



*The 7th International Scientific Conference
RESEARCH AND DEVELOPMENT
OF MECHANICAL ELEMENTS AND SYSTEMS
IRMES 2011
April 27th - 28th, 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.

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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

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