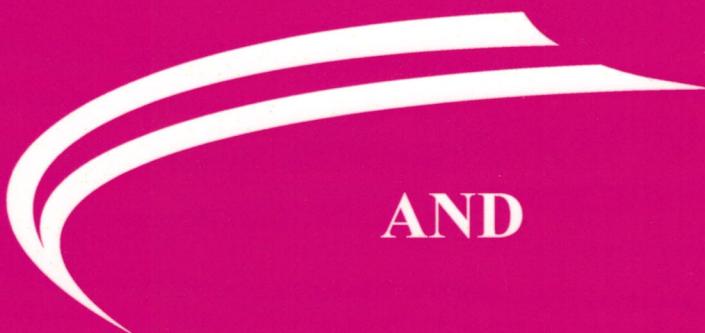


IJME

International Journal of

APPLIED MECHANICS



ENGINEERING

2015

Volume 20

Number 3

ISSN 1425-1655
e-ISSN 2353-9003

**University Press
Zielona Góra, Poland**

Contents

Ding Kewei

Weak formulation study for thermoelastic buckling analysis of thick laminated cylindrical shells 461

P. Dolai

Scattering of internal waves by vertical barrier in a channel of stratified fluid 471

V. Kumar and R. Singh

Response due to impulsive force in generalized thermo-microstretch elastic solid..... 487

I.E. Major, A. Big-Alabo and S. Odi-Owei

Effect of drill string rotation on the dynamic response of drilling risers 503

D.P. Majumder and A.K. Dhar

Fourth order nonlinear evolution equation for interfacial gravity waves in the presence of air flowing over water and a basic current shear 517

B. Rogowski

Contact problem of conducting and heated punch on a multifield foundation 531

S.A. Shah

Study of three dimensional propagation of waves in hollow poroelastic circular cylinders..... 565

P.G. Siddheshwar, U.S. Mahabaleshwar and A. Chan

MHD flow of Walters' liquid B over a nonlinearly stretching sheet 589

M. Thamizhsudar, J. Pandurangan and R. Muthucumaraswamy

Hall effects and rotation effects on MHD flow past an exponentially accelerated vertical plate with combined heat and mass transfer effects 605

K.K. Żur, J. Jaroszewicz and Ł. Dragun

Analytical solutions to boundary value problem of free vibration of sandwich thin circular plates with discrete elements 617

Brief note

A. Ciszakiewicz and J. Knapczyk

Parameters estimation for a patellofemoral joint of a human knee using a vector method..... 629

O.M. Ibearugbulem, U.G. Eziefula and D.O. Onwuka

Inelastic stability analysis of uniaxially compressed flat rectangular isotropic CCSS plate..... 637

M. Podwórna

Modelling of random vertical irregularities of railway tracks 647

Technical note

R. Kłosowiak, J. Bartoszewicz and R. Urbaniak

Portable heat pump testing device 657

M. Zielińska and K. Zarychta

A comparison of the wind spectrum according to different methods - an original project of a building on a cliff in Gdynia 663

Conference informations

673

INTERNATIONAL JOURNAL OF APPLIED MECHANICS AND ENGINEERING

Editor-in-Chief

Edward Walicki

Department of Mechanics, University of Zielona Góra, ul. Szafrana 2
65-516 Zielona Góra, POLAND; e-mail: E.Walicki@ijame.uz.zgora.pl

Regional Editors

K.R. Rajagopal

Department of Mechanical Engineering, Texas A&M University
College Station, Texas 77843-3123, USA; e-mail: Krajagopal@mengr.tamu.edu

Siu-Lai Chan

Department of Civil and Structural Engineering, The Hong Kong Polytechnic University
Hong Kong, PRC; e-mail: CESLCHAN@polyu.edu.hk

Editorial Board

H.I.Andersson, Trondheim, Norway

R.Bassani, Pisa, Italy

G.Bergeles, Athens, Greece

A.Biń, Warszawa, Poland

N.El-Kissi, Grenoble, France

Y.C.Chen, Houston, USA

T.Chmielniak, Gliwice, Poland

B.S.Dandapat, Calcutta, India

D.Durban, Haifa, Israel

I.Emri, Ljubljana, Slovenia

J.Falicki, Zielona Góra, Poland

M.Fillon, Poitiers, France

M.Z.Galicki, Zielona Góra, Poland

R.S.R.Gorla, Cleveland, USA

M.A.Hossain, Dhaka, Bangladesh

D.B.Ingham, Leeds, UK

P.Jurczak, Zielona Góra, Poland

Z.Kabza, Opole, Poland

E.V.Korobko, Minsk, Belarus

M.Królik, Łódź, Poland

V.G.Kulichikhin, Moscow, Russia

An-Chen Lee, Hsinchu, ROC

K.M.Liew, Singapore, ROS

Jaw-Ren Lin, Taoyuan, ROC

K.Łasiński, Zielona Góra, Poland

K.Magnucki, Poznań, Poland

D.Michalski, Zielona Góra, Poland

J.Mikielewicz, Gdańsk, Poland

Y.Mitsuya, Nagoya, Japan

A.S.Mujumdar, Singapore, ROS

H.Münstedt, Erlangen, Germany

N.K.Myshkin, Gomel, Belarus

H.Ouakad, Dhahran, Saudi Arabia

M.Pakdemirli, Manisa, Turkey

J.-M.Piau, Grenoble, France

I.Pop, Cluj, Romania

W.Rakowski, Kraków, Poland

T.G.Rozgonyi, Golden, USA

J.T.Sawicki, Cleveland, USA

A.Sobczyk, Kraków, Poland

A.R.Srinivasa, Texas, USA

G.Stachowiak, Nedlands, Australia

D.Steigmann, Berkeley, USA

T.A.Stolarski, Uxbridge, UK

Hyung Jin Sung, Taejon, Korea

A.Z.Szeri, Newark, USA

H.S.Takhar, Manchester, UK

M.Wagner, Berlin, Germany

A.Walicka, Zielona Góra, Poland

K.Walters, Aberystwyth, UK

K.Watanabe, Tokyo, Japan

S.H.Winoto, Singapore, ROS

E.Wittbrodt, Gdańsk, Poland

J.Wojnarowski, Gliwice, Poland

S.Wroński, Warszawa, Poland

Q.-S.Zheng, Beijing, PRC

Technical Editor : K.Napieralska

Scope of the journal: INTERNATIONAL JOURNAL OF APPLIED MECHANICS AND ENGINEERING is an archival journal which aims to publish high quality original papers. These should encompass the best fundamental and applied science with an emphasis on their application to the highest engineering practice. The scope includes all aspects of science and engineering which have relevance to:

- ◆ elasticity, ◆ plasticity, ◆ vibrations, ◆ mechanics of structures,
- ◆ mechatronics, ◆ plates & shells, ◆ hydrodynamics, ◆ magnetohydrodynamics,
- ◆ gas dynamics, ◆ rheology, ◆ thermodynamics, ◆ tribology.

This is also reflected in the publication of conference reports, book reviews, editorials, special issues, laboratory reports, news and letters.