

Civil Engineering

Sharif

4.2

**Winter
2019**

Editor-in-Chief: 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](http://www.globalsciencejournals.com)

E-mail: pajouhesh@sharif.edu

CONTENTS

- 3 **TIME-DEPENDENT DEFORMATION OF VISCOELASTIC THICK PLATES BY A FULLY DISCRETIZED FINITE STRIP METHOD USING HIGHER ORDER SHEAR DEFORMATION THEORY**
H. Amoushahi
- 15 **RHEOLOGICAL AND MECHANICAL PROPERTIES OF FIBER SELF-COMPACTING CONCRETE UNDER HIGH TEMPERATURE**
A. Sadrmomtazi, B. Tahmouresi and M.S. Tahmouresi
- 25 **AN ESTIMATION OF RELATIVE SUBMERGENCE EFFECTS ON TURBULENCE MACRO-SCALE STRUCTURES IN A PLAIN CHANNEL WITH ROUGH BED**
S.H. Mohajeri, S. Kazemi Mohsen Abadi and A. Safarzadeh
- 35 **DECLUSTERING OF EARTHQUAKE CATALOG AND MODELING OF AFTERSHOCKS USING ETAS MODEL**
N. Davoodi, H.R. Tavakoli, A. Jalilian and M. Zare
- 43 **SEISMIC PERFORMANCE ASSESSMENT OF ISOLATED STEEL MOMENT FRAMES WITH LOSS APPROACH**
M. Gholhaki, H. Parvini Sani and M. Banazadeh
- 53 **A PROPOSED NUMERICAL MODEL FOR NONLINEAR CYCLIC ANALYSIS OF STEEL AND CONCRETE COUPLING BEAMS IN RC COUPLED SHEAR WALLS SYSTEM**
H. Akbarzadeh Bengar, A. Jafari and M. Beheshti
- 65 **EVALUATING THE PERFORMANCE OF ZNO NANOPARTICLES ON THE CEMENT BASED MATERIALS ENGINEERING CHARACTERISTICS**
A. Khaghani Boroujeni and S.H. Madani
- 75 **THERMODYNAMICAL STUDY OF HYDRATION AND CHEMICAL SHRINKAGE OF CEMENT CONTAINING SLAG**
A. Tarighat, M. Mohammadi and Y. Modarres

RESEARCH NOTES:

- 83 **A NUMERICAL STUDY ON LATERAL PERFORMANCE OF 3D SHOTCRETE WALL PANELS UNDER INCREMENTAL LATERAL LOAD**
M. Zeynalian, O. Khajeh Khabaz, A. Khajeh Khabaz and M. Daei
- 95 **EVALUATION OF THE CAPACITY SPECTRUM FOR STEEL STRUCTURE WITH STEEL SHEAR WALL WITH NONLINEAR STATIC ANALYSIS (PUSHOVER) AND ENERGY METHOD WITH NO CONTROL SPOT**
M. Gholhaki and A.A. Javahertarash
- 103 **EXPERIMENTAL INVESTIGATION ON SHEAR STRENGTHENING OF RC BEAMS BY PRESTRESSED EMBEDDED THROUGH-SECTION BARS**
R. Morshed, E. Tavasoli and M. Barzegar
- 111 **WATER CONTENT EFFECT ON THE BEHAVIOR OF REINFORCED SOIL MIXTURE UNDER SURCHARGE LOAD WITH USING CENTRIFUGE**
H.R. Razeghi, M.R. Gholamshahi and R. Riahi
- 121 **EFFECT OF PRESTRESSING ON CONCRETE BRIDGE COLUMNS**
M. Ashraf Khorasani, A. Vatani Oskouei and S. Madaani
- 133 **THE THICKNESS EFFECT OF CONNECTION PLATE OF BEAM TO STEEL FILLED COLUMN WITH CONCRETE ON SEISMIC BEHAVIOR OF THE CONNECTION**
S.H. Hosseyni Lavassani, S. Poulaki and R. Khoshnevisan

APPENDIX

- 156 **ABSTRACTS OF PAPERS IN ENGLISH**