



*The 7<sup>th</sup> International Scientific Conference  
RESEARCH AND DEVELOPMENT  
OF MECHANICAL ELEMENTS AND SYSTEMS  
IRMES 2011  
April 27<sup>th</sup> - 28<sup>th</sup>, 2011  
Zlatibor, REPUBLIC OF SERBIA*

**CONFERENCE PURPOSE**

New technologies, globalization and individualization of customer demands, as well as high quality of modern products, are forcing industrial enterprises to improve their processes of product development. This implies the support of enterprise processes throughout the product lifecycle, from the product idea through product development, manufacturing, improvement and quality assurance to maintenance during operation. Processes of product development are more than just usual engineering. A product portfolio must be analyzed and product concept must be examined from the aspect of its realization. This requires linking internal domain with external teams. New products must be introduced to market with high quality and low development costs.

The prerequisite for development of high quality products and high productivity manufacturing is to master the knowledge, which is a result of research in science and technology.

Satisfaction and success of a development engineer is reflected primarily in discovering and designing new construction solutions, despite numerous constraints and problems, and in experiencing the seamless operation and high market penetration of the products being developed.

The aim of the Conference is:

- ❖ to gather experts and researchers in the field of scientific research and industrial product development;
- ❖ to present new design solutions related to energy efficiency, application of available resources, product price reduction,
- ❖ to exchange knowledge and experience, through presentations of research results and expert information, with the aim of stimulating industrial activities in the region.

**CONFERENCE PRESIDENT**

Prof. Dr.-Ing. Vojislav Miltenović, Full professor, Department for mechanical constructions, development and engineering, Mechanical Engineering Faculty, University of Niš, Serbia

**SCIENTIFIC BOARD**

Prof. Dr.-Ing. Dr. hc. Albert Albers, Karlsruhe Institute of Technology, Germany

Prof. Dr.-Ing. Bernd-Robert Höhn, Technical University of Munich, Germany

Prof. Dr.-Ing. Wolfgang Predki, Ruhr-University of Bochum, Germany

Dr. Sc. Prof. Veniamin Goldfarb, Izhevsk State Technical University, Russia

Dr.-Eng. Sergey A. Lagutin, Elektrostal Heavy Engineering Work, Russia

Prof. Dr. Eng. José Ignacio Pedrero, Uned Madrid, Spain

Prof. Katsumi Inoue, Tohoku University, Japan

Prof. Ing. Carlo Gorla, Politecnico Di Milano, Italy

Dr. Eng. Alex Kapelevich, AKGears, USA

Prof. Dr.-Ing. Michael Weigand, Vienna University of Technology, Austria

Prof. Dr.-Ing. Datong Qin, Chongqing University, China

Prof. Athanassios Mihailidis, Aristotle University of Thessaloniki, Greece

Prof. Dr.-Ing. Vilmoš Simon, Budapest University of Technology and Economics, Hungary



Prof. Dr.-Ing. Lajos Fazekas, University of Debrecen, Hungary  
Prof. Dr.-Ing. Jože Flašker, University of Maribor, Slovenia  
Prof. Dr. Sc. (Eng.) Victor Strazhinsky, National Academy of Belarus, Belarus  
Prof. Dr.-Ing. Konstantin Ivanov, Kazakh Technical University, Kazakhstan  
Prof. Dr.-Ing. George Dobre, University Politehnica of Bucharest, Romania  
Prof. Dr.-Ing. Sava Ianici, University of Resita "Eftimie Murgu", Romania  
Prof. Dr.-Ing. Imre Kiss, University Politehnica Timisoara, Romania  
Prof. Dr.-Ing. Miroslav Vereš, Slovak University of Technology in Bratislava, Slovakia  
Prof. Dr.-Ing. Stanislaw Legutko, Poznan University of Technology, Poland  
Prof. Dr.-Ing. Ljubomir Dimitrov, Technical University of Sofia, Bulgaria  
Prof. Dr.-Ing. Branimir Barišić, University of Rijeka, Croatia  
Prof. Dr.-Ing. Milan Opalić, University of Zagreb, Croatia  
Prof. Dr.-Ing. Petar Simonovski, Ss. Cyril and Methodius University in Skopje, FYROM  
Prof. Dr.-Ing. Radoš Bulatović, University of Montenegro, Montenegro  
Doc. Dr.-Ing. Milosav Đurđević, University of Banja Luka, Bosnia and Herzegovina  
Doc. Dr.-Ing. Biljana Marković, University of New Sarajevo, Bosnia and Herzegovina  
Prof. Dr.-Ing. Siniša Kuzmanović, University of Novi Sad, Serbia  
Prof. Dr.-Ing. Radivoje Mitrović, University of Belgrade, Serbia  
Prof. Dr.-Ing. Milosav Ognjanović, University of Belgrade, Serbia  
Prof. Dr.-Ing. Nenad Marjanović, University of Kragujevac, Serbia  
Prof. Dr.-Ing. Dragan Milčić, University of Niš, Serbia

#### ORGANIZATIONAL BOARD

Prof. Dr.-Ing. Vojislav Miltenović, president  
Prof. Dr.-Ing. Vlastimir Nikolić, Dean of Mechanical Engineering Faculty, University of Nis  
Prof. Dr.-Ing. Vlastimir Đokić, Vice-Rector of University of Nis  
Dipl.-Ing. Đorđi Biljanovski, TENT Kolubara  
Mr.-Ing. Ljubiša Janković, Group Zastava vehicles  
Prof. Dr.-Ing. Dušan Stamenković  
Prof. Dr.-Ing. Nenad T. Pavlović  
Doc. Dr.-Ing. Boban Anđelković  
Doc. Dr.-Ing. Jelena Stefanović-Marinović  
Doc. Dr.-Ing. Miloš Milošević  
Mr.-Ing. Miodrag Velimirović  
Mr.-Ing. Aleksandar Miltenović  
Mr.-Ing. Miloš Milovančević  
Dipl.-Ing. Milan Banić  
Dipl.-Ing. Miroslav Mijajlović  
Dipl.-Ing. Jelena Milisavljević  
Dipl.-Ing. Dejan Randelović

#### TOPICS

1. DEVELOPMENT OF MECHANICAL SYSTEMS AND COMPONENTS
2. INDUSTRIAL AND ECO-DESIGN
3. CAD AND EXPERT SYSTEMS
4. MODELING AND SIMULATION
5. MECHANICAL LOADS AND STRESS CONDITIONS
6. SAFETY, QUALITY AND RELIABILITY
7. MODERN MATERIALS, THERMAL TREATMENT, COATINGS AND FRACTURE
8. TRIBOLOGY
9. NOISE AND VIBRATIONS IN MECHANICAL SYSTEMS
10. TESTING OF MECHANICAL SYSTEMS
11. MONITORING AND MAINTENANCE OF MECHANICAL SYSTEMS
12. TRANSMISSION OF POWER AND MOTION (GEARS, SHAFTS, BEARINGS, COUPLINGS, ...)
13. MECHANICAL JOINTS (BOLTED, SLOTTED, HINGES, WELDED, PRESS FIT, ...)
14. MECHANICAL ELEMENTS FOR FLUIDS (VESSELS, PIPE CLOSURES, PISTON PAIRS, ...)
15. EDUCATION OF DEVELOPMENT ENGINEERS

#### IMPORTANT TERMS

Submission of abstracts: 31.12.2010  
Notification of acceptance: 15.01.2011  
Submission of full text paper: 15.03.2011  
The conference languages are **English** and **German**. Translation will **not** be available.

#### CORRESPONDENCE ADDRESS



IRMES  
MECHANICAL ENGINEERING FACULTY, UNIVERSITY OF NIŠ  
Aleksandra Medvedeva 14  
18000 Niš Republic of Serbia  
web: [www.irmes.com](http://www.irmes.com)  
email: [info@irmes.com](mailto:info@irmes.com)