

**TECHNICAL UNIVERSITY OF KOŠICE,
FACULTY OF MECHANICAL ENGINEERING
BRANCH OF SLOVAK METALLURGICAL SOCIETY AT FACULTY
OF METALLURGY TECHNICAL UNIVERSITY OF KOŠICE
CROATIAN METALLURGICAL SOCIETY**

3rd International Conference

**MODELING OF THE MECHANICS
AND MECHATRONICS SYSTEMS**

MMAMS '2009

**SUMMARIES OF ABSTRACTS
ZBORNÍK SAŽETAKA**

**Note: All papers are downloadable from department web site:
http://web.tuke.sk/sjf-kamam/mmams2009/mmams_eng.html**



Zemplínska Šírava, Slovak Republic, September, 22. – 24th, 2009

ORGANIZER

**TECHNICAL UNIVERSITY OF KOŠICE, FACULTY OF MECHANICAL ENGINEERING,
INSTITUTE OF SPECIAL TECHNICAL SCIENCES, DEPARTMENT OF APPLIED MECHANICS
AND MECHATRONICS, KOŠICE, SLOVAK REPUBLIC**

Department was established in 1952 as Department of Technical Mechanics together with the Faculty of Heavy Industry of Technical University of Košice. Leadership of department was deputed to doc. Ing. Vladimír Salva. From the year 2002, department changes name to Department of Applied Mechanics and Mechatronics. In this time the head of the department is Dr.h.c. mult. prof. Ing. František Trebuňa, Csc.

Pedagogic, scientific and research activities are oriented to several areas:

- Adaptive computational methods and experimental verification of load capacity of supporting elements from light and ultra-light structural systems.
- Development of computer methods and algorithms for numerical simulation and optimisation of systems.

- Increasing of carrying capacity of thin-walled structural elements by using innovated steels, structural solutions and production technologies.
- Stochastic processes and limit states of mechanical systems.
- Development, verification and using of modern experimental methods of mechanics.
- Design and realisation of mechatronics systems, realisation of automatic controlled systems, measurement, data acquisition and their evaluation.
- Research of measurement principles of non electrical quantities.
- Research of locomotion principles of mobile machine.

CO-ORGANIZERS

- Branch of Slovak Metallurgical Society at Faculty of Metallurgy, Technical University of Košice
- Croatian Metallurgical Society
- Czech Technical University in Prague, Czech Republic
- Brno University of Technology, Czech Republic
- VŠB Technical University Ostrava, Czech Republic
- University of West Bohemia, Pilsen, Czech Republic
- Slovak University of Technology in Bratislava, Slovak Republic
- University of Žilina, Slovak Republic
- Trenčín University of Alexander Dubček, Slovak Republic

CONFERENCE TOPICS

- Modelling and simulation of the mechanics, mechatronics and biomechanics systems,
- Concept and design of the mechanics, mechatronics and biomechanics systems,
- Measurement and experimental methods of the mechanics, mechatronics and biomechanics

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