VOLUME 2 No.1 & 2 March-June 2012 ISSN: 2186-2982 (Print) ISSN: 2186-2990 (Online)

Serial 3 & 4

International Journal of GEOMATE

Geotechnique, Construction Materials and Environment



http://www.gi-j.com/ geomate@gi-j.com

THE GEOMATE INTERNATIONAL SOCIETY

(Geotechnique, Construction Materials & Environment) ISSN: 2186-2982(Print), 2186-2990(Online)

<u>International Journal of GEOMATE is Abstracted/Indexed in:</u> "Gale, a Cengage Learning Company" Having soon: Science Citation Index Expanded, ProQuest, Ulrich, DOAJ, Ulrichsweb, SCOPUS, CAS, CSA, etc.

Editors-in-Chief:

- °E/Prof. Dr. Shoji Inoue, Mie University, Japan
- °A/Prof. Dr. Zakaria Hossain, Mie University, Japan

Associate Editors:

- °Prof. Dr. Fumio Tatsuoka, Tokyo University of Science, Japan
- °Prof. Dr. Sai Vanapalli, University of Ottawa, Canada
- °Prof. Dr. Ian Jefferson, University of Birmingham, United Kingdom
- Prof. Dr. Mounir Bouassida, National School of Engineering of Tunis
- °Prof. Dr. Bujang B.K. Huat, University Putra Malaysia, Malaysia
- °Prof. Dr. Nemy Banthia, University of British Columbia, Canada
- Prof. Dr. Toshinori Sakai, Mie University, Japan
- °Prof. Dr. A.S.M. Abdul Awal, University Technology Malaysia, Malaysia
- °Prof. Dr. Jing-Cai Jiang, University of Tokushima, Japan
- °Prof. Dr. Lilia Robles Austriaco, Angles University Foundation, Philippines
- Prof. Dr. Muhammad Ibn Ibrahimy, International Islamic University, Malaysia
- Prof. Dr. Shamsul I. Chowdhury, Roosevelt University, USA
- °Prof. Dr. Isabel Pinto, University of Coimbra, Portugal
- oA/Prof. Dr. Mark Jaksa, University of Adelaide, Australia
- °A/Prof. Dr. William Sebudde Kaggwa, University of Adelaide, Australia
- oA/Prof. Dr. Kingshuk Roy, Nihon University, Japan
- •A/Prof. Dr. Md. Shahin Hossain, Nagoya Institute of Technology, Japan
- °Engr. Dr. John N. Mukabi, President of Kenya Geotechncal Society, Kenya
- °A/Prof. Dr. Ranjith Pathegama Gamage, Monash University, Australia
- °A/Prof. Dr. Kaneco Satoshi, Mie University, Japan
- °A/Prof. Dr. Pedro Arrua, Universidad Tecnológica Nacional, Argentina
- °A/Prof. Dr. Miguel A. Pando, University of North Carolina, USA

Copyright @ 2012 by International Journal of GEOMATE

All rights reserved. In principle, no part of this publication or the information contained herein may be reproduced in any form or by any means, translated in any language, stored in any data base or retrieval system, or transmitted in any form or by any means without prior permission in writing from the publisher.

Disclaimer: The editors and the publisher have tried their best effort to ensure integrate and the quality of this publication and information herein. However, they give no warranty of any kind, expressed or implied with regard to the material contained in this journal, and will not be liable in any event for the consequences of its use.

Publisher: The GEOMATE International Society

Place of publication: Tsu city, Mie, Japan

Contact: Editor-in-Chief, Dr. Zakaria Hossain, Associate Professor, Graduate School of Bioresources, Mie University, 1577 Kurimamachiya, Tsu city, Mie 514-8507, Japan

E-mail: geomate@gi-j.com, URL: http://www.gi-j.com

Tel & Fax: +81-59-231-9578

(Geotechnique, Construction Materials & Environment) ISSN: 2186-2982(Print), 2186-2990(Online)

Founded in 2011, *The "International Journal of GEOMATE*" is a Scientific Journal of the GEOMATE International Society that encompasses a broad area in Geotechnique, Construction Materials and Environment. The key objective of this journal is to promote interdisciplinary research from various regions of the globe. The editorial board of the journal is comprised of extensively qualified researchers, academicians, scientists from Japan and other countries of the world. It is peer-reviewed journal that is published quarterly. All articles published in this journal are available on line. Contributors may download the manuscript preparation template for submitting paper or contact to the Editors-in-Chief [geomate@gi-j.com].

Aims and Scopes:

The journal aims to become an efficient mean of publishing and distributing high quality information from the researchers, scientists and engineers. The main scopes are as follows:

- Advances in Composite Materials
- Computational Mechanics
- Foundation and Retaining Walls
- Slope Stability
- Soil Dynamics
- Soil-Structure Interaction
- Pavement Technology
- Tunnels and Anchors
- Site Investigation and Rehabilitation
- Ecology and Land Development
- Water Resources Planning
- Environmental Management
- Earthquake and Tsunami Issues
- Safety and Reliability
- Geo-Hazard Mitigation
- Case History and Practical Experience
- Others

Review Policy:

- The paper which meets the editorial criteria will be assigned to at least two anonymous reviewers for peer-review.
- Authors may recommend some reviewers however, Editors are entitled to consider them or not.
- The Editorial Board consists of an outstanding group that is responsible for the review process of the submitted manuscripts and will guarantee the quality of the publication.
- The manuscript will be published as soon as it is accepted and all the modifications recommended by the reviewers are made.
- The review procedure is as strict as in the most prestigious journals, but publication time is minimized.
- Based on the reviewers' comments, the Editors will make a decision on a paper as one of the following four conditions:
- 1. Accept without revision
- 2. Accept with minor revision
- 3. Encourage to resubmit with major revision
- 4. Reject

In case of acceptance with either minor or major revisions, the authors will be advised to revise the manuscript according to the reviewers' comments.

(Geotechnique, Construction Materials & Environment) ISSN: 2186-2982(Print), 2186-2990(Online)

Paper Submission Guidelines:

- The submitted manuscript should be prepared using the formatted template of the manuscripts.
- Download the Manuscript Formatting Template (Paper Template) from the "Paper Template- Copyright menu" of http://www.gi-j.com.
- The paper to be submitted adheres to the rules and guidelines given in "Paper Template".
- The paper should be written in English according to the "Paper Template".
- The page limit is 8 pages for ordinary paper and 10 pages for invited paper.
- The references inside the text and in the bibliographic list should follow the formats as per the "Paper Template".
- All Figures, Graphs and Tables must follow the font-style of the text. Ensure clear and good quality picture in the first submission.
- Selected papers from GEOMAT Conference Presentation (http://geomat2012.webs.com) will be reprinted in the journal with nominal charges based on the agreement of the authors.
- Accepted papers which were not presented in GEOMAT Conference need publication charges of 40000yen. GEOMATE members will be honored 50% discount.
- Any page or fraction thereof exceeding page limit will be charged 10000yen per page.
- Submission method: Submit full paper online using "Paper Submission" menu. It is recommended to send the full paper by E-mail attachment also to Editors-in-Chief [geomate@gi-j.com] along with "Authors Information" indicated in the paper submission form.
- Copyright release form is to be e-mailed separately along with paper submission. Download it from the "Copyright Menu" from the journal web page.
- The journal will also be printed in hard copies in two volumes per year. Corresponding author is entitled to receive one volume of the published journal free of charge. It becomes available at cost for libraries and any interested parties.
- For any questions: Contact us [geomate@gi-j.com].

Membership Fees: Regular Member 10,000yen/year; Life Member 50,000yen only.

Membership Benefits:

- Receive Membership ID/Card
- Use M.G. or L.M.G. after your name (M=Member, G=Geomate, L=Life)
- Be involved in GEOMATE technical committees and activities
- Receive Journal of GEOMATE and be up-to-date on the current development in the field
- Priority right to participate in international conferences with 20% discount
- 50% discount for Journal paper publication
- Vote in the election of GEOMATE officers
- Access to the Journal webpage

Membership Application/Paper Submission Form (send the related items below by e-mail attachments):

• Full Name:
Title/Position (check one): □ Prof. □ A/Prof. □ Dr. □Mr. □Ms.
Membership Category (check one): □ Regular Member □ Life Member □ Others
• Address: • Tel & Fax:
• E-mail (co-authors email separated by comma):
Research Area (check one): □ Geotechnique □ Construction Materials □ Environment □ Others
• Paper Title: • Abstract:
• Type of Paper (check one): □ Original Paper □ Review Paper □ Research Report □ Others
• Recommend Reviewer 1 (Name, E-mail & Affiliation):
• Recommend Reviewer 2 (Name, E-mail & Affiliation):
• Recommend Reviewer 3 (Name, E-mail & Affiliation):

(Geotechnique, Construction Materials & Environment) ISSN: 2186-2982(Print), 2186-2990(Online)

Vol.2, No.1, Serial 3:

Evaluation on the Results of Multistage Shear Test by <i>Hormdee D., Kaikeerati N., and Angsuwotai P.</i>	140-143
BioClean and Liquid Biofertilizers a New Way to the Green Area by Sittisak Uparivong	144-147
Load Settlement Relationships of Circular Footings Considering Dilatancy Characteristics of Sand by Yusuke Tomita, Tatsuaki Nishigata, Takeshi Masui and Shintaro Yao	148-153
GIS-Based Soil Liquefaction Hazard Zonation due to Earthquake Using Geotechnical Data by Bhuyan Md. Habibullah, Rama Mohan Pokhrel, Jiro Kuwano and Shinya Tachibana	154-160
Development of Functional Carbon Nanotubes -Asphalt Composites by Tatsuo Shirakawa, Akio Tada and Noriyasu Okazaki	161-165
The Relationship between Soil Suction and the Maximum Unsaturated Undrained Shear Strengths of Compacted Khon Kaen Soil by R. Nuntasarn and Veerawat Wannakul	166-170
Ultimate Strength and Fatigue Life of Concrete Elements Reinforced with Carbon Fiber Sheet Based on Continuum Damage Mechanics by Hidenori Tanaka and Yutaka Toi	171-178
Post-Earthquake Rapid Inspection Planning for Bridges in Western Kentucky by Norimitsu Koike and Issam E. Harik	179-184
An Aquatic Environment Assessment Model for the Comprehensive Assessment of Environmental Measures in Metropolitan Areas by Tetsuo Morita, Tsuyoshi Baba, Hiroshi Sugita, Kazuhiro Nomura, Shinya Tsukada and Takashi Hashimoto	185-190
Changes and Issues in Green Space Planning in the Tokyo Metropolitan Area: Focusing on the "Capital Region Plan by Tetsuo Morita1, Yoshihide Nakagawa, Akinori Morimoto, Masateru Maruyama and Yoshimi Hosokawa	191-196
Design of Single Pile Foundations Using the Mechanics of Unsaturated Soils by Vanapalli S. and Taylan Z.N.	197-204

(Geotechnique, Construction Materials & Environment) ISSN: 2186-2982(Print), 2186-2990(Online)

Vol.2, No.2, Serial 4

Updating Predictive Models for Vertical Swell Percentage of Expansive Clays by Moshe Livneh	205-212
Experimental Development of New Type Reinforced Soil Wall by Hara T, Tsuji S, Yoshida M, Ito S and Sawada K	213-218
Experiments and Numerical Modeling of a Rockfall Protective Wire Rope Fence by Phuc Tran Van and Koji Maegawa	219-226
Removal of Copper from Water by Adsorption onto Banana Peel as Bioadsorbent by M. A. Hossain, H. Hao Ngo, W. S. Guo and T. V. Nguyen	227-234
Changes in the Residents' Consciousness due to Environmental Improvements After Consolidation of Municipalities by Takashi Hashimoto, Akira Yuzawa, Tetsuo Morita and Shinya Tsukada	235 240
A Study on Evaluation of Quality of Life in Consideration of Water/Green Environment by Tetsuo Morita, Yoshihito Kogure, Hiroshi Sugita, Tsuyoshi Baba, Shin-ya Tsukada, and Naoki Miyazato	241-246
Study on Evaluating Rock Block Stability by Using A Remotely Positioned Laser Doppler Vibrometer by Guichen Ma, Kazuhide Sawada, Hideki Saito, Fumiaki Uehan and Atsushi Yashima	247-252
Buckling Behavior of Composite Triangular Plates by T. Farsadi, E. Heydarnia and P. Amani	253-260
Response of Tapered Piles under Lateral Harmonic Vibrations by Ahmad Dehghanpoor, Mahmoud Ghazavi	261-265
A Review of Electrokinetic Treatment Technique for Improving the Engineering Characteristics of Low Permeable Problematic Soils by Nasim Mosavat, Erwin Oh and Gary Chai	266-272