014 December issue is Offshore and Coastal Geotechnics. The guest editors for this special issue are Dr. Shinji Sassa at Port and Airport Research Institute, Japan, Prof. Poul V. Lade at The Catholic University of America, USA, Prof. Li-zhong Wang at Zhejiang University, China, Prof. Yean K. Chow at National University of Singapore, Prof. Dong Sheng Jeng at Griffith University, Australia, Prof. Christophe Gaudin at University of Western Australia and Prof. Fuping Gao at Chinese Academy of Sciences. Dr. Dariusz Wanatowski at The University of Nottingham Ningbo, China contributed to the editorial management. Prof. Bala as the Editor-in-Chief and Dr. Teik A. Ooi as the President of SEAGS strongly supported the launch of this special issue on Offshore and Coastal Geotechnics.

The topics and scope covered in this special issue are comprehensive and interdisciplinary, ranging from Offshore Foundations, Seabed Liquefaction, Scour and Erosion, Marine Slope Stability and Geotechnical Aspects of Dredging and Reclamation Works to Tsunami-Seabed-Structure Interaction. The issue is comprised of twelve papers with a selection of the authors from eight countries involving Asia, Australia, Europe and USA.

Sumer summarizes recent research advances in seabed liquefaction through the use of standard wave-flume tests and centrifuge wave-soil modelling and mathematical approaches together with their implications for the stability of marine structures. Sun et al. develops and validates a new hybrid Eulerian-Lagrangian modelling framework of coastal current-induced sediment transport and sand dune migration. Liu and Zhao presents a numerical study of the penetration mechanism and kinematic behaviour of the drag anchor in soils by performing a large deformation finite element analysis. Wang et al. describes and discusses the results of a series of specially designed water flume tests on the response of silty soils under the action of combined waves and currents. Luo et al. proposes a new pipeline stability analysis method that takes into account the three-dimensional scour and pipe sinkage that were observed in an innovative large experimental facility, named the O-tube. Kohan et al. describes an improved analytical method for accurately predicting the offshore spudcan extraction resistance in soft clay and validates the method against a large database of centrifuge model tests. Jostad et al. develops and validates a new finite element procedure that accounts for 3D cyclic undrained degradation of soils with its application to a foundation design of offshore structures. Monkul et al. proposes volumetric compressibility (m_v) as an indicator of liquefaction potential for sands and silty sands that are ubiquitous in offshore and coastal deposits on the basis of a series of isotropic compression and undrained triaxial tests. Lee et al. investigates the seismic responses of a gently sloped liquefiable sand deposit confined within parallel walls of different geometry using centrifuge modelling and assesses the wall effects in relieving the excess pore pressures and the lateral spreading. Chen et al. numerically investigates the pullout behaviour of circular plate in normally consolidated clay and presents a direct design method for obtaining the uplift capacity of a circular plate anchor embedded in soils with a linearly increasing shear strength. Kumagai et al. presents and validates a new restoration method of artificial tidal flats by use of pressure injection of slurry dredge clay through the combined use of laboratory and field experiments and the finite element analyses. Sassa reports some recent research advances on tsunami-seabed-structure interaction and discusses the stability assessment for the design of tsunami-resistant structures from geotechnical and hydrodynamic perspectives.

We consider that this special issue presents and illustrates the outcome of some of the state-of-the-art research on Offshore and Coastal Geotechnics, and hope that it will make an important contribution to this growing field in the years to come.

Shinji Sassa
Poul V. Lade
Lizhong Wang
Yean K. Chow
Dong S. Jeng
Chiristophe Gaudin
Fuping Gao

Acknowledgement

The Year 2014 had been very successful in many ways. We were very fortunate to have an excellent Issue in March 2014 as edited by Prof. Buddima Indraratna and A/P Cholachat Rujikiatkamjorn. Prof. Buddhima Indraratna is currently Professor of Civil Engineering at the Faculty of Engineering, University of Wollongong. Concurrently, Buddhima is also the Research Director, Centre for Geomechanics and Railway Engineering; Program Leader, ARC Centre of Excellence in Geotechnical Science and Engineering; and Node Coordinator, CRC for Rail Innovation. This June Issue on Deep Foundations as edited by Prof. Tatsunori Matsumoto, Prof. Jurgen Grabe and Prof. Der Wen Chang have thirteen excellent papers. The authors of the papers and the editors of the June Issue are to be congratulated for that master-piece of work. A growing number of contributed papers were received for the journal. As such the September 2014 Issue was in two parts; Part 1 is on Centrifuge based Physical Modelling with Prof. B. Viswanatham as lead editor. There are six papers contributed in this part. Part 2 of the Issue is on contributed papers as edited by In-house Editors Dr. Ooi Teik Aun and Dr. Hanh Quang Le. We have always been keen to have a Special Issue on Centrifuge based Physical modelling. This December Issue on Offshore and Coastal Geotechnics is edited by Prof Shinji Sassa, Prof Poul V. Lade, Prof Lizhong Wang, Prof Yean K. Chow, Prof Dong S. Jeng, Prof Chiristophe Gaudin and Prof Fuping Gao. A Feature Story on "Challenges in the Design of Tall Building Foundations" by Prof Harry G. Poulos is also included for the first time in the Journal.

The Authors of the March 2014 Issue are from: Tokyo University of Science; University of Tokyo; Hokkaido Shinkansen Construction Bureau in Japan; University of Wollongong; Herriot-Watt University in UK; University of Technology Sydney; Geosyntec Consultants, Kennesaw; University of Wisconsin-Madison; Hokkaido University, Hokubu Consultants in Tokyo; University of Texas at Austin; National Highway Authority in Pakistan; Norwegian Public Roads Administration; Suranaree University of Technology in Thailand; Federal University of Rio de Janeiro, Brazil; Fluminense Federal University in Brazil; Fugro In-situ Geotechnica, Brazil; Smoltczky Partner, Germany; Indian Institute of Science, Bangalore in India;

The authors of the June Issue are from: University of Stuttgart, Germany; DB ProjectBau GmbH, Hannover, Germany; Hamburg University of Technology, Germany; HAMC University of Architecture, Vietnam; Kanazawa Graduate School of natural Science & Technology, Japan; South Vietnam Bridge Road Building Institute in Vietnam; Takanaka Corporation in Japan; Middle-East Technical University in Turkey; National Central University, Taiwan; National Tamkang University Taiwan; Hiroshima University in Japan; Nagoya Institute of Technology in Japan; University of Kassel, Germany; Technical University of Darmstart, Germany;

September 2014 Issue Authors are from: Tokyo University of Technology; Port and Airport Research Institute of Japan; Ruhr University of Bochum, Germany; Husker Geosynthetics GmbH, Gescher, Germany; Kyoto University, Japan; IFSTTAR at Nantes in France; IIT Bombay in India; NTPC Limited, Noida in India; National Institute of Ocean Technology, Chennai, in India; University of Transport & Communication, Vietnam; National Kaohsiung University of Applied Sciences, Taiwan; University of Lyon, France; Grenoble Alpes University, France; Polytecnico di Torino, Italy; Hanoi University of Mining & Geology, Vietnam; Ecole des Ponts Paris Tech, France; Nanyang Technological University, Singapore.

The December 2014 Issues have authors from: 1: Technical University of Denmark, Virginia Tech, Blacksburg, USA; Karlsruhe Institute of Technology Tianjin University, China; Chinese Academy of Sciences, China; University of Western Australia, Perth, Australia, Norwegian Geotechnical Institute, Norwegian University for Science and Technology, NTNU, Trondheim, Norway NGI Inc., Houston, Texas, USA; GS Engineering & Construction Corp., Seoul, South Korea; Yeditepe University, Istanbul, Turkey; The Catholic University of America, USA; Istanbul Technical University, Turkey; National Central University, Jhongli City, Taiwan, National University of Singapore; Fugro Singapore Pte Ltd, Singapore; Hiroshima University, Japan; Port and Airport Research Institute, Yokosuka,Japan

We have had remarkable Guest Editors since 2011. They all have done excellent job and so are the 2014 Issues. The Preface is excellent and Dr. Shinji Sassa and the co-editors are thanked for all their contributions and also summarised contents of the papers. This Issue and others in 2014 will be of great use to our Geotechnical Community in SE Asia and elsewhere.

Additionally, an attempt is made to have Feature Stories in the Issues starting with December 2014 Issue. These feature stories are to be written by invited authors as drawn from our international community with extensive and authoritative experience. Prof. Harry G Poulos accepted our invitation to have an article in the December 2014 Issue. This is to be followed by Prof. Robert Mair of Cambridge University on "Geotechnical Challenges encountered in the London Metropolitan Subway System", followed by Prof. Ikuo Towhata on "Coping with the Natural Hazards, Challenges in Japan and elsewhere". The subsequent one is by Dr. John Endicott of his "Decades of experience in Major Projects in Hong and Singapore". Prof. Harry G Poulos is thanked for helping to start this feature stories in our journal.

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

GEOTECHNICAL ENGINEERING

December-2014 Issue: Offshore and Coastal Geotechnics

Edited By Shinji Sassa, Poul V. Lade, Lizhong Wang, Yean K. Chow, Dong S. Jeng, Chiristophe Gaudin & Fuping Gao

Dr. Shinji Sassa

Dr. Shinji Sassa is Head of Soil Dynamics Group and Research Director of Asia-Pacific Center for Coastal Disaster Research (APaC-CDR) at Port and Airport Research Institute, Japan. He obtained his Dr. Eng. from Kyoto University. He is best known for his seminal works on wave-induced seabed liquefaction that have been extensively cited worldwide. His main research areas are Waterfront and Coastal Geotechnics, Subaqueous Sediment Gravity Flows and Ecological Geotechnics. These pioneer and address the multidisciplinary research encompassing Geotechnics, Hydraulic/Coastal Engineering, Geophysics and Ecology. He was an invited panelist, twice, at the 15th and 17th International Conference on Soil Mechanics and Geotechnical Engineering, ISSMGE. He has been a member of the International Geoscience Programme of United Nations Educational, Scientific and Cultural Organization on Submarine Mass Movements and Their Consequences, and served as a panelist leader at the UNESCO SMMTC conference in Kyoto 2011. He is also the Technical-Oversight-Committee nominated member of TC213 on Scour and Erosion of ISSMGE. He is the recipient of several distinguished awards, including the Commendation for Science and Technology by the Minister of Education, Culture, Sports, Science and Technology, the Best Paper Award twice and the Best Technical Development Award from the Japanese Geotechnical Society and the Presidential Award from PARI. His selected papers have been published in the world-leading journals in the diverse fields of geotechnics, geophysics and ecology such as Géotechnique, Journal of Geophysical Research, Geophysical Research Letters and Marine Ecology Progress Series concerning liquefaction, sediment transport and geomorphodynamics, submarine landslides, and benthic ecology in estuarine, coastal and marine area.

Prof. Poul V. Lade

Dr. Poul V. Lade joined The Catholic University of America (CUA) in Washington, D.C. in 2003. He was educated at the Technical University of Denmark in Copenhagen and received his Ph.D. degree at University of California at Berkeley in 1972. Before coming to CUA, he was on the faculty at UCLA for 21 years (1972-1993) before moving to The Johns Hopkins University in Baltimore (1993-1999) and to Aalborg University in Denmark (1999-2003). He was a member of Geotechnical Engineering Technical Group in Los Angeles from 1974 and he served as chairman in 1978-79.

Professor Lade's research interests in Geomechanics include experimental methods, three-dimensional stress-strain and strength behavior of soils during monotonic loading and large three-dimensional stress reversals, stability, instability and liquefaction of granular materials, time effects in soils, constitutive modeling of frictional materials such as soil, rock, and concrete employing elasticity and work-hardening, isotropic and kinematic plasticity theories, and deformation and stability analyses of foundation engineering problems. He has given numerous conference presentations and short courses on stress-strain behavior and constitutive modeling of soils in North America, Europe, Asia, and Australia/New Zealand. He has nearly 300 publications based on research performed with support from the National Science Foundation (NSF) and from the Air Force Office of Scientific Research (AFOSR). His Science Citation Index is approximately 3000 and his H-index is currently 29.

Professor Lade is a member of several geotechnical engineering societies and he currently serves as Editor for the Americas of Geomechanics and Engineering (Techno Press, Korea), and he serves on the Editorial Boards of six other journals dealing with Geomechanics and Geotechnical Engineering. He was awarded "Professor Ostenfeld's Gold Medal for original contributions to engineering science research on behavior and constitutive modeling of soils" from the Technical University of Denmark in 2001, and he was elected member of the Danish Academy of Technical Sciences in 2001.

Prof. Li-zhong Wang

Prof. Lizhong Wang is a vice dean of Civil Engineering and Architecture College, Zhejiang university, China. He earned his Phd in Zhejiang University in 1995 and became a Professor in 2000. He was a visiting scholar in NGI in 2006. Prof. Lizhong Wang has been long engaged in the research on marine soil mechanics and marine geotechnology. His research includes the constitutive behavior of marine soils,offshore pipelines, mooring systems, subsea tunneling,seabed geohazards and offshore wind turbine foundations.

Prof. Lizhong Wang was granted the first prize in Scientific and Technological Progress Award of Chinese Universities in 2011(Rank No.1). His research achievements were successfully applied in more than 20 major projects both at home and abroad. He was granted one national invention patent and four utility patents. Besides, he participated in establishing standards and engineering design guide. He has published 108 Journal papers, including 34 SCI-indexed and 60 EI-indexed papers. His research achievements were recognized by the international peers and he was appointed as an international external evaluator in the joint project of Bangladesh and Norway.He organized International symposium of coastal & offshore geotechnics in 2012.

Prof. Y.K. Chow

Professor CHOW Yean Khow joined the National University of Singapore (NUS) as a in 1982 and became a Professor in 1999. Prior to joining NUS, he practised as an offshore geotechnical engineer with Fugro Limited (UK), mainly involved in the design and installation of offshore foundations in the North Sea. He served as the Head of the Division of Geotechnical and Transportation Engineering from 1995 to 1998. He was the Deputy Head (Administration) of the Department of Civil Engineering from 1998 to 2000. From 2000 to 2003, he was Vice-Dean (Graduate Studies) and from 2003 to May 2008 Vice-Dean (Academic Affairs & Graduate Studies) of the Faculty of Engineering. He is the Executive Director of the Centre for Offshore Research & Engineering (CORE) from July 2008.

Professor Chow's main research interests are in offshore foundation engineering, offshore pipelines/risers, computational geomechanics, soil-structure interaction, piles and piled raft foundations, and effects of construction activities such as deep excavations and tunnelling on pile foundations. He has published extensively, with over 200 technical publications including over 80 in international refereed journals. He is on Editorial Board of the following international journals: International Journal of Geomechanics (ASCE), Computers and Geotechnics (Elsevier), and Geomechanics and Geoengineering (Taylor & Francis). He is a member of the Board of Directors of the International Association for Computer Methods and Advances in Geomechanics. He is a Registered Professional Engineer (Civil) and a Specialist Professional Engineer in Geotechnical Engineering in Singapore. He has served as geotechnical consultant to numerous projects in Singapore and the region.

Prof. Dong Sheng Jeng

Prof. Dong Sheng Jeng is currently at Division of Civil Engineering, the School of Engineering, Physics and Mathematics, University of Dundee. He was educated in National Chung-Hsing University in Taiwan and received his Doctoral Degree from the University of Western Australia. Prof. Jeng was also at the Griffith University and University of Sydney before as a staff member. Prof. Jeng has been working in the area of offshore geotechnics since 1993. His most significant contributions have been in the field of coastal geotechnical engineering, specifically issues associated with wave–seabed–structure interaction (WSSI), which have a major bearing on the understanding and construction of coastal structures. He established the first analytical solutions for the inherent problems of WSSI in 3D short-crested wave systems and revised the conventional consolidation equation for anisotropic seabeds with variable permeability to obtain closed-form solutions. His 3D models allow the determination of wave-induced oscillatory liquefaction in front of breakwaters under obliquely incident wave; this represents the most dangerous condition and one that cannot be dealt with using either 1D or 2D models. My analytical solutions have been widely used for verifying numerical simulations and for determining wave surface profiles using measured pore pressure in marine sediments. These solutions were the basis of a major chapter in 'The mechanics of scour in the marine environment' (Chapter 10, Sumer & Fredsøe, 2002) and have been widely used by coastal engineers for the prediction of wave-induced oscillatory liquefaction around marine structures and the installation of *in situ* facilities.

Currently, Prof. Jeng and his students are working on the development of poro-elastoplastic models for post-liquefaction and densification in marine sediment under dynamic loadings (such as waves, currents and earthquakes etc.). This is also part of his current EU project—MERMAID (2012-2016). They are also establishing new conceptual model for pore pressure accumulations in marine sediment with instant cyclic shear stresses, unlike the existing models based on the maximum cyclic shear stresses.

Prof. Jeng has won a large number of competitive research grants in offshore and coastal geotechnics and has published in most of the leading Geotechnical Engineering and other journals; His journal publications exceed over one hundred.

Prof. Christophe Gaudin

Prof. Gaudin graduated with a Doctorate in Engineering Science from the Ecole Centrale de Nantes in November 2002. He subsequently joined the Centre for Offshore Foundation Systems (COFS) in July 2003 and was appointed as Manager of the UWA centrifuge facilities. He was promoted Research Professorial Fellow in 2009 and hold since the position of Deputy Director of COFS. His research interests cover offshore anchoring systems and shallow foundations, pipeline-soil interaction and similitude principles associated with centrifuge modelling, for which he has authored 90+ referred publications.

As manager of the UWA centrifuge facilities and a team of 8 technicians, Prof Gaudin has focused on establishing centrifuge modelling techniques as an essential tool to assist the offshore industry in developing and designing foundation solutions. He has built a strong relationship with the offshore industry, raising over $3.5M of research funding and producing 50+ consulting reports.

Since 2010, Prof. Gaudin is the Chair of the Technical Committee for Physical Modelling on Geotechnics (TC104) of the International Society of Soil Mechanics and Geotechnical Engineering (ISSMGE), and the Chair of the 8th International Conference on Physical Modelling in Geotechnics to be held in Perth in 2014. His goals as TC Chair for the current term are notably to increase awareness of centrifuge modelling techniques and capabilities in the geotechnical engineering community, both in academia and industry, and to support the emergence of new centrifuge centres around the world.

Prof. Fuping Gao

Prof. Fuping Gao is a Principal Investigator at the Key Laboratory for Mechanics in Fluid Solid Coupling Systems (LMFS) and serving as the Director of Division of Science-Technology & Finance, Institute of Mechanics, CAS. He obtained his Master degree in Geotechnical Engineering from Beijing Jiaotong University, and PhD in Offshore Engineering Mechanics from Institute of Mechanics CAS. He was a visiting Research Assistant at Hong Kong University of Science and Technology (HKUST) in 2000; a Post-doctoral Research Fellow at the Griffith University, and the University of Western Australia (2001-2002).

His research activities involve offshore seabed/soil dynamics and fluid-structure-soil interaction modeling with applications in the offshore engineering, with recent focuses on stability analyses of submarine pipeline and riser systems, foundations for offshore renewable energy exploitation, etc. He serves as Vice Chair of the Technical Committee of Geotechnics of Soil Erosion, International Society of Soil Mechanics and Geotechnical Engineering (ISSMGE), TPC member of the International Society of Offshore and Polar Engineering (ISOPE); also serves on the editorial board of the Journal of Hydrodynamics, Theoretical and Applied Mechanics Letters, Chinese Journal of Geotechnical Engineering.

SPECIAL FEATURE STORY ON "Challenges in the Design of Tall Building Foundations"
by Prof Harry G Poulos

Prof Harry G. Poulos

Harry Poulos obtained a Civil Engineering degree from the University of Sydney in 1961, and then went on to do a PhD degree in Soil Mechanics, graduating in 1965. He worked with the consulting firm of McDonald Wagner and Priddle for a year before joining joined the Department of Civil Engineering at Sydney University in 1965. He was appointed a Professor in 1982, a position which he held until his retirement in 2001. In 1989, he joined the consulting firm of Coffey Partners International, and is currently a Senior Principal with Coffey Geotechnics. He is also an Emeritus Professor at the University of Sydney, and an Adjunct Professor at the Hong Kong University of Science and Technology.

He has published books and technical papers on foundation settlements, pile foundations, and offshore geotechnics. His main research interests continue to be in deep foundations and their application to high-rise buildings, and to problems relating to ground movements near foundations.

He has been involved in a large number of major projects in Australia and overseas including the Docklands Project in Melbourne, the Crown tower development in Sydney, Egnatia Odos highway project in Greece, high-rise foundation problems in Hong Kong, the Emirates twin Towers in Dubai. the Burj Khalifa tower in Dubai, the Incheon 151 Tower in Korea, and the Dubai tower in Doha, Qatar.

He was elected a Fellow of the Australian Academy of Science in 1988 and a Fellow of The Australian Academy of Technological Sciences and Engineering in 1996, and in 1999 was made an Honorary Fellow of the Institution of Engineers Australia. In 2010, he was elected a Distinguished Member of the American Society of Civil Engineers, the first Australian to receive this honour, and in 2014, he was elected as a Foreign Member of the US National Academy of Engineering.

He has received a number of awards and prizes, including the Kevin Nash Gold Medal of the International Society of Soil Mechanics and Geotechnical Engineering in 2005. He was the Rankine Lecturer in 1989 and the Terzaghi Lecturer in 2004, and was selected as the Australian Civil Engineer of the Year for 2003 by the Institution of Engineers Australia. In 1993, he was made a Member of the Order of Australia for services to engineering,

GEOTECHNICAL ENGINEERING

DECEMBER 2014: SPECIAL ISSUE ON Offshore and Coastal Geotechnics

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

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Paper Contribution, Technical notes and Discussions

SEAGS & AGSSEA encourage the submission of scholarly and practice-oriented articles to its journal. The journal is published quarterly. Both sponsors of the journal, the Southeast Asian Geotechnical Society and the Association of Geotechnical Societies in Southeast Asia, promote the ideals and goals of the International Society of Soil Mechanics and Geotechhnical Engineering in fostering communications, developing insights and enabling the advancement of the geotechnical engineering discipline. Thus the publishing ethics followed is similar to other leading geotechnical journals.Standard ethical behaviour of the authors, the editor and his editorial panel, the reviewers and the publishers is followed.

Before you submit an article, please review the guidelines stated herein for the manuscript preparation and submission procedures. Paper template is available upon request.
Geotechnical Engineering Journal accepts submissions via electronic. The manuscript file (text, tables and figures) in both words and pdf format together with the submission letter should be submitted to the Secretariat and copied to the Editor-in-Chief, Geotechnical Engineering Journal, c/o School of Engineering and Technology, Asian Institute of Technology, Room no. 211, AIT Library, Asian Institute of Technology, P.O. Box 4, Klong Luang, Pathumthani 12120, Thailand. Email: seags@ait.ac.th. Papers under review, accepted for publication or published elsewhere are not accepted. The guidelines for author are as follows:-

1. The manuscript including abstract of not more than 150 words and references must be typed in Times New Roman 9 on one side of A4 paper with a margin of 25 mm on each side. The abstract should be written clearly stating the purpose, scope of work and procedure adopted together with the major findings including a summary of the conclusions.
2. The paper title must not exceed 70 characters including spaces.
3. The maximum length of papers in the print format of the Journal is 12 two-column pages in single-spaced in Tines New Roman 9 including figures and tables. A Journal page contains approximately 1,040 words. Authors can approximate manuscript length by counting the number of words on a typical manuscript page and multiplying that by the number of total pages (except for tables and figures). Add word-equivalents for figures and tables by estimating the portion of the journal page each will occupy when reduced to fit on a 160 mm x 240 mm journal page. A figure reduced to one-quarter of a page would be 260 word-equivalents. When reduced, the figure must be legible and its type size no smaller than 6 point font (after reduction).
4. Figures: Line art should be submitted in black ink or laser printed; halftones and color should be original glossy art. Figures should be submitted at final width i.e. 90 mm for one column and 185 mm for two columns. The font of the legends should be in Times New Roman and should use capital letters for the first letter of the first word only and use lower case for the rest of the words. Background screening and grids are not acceptable.
5. Each table must be typed on one side of a single sheet of paper.
6. All mathematics must be typewritten and special symbols identified. Letter symbols should be defined when they first appear.
7. The paper must have an introduction and end with a set of conclusions.
8. Practical applications should be included, if appropriate.
9. If experimental data and/or relations fitted to measurements are presented, the uncertainty of the results must be stated. The uncertainty must include both systematic (bias) errors and imprecisions.
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14. REFERENCES

American Petroleum Institute (API) (1993). Recommended Practice for Planning, Designing and Constructing Fixed Offshore Platforms – Working Stress Design, API Recommended Practice 2AWSD (RP 2A-WSD), 20th edition, 1993, p191

Earth, J.B., and Geo, W.P. (2011). "Asian Geotechnical amongst Authors of Conference Publications", Proceedings of Int. Conference on Asian Geotechnical, publisher, city, pp 133-137.

Finn WDL and Fujita N. (2002). "Piles in liquefiable soils: seismic analysis and design issues," Soil Dynamics and Earthquake Engineering, 22, Issues 9-12, pp731-742

15. Discussions on a published paper shall be made in the same format and submitted within six months of its appearance and closing discussion will be published within twelve months.

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