

ISSN: 2186-2990

DOI: <http://dx.doi.org/10.21660/geomate>



Scopus

EBSCO

CENGAGE Learning



GIF
GLOBAL IMPACT FACTOR



VOLUME 13
Issue 35 & 36
July-August 2017

International Journal of GEOMATE

(Geotechnique, Construction Materials and Environment)



Tsu, Japan

THE GEOMATE INTERNATIONAL SOCIETY

<http://www.geomatejournal.com/>

INTERNATIONAL JOURNAL OF GEOMATE

(Geotechnique, Construction Materials & Environment)

ISSN: 2186-2982(Print), 2186-2990(Online)

International Journal of GEOMATE is Abstracted/Indexed in: SCOPUS, Web of Science Emerging Sources Citation Index (ESCI), EBSCO, Global Impact Factor (GIF), Gale (a Cengage Learning Company), ULRICHSWEB, Global Serials Directory, etc.

Impact Factor (by GIF): 2015: 1.009; 2014: 0.987; 2013: 0.825; 2012: 0.714

Paper acceptance rate: 2015: 35.28%; 2014: 37.5%; 2013: 38.71%; 2012: 46.66%; 2011: 61.53%

Honorary Editor

Prof. Dr. Shoji Inoue, Professor Emeritus, Mie University, Japan

Editor-in-Chief:

Prof. Dr. Zakaria Hossain, Mie University, Japan

Assistant to Editor-in-Chief:

Dr. Jim Shiau, University of Southern Queensland, Australia

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

Prof. Dr. Kaneco Satoshi, Mie University, Japan

Prof. Dr. Mohammad Shariful Islam, BUET, Bangladesh

Prof. Dr. Mark Jaksa, University of Adelaide, Australia

Prof. Dr. Kingshuk Roy, Nihon University, Japan

Prof. Dr. Md. Shahin Hossain, Islamic University of Technology, Bangladesh

Prof. Dr. Ranjith Pathegama Gamage, Monash University, Australia

Prof. Dr. Pedro Arrua, Universidad Tecnológica Nacional, Argentina

Prof. Dr. Miguel A. Pando, University of North Carolina, USA

Full list of sub-editors and editorial assistants are given in the web page.

Copyright © 2017 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, Professor, Graduate School of Bioresources,

Mie University, 1577 Kurimamachiya, Tsu city, Mie 514-8507, Japan

E-mail: editor@geomatejournal.com, URL: <http://www.geomatejournal.com/>

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

INTERNATIONAL JOURNAL OF GEOMATE

(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 [editor@geomatejournal.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.

INTERNATIONAL JOURNAL OF GEOMATE

(Geotechnique, Construction Materials & Environment)

ISSN: 2186-2982(Print), 2186-2990(Online)

Instruction to Author:

- The manuscript to be submitted should be prepared using the manuscripts submission template.
- Download the manuscript formatting template from download files menu.
- The manuscript to be submitted adheres to the rules and guidelines given in manuscript template.
- The manuscript should be written in English according to the manuscript template.
- The page limit is 8 pages for ordinary manuscript and 10 pages for invited manuscript.
- The references inside the text and in the bibliographic list should follow the formats as per the manuscript 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 manuscript from "GEOMATE Conference Presentation" will be reprinted in the journal with nominal charges (40% discount of regular fees) based on the agreement of the authors.
- Accepted papers which were not presented in "GEOMATE Conference" need publication charges of 600 USD as regular fees. Any page or fraction thereof exceeding page limit will be charged 100 USD per page.
- This is required for its maintenance such as managing article submission and peer review, typesetting, tagging and indexing of articles, hosting articles on dedicated servers, supporting sales and marketing costs to ensure global dissemination via different databases, and permanently preserving the published journal article.
- Copyright: GEOMATE required to obtain copyright of papers from authors for the term of copyright by signing and returning the publishing agreement.

Manuscript Submission Method:

- Submit full manuscript online using "Submission" menu. We accept online submission only.
- Copyright release form to be e-mailed separately along with manuscript submission. Download it from the "Download Files Menu".
- Abolition of printed version: Considering environmental conservation, the paper version has been discontinued since June 2016.
- For any questions: Contact us [editor@geomatejournal.com].

Membership Fees: Regular Member 100USD/year; Life Member 900USD 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
- Be up-to-date on the current development in the field
- Priority right to participate in international conferences with 20% discount
- 20% discount for Journal paper publication
- Vote in the election of GEOMATE officers
- Access to the Journal webpage

Membership Application (send the related items below using online form):

- 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

INTERNATIONAL JOURNAL OF GEOMATE

(Geotechnique, Construction Materials & Environment)

ISSN: 2186-2982(Print), 2186-2990(Online)

STATEMENT ON PUBLICATION ETHICS AND PUBLICATION MALPRACTICE (1/2)

The International Journal of GEOMATE is a double blind peer-reviewed journal. All parties involved in the act of publishing an article for this journal, i.e.: the editors, the author, the peer-reviewers and the publisher must follow the ethical behavior indicated in the COPE's Best Practice Guidelines for Journal Editors. In order to warrant high-quality scientific publications, public trust in scientific findings, and that people receive credit for their ideas, the ethical standards for publication are followed.

DUTIES OF EDITORS

Decision on the Publication of Article: Based on the double blind peer review of a paper, the Chief Editor and the Associate Editor are responsible for deciding which of the articles accepted for publication. Neither the Chief Editor nor the Associate Editor have the authority to influence the reviewers who are conducting the blind review of the articles submitted for peer review. The Chief Editor and the Associate Editor may be guided by the policies of the journal's Editorial Board and subjected to such legal requirements regarding libel, copyright infringement and plagiarism.

Honest Play: Manuscripts submitted to GEOMATE shall be exclusively evaluated based mainly on their intellectual quality and significance. GEOMATE will not give any consideration on authors' race, gender, sexual orientation, religious beliefs, ethnic origin, citizenship, or political philosophy.

Confidentiality: The Chief Editor, the Associate Editor and any editorial staff must not disclose any information about a submitted manuscript to anyone other than the corresponding author, reviewers, potential reviewers, other editorial advisers, and the publisher.

Disclosure and Conflicts of Interest: Unpublished materials disclosed in a submitted manuscript must not be used by anyone who has a view of the manuscript (while handling it) in his or her own research without the express written consent of the author.

DUTIES OF REVIEWERS

Contribution of Double Blind Peer Review: Any identifying information will be stripped out from the submitted paper so that the reviewers do not know any information about the authors and vice versa i.e.: reviewers' comments to the editors are confidential and before passing on to the authors, it will be made anonymous. The Double Blind Peer review assists the reviewers in making editorial decisions, while editorial communications with the author may also assist the author in improving the manuscript. The names of the reviewers known only to the Chief Editor and the Associate Editor and it remains strictly confidential to authors.

Punctuality: Any selected referee who feels unqualified to review the assigned manuscript or unable to provide a prompt review should notify the Chief Editor and the Associate Editor and excuse himself/herself from the review process.

Confidentiality: Private information or ideas obtained through double blind peer review must be kept confidential and not used for personal advantage. Manuscripts received for review must be treated as confidential documents. Without any authorization by the Chief Editor and the Associate Editor, the information of the submitted manuscript must not be shown to, or discussed with, others.

Standards of Objectivity: There shall be no personal criticism of the author. Reviewers should express their views clearly with supporting arguments and reviews should be conducted objectively.

Acknowledgment of Sources: Authors should cite relevant references and corresponding citation if any statement in the submitted paper had been previously published or reported elsewhere. Reviewers should identify relevant published work that has not been cited by the authors. If a reviewer finds any substantial similarity or overlap between the submitted manuscript and any other published works, s/he should inform to the Chief Editor/Associate Editor's.

Conflict of Interest: In any reviewers find that the submitted manuscript has conflicts of interest resulting from competitive, collaborative, or other relationships or connections with any of the authors, companies, or institutions, s/he should not review that manuscripts and notify to the Chief Editor/Associate Editor's promptly.

DUTIES OF AUTHORS

Reporting Standards: Authors of papers of original research should present an accurate account of the work performed as well as an objective discussion of its significance. Underlying data should be represented accurately in the paper. A manuscript should contain sufficient detail and references to permit others to replicate the work. Fraudulent or knowingly inaccurate statements constitute unethical behavior and are unacceptable.

Data Access and Retention: Authors may be asked to provide the raw data in connection with a paper for editorial review, and should be prepared to provide such data for public access or for access to the readers of the journal.

Originality and Plagiarism: The authors should ensure that they have written entirely original works, and if the authors have used the work and/or words of others, this must be appropriately cited or quoted. All papers published by International Journal of GEOMATE are committed to publishing only original material, i.e., material that has neither been published elsewhere, nor is under review elsewhere. Paper that are found to have been plagiarized from a manuscript by other authors, whether published or unpublished, will incur plagiarism sanctions.

INTERNATIONAL JOURNAL OF GEOMATE

(Geotechnique, Construction Materials & Environment)

ISSN: 2186-2982(Print), 2186-2990(Online)

STATEMENT ON PUBLICATION ETHICS AND PUBLICATION MALPRACTICE (2/2)

Acknowledgment of Sources: Proper acknowledgment of the work of others must always be given. Authors should cite publications that have been influential in determining the nature of the reported work.

Manipulation of Citations: Submitted papers that are found to include citations whose primary purpose is to increase the number of citations to a given author's work, or to articles published in a particular journal, will incur sanctions for manipulation of citations.

Falsification and Fabrication: Submitted papers that are found to have either falsified or fabricated numerical/experimental results, including the manipulation of images, will incur data fabrication and falsification sanctions.

Authorship: The authorship of a paper should be limited to those who have made a significant contribution to the conception, design, execution, or interpretation of the reported study. All those who have made significant contributions should be listed as co-authors. Where there are others who have participated in certain substantive aspects of the research project, they should be acknowledged or listed as contributors.

Scientific Contribution: All listed authors must have made a significant scientific contribution to the research in the manuscript and approved all its claims. It is important to list everyone who made a significant scientific contribution, including students and laboratory technicians.

Corresponding Author: Corresponding Author is the author responsible for communicating with the journal for publication. The corresponding author should ensure that all appropriate co-authors and no inappropriate co-authors are included on the paper, and that all co-authors have seen and approved the final version of the paper and have agreed to its submission for publication.

Acknowledgment of Funding Sources: Funding sources for the research reported in the manuscript should be duly acknowledged after the conclusion and before the list of references.

Disclosure and Conflicts of Interest: All sources of financial support for the project or any substantive conflict of interest that might be interpreted to influence the results of the paper should be disclosed.

Fundamental Errors in Published Works: It is the author's responsibility to promptly notify the Chief Editor/Associate Editor if s/he discovers a significant error or inaccuracy in his/her own published work to retract or correct the paper.

Redundant, Concurrent or Multiple Publications: An author should not in general publish manuscripts describing essentially the same research in more than one journal or primary publication. Manuscripts that are found to have been published elsewhere, or to be under review elsewhere, will incur duplicate submission/publication sanctions. If authors have used their own previously published work, or work that is currently under review, as the basis for a submitted manuscript, they are required to cite the previous work and indicate how their submitted manuscript offers novel contributions beyond those of the previous work. Submitting the same manuscript to more than one journal concurrently constitutes unethical publishing behavior and is unacceptable. Redundant publications involve the inappropriate division of study outcomes into several articles.

SANCTIONS

In the event that there are documented violations of any of the above mentioned policies in any journal, regardless of whether or not the violations occurred in a journal published by GEOMATE, the following sanctions will be applied:

- *Immediate rejection of the infringing manuscript.*
- *Immediate rejection of every other manuscript submitted to GEOMATE by any of the authors of the infringing manuscript.*
- *Prohibition against all of the authors for any new submissions to GEOMATE, either individually or in combination with other authors of the infringing manuscript, as well as in combination with any other authors. This prohibition will be imposed for a minimum of five years.*
- *Prohibition against all of the authors from serving on the Editorial Board of the International Journal of GEOMATE*

In cases where the violations of the above policies are found to be particularly outrageous, the publisher reserves the right to impose additional sanctions beyond those described above.

INTERNATIONAL JOURNAL OF GEOMATE

(Geotechnique, Construction Materials & Environment)

ISSN: 2186-2982(Print), 2186-2990(Online)

Volume 12, Issues 35

EVALUATING THE RELATIONSHIP BETWEEN DYNAMIC SHEAR MODULUS AND NANO SCALE MODULUS OF ASPHALT BINDERS AT DIFFERENT AGING CONDITIONS by Hasan M. Faisal, Umme A. Mannan, Rafiqul A. Tarefder, and Md Arifuzzaman	1-7
STRENGTH AND DEFORMATION CHARACTERISTICS OF EPS BEAD-MIXED SAND by Agawit Thaothip and Warat Kongkitkul	8-15
INFLUENCE OF PULLING OUT EXISTING PILES ON THE SURROUNDING GROUND by Shinya Inazumi, Tsutomu Namikawa, Shuichi Kuwahara and Shin-ichi Hamaguchi	16-21
GEOTECHNICAL REQUIREMENTS FOR CAPTURING CO ₂ THROUGH HIGHWAYS LAND by M. Ehsan Jorat, Ben W. Kolosz, Mark A. Goddard, Saran P. Sohi, Nurten Akgun, Dilum Dissanayake and David A.C. Manning	22-27
DRAINED SHEAR STRENGTH OF COMPACTED KHON KAEN LOESS by R Nuntasarn and W. Wannakul	28-33
UTILIZATION OF TOFU LIQUID WASTE GENERATED FROM ANAEROBIC PROCESSING IN COMPOST PREPARATION by M. Faisal	34-39
EVALUATION OF DIFFERENT FIBER REINFORCED MORTAR AS RETROFITTING MATERIALS FOR RC COLUMNS Bernardo A. Lejano	40-47
THE EXPERIMENTAL DESIGN AND CARBON FOOTPRINT ASSESSMENT OF NON-GLAZED FLOOR TILES by Karin Kandananond	48-53
INFLUENCE OF CLAYSTONE DETERIORATION ON SHEAR STRENGTH OF BACKFILL by Pisut Rodvinij and Pitiwat Wattanachai	54-59
EARTHQUAKE ATTENUATION MODELS AND ITS RESPONSES TO EARTH ZONE DAM IN UPPER NORTHERN PART OF THAILAND by Tawatchai Tanchaisawat, Sirikanya Laosuwan and Nutapong Hirano	60-65
PROPERTIES OF SOIL-CEMENT BLOCKS MANUFACTURED USING PRODUCED WATER FROM OIL FIELDS: A PRELIMINARY INVESTIGATION by Khalifa S. Al-Jabri, A. W. Hago, Mahad Baawain and Gyanendra Sthapit	66-72
EXTRATING METHOD OF DEFORMED PART BY MICROTREMOR ON STONE WALLS OF JAPANESE TRADITIONAL CASTLE by Minoru Yamanaka, Hayato Ishigaki, Katsuhiko Koizumi, Shuichi Hasegawa and Hiroyuki Araki	73-79
DAMAGE QUANTIFICATION OF BEAMS USING FREQUENCY SIGNATURE by Bryan Josef T. Medrano and Lessandro Estelito O. Garciano	80-86
MODELLING OF CARBONATION OF REINFORCED CONCRETE STRUCTURES IN INTRAMUROS, MANILA USING ARTIFICIAL NEURAL NETWORK by Richard M. De Jesus, Joshua A. M. Collado, Jemison L. Go, Mike A. Rosanto, and John L. Tan	87-92
MATHEMATICAL MODELING OF FOREST FIRES INITIATION, SPREAD AND IMPACT ON ENVIRONMENT by Valeriy Perminov and Alexander Goudov	93-99
ARCHAEOLOGICAL OBJECTS AS ELEMENTS OF INFORMATIONAL LIFE SUPPORT SYSTEM AND SOURCES OF INFORMATION ABOUT THE EVOLUTION OF THE ENVIRONMENT by Alina Paranina	100-107
INVESTIGATION OF POTENTIAL ALKALI-SILICA REACTIVITY OF AGGREGATE SOURCES IN THAILAND by Suvimol Sujjavanich, Krit Won-In, Thanawat Meesak, Watcharagon Wongkamjan and Viggo Jensen	108-113
COMPARATIVE ANALYSIS OF NEW GEOMATERIALS AND EMBANKMENT CONSTRUCTION METHODS CONSIDERING RECYCLING by Hideyuki Ito, Koichi Yamanaka, Hideo Noguchi, Takahiro Fujii and Kunio Minegishi	114-119
3D NUMERICAL MODEL IN NONLINEAR ANALYSIS OF THE INTERACTION BETWEEN SUBSOIL AND SFCR SLAB by Jana Labudkova and Radim Cajka	120-127

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

Volume 12, Issues 35

EXPERIMENTALLY MEASUREMENT AND ANALYSIS OF STRESS UNDER FOUNDATION SLAB By Marek Mohyla, Karel Vojtasik, Martin Stolarik, Miroslav Pinka and Hynek Lahuta	128-135
GENETIC DIVERSITY AND GENETIC STRUCTURE OF AN ENDANGERED SPECIES, ERIOCAULON NUDICUSPE, GROWING IN ARTIFICIAL DISTURBING HABITATS by Michiko Masuda, Tadamasa Fukagawa and Fumitake Nishimura	136-143
NUMERICAL MODELING OF CENTRIFUGE TEST PROCEDURE FOR DIFFERENT EMBANKMENT CASES by Ali Sobhanmanesh, Ramli Nazir, Tan Choy Soon and Deprizon Syamsunur	144-150
FIELD PERFORMANCE OF TRANSITION RIGID PILED EMBANKMENT WITH SURCHARGED VERTICAL DRAIN OVER SOFT GROUND by Ramli Nazir, Hossein Moayedi, Puspanathan Subramaniam and See-Sew Gue	151-155
ANALYSIS OF EXTREME RAINFALL-INDUCED SLOPE FAILURE USING A RAINFALL INFILTRATION-INFINITE SLOPE ANALYSIS MODEL by Thapthai Chaithong	156-165
FATIGUE RESISTANCE OF SURFACE TEMPERATURE REDUCING PAVEMENT UNDER FIXED-POINT LOAD by Hiroshi Higashiyama and Masanori Sano	166-173
EVALUATION OF SOIL REINFORCED WITH GEOGRID IN SUBGRADE LAYER USING FINITE ELEMENT TECHNIQUES by Saad Farhan Ibrahim AlAbdullah and Noor Sabah Taresh	174-179
UNDRAINED SHEAR STRENGTH OF LOW DOSAGE CEMENT-SOLIDIFIED DREDGED MARINE SOILS (DMS) FOR RECLAMATION WORKS by Nurul Syakeera Nordin and Chee-Ming Chan	180-186

INTERNATIONAL JOURNAL OF GEOMATE

(Geotechnique, Construction Materials & Environment)

ISSN: 2186-2982(Print), 2186-2990(Online)

Volume 12, Issues 36

DETERMINING PEAK DISCHARGE FACTOR USING SYNTHETIC UNIT HYDROGRAPH MODELLING (CASE STUDY: UPPER KOMERING SOUTH SUMATERA, INDONESIA) by Rosmalinda Permatasari , Dantje Kardana Natakusumah and Arwin Sabar	1-5
IMPROVING BIOSORPTION OF CU(II)-ION ON ARTIFICIAL WASTEWATER BY IMMOBILIZED BIOSORBENT OF TROPICAL MICROALGAE by Astri Rinanti, Melati Ferianita Fachrul, Rositayanti Hadisoebroto and Mawar Silalahi	6-10
SELF-ORGANIZING MAP BASED SURROGATE MODELS FOR CONTAMINANT SOURCE IDENTIFICATION UNDER PARAMETER UNCERTAINTY by Shahrbanoo Hazrati Y. and Bithin Datta	11-18
PLASTICITY INDEX EFFECTS ON MECHANICAL BIFURCATION: SOILS AND SOFT-SEDIMENT DEFORMATION by Naoto Kaneko, Jun Muto and Hiroyuki Nagahama	19-25
EFFICIENCY OF PUBLIC TRANSPORTATION USING GLOBAL NAVIGATION SATELLITE SYSTEM (GNSS) by Riza Putera, Anisa Santoso, Irene Sondang, Oky Pratama, Garrin Nandhito and Esty Suyanti	26-30
THE INTEGRATION OF GEOGRAPHY INFORMATION SYSTEM (GIS) AND GLOBAL NAVIGATION SATELLITE SYSTEM-REAL TIME KINEMATIC (GNSS-RTK) FOR LAND USE MONITORING by Komara Djaja, Riza Putera, Akmal Fathu Rohman, Irene Sondang, Garrin Nanditho and Esty Suyanti	31-34
EFFICIENCY OF POLYSTYRENE INSULATED CEMENT BLOCKS IN ARID REGIONS by Muawia A Dafalla and Mohammed I. Al Shuraim	35-38
FOOTING WITH INVERTED PYRAMIDAL PROTRUSIONS FOR SETTLEMENT CONTROL IN SANDY DEPOSITS by Chee-Ming Chan and Muhammad Arif Amzar Mohd. Yusuf	39-43
RELIABILITY ANALYSIS OF REINFORCED CONCRETE SLAB BRIDGES by Ali Mahmoud, Shadi Najjar, Mounir Mabsout, and Kassim Tarhini	44-49
DOMESTIC RECHARGE WELLS FOR RAINWATER-HARVESTING IN DENPASAR CITY, BALI – INDONESIA by Lilik Sudiajeng, I Wayan Wiraga, I Gusti Lanang Parwita and Gede Santosa	50-57
A MODEL OF PARTICIPATION IN A WATER REHABILITATION PROJECT OF A LOCAL GOVERNMENT UNIT IN THE PHILIPPINES by Gerby R. Muya, Merlita Medallon and Nelson Tenorio,	58-63
ESTIMATING FLEXURAL RELIABILITY OF CARBONATED RC BRIDGE BEAMS USING PARTICLE FILTER by Jonathan Sanchez, Samantha Louise Jarder, Nestor de Ocampo, Allen Teruel and Lessandro Estelito O Garciano	64-69
SIMPLIFIED ACID EXTRACTION METHODS OF HEAVY METAL IONS FROM CONTAMINATED SOILS by Hyoil Jeon and Seungkyung Park	70-74
ENHANCED OIL RECOVERY USING BIOTRANSFORMATION TECHNIQUE ON HEAVY CRUDE OIL by Abdullah Al-Sayegh, Yahya Al-Wahaibi, Saif Al-Bahry, Abdulkadir Elshafie, Ali Al-Bemani and Sanket Joshi	75-79
SIMULATION–OPTIMIZATION TRUCK DISPATCH PROBLEM USING LOOK – AHEAD ALGORITHM IN OPEN PIT MINES by Achmad Yusaq Faiz Fadin, Komarudin and Armand Omar Moeis	80-86
DESIGNING LINER SHIPPING NETWORK IN INDONESIA WITH DEMAND UNCERTAINTY by Komarudin, Ayudya Triastika and Irvanu Rahman	87-93
MULTI-PERIOD MARITIME LOGISTICS NETWORK OPTIMIZATION USING MIXED INTEGER PROGRAMMING by Komarudin, Mellianna Fiannita C. Purba and Irvanu Rahman	94-99
A STUDY ON FACTORS AFFECTING GEOPOLYMERIZATION OF LOW CALCIUM FLY ASH by Yuyun Tajunnisa, Masaaki Sugimoto, Tetsuya Sato and Mitsuhiro Shigeishi	100-107

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

Volume 12, Issues 36

LIFE DATA ANALYSIS OF SERVER VIRTUALIZED SYSTEM by Biju R Mohan and G Ram Mohana Reddy	108-115
LASER LAND LEVELING FOR CROP YIELD AND WATER EFFICIENCY IN EASTERN AFGHANISTAN By Shakerullah Hashimi, Homayoon Ganji, Masaaki Kondo, Ryoei Ito and Takamitsu Kajisa	116-121
GENERATION OF LIGHT EMISSION FABRIC USING PMMA/PS BASED CLAD-STRIPPED PLASTIC OPTICAL FIBER by Sun Hee Moon and InHwan Sul	122-125
EMISSION FACTORS OF BLACK CARBON (BC) FROM RICE STRAW OPEN BURNING SPECIFIC TO DISTRICT CIANJUR, WEST JAVA, INDONESIA. by Hafidawati, Puji Lestari and Asep Sofyan	126-130
NORMAL RATIO IN MULTIPLE IMPUTATION BASED ON BOOTSTRAPPED SAMPLE FOR RAINFALL DATA WITH MISSINGNESS by Siti Nur Zahrah Amin Burhanuddin, Sayang Mohd Deni and Norazan Mohamed Ramli	131-137
ANALYSIS OF A VERTICAL SEGMENTAL SHAFT USING 2D & 3D FINITE ELEMENT CODES by Vasiliki N. Georgiannou, Andreas Serafis and Eleni-Maria Pavlopoulou	138-146