**ISSN 1451-2092** 

UDC: 621

University of Belgrade Faculty of Mechanical Engineering

# FME TRANSACTIONS

New Series, Volume 37, Number 1, 2009

FME	TRAN	ISAC1	TIONS
-----	------	-------	-------

### Editor:

Rašuo Boško University of Belgrade

### Associate Editor:

Stevanović Vladimir University of Belgrade

### **Editorial Board:**

**Ašković Radomir** Université de Valenciennes, France

Avellan François Laboratory for Hydraulic Machines Swiss Federal Institute of Technology, Zurich, Switzerland

**Bojić Milorad** University of Kragujevac

Dulikravich S. George Department of Mechanical and Materials Eng. Florida International University, Miami, USA

**Đorđević Vladan** University of Belgrade

Ehmann F. Kornel Department of Mechanical Engineering Northwestern University, Evanston IL, USA

Felix Hong Wayne State University, Detroit, USA

Gajić Zoran Rutgers University, USA

Jovanović Jasmina University of Belgrade

Klimenko A. Sergei National Academy of Sciences, Kiev, Ukraine

Komatina Mirko University of Belgrade

Meerkamm Harald Friedrich-Alexander-Universität Erlangen-Nürnberg, Germany

Nedić Novak University of Kragujevac

Petrović Milan University of Belgrade

Plančak Miroslav University of Novi Sad

Radovanović Miroslav University of Nis

Sedmak Aleksandar University of Belgrade

Stamenović Dimitrije Boston University, Boston, USA

### **Technical Editor:**

Vencl Aleksandar University of Belgrade

## Published by:

University of Belgrade Faculty of Mechanical Engineering

Volume 37, No 1, 2009, pp. 1-52	
CONTENTS	PAGE
Lehmann Thomas, Stockmann Martin, Naumann Jochen	1
Experimental and Numerical Investigations of Al/Mg Compound Specimens under Load in an Extended Temperature Range	
Vuković Najdan, Miljković Zoran	9
New Hybrid Control Architecture for Intelligent Mobile Robot Navigation in a Manufacturing Environment	
Jakovljević Živana, Petrović B. Petar	19
A New Approach to Rubberized Cord Surface Structure Identification Based on High- Resolution Laser Scanning and Multiresolution Signal Processing	
Mrdak Mihailo, Vencl Aleksandar, Ćosić Milena	27
Microstructure and Mechanical Properties of the Mo-NiCrBSi Coating Deposited by Atmospheric Plasma Spraying	
Tuba Ferenc, Borbás Lajos, Nagy Péter, Oláh László	33
Hydrolysis Induced Deterioration of Compressive Properties of Poly-ε-Caprolactone	
Petrović B. Dušan, Bugarić S. Uglješa, Petrović M. Zoran	39
High-Bay Warehouse Analysis Based on Influence of Stochastic Parameters	
Prvulović Slavica, Tolmač Dragiša, Blagojević Zvonimir, Tolmač Jasna	47
Experimental Research on Energetics Characteristics of Starch Dryer	
The publication of the Vol. 37 No 1 of this Journ fully financially supported by the Ministry of Scien Technological Development of the Republic of Serbis support is gratefully acknowledged.	ce and
On line service: http:/www.mas.bg.ac.rs/transactions	

UDC: 621

ISSN 1451-2092

# Printed by:

"PLANETA print", Ruzveltova 10, 11 000 Belgrade