



CONTENTS

Journal of Science & Technology

- 3 EFFECTS OF WHEEL PROFILES ON STABILITY, RUNNING BEHAVIOR AND WEAR OF WHEELS IN MD36 BOGIE \ M.H. Kadivar, H. Molatefi
- 13 NUMERICAL SIMULATION OF FLOW FIELD WITH SWIRLING-COMBUSTION IN A COMBUSTION CHAMBER \ M.M. Alishahi, M. Khajeh
- 21 DEVELOPMENT OF 2D VIBRATION MEASURING SYSTEM USING IMAGE PROCESSING METHOD; AN INVESTIGATION ON FORCED VIBRATION OF HUMAN BODY IN VERTICAL DIRECTION \ A. Mirbagheri, R. Narimani and M. Hoviattalab
- 29 DESIGN AND FABRICATION OF "CEDRA" RESCUE ROBOT WITH ESPECIAL CAPABILITIES \ A. Meghdari, F. Amiri, S.H. Mahboobi, A. Lotfi Gaskarimahalle, A. Baghani, H. Nejat Pishkenari, R. Karimi and Y. Khalighi
- 39 AN EXPERIMENTAL INVESTIGATION OF THE EFFECTS OF COMPRESSIBILITY AND REDUCED FREQUENCY ON THE UNSTEADY AERODYNAMIC BEHAVIOR OF A FIGHTER MODEL \ M.R. Soltani, A.R. Davari
- 47 GEOMETRICAL OPTIMIZATION OF TLP USING GENETIC ALGORITHM METHOD BASED ON MINIMIZING DOWN TIME UNDER REGULAR SEA WAVES \ M.S. Seif, M.R. Tabeshpour, A.A. Golafshani and M. Hayatdavoudi
- 57 OPTIMAL SHAPE FOR THE UNSYMMETRIC BONDED COMPOSITE REPAIR PATCH M.A. Kouchakzadeh, P. Ghanati
- 65 A REVIEW OF RESEARCH PAPERS OF MECHANICAL ENGINEERING (2004-2005)
- 73 BOOK REVIEW
- 80 ABSTRACTS OF PAPERS IN ENGLISH

"SHARIF" JOURNAL OF SCIENCE AND TECHNOLOGY
EDITOR-IN-CHIEF: ABOULHASSAN 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 papers focusing on issues of specific concern to universities, including research, technological advancements, and topics related to matters of higher education.

P.O.BOX 11365-8639 AZADI AVENUE, TEHRAN, I.R. IRAN
Phone: (98-21) 66005419 - 66164093
Fax: (98-21) 66012983
E-mail: Pajouhesh@sharif.edu