



APPLIED MECHANICS 2016

Banská Štiavnica, 11th – 13th April, 2016

Time schedule of the 18th International Scientific Conference Applied Mechanics 2016

Časový plán 18. ročníku vedecké medzinárodnej konferencie Aplikovaná mechanika 2016

Pondelok / Monday 11. 4. 2016	
11:00 – 12:30	Registrácia účastníkov / Registration of participants
12:30 – 14:00	Obed / Lunch
14:00 – 14:10	Otvorenie konferencie / Ceremonial opening
14:10 – 15:30	Plenárne prednášky / Plenary lectures
15:30 – 15:45	Prestávka / Coffe break
15:45 – 18:00	Prednáškový blok A / Lectures A
18:00 – 19:00	Večera / Dinner
Utorok / Tuesday 12. 4. 2016	
7:00 – 8:00	Raňajky / Breakfast
8:00 – 12:30	Exkurzia : Návšteva banského múzea v prírode a prehliadka mesta Banská Štiavnica zo sprievodcom / Excursion: Visit the Open-air mining museum and sightseeing tours of Banská Štiavnica
12:30 – 14:00	Obed / Lunch break
14:00 – 15:30	Prednáškový blok B / Lectures B
15:30 – 16:00	Prestávka / Coffe break
16:00 – 17:30	Prednáškový blok C / Lectures C
20:00 –	Spoločenský večer / Social evening
Streda / Wednesday 13. 4. 2016	
7:00 – 9:00	Raňajky / Breakfast
9:00 – 10:15	Prednáškový blok D / Lectures D
10:15 – 10:25	Slávnostné uzavretie konferencie / Ceremonial Closing
11:00 – 12:00	Obed / Lunch break



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Banská Štiavnica, 11th – 13th April, 2016

OTVORENIE KONFERENCIE / CEREMONIAL OPENING

INTRODUCTION

P.č.	11.4.2016	Pondelok / Monday 14:00 – 14:10
1.	14:00 – 14:10	HUČKO Branislav SPEECH OF THE DEAN OF FACULTY OF MECHANICAL ENGINEERING – SLOVAK UNIVERSITY OF TECHNOLOGY IN BRATISLAVA

PLENARY LECTURES

P.č.	11.4.2016	Pondelok / Monday 14:10 – 15:30
1.	14:10 – 14:50	HUČKO Branislav BIOMECHANICAL MODELS OF VERTEBRAL DISCS
2.	14:50 – 15:30	ŽIARAN Stanislav NOISE CONTROL OF THE COMBUSTION ENGINES BY MECHANICAL VIBRATION



APPLIED MECHANICS 2016

Banská Štiavnica, 11th – 13th April, 2016

Prednáškový blok A / Lectures A

Predsedaajúci / Chairman: doc. Ing. Karel Frydryšek, Ph.D. ING-PAED IGIP

P.č.	11.4.2016	Pondelok / Monday 15:45 – 18:30
1.	15:45 – 16:00	Halama, R., Fojtík, F.: EXPERIMENTAL INVESTIGATION OF UNIAXIAL RATCHETING OF AA2124T851
2.	16:00 – 16:15	Frydryšek, K.: SOLUTION OF SIMPLE PLANAR TRUSSES (LINEAR, NONLINEAR AND STOCHASTIC APPROACH)
3.	16:15 – 16:30	Náhlík, L., Pokorný, P., Hutař, P.: METHODOLOGY OF RESIDUAL FATIGUE LIFETIME ASSESSMENT OF RAILWAY AXLES
4.	16:30 – 16:45	Padovec, Z., Sedlacek, R., Růžička, M., Král, M., Růžička, P.: ANALYSIS AND OPTIMIZATION OF AIRCRAFT COMPOSITE PART “BEARING”
5.	16:45 – 17:00	Kutiš, V., Jakubec, J., Paulech, P., Gabriel Gálik, G., Murín, J., Hrabovský, J., Sedlár, T., Gogola, R.: CFD ANALYSIS OF ORIFICE DIAMETER'S INFLUENCE ON COOLANT MASS FLOW THROUGH FUEL ASSEMBLY OF NUCLEAR REACTOR VVER 440
6.	17:00 – 17:15	Goga, V., Gálik, G., Bohuš, J.: DETERMINATION OF THE MEMS ACCELEROMETER SENSITIVITY
7.	17:15 – 17:30	Jureczko, P., Jureczko, M., Krzysztofik, M.: STABILOGRAPHY RESEARCH OF BLIND AND PARTIALLY BLIND PEOPLE
8.	17:30 – 17:45	Jančo, R.: ANALYSIS OF PARTS WELDED BY FRICTION STIR WELDING (THERMAL AND MECHANICAL ANALYSIS)
9.	17:45 – 18:00	Čech, R., Horyl, P., Maršálek, P.: MODELLING OF TWO-SEAT CONNECTION TO THE FRAME OF RAIL WAGON IN TERMS OF RESISTANCE AT IMPACT TEST



APPLIED MECHANICS 2016

Banská Štiavnica, 11th – 13th April, 2016

Prednáškový blok B / Lectures

Predsedaajúci / Chairman: doc. Ing. Roland Jančo Ph.D. ING-PAED IGIP

P.č.	12.4.2016	Utorok / Tuesday 14:00 – 15:30
1.	14:00 – 14:15	Paulech, J. , Kutiš, V., Jakubec, J., Gálik, G., Murín, J., Gogola, R., Tibor Sedlár, T., Hrabovský, J.: THERMO-HYDRAULIC CONDITIONS IN NUCLEAR REACTOR VVER-440 UNDER REFUELLING CONDITIONS
2.	14:15 – 14:30	Paška, Z. , Fojtík, F., Ferfecki, P.: FULL FIELD EVALUATION OF THE STRESS COMPONENTS IN 2D PHOTOELASTICITY VIA COMPUTER PROGRAM
3.	14:30 – 14:45	Poduška, J. , Hutař, P., Kučera, J., Frank, A., Luboš Náhlík, L.: RESIDUAL STRESS IN POLYETHYLENE PIPES AND ITS INFLUENCE ON CRACK GROWTH
4.	14:45 – 15:00	Rek, V. , Němec, I.: PARALLEL COMPUTATION ON MULTICORE PROCESSORS USING EXPLICIT FORM OF THE FINITE ELEMENT METHOD AND C++ STANDARD LIBRARIES
5.	15:00 – 15:15	Rendlová, Z. , Smolík, L., Byrtus, M., Hajžman, M.: ON THE RING SPEED RATIO IN FLOATING RING BEARINGS OF AUTOMOTIVE TUBROCHARGERS
6.	15:15 – 15:30	Rendl, J. , Hajžman, M., Smolík, L.: NUMERICAL SOLVER FOR JOURNAL BEARING DYNAMICS



APPLIED MECHANICS 2016

Banská Štiavnica, 11th – 13th April, 2016

Prednáškový blok C / Lectures C

Predsedaajúci / Chairman: doc. Ing. Luboš Náhlík, Ph.D.

P.č.	12.4.2016	Utorok / Tuesday 16:00 – 17:30
1.	16:00 – 16:15	Jakubec, J. , Kutíš, V., Paulech, J., Gálik, G., Sedlár, T.: BYPASS INFLUENCE ON THERMO-HYDRAULICS OF VVER440 FUEL ASSEMBLY
2.	16:15 – 16:30	Goga, V., Bohuš, J. : INVESTIGATION OF THE PLANE STRESS STATE USING FINITE ELEMENT MODEL OF THE STRAIN GAUGES
3.	16:30 – 16:45	Ličková, D. , Halama, R.: IDENTIFICATION OF FATIGUE CONSTANTS BY MEANS OF 3D METHOD
4.	16:45 – 17:00	Vykoukal, O. , Hružík, L., Bureček, A.: EXPERIMENTAL DETERMINATION OF STATIC CHARACTERISTICS OF PRESSURE CONTROL VALVE
5.	17:00 – 17:15	ŠTEKBAUER, H. , NĚMEC, I.: A NEW CABLE-PULLEY ALGORITHM IN RFEM
6.	17:15 – 17:30	Hrabovský, J. , Gogola, R., Murín, J., Jakubec, J., Sedlár, T.: MODELING OF ASYMMETRIC ICE-SHEDDING FROM OVERHEAD POWER LINES



APPLIED MECHANICS 2016

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Prednáškový blok D / Lectures D

Predsedaajúci / Chairman: doc. Ing. Vladimír Kutiš, PhD.

P.č.	13.4.2016	Streda / Wednesday 9:00 – 10:30
1.	9:00 – 9:15	Gálik, G., Vladimír Kutiš, V., Jakubec, J., Paulech, J., Sedlár, T.: MODELING OF COOLANT FLOW WITHIN THE SPENT FUEL STORAGE POOL OF A VVER 440 REACTOR
2.	9:15 – 9:30	Gogola, R., Hrabovský, J., Murín, J., Gálik, G., Sedlár, T.: AIRFLOW AROUND THE ALFE POWER LINE IN UNSYMMETRIC MULTI-SPAN
3.	9:30 – 9:45	Hučko, B., Čekan, M., Horvát, F.: FORCE ANALYSIS OF BENCH PRESS ON STABLE AND UNSTABLE BASE
4.	9:45 – 10:00	SZARVAS, M.: EXPERIMENTAL STUDY OF THE SELECTED MATERIAL PROPERTIES OF POLYMER CONCRETE STRUCTURE
5.	10:00 – 10:15	VALKOVIČ, V.: PROBABILISTIC APPROACHES OF SOLUTION THE PIPING SYSTEMS ON THE ELASTIC FOUNDATION