# **Civil Engineering**

# **Sharif**

Vinter 2017-2018

Editors-in-Chief: Abolhassan Vafai and Seyed Taghi Akhavan Niaki

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

E-mail: pajouhesh@sharif.edu

## CONTENTS

- 3 EFFECT OF DIFFERENT CONFIGURATIONS OF STIFFENERS ON THE SHEAR CAPACITY AND STIFFNESS OF STIFFENED STEEL PLATE SHEAR WALLS
  - M. Gholhaki and M. Jalilzadeh Afshari
- 13 INDEPENDENT AND INTERACTION EFFECTS OF CONGESTION PRICING AND TRANSIT SYSTEM IMPROVEMENT POLICIES ON CAR USE FOR WORK TRIPS TO TEHRAN EVEN-ODD ZONE S.E. Seyedebrishami, A.R. Mamdoohi and H.R. Fowri
- CONCRETE GRAVITY DAMS RESPONSE CONSIDERING ROTATING AND FIXED MULTIDIRECTIONAL SMEARED CRACK
   M. Alijani-Ardeshir, B. Navayi Neya and M.T. Ahmadi
- 37 IDENTIFICATION OF MULTI DEGREE OF FREEDOM SYSTEMS SUBJECTED TO AMBIENT NONSTATIONARY VIBRATION R. Karami Mohammadi, A.Mahboobi and M.Khalaj
- 47 EFFECT OF TIME INTERVAL BETWEEN PEAK RESPONSES IN THE HORIZONTAL AND VERTICAL COMPONENTS OF GROUND MOTION ON THE SEISMIC BEHAVIOR OF RC BUILDING

  A. Mortezaei, S. M. Hosseini Kordkhili
- 61 MODIFIED STRESS-STRAIN MODELS OF CONCRETE CONFINED WITH FRP UNDER CONCENTRIC AND ECCENTRIC LOADINGS
  Y. Moodi, S.R. Mousavi and M.R. Ghasemi
- 71 REPARABILITY ASSESSMENT OF STRUCTURES STRENGTHENED BY CFRP COMPOSITES

  E. Zamani Beydokhti and H. Shariatmadar
- 81 STUDY OF SEISMIC BEHAVIOR OF COLD-FORMED STEEL FRAMES SHEATHED BY FIBER CEMENT BOARDS
  M. Zeynalian and A. ZareZadeh
- 91 STRUCTURAL DAMAGE IDENTIFICATION BASED ON EXPANDED MODE SHAPES USING EXTREME LEARNING MACHINE
- 99 SEISMIC PERFORMANCE EVALUATION OF REGULAR STEEL MOMENT FRAME BUILDINGS BASED ON FORCE, DIRECT DISPLACEMENT, ENERGY AND PLASTIC HINGE METHODS A. Vatani, M. Delkhah, M. Mahmoudi Sahebi and Z. Nouri
- ON THE EVALUATION OF DYNAMIC PERFORMANCE OF MULTI-SPAN EULER BERNOULLI BEAM INFLUENCED BY AN ACCELERATING MOVING OSCILLATOR
  - I. Mohammadpour Nikbin and M. Ghadimi

#### RESEARCH NOTES:

- 121 PROVIDING OPTIMAL MODEL FOR EVALUATING AND SELECTING CONTRACTORS IN CONSTRUCTION INDUSTRY FROM THE PERSPECTIVE OF HEALTH AND SAFETY AND ENVIRONMENT P.Ghoddousi, A. Monirabbasi and S. Mohammad Zahraei
- 131 STRESS DISTRIBUTION AROUND ELLIPTICAL TUNNELS BY THE STEVENSON APPROACH
  M. Zamani and M. Alami
- 141 THE INVESTIGATION OF THE EFFECTS OF LIME PROPERTIES AND THE MANNER OF COMBINATION ON STABILIZATION OF EXPANSIVE SOILS
  - M. Sajadian and K. Barkhordari

### APPENDIX

158 ABSTRACTS OF PAPERS IN ENGLISH