

The logo for Sharif University of Technology, featuring the word "Sharif" in a bold, black, sans-serif font inside a rounded rectangular border.

Transactions on: Civil and Mechanical Engineering
Journal of Science & Technology

42

June-July
2008

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 every two months 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 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://www.fasnameh-sharif.ir/> E-mail: pajouhesh@sharif.edu

C o n t e n t s

- 3 **COMPARISON BETWEEN EXPERIMENTAL AND NUMERICAL STUDY OF DAMAGED EXTERIOR BEAM-COLUMN BY FRP LAMINATE**
A. Vatani Oskouei
- 13 **STANDARD PENETRATION NUMBER CORRELATION WITH PROBABILITY OF LIQUEFACTION OCCURANCE USING RELIABILITY METHOD IN SANDY SOIL**
I. Shooshpasha, M. H. Bagheri Pour, M. Afzali Rad
- 21 **DISCONTINUITY CLUSTERING IN ROCK MASSES WITH THE APPLICATION OF KOHONEN NEURAL NETWORK UNDER THE FRAMEWORK OF PROBABILITIES**
E. Aflaki, S. Hashemi
- 27 **MODELING TRANSIENT MIXED FLOW IN CLOSED CONDUIT**
V. Mehran, M.H. Afshar, A. Malekpoor
- 35 **STRAIN INPUT ENERGY IN NEAR-FAULT GROUND MOTIONS**
H. Jahankhah, M. Behzad, M. A. Ghannad
- 41 **THERMO-HYDRAULIC MODELING OF PHASE CHANGE MICROPUMP**
M.H. Saidi, B. Sadjadi, H. Safaei, S. Piroozpanah
- 49 **SIMULATION OF ULTRAVIOLET RADIATION EFFECTS ON MECHANICAL PROPERTIES OF GLASS/POLYESTER COMPOSITES**
M.M. Shokrieh, A. Biat
- 59 **STATIC SURFACE PRESSURE MEASUREMENT ON A SECTION OF A WIND TURBINE BLADE**
M.R. Soltani, A. Poolibabaie Mamaghani, A. Bakhshalipour
- 67 **FATIGUE FAILURE OF FOAM CORE SANDWICH COMPOSITES WITH UNSYMMETRICAL HYBRID FACES UNDER TENSION-TENSION LOADING**
M. Zabihpoor, S. Adibnazari, R. Moslemian
- 75 **COMPARISON OF THE PETER AND THEODORSON AERODYNAMICS IN DETERMINATION OF AEROELASTIC INSTABILITY**
H. Haddadpour, S. Mahmoudkhani
- 81 **SHIP MOTIONS SIMULATION USING FINITE VOLUME SOLVER**
R. Panahi, E. Jahanbakhsh, M.S. Seif
- 89 **STUDY OF PROPELLER INSTALLMENT ANGLE AND ITS 3-D AERODYNAMIC INTERFERENCES WITH A FLYING-BOAT EMPUENNAGE IN GROUND EFFECTS**
H. Afshar, M. M. Alishahi

RESEARCH NOTE

- 95 **A COMPARISON BETWEEN DIFFERENT METHODS OF ASSESSING THE IMPACT OF INPUT FEATURES IN FEEDFORWARD NEURAL NETWORKS USING GEOTECHNICAL DATABASE**
A. Shafiee, R. Ghateh
- 101 **SHOCK FITTING AND SHOCK CAPTURING SCHEMES FOR COMPUTATION OF HYPERSONIC AXISYMMETRIC FLOWS OVER BLUNT NOSES INCLUDING REAL GAS EFFECTS**
K. Hejranfar, R. Kamali Moghadam

APPENDIX

- 118 **ABSTRACTS OF PAPERS IN ENGLISH**