Earthquakes and Structures, An International Journal

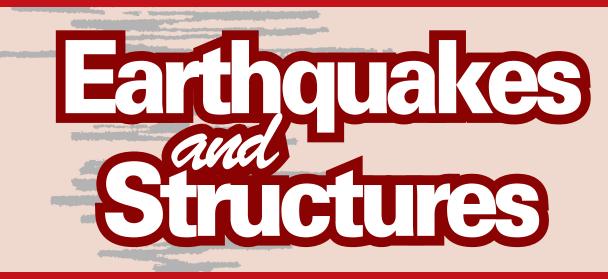
Volume 8, Number 5 May 2015

CONTENTS

Yin Cheng, Andrea Lucchini and Fabrizio Mollaioli (Italy) Correlation of elastic input energy equivalent velocity spectral values
Fatih K. Firat and M. Semih Yucemen (Turkey) Comparison of loads in Turkish earthquake code with those computed statistically
R. Mohammadi, A. Massumi and A. Meshkat-Dini (Iran) Structural reliability index versus behavior factor in RC frames with equal lateral resistance
Bo Li, Eddie Siu-shu Lam, Yuk-kit Cheng (Hong Kong), Bo Wu and Ya-yong Wang (China) Strengthening of non-seismically designed beam-column joints by ferrocement jackets with chamfers1017
Keunyeong Oh, Liuyi Chen, Sungbin Hong, Yang Yang and Kangmin Lee (Korea) Cyclic testing of weak-axis column-tree connections with formation of plastic hinge at beam splice
Azad Yazdani and Mohammad-Rashid Salimi (Iran) Earthquake response spectra estimation of bilinear hysteretic systems using random-vibration theory method
Ayad B. Aldeka, Samir Dirar (UK), Andrew H.C. Chan (Australia) and Pedro Martinez-Vazquez (UK) Seismic response of non-structural components attached to reinforced concrete structures
with different eccentricity ratios1069
Mohammed H. Serror, Sherif O. El-Gazzar and Sherif A. Mourad (Egypt) Simplified procedure for seismic analysis of base-isolated structures
Marco Domaneschi, Maria Pina Limongelli and Luca Martinelli (Italy) Damage detection and localization on a benchmark cable-stayed bridge
Panayiotis C. Polycarpou, Loizos Papaloizou, Petros Komodromos and Dimos C. Charmpis (Cyprus) Effect of the seismic excitation angle on the dynamic response of adjacent buildings during pounding 1127
Subha Sankar Chowdhury, Kousik Deb and Aniruddha Sengupta (India) Behavior of underground strutted retaining structure under seismic condition
Mojtaba Fathi, Mostafa Jalal and Soghra Rostami (Iran) Compressive strength prediction by ANN formulation approach for CFRP confined concrete cylinders 1171
R. Montuori, E. Nastri and V. Piluso (Italy) Seismic response of EB-frames with inverted Y-scheme: TPMC versus eurocode provisions
Alessandra Longo, Rosario Montuori and Vincenzo Piluso (Italy) Seismic design of chevron braces cupled with MRF fail safe systems
Yong Seok Kim (Korea) Pseudo 3D FEM analysis for wave passage effect on the response spectrum of a building built on soft soil layer1241
D.K. Jain and M.S. Hora (India)
Analysis of settlements of space frame-shear wall-soil system under seismic forces
0.5



ISSN : 2092-7614(print), ISSN : 2092-7622(online)



An International Journal of Earthquake Engineering & Earthquake Effects on Structures

Editors-in-Chief

S.A. Anagnostopoulos

University of Patras, Greece

Jerome P. Lynch

University of Michigan, USA

Nicos Makris

University of Central Florida, USA

Keh-Chyuan Tsai

National Taiwan University, Taiwan

Techno-Press

Volume 8, Number 5, May 2015

Earthquakes

and

Structure

Vol. 8,

No. сл

(2015)

lechno

-Press

Earthquakes and Structures, An International Journal

Honorary Editor-in-Chief

Prof. Shih-Chi Liu

Division of Civil and Mechanical Systems, The National Science Foundation, 4201 Wilson Boulevard, Arlington, VA 22230, USA E-mail: sliu@nsf.gov

Editors-in-Chief

Prof. Stavros A. Anagnostopoulos (European Ed.) Dept. of Civil Engineering University of Patras 265 00 Patras. Greece E-mail: saa@upatras.gr

Prof. Jerome P. Lynch (American Ed.) Dept. of Civil & Environ. Engineering University of Michigan MI 48109-2125, USA E-mail: jerlynch@umich.edu

Prof. Nicos Makris (American Ed.) University of Central Florida, Florida 32816-2450, USA E-mail: Nicos.Makris@ucf.edu Prof. Keh-Chyuan Tsai (Asia-Pacific Ed.)

Dept. of Civil Engineering National Taiwan University, Taipei 10617, Taiwan E-mail: kctsai@ntu.edu.tw

Managing Editor

Prof. C. K. Choi, Ph. D. Dept. of Civil & Environmental Engineering Korea Advanced Institute of Science & Technology, Daejeon 305-701, Korea, E-mail: cck@kaist.ac.kr

Editorial Board

Prof. A. Benavent-Climent University of Granada Granada E-18071. Spain Prof. Rita Bento

Instituto Superior Tecnico 1049-001 Lisbon, Portugal Prof. Shuenn-Yih Chang

National Taipei University of Technology Taipei 106, Taiwan Prof. C.C. Chou

National Taiwan University Taipei 10764 Taiwan Prof. Nawawi Chouw

University Auckland Auckland 1010, New Zealand

Prof. M.C. Constantinou University at Buffalo Buffalo, NY 14260, USA

Prof. Baiesh Dhakal University of Canterbury Private Bag 4800, New Zealand

Prof. M. Fardis University of Patras GR26504, Patras, Greece

Prof. Aurelio Ghersi University of Catania Catania 95100, Italy

Prof. Russell A. Green Virginia Tech

Blacksburg, VA 24061, USA Prof. J.S. Hwang

Nat Taiwan Univ of Sci & Technol Taipei 106. Taiwan

Prof. Jason Ingham University of Auckland

Prof. R.S. Jangid Indian Institute of Technology Mumbai 400076. India Prof. R. Jankowski Gdansk University of Technology

(in alphabetical order)

Prof. H.J. Juna Korea Adv Inst of Sci & Tech Daejeon 305-701, Korea

Prof. Thomas Kang Seoul National University Gwanak-gu, Seoul 151-744, Korea

Prof. Petros Komodromos University of Cyprus

Nicosia 1678, Cyprus Prof. S. Lagomarsino University of Genoa

Genova I-16145, Italy Prof. Nelson Lam University of Melbourne

Victoria 3010 Australia Prof. H.S. Lee

Korea University Seoul 136-701, Korea Prof. Chunxiang Li

Shanghai Jiao Tong University Shanghai 200030, Peoples R China

Prof. Dimitrios G. Lianos McGill University Montreal Quebec H3A 2K6 Canada

Thessaloniki 54124, Greece

Prof. C.S. Manohar Indian Institute of Science Bangalore 560 012, India

Prof. G. Manolis

Aristotle University

Auckland 1010, New Zealand

Subscription information

Prof. Jason P. McCormick University of Genoa Genova I-16145. Italv Prof. Yuji Miyamoto Osaka University 80-233 Gdansk, Poland Osaka 565-0871, Japan

Prof. Fabrizio Mollaioli Sapienza University of Rome Rome 00197, Italy

Dr. Naohiro Nakamura Takenaka Corporation Chiba 270-1395 Japan

> Prof. Camillo Nuti The University of Rome Three

Rome 00184. Italy Prof. Jamie Ellen Padgett

Rice University Houston, TX 77005, USA Prof. S.J. Pantazopoulou

University of Cyprus Nicosia 1678, Cyprus

> Prof. Apostolos Papageorgiou University of Patras

Patras 265 00. Greece Prof. Jorge Ruiz-Garcia Univ Michoacana de San Nicolas de Hidalgo

Michoacan, Mexico Prof. Lothar Stempniewski

Karlsruhe 76131 Germany Prof. Haluk Sucuoglu

Ankara TR-06531, Turkey Dr. Timothy Sullivan

Pavia I-27100, Italy

University of Texas at Austin Austin, TX 78712-0273, USA Prof. Amador Teran-Gilmore Mexico City 02200 Mexico Prof. T. Triantafyllou University of Patras Patras 265 00. Greece Prof. Tomaso Trombetti University of Bologna

Prof Hideo Takabatake

Ishikawa 924-0838, Japan

Prof. Tsuyoshi Takada

Kanazawa Institute of Technology

Drexel University Philadelphia, PA 19104, USA

University of Maryland MD 20742, USA

The Earthquakes and Structures, An International Journal (abbr: Earthq. Struct. Int. J.) is published monthly on 25th day of every twelve months (Inagurated 2010). The basic subscription price (print+e) for 2015 including postage by surface mail is US\$456 for institutional subscription and US\$133 for personal sub. For delivery by air mail, add US\$64. Subscription orders and/or enquiries should be sent to Techno-Press, P.O. Box 33, Yuseong, Daejeon 305-600, Korea. Tel: (+82-42) 828-7995, Fax: (+82-42) 828-7997, e-mail: technop8@chol.com

Copyright © 2015 Techno-Press, Ltd.

Aims and Scope

The Earthquakes and Structures, An International Journal, focuses on the effects of earthquakes on civil engineering structures. The journal will serve as a powerful repository of technical information and will provide a high-impact publication platform for the global community of researchers in the traditional, as well as emerging, sub-disciplines of the broader earthquake engineering field. Specifically, some of the major topics covered by the Journal include: characterization of strong ground motions, quantification of earthquake demand and structural capacity, design of earthquake resistant structures and foundations, cexperimental and computational methods, certain seismic regulations and building codes,
seismic hazard assessment,
seismic risk mitigation,
site effects and soil-structure interaction, assessment, repair and strengthening of existing structures, including historic structures and monuments, and memory ending technologies including passive control technologies, structural monitoring systems, and cyberinfrastructure tools for seismic data management, experimental applications, early warning and response

Instructions to Authors

1. Submission of the paper

Authors are asked to submit manuscripts in PDF format electronically through the Techno-Press Manuscript Upload System (TeMUS) (http://www.techno-press.org/papers). Exceptionally, the special issue papers may be directly submitted to the Guest Editor. If you have difficulties in using TeMUS, please contact us at[technop8@chol.com]. On receiving submitted papers, the system will issue the paper ID and Password to the corresponding author which may be conveniently used to check the status of submitted papers.

2. Preparation of the manuscript

General: The manuscripts should be in English and typed with single column and single line spacing on single side of A4 paper. Submitted papers will be published in three categories, i.e., 1) Regular technical paper, 2) Review papers and 3) Discussions. The first page of an article should contain, (1) a title of paper which well reflects the contents of the paper (Arial, 16pt), (2) all the name(s) and affiliations(s) of authors(s) (Arial, 12pt), (3) an abstract of 100~250 words (Times New Roman, 11pt), (4) 5-10 keywords following the abstract, and (5) footnote (personal title and email address of the corresponding author (required) and other authors' (not mandatory)). The paper should be concluded by proper conclusions which reflect the findings in the paper. The normal length of the technical paper should be about 14-20 journal pages.

Please refer to Author's Guide: http://www.techno-press.org/papers/appendix/Appendix A.pdf, and Template for the format of the first page of the paper: http://www.techno-press.org/papers/appendix/appendix_b.doc

Tables and figures : Tables and figures should be consecutively numbered and have short titles. They should be referred to in the text as following examples (e.g., Fig. 1(a), Figs. 1 and 2, Figs. 1(a)-(d) / Table 1, Tables 1-2), etc. Tables should have borders (1/2pt plane line) with the captions right before the table. Figures should be properly located in the text as an editable image file (.jpg) with captions on the lower cell. All of the original figures are required at the end of the manuscript for reference in editing.

Units and mathematical expressions : It is desirable that units of measurements and abbreviations should follow the System Internationale (SI) except where the other unit system is more suitable. The numbers identifying the displayed mathematical expression should be placed in the parentheses and referred to in the text as following examples (e.g., Eq. (1), Eqs. (1)-(2)). Mathematical expressions must be inserted as an object (set as Microsoft Equations 3.0) for Microsoft Word 2007 and after versions. Image-copied text or equations are not acceptable unless they are editable. The raised and lowered fonts cannot be used for superscription and subscription.

References : A list of references which reflect the current state of technology in the field locates after conclusions of the paper. For details to prepare the list of references and cite them in the text, authors are advised to follow the introduction and the sample list in the Author's Guide of the instruction.

3. Review

All the submitted papers will undergo a peer-review process, and those papers positively recommended by at least two expert reviewers will be finally accepted for publication in the Techno-Press Journals or after any required modifications are made.

4. Proofs

Proofs will be sent to the corresponding author to correct any typesetting errors. Alterations to the original manuscript will not be accepted at this stage. Proofs should be returned within 48 hours of receipt.

5. Copyright

Submission of an article to a Techno-Press Journal implies that it presents the original and unpublished work, and not under consideration for publication elsewhere. On acceptance of the submitted manuscript, it is implied that the copyright thereof is transferred to the Techno-Press. The Transfer of Copyright Agreement may also be submitted.

6. Ethics

For the policies on the research and publication ethics not stated in this instructions, International standards for editors and authors (http://publicationethics.org/international-standards-editors-and-authors) can be applied. Violation of publication ethics will result in the activation of COPE flow chart. (http://home.jeet.or.kr/Flowcharts.pdf)

7. Publication Fee

There will be no page charges and no other fees unless the author wishes arrangements to provide an open access to his article

Bologna 40136, Italy

Manuscript Editor

Juri Yoo

Prof. Radu Vacareanu Technical U of Civil Engineering Bucharest BO-020396 Bomania Prof. Aspasia Zerva

Prof. Yunfeng Zhang

Karlsruhe Institute of Technology(KIT)

Middle East Technical University

University of Pavia

University of Tokyo Tokyo 113-8656, Japan Prof. J.L. Tassoulas Universidad Autonoma Metropolitana