

## Civil Engineering

**Sharif**

3.2

Fall  
2016

Editor-in-Chief: Abolhassan Vafai

This Journal is published under the auspices of Sharif University of technology, Office of the Vice-Chancellor-in-Charge of Research.

The Journal is published quarterly in Farsi language, aims at establishing a relationship between scientists active in different branches of science and technology and, in particular, at providing a forum for exchange of knowledge between scientists and technologists related to scientific problems prevailing in contemporary society. The journal also strives to present practical and theoretical analyses of these issues and facilitates the circulation of modern scientific findings by scientists and researchers for practical application. In addition, “**Sharif**” publishes original papers focusing on issues of specific concern to universities, including research, technological advancements, and topics related to matters of higher education.

**P.O.BOX 11155-8639 AZADI AVENUE, TEHRAN, I.R. IRAN**  
**Phone: (98-21) 66005419 - 66164093 Fax: (98-21) 66012983**  
**Web: <http://journal.sharif.ir/> [http:// www. globalsciencejournals.com](http://www.globalsciencejournals.com)**  
**E-mail: [pajouhesh@sharif.edu](mailto:pajouhesh@sharif.edu)**

## CONTENTS

- 3 **NUMERICAL SIMULATION OF LONG WAVES (TSUNAMI) FORCES ON CAISSON BREAKWATERS**  
H. Nassiraei, M. Heidarzadeh and M. Shafieefar
- 13 **INVESTIGATING THE CRITICAL STATE BEHAVIOR OF CLAYEY SAND UNDER STATIC AND CYCLIC LOADING**  
O. Naeemifar and S.S.Yasrobi
- 23 **EVALUATION OF SHEAR AND DRIFT ANGLE OF STIFFENED STEEL PLATE SHEAR WALLS WITH RIGID CONNECTIONS IN NON-LINEAR DYNAMIC ANALYSIS IN FAR AND NEAR FAULT REGIONS**  
M. Gholhaki and M. Nasiri
- 33 **INFLUENCE OF THE PROPERTIES OF PORE-FLUID RICH IN HEAVY METAL ON ERRORS ASSOCIATED WITH CONSOLIDATION AND ATTERBERG LIMIT EXPERIMENTS**  
V.R. Ouhadi and S. Hamidi
- 43 **SEMI-ACTIVE CONTROL OF VERTICAL VIBRATION OF SUSPENSION BRIDGES SUBJECTED TO EARTHQUAKE EXCITATIONS USING MR DAMPERS AND FUZZY LOGIC**  
Sa. Pourzeynali, A. Bahar and So. Pourzeynali
- 55 **EFFECTIVE STRESS LOOSELY COUPLED ANALYSIS OF SAND LIQUEFACTION BASED ON STRAIN ENERGY**  
Y. Jafarian and R.M. Abyaneh
- 65 **EXPERIMENTAL INVESTIGATION ON MUD BRICK WALSL WITH MORTAR CONTAINING STRAW FIBERS UNDER DIAGONAL TENSION**  
A. Vatani Oskouei, M. Afzali, M.R. Madadipour and A. Bakhshi
- 75 **RESEARCH INTO THE EFFECT OF SIZE AND SHAPE IN PERFORATED GUSSET PLATES ON SEISMIC BEHAVIOR OF CBFS**  
A. Cheraghi and S.M. Zahrai
- 85 **FACTORS EFFECTING THE KINEMATIC BENDING MOMENT IN THE PILES GROUP**  
A. Sanaeirad and A. Gholaminejad

### RESEARCH NOTES:

- 95 **DERIVATION OF YIELD CRITERION FOR GENERALIZED HOEK-BROWN EMPIRICAL MODEL IN STRESS INVARIANTS SPACE: DERIVATION OF SOME PLASTIC THEORY RELATIONSHIPS**  
H. Sharafi and Y. Shams Maleki
- 107 **EFFECTS OF SOIL-ATMOSPHERE INTERACTION ON THE PHREATIC SURFACE AND STABILITY OF TAILING DAMS (CASE STUDY: SARCHESHMEH TAILING DAM)**  
A.Pak and N. A. Hassani
- 117 **OPTIMUM DISTRIBUTION OF TADAS DAMPERS FOR IMPROVING THE SEISMIC PERFORMANCE OF MOMENT FRAMES**  
R. Karami Mohammadi and M.R. Garoosi
- 125 **NUMERICAL INVESTIGATION OF SAND EMBANKMENT STABILITY OVER SOFT CLAYS RETROFITTED WITH STONE COLUMNS**  
M.J.S. Rameneti and M.A. Rowshanzamir
- 133 **THE ASSESSMENT INTERRELATIONSHIP BETWEEN FAR-FIELD AND NEAR-FIELD SEISMIC PARAMETERS USING THE CORRELATION CONCEPT**  
A. Habibi , E. Jami and S. Rostami

### APPENDIX

- 156 **ABSTRACTS OF PAPERS IN ENGLISH**