

# ENGINEERING MECHANICS 2017

23<sup>rd</sup> INTERNATIONAL CONFERENCE

MAY 15 - 18, 2017, SVRATKA, CZECH REPUBLIC



## FINAL CONFERENCE PROGRAMME

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**Institute of Solid Mechanics, Mechatronics and Biomechanics,  
Faculty of Mechanical Engineering, Brno University of Technology**

**Institute of Thermomechanics,  
Academy of Sciences of the Czech Republic, v.v.i. – branch Brno**

**Association for Engineering Mechanics**

**Institute of Theoretical and Applied Mechanics,  
Academy of Sciences of the Czech Republic, v.v.i.**

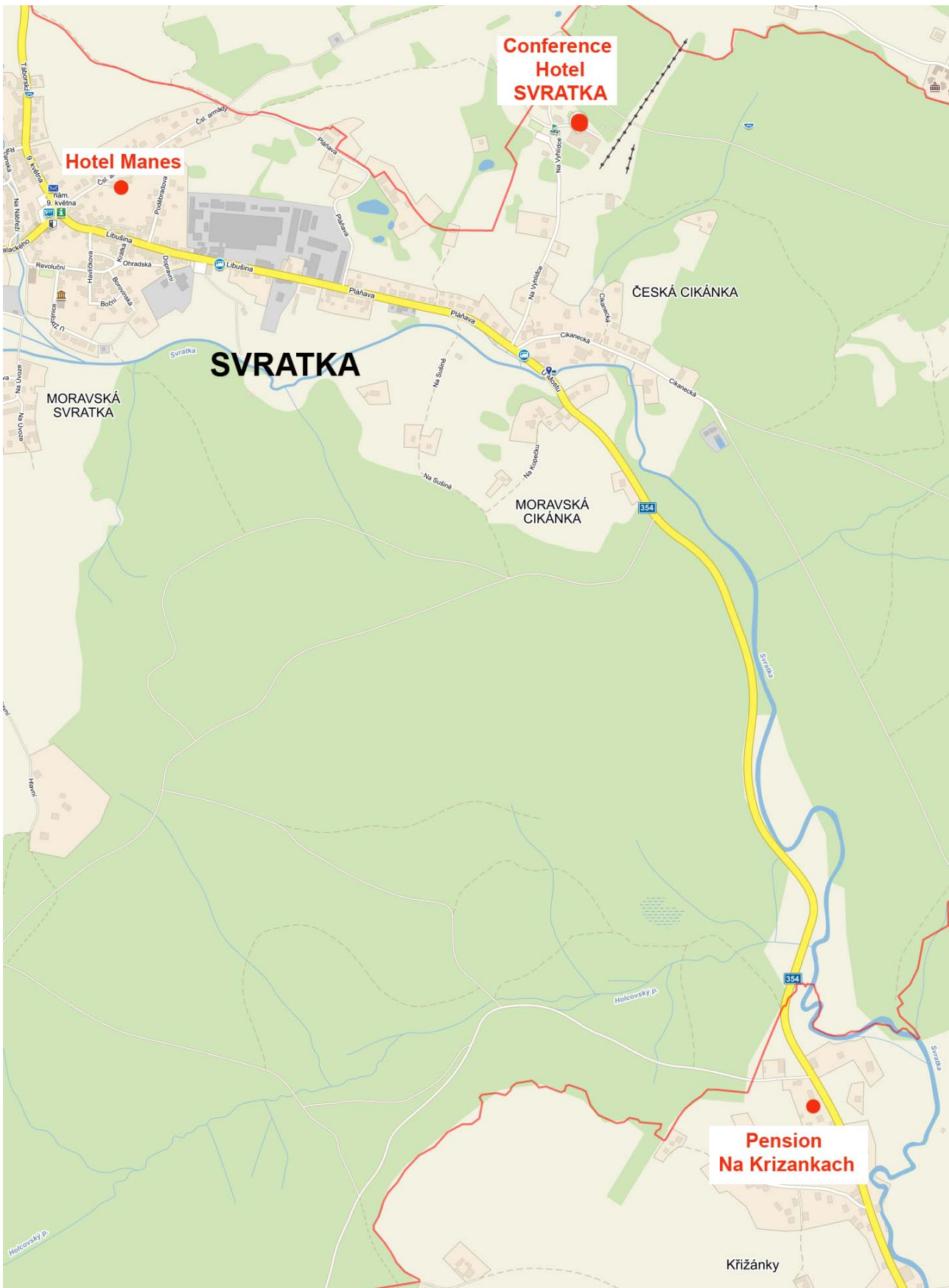
**ŽDAS, a. s., Žďár nad Sázavou**

**Czech Society for Mechanics**

**IFTToMM Member Committee of Czech Republic**

# Conference Hotel Svatka

## Additional accommodation: Hotel Manes and Pension Na Krizankach



source: [www.mapy.cz](http://www.mapy.cz)

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## LIST OF SECTIONS

Section	Abbr.	Date	Lecture Hall
<b>Keynote Lectures</b>	<i>KEY</i>	Monday	<b>Congress Hall</b> (next door the Restaurant)
		Tuesday	
		Wednesday	
<b>Biomechanics</b>	<i>BIO</i>	Tuesday	
		<b>Dynamics (Kinematics)</b>	
Wednesday			
		Thursday	
<b>Fluid Mechanics</b>	<i>FLU</i>	Tuesday	<b>Lecture Hall I</b> (Mini Golf - in the basement)
		Wednesday	
<b>Fracture Mechanics</b>	<i>FRA</i>	Tuesday	
<b>Mechatronics</b>	<i>MCT</i>	Wednesday	
		Thursday	
<b>Mechanics of Solids</b>	<i>SOL</i>	Tuesday	<b>Lecture Hall II</b> (Golf Simulator - next door the Mini Golf in the basement)
		Wednesday	
		Thursday	
<b>Reliability</b>	<i>REL</i>	Tuesday	
<b>Thermomechanics</b>	<i>TER</i>	Thursday	
<b>Mini-Posters</b>	<i>POS</i>	Wednesday	<b>Mini-Poster Hall</b> (next to the Registration)  <b>Hotel Lobby</b> (in front of the restaurant)

# 1. GENERAL INFORMATION

## VENUE

The EM2017 Conference is held in the Hotel SVRATKA, Na Vyhlídce 41, 592 02, Svatka, CZ, tel. +420 566 662 611, +420 724 131 739, [info@hotel-svatka.cz](mailto:info@hotel-svatka.cz), [www.hotel-svatka.cz/](http://www.hotel-svatka.cz/)

## ACCOMMODATION – BOARDING (see map above)

The accommodation of the participants is prepared:

- in hotel Svatka (see contact above),
- in hotel Mánes, address: Čsl. armády 303 Svatka 592 02, CZ, tel. +420 737 834 592, [www.hotel-manes-svatka.cz/](http://www.hotel-manes-svatka.cz/), [info@hotel-manes-svatka.cz](mailto:info@hotel-manes-svatka.cz),
- in Penzion Na Křížáncích, address: Moravské Křížánky 163, Svatka, 592 02, CZ, tel. +420 731 029 031, [info@penzionnakrizankach.cz](mailto:info@penzionnakrizankach.cz), <http://www.penzionnakrizankach.cz/>.

For information regarding other hotel services, please contact hotel reception (*swimming pool, sauna, golf concourse, etc.*).

**Breakfast is served for participants in the hotel they are living (Svatka or Mánes or Pension Na Krizankach) from 6:30 – 8:00. All other meal (lunch, dinner, coffee refreshment) is served (wherever accommodated) in the hotel SVRATKA only.**

Lunches and Dinners are served in the restaurant of the hotel SVRATKA (**Lunches 11:30 – 14:00; Dinners 17:30 – 20:00**). As the capacity of the restaurant is limited it is recommended to eat in two groups.

## TRANSPORTATION

- A special coach to Svatka (hotel SVRATKA – Conference venue) will be leaving Žďár nad Sázavou (bus station in front of the railway station) **at 13:50 on 15 May 2017**. The bus will wait to the train R 982 Vysočina – see <https://www.cd.cz> (if it will be delayed).
- A special coach to Žďár nad Sázavou (bus & railway station) will be leaving Svatka (hotel SVRATKA) **on 18 May 2017 – leaving time will be specify during conference**.

## OFFICIAL LANGUAGE

The official languages of the conference are English, Czech, and Slovak (English is preferred). No simultaneous translation is provided.

## CONFERENCE REGISTRATION

The Registration Desk of the EM 2017 Conference is located in the lobby of the hotel SVRATKA. It is open from 13:30 – 19:00 on Monday 15 May 2017, from 7:45 – 18:00 on Tuesday and from 7:45 – 12:00 on Wednesday and Thursday.

## INTERNET SERVICES

During the whole Conference internet services will be available in the hotel SVRATKA – 3 PCs will be at disposal in the Hotel Lobby, as well as WIFI coverage of the whole building.

## REFRESHMENT

Coffee and other refreshment are available in the bar of the hotel Svatka (10:00 – 24:00).

## BADGES

The participants are kindly requested to wear their badges during the conference to be admitted to scientific sessions, breakfasts, lunches, dinners, transportation and other services.

## 2. SCIENTIFIC INFORMATION

The 23<sup>rd</sup> International Conference **ENGINEERING MECHANICS 2017** continues in the tradition of the fruitful meetings which have been held in Svatka for many years.

The Scientific Committee reviewed and chose **274 papers** for the presentation (165 lectures and 109 mini-posters) at the conference while the keynote speakers were invited to cover the particular subjects of the engineering mechanics. All accepted papers are published in Conference Proceedings.

### LECTURES

The Conference EM2017 includes the keynote lectures (plenary session) and parallel sessions in the Lecture Halls located in the area of the hotel SVRATKA. The names of these halls are:

- **Congress Hall (next door the Restaurant),**
- **Lecture Hall I – Mini Golf (in the basement),**
- **Lecture Hall II – Golf Simulator (next door the Mini Golf in the basement).**

The presentation of a **keynote lecture lasts about 40 minutes** while that one of a **normal lectures 15 minutes including the discussion. The Chairmen of scientific sessions are responsible for keeping the timetable.** The presenting authors are kindly asked to contact their Section Chairman 10 minutes before starting of the session and to check functionality of their presentation.

The data projectors (1024\*768) with notebook are available in all Lecture Halls as a standard. A technician will assist in each of the lecture halls.

### MINI-POSTER SECTION

The Mini-poster section is situated in the **Mini-Poster Hall** (next to the Registration) and in the Hotel Lobby (in front of the restaurant). Due to the high number of the poster presenters it is necessary to place two Mini-posters on one panel (therefore the Mini-poster section). The maximum sizes of the Mini-poster are 90 cm x 63 cm (width x height). Presenting authors are entitled to mount their Mini-posters **since Tuesday 8:00 to Wednesday 9:00**. Some fixing material will be available at the Registration Desk. **The Mini-Poster section with the participation of authors this year will not be realized (capacity problems).**

All of the Mini-posters exhibited at the Conference will be accepted into the competition for the **Prize of the Managing Director of the ŽŤAS Company.**

All the winners of the competition must be present at the announcement of winners. The competitor will report his contact mobile number when registering the Mini-poster or when registering at the conference secretariat. **After the evaluation, the winners will receive SMS messages notifying their placement in the competition.** Twenty minutes before the announcement the winners shall come to the organizing table of the conference for the purpose of carrying out the necessary formalities (take the identity card or passport with you).

The MINI-POSTER COMMITTEE – under chairmanship of the technical director of the ŽŤAS company – Ing. David Zalaba will conclude the assessment of the Mini-posters exhibited on **Wednesday (9:00 – 13:00)**. The winners of the competition will be announced and awarded on Wednesday evening at 19:00 before the Conference Dinner.

The authors are asked to kindly **dismount their Mini-posters during Thursday morning** at the latest.

### VARIATIONS

The Scientific Committee is entitled to vary the conference programme if necessary for scientific or technical reasons. If a speaker is missing in the planned time the next speakers take the order and the break after that particular session will be longer.

### 3. CONFERENCE TIMETABLE

<i>Monday – 15 May 2017</i>	
13:30 – 19:00	<i>Registration of participants – Hotel Lobby</i>
	<b>Congress Hall</b>
16:00 – 16:15	<b>Opening Ceremony</b>
16:15 – 17:35	<b>KEY I - Keynote lectures</b>
17:40 – 20:00	<b>Dinner – Restaurant</b>

<i>Tuesday – 16 May 2017</i>					
	<b>Congress Hall</b>	<b>Lecture Hall I</b>	<b>Lecture Hall II</b>	<b>Hotel Lobby</b>	
8:00 – 8:40	<b>KEY II</b>			<b>Registration 7:45 – 18:00</b>	
9:00 – 10:30	<b>DYN I</b>	<b>FLU I</b>	<b>SOL I</b>		
	<b>Coffee Break</b>				
	<b>Congress Hall</b>	<b>Lecture Hall I</b>	<b>Lecture Hall II</b>		
10:30 – 11:30	<b>DYN II</b>	<b>FLU II</b>	<b>SOL II</b>		
11:30 – 14:00	<b>Lunch – Restaurant</b>				
13:00 – 14:00	<b>MEETING OF THE IFToMM COMMITTEE Coffee Bar</b>				
	<b>Congress Hall</b>	<b>Lecture Hall I</b>	<b>Lecture Hall II</b>		
14:00 – 16:00	<b>BIO I</b>	<b>FRA I</b>	<b>REL I</b>		<b>Technical Exhibitions 9:00 – 18:00</b>
16:00 – 16:15	<b>Coffee Break</b>				
	<b>Congress Hall</b>	<b>Lecture Hall I</b>	<b>Lecture Hall II</b>		
16:15 – 17:30	<b>BIO II</b>	<b>FRA II</b>	<b>REL II</b>		
17:30 – 20:00	<b>Dinner – Restaurant</b>				
	<b>Congress Hall</b>				
20:15 – 21:45	<b>Mgr. Stanislav Mikule – Over old Portraits (in Czech)</b>				

<i>Wednesday – 17 May 2017</i>					
	Congress Hall	Lecture Hall I	Lecture Hall II	Hotel Lobby	
8:00 – 8:40	<i>KEY III</i>			Registration 7:45 – 12:00  Technical Exhibitions 9:00 – 12:00	
9:00 – 10:30	<i>DYN III</i>	<i>FLU III</i>	<i>SOL III</i>		
10:30 – 10:45	C o f f e e B r e a k				
	Congress Hall	Lecture Hall I	Lecture Hall II		
10:45 – 11:45	<i>DYN IV</i>	<i>FLU IV</i>	<i>SOL IV</i>		
11:45 – 14:00	L u n c h – Restaurant				
14:00 – 19:00	F r e e t i m e				
19:00 – 19:15	Award of the Prize of the Technical Director of ŽĎAS				
19:15 – 24:00	C o n f e r e n c e D i n n e r – Restaurant				

<i>Thursday – 18 May 2017</i>				
	Congress Hall	Lecture Hall I	Lecture Hall II	Hotel Lobby
8:00 – 8:40	<i>KEY IV</i>			Registration 7:45 – 12:00
9:00 – 10:15	<i>DYN V</i>	<i>MCT I</i>	<i>SOL V</i>	
10:15 – 10:30	C o f f e e B r e a k			
	Congress Hall	Lecture Hall I	Lecture Hall II	
10:30 – 11:30	<i>DYN VI</i>	<i>MCT II</i>	<i>TER I</i>	
11:30 – 14:00	C l o s i n g C e r e m o n y & L u n c h – Restaurant			

## **4. DETAILED PROGRAMME**

### **4.1. Congress Hall - Detailed Programme (next door the Restaurant)**

<i>Keynote Lectures (KEY I)</i>	<i>Monday</i>
<i>Keynote Lecture (KEY II)</i>	<i>Tuesday</i>
<i>Dynamics (DYN I and II)</i>	<i>Tuesday</i>
<i>Biomechanics (BIO I and II)</i>	<i>Tuesday</i>
<i>Mgr. S. Mikule - Over old Portraits (in Czech)</i>	<i>Tuesday</i>
<i>Keynote Lecture (KEY III)</i>	<i>Wednesday</i>
<i>Dynamics (DYN III and IV)</i>	<i>Wednesday</i>
<i>Keynote Lecture (KEY IV)</i>	<i>Thursday</i>
<i>Dynamics (DYN V and VI)</i>	<i>Thursday</i>

#### **Monday – 15 May 2017 – Congress Hall**

16:00 – 16:15	<i>Opening Ceremony – Plenary session</i>	
16:15 – 17:35	<i>Keynote lectures – Plenary session</i> Chairmen: J. Petruška, J. Horáček	<i>(KEY I)</i>
16:15	<i>Novák D.: RELIABILITY ANALYSIS OF CONCRETE STRUCTURES: METHODS, SOFTWARE, APPLICATION</i>	-
16:55	<i>Peszynski K., Olszewski L., Smyk E., Kasprowicz T.: DEVELOPMENT OF NEW TYPE VENTILATION DUCTS SYSTEM</i>	50
17:40 – 20:00	<i>D i n n e r – Restaurant</i>	



## Tuesday – 16 May 2017 – Congress Hall

### *Keynote lectures – Plenary session* (KEY II)

Chairman: J. Náprstek

8:00 – 8:40

Porteš P., Kučera P., Pištěk V., Fojtásek J., Zháňal L.: *MODERN TOOLS FOR VEHICLE DEVELOPMENT*

54

9:00 – 10:00

### *Dynamics*

(DYN I)

Chairmen: J. Náprstek, V. Zeman

9:00

Dabrowski A., Balcerzak M., Pikunov D.: *APPLICATIONS OF THE NEW METHOD OF THE LYAPUNOV EXPONENTS ESTIMATION*

266

9:15

Bayer J.: *A CONCEPT FOR TESTING AND MONITORING OF BUILDING STRUCTURES – THEORETICAL CASE STUDY*

122

9:30

Šulka P., Sapietová A., Dekýš V., Sapieta M.: *ANALYSIS OF NON-STATIONARY VIBRATION MODE MECHANICAL DEVICE*

950

9:45

Aleksandrowicz P.: *ANALYSIS OF VEHICLE COLLISIONS WITH THE SDC METHOD*

78

10:00 – 10:15

*Coffee Break – Hotel Lobby*

10:15 – 11:30

### *Dynamics*

(DYN II)

Chairmen: V. Zeman, J. Zapoměl

10:15

Macháček O., Kubík M., Novák P.: *A NEW METHOD OF MAGNETORHEOLOGICAL DAMPER QUALITY EVALUATION*

594

10:30

Szrek J., Balchanowski J.: *MODELLING AND SIMULATION RESEARCHES OF DYNAMICS OF TRANSLATIONAL PARALLEL MECHANISM*

974

10:45

Šulc P., Pešek L., Bula V., Košina J., Cibulka J.: *PROPOSAL OF HYPERELASTIC PROPORTIONAL DAMPING AS DISSIPATED ENERGY MODEL OF HARD RUBBERS*

942

11:00

Zapoměl J., Ferfecki P., Kozánek J.: *REDUCTION OF THE ENERGY LOSSES BY APPLICATION OF CONTROLLABLE SQUEEZE FILM DAMPERS*

1110

11:15

Sobotka J.: *FORCED VIBRATION ANALYSIS OF PRESTRESSED EULER-BERNOULLI BEAM WITH DISCONTINUITIES BY MEANS OF DISTRIBUTIONS WITHOUT USING MODAL ANALYSIS*

890

11:30 – 14:00

*L u n c h – Restaurant*

<b>14:00 – 16:00</b>	<b><i>Biomechanics</i></b> Chairmen: T. Vampola, J. Horáček	<b>(BIO I)</b>
<b>14:00</b>	<b>Horáček J., Radolf V., Bula V., Košina J.:</b> <i>EXPERIMENTAL MODELLING OF PHONATION USING ARTIFICIAL MODELS OF HUMAN VOCAL FOLDS AND VOCAL TRACTS</i>	<b>382</b>
<b>14:15</b>	<b>Vampola T., Horáček J.:</b> <i>INFLUENCE OF THE NASAL CAVITIES TO HUMAN VOICE QUALITY</i>	<b>1018</b>
<b>14:30</b>	<b>Hájek P., Švancara P., Horáček J., Švec G. J.:</b> <i>EFFECTS OF TURBULENCE IN FE MODEL OF HUMAN VOCAL FOLDS SELF-OSCILLATION</i>	<b>366</b>
<b>14:45</b>	<b>Štorkán J., Vampola T., Horáček J.:</b> <i>COMPUTATIONALLY EFFICIENT MODEL OF THE HUMAN VOCAL FOLD</i>	<b>926</b>
<b>15:00</b>	<b>Hynek P., Vampola T.:</b> <i>EXAMINATION OF THE BASIC GEOMETRICAL PARAMETERS OF THE LOWER RESPIRATORY TRACT OF THE HUMAN AND ITS SIMPLIFIED COMPUTATIONAL MODEL</i>	<b>390</b>
<b>15:15</b>	<b>Sant Z., Mifsud L., Muscat C.:</b> <i>SIMULATION OF DAILY LIFE ACTIVITIES IN BIOMECHANICS</i>	<b>842</b>
<b>15:30</b>	<b>Borák L., Marcián P.:</b> <i>INHOMOGENEOUS MATERIAL PROPERTIES ASSIGNMENT TO FINITE ELEMENT MODELS OF BONE: A SENSITIVITY STUDY</i>	<b>190</b>
<b>15:45</b>	<b>Kawlewska E., Zarwańska M., Larysz D., Wolański W., Gzik M.:</b> <i>PREOPERATIVE PLANNING OF CORRECTION OF CRANIAL DEFORMATIONS USING DISTRACTORS</i>	<b>446</b>
<b>16:00 – 16:15</b>	<b><i>Coffee Break – Hotel Lobby</i></b>	
<b>16:15 – 18:15</b>	<b><i>Biomechanics</i></b> Chairmen: K. Frydrýšek, M. Pásek	<b>(BIO II)</b>
<b>16:15</b>	<b>Mazurkiewicz A.:</b> <i>IMPACT OF MINERAL CONTENT IN HUMAN TRABECULAR BONE ON ITS ELASTIC PROPERTIES</i>	<b>642</b>
<b>16:30</b>	<b>Mazurkiewicz A.:</b> <i>IMPACT OF MINERAL CONTENT IN HUMAN TRABECULAR BONE ON ITS STATIC AND FATIGUE PROPERTIES</i>	<b>646</b>
<b>16:45</b>	<b>Frydrýšek K., Dvořák L.:</b> <i>BIOMECHANICS - TESTING OF MECHANICAL AND UTILITY PROPERTIES OF BOTTLES FOR REDON DRAINAGE</i>	<b>318</b>
<b>17:00</b>	<b>Učeň O., Frydrýšek K., Fojtík F., Bialý L., Pleva L.:</b> <i>BIOMECHANICS – VERIFICATION OF FORCE CHARACTERISTICS OF A DEVICE FOR REDUCTION OF BONE FRAGMENTS IN PATIENTS WITH FINGER FRACTURES</i>	<b>994</b>
<b>17:15</b>	<b>Nowakowska K., Michnik R., Myśliwiec A., Chrzan M.:</b> <i>IMPACT OF STRENGTHENING OF THE ERECTOR SPINAE MUSCLE ON THE VALUES OF LOADS OF THE MUSKULOSKELETAL SYSTEM IN THE LUMBAR SPINE SECTION</i>	<b>718</b>
<b>17:30</b>	<b>Pásek M., Bébarová M., Christé G.:</b> <i>A MODIFIED MATHEMATICAL MODEL OF HUMAN VENTRICULAR CARDIOMYOCYTE INCORPORATING SEPARATE T-TUBULAR AND SURFACE DYADS AND SUBMEMBRANE SPACES</i>	<b>750</b>

17:45	Řehounek L., Jíra A., Denk F.: <i>MECHANICAL BEHAVIOR OF A TITANIUM ALLOY TRABECULAR STRUCTURE</i>	818
18:00 – 20:00	<i>Dinner – Restaurant</i>	
<b>Wednesday – 17 May 2017 – Congress Hall</b>		
<b>Keynote lectures – Plenary session</b>		<b>(KEY III)</b>
Chairman: J. Nevrlý		
8:00 – 8:40	Juračka J., Jebáček I., Matějů J.: <i>AERONAUTICAL DEVICES EXPERIMENTAL TESTING</i>	42 46
9:00 – 10:00	<b>Dynamics</b>	<b>(DYN III)</b>
Chairmen: M. Sokol, V. Zeman		
9:00	Ivankova O., Valasik A., Konecna L.: <i>A HIGH-RISE BUILDING - INFLUENCE OF CHANGE OF SOIL STIFFNESS ON HORIZONTAL AND VERTICAL DEFLECTIONS</i>	398
9:15	Ivankova O., Meri D., Vojtekova E.: <i>DESIGN AND OPTIMIZATION OF SUPPORTING STRUCTURE OF A MULTIPURPOSE HIGH-RISE BUILDING WITH RESPECT TO THE WIND LOAD</i>	394
9:30	Prokop A., Řehák K.: <i>VIRTUAL PROTOTYPE APPLICATION TO HEAVY-DUTY VEHICLE GEARBOX CONCEPT</i>	810
9:45	Sokol M., Lamperová K., Venglár M., Hernández Carrasco L. H.: <i>OPTIMUM DESIGN OF TUNED LIQUID COLUMN DAMPER FOR HIGH-RISE BUILDING</i>	898
10:00	Zeman V., Hlaváč Z.: <i>FRICITION FORCES AND FRETTING WEAR IN REACTOR CORE BARREL COUPLINGS</i>	1118
10:15	Schmidt J., Janda T., Šejnoha M., Valentin J.: <i>EXPERIMENTAL DETERMINATION OF VISCO-ELASTIC PROPERTIES OF LAMINATED GLASS INTERLAYER</i>	850
10:30	Mochar D., Gabriel D., Masák J., Kopačka J., Kolman R., Plešek J., Hynek P., Vtípil J.: <i>EXPLICIT DYNAMIC FINITE ELEMENT ANALYSIS OF A FIRING PIN ASSEMBLY</i>	666
10:45 – 11:00	<i>Coffee Break – Hotel Lobby</i>	
11:00 – 12:45	<b>Dynamics</b>	<b>(DYN IV)</b>
Chairmen: L. Půst, J. Červ		
11:00	Kolman R., Cho S. S., Gonzalez J. G., Park K. C., Berezovski A.: <i>AN EXPLICIT TIME SCHEME WITH LOCAL TIME STEPPING FOR ONE-DIMENSIONAL WAVE PROPAGATION IN A BIMATERIAL BAR</i>	474

11:15	Půst L., Pešek L.: <i>RUNNING FLUTTER WAVES IN BLADES CASCADE</i>	814
11:30	Kučera P., Píštěk V.: <i>SHAFT VIBRATION OF THE TRUCK</i>	546
11:45	Mališ M., Šplíchal J.: <i>SIMULATION OF PILOT LOAD DURING EMERGENCY LANDING CONDITIONS</i>	610
12:00	Chatys R., Miśków G., Miśków J.: <i>STRUCTURAL MODELLING OF THE STRENGTH PROPERTIES OF POLYMER COMPOSITES</i> <i>STRUCTURAL MODELLING OF THE STRENGTH PROPERTIES OF POLYMER COMPOSITES</i>	250
12:15	Drahorádová L., Moravec J., Andrlík V.: <i>TESTING THE POSITIONING ACCURACY AND REGULARITY OF THE MOTION THREADED MECHANISM FEED DRIVE</i>	278
12:30	Červ J., Valeš F., Adámek V.: <i>A SHORT WAVE LIMIT OF THE FREQUENCY EQUATION FOR PLANE-STRESS NONAXISYMMETRIC DISC MOTIONS</i>	246
12:45 – 14:00	<i>L u n c h – Restaurant</i>	

### *Thursday – 18 May 2017 – Congress Hall*

#### *Keynote lectures – Plenary session (KEY IV)* Chairman: K. Peszynski

8:00 – 8:40	Šafařík P.: <i>SHOCK WAVES IN AN IDEAL GAS AND ENTROPY ANALYSIS</i>	58
9:00 – 10:30	<i>Dynamics (DYN V)</i> Chairmen: J. Náprstek, P. Polach	
9:00	Polach P., Hajžman M., Byrtus M., Dyk Š., Smolík L.: <i>MATHEMATICAL MODELLING OF ROTOR SYSTEMS WITH JOURNAL BEARINGS IN LIMIT CASES</i>	794
9:15	Fischer C., Náprstek J.: <i>LYAPUNOV EXPONENTS – PRACTICAL COMPUTATION</i>	310
9:30	Náprstek J., Fischer C.: <i>NON-HOLONOMIC PLANAR AND SPATIAL MODEL OF A BALL-TYPE TUNED MASS DAMPING DEVICE</i>	698
9:45	Golebiowska I., Dutkiewicz M.: <i>EXPERIMENTAL ANALYSIS OF EFFICIENCY OF MASS DAMPERS</i>	350

10:00	<b>Mauro F., Nabergoj R.:</b> <i>DETERMINATION OF NON-LINEAR ROLL DAMPING COEFFICIENTS FROM MODEL DECAYTEST</i>	634
10:15	<b>Zemanová A., Zeman J., Janda T., Šejnoha M.:</b> <i>FREE VIBRATION ANALYSIS OF LAMINATED GLASS BEAMS USING DYNAMIC EFFECTIVE THICKNESS AND OTHER APPROACHES</i>	1122
10:30 – 10:45	<i>Coffee Break – Hotel Lobby</i>	
10:45 – 12:00	<b>Dynamics</b> Chairmen: <b>M. Musil, I Shatskyi</b>	<b>(DYN IV)</b>
10:45	<b>Úradníček J., Kraus P., Musil M., Bachratý M.:</b> <i>MODELING OF FRICTIONAL STICK SLIP EFFECT LEADING TO DISC BRAKE NOISE VIBRATION AND HARSHNESS</i>	1002
11:00	<b>Shatskyi I., Popadyuk I., Velychkovych A.:</b> <i>MODELLING OF ENERGY DISSIPATION IN SHELL DAMPERS</i>	870
11:15	<b>Musil M., Sivý M.:</b> <i>PARAMETRIC INSTABILITY OF THE PLANE FREE SURFACE OF THE LIQUID IN CYLINDRICAL STORAGE TANKS</i>	686
11:30	<b>Malínek P.:</b> <i>STABILITY MARGINS EXPERIMENTAL SEARCH OF AN AEROELASTIC SYSTEM</i>	606
11:45	<b>Kilinc O., Vágner J.:</b> <i>WAYSIDE DIAGNOSIS OF METRO WHEELSETS USING ACOUSTIC SENSOR DATA AND ONE-PERIOD ANALYSIS</i>	458
12:00– 14:00	<i>Closing Ceremony &amp; L u n c h – Restaurant</i>	

## **4.2. Lecture Hall I - Detailed Programme**

(Mini Golf - in the basement)

<i>Fluid Mechanics (FLU I and II)</i>	<i>Tuesday</i>
<i>Fracture Mechanics (FRA I and II)</i>	<i>Tuesday</i>
<i>Fluid Mechanics (FLU III and IV)</i>	<i>Wednesday</i>
<i>Mechatronics (MCT I and II)</i>	<i>Thursday</i>

### **Tuesday – 16 May 2017 – Lecture Hall I**

<b>9:00 – 10:30</b>	<b><i>Fluid Mechanics</i></b> Chairmen: P. Vlasák, I. Zolotarev	<b><i>(FLU I)</i></b>
9:00	<b>Bednář L., Tajč L., Miczán M., Mrózek L., Hoznedl M.:</b> <i>POSSIBILITY OF DAMPING PRESSURE PULSATIONS IN BALANCING CONTROL VALVES</i>	130
9:15	<b>Kubík M., Macháček O., Strecker Z., Roupec J., Mazůrek I.:</b> <i>DYNAMIC VISCOSITY OF COMMERCIALY AVAILABLE MAGNETORHEOLOGICAL FLUIDS</i>	538
9:30	<b>Sosnowski M.:</b> <i>COMPUTER AIDED OPTIMIZATION OF A NOZZLE IN AROUND-THE-PUMP FIRE SUPPRESSION FOAM PROPORTIONING SYSTEM</i>	914
9:45	<b>Vlasák P., Chára Z., Konfršt J.:</b> <i>CONCENTRATION DISTRIBUTION AND SLIP VELOCITY OF COARSE-PARTICLE-WATER MIXTURE IN HORIZONTAL AND INCLINED PIPE SECTIONS</i>	1034
10:00	<b>Világi F., Knížat B., Urban F., Olšiak R., Mlkvik M., Ridzoň F., Mlynár P.:</b> <i>ESTIMATION OF MINOR LOSSES IN A NATURAL CIRCULATION HELIUM LOOP</i>	1030
10:15	<b>Dočkal K., Šperka P., Křupka I., Hartl M.:</b> <i>FLUID FLOW MEASUREMENTS OF 5P4E BY PARTICLE TRACKING VELOCIMETRY</i>	274
<b>10:30 – 10:45</b>	<b><i>Coffee Break – Hotel Lobby</i></b>	

10:45 – 12:15	<b><i>Fluid Mechanics</i></b> (FLU II) Chairmen: I. Zolotarev, P. Vlasák
10:45	Peszyński K., Perczyński D., Smyk E., Kolber P.: <i>EXPERIMENTAL VERIFICATION OF VELOCITY DISTRIBUTION IN DIFFERENT CROSS-SECTIONAL VENTILATION DUCTS</i> 770
11:00	Prachař A., Hospodář P., Vrchota P.: <i>GUST ALLEVIATION OF NASA COMMON RESEARCH MODEL USING CFD</i> 798
11:15	Bang N. V., Rozehnal D.: <i>AERODYNAMIC HYSTERESIS OF OSCILLATING AIRFOIL</i> 106
11:30	Cabová K., Lišková N., Novotná P., Benýšek M., Zeman F., Wald F.: <i>MODELLING OF STANDARD FIRE TEST</i> 226
11:45	Romańczyk M., Elsner W.: <i>NUMERICAL ANALYSIS FOR OPTIMAL LOCALIZATION OF GAS INLET IN A VENTURI MIXER</i> 826
12:00	Vlček V., Zolotarev I., Kozánek J., Šidlof P., Štěpán M.: <i>SOME ENERGY RELATIONS OF THE SELF-EXCITED PROFILE VIBRATION IN FLOWING FLUID</i> 1038
12:15 – 14:00	<b><i>L u n c h – Restaurant</i></b>
14:00 – 16:00	<b><i>Fracture Mechanics</i></b> (FRA I) Chairmen: I. Shatskyi, T. Profant
14:00	Shatskyi I., Makoviichuk M., Perepichka V., Dalyak T.: <i>EFFECT OF CRACKS CLOSURE IN PLATES AND SHELLS UNDER COMBINED TENSION AND BENDING</i> 866
14:15	Eliáš J., Le J. -L.: <i>MITIGATION OF MESH DEPENDENCY IN PROBABILISTIC FINITE ELEMENT SIMULATION OF QUASIBRITTLE FRACTURE</i> 302
14:30	Had J.: <i>IMPLEMENTATION OF INTERACTING CREEP AND FATIGUE UNDER THERMO-MECHANICAL LOADING</i> 362
14:45	Karoľ M., Chlupová A., Mazánová V., Kruml T.: <i>FATIGUE CRACK INITIATION AND GROWTH IN 316L STEEL IN TORSIONAL CYCLIC LOADING</i> 434
15:00	Menshykov O., Menshykova M., Guz I. A.: <i>THICK-WALLED COMPOSITE PIPES UNDER BENDING</i> 650
15:15	Pejkowski Ł.: <i>DETERMINATION OF THE NUMBER OF CYCLES FOR ASYNCHRONOUS PERIODIC MULTIAXIAL LOADINGS USING ENERGY BASED CUMULATIVE DAMAGE THEORY</i> 762
15:30	Profant T., Hrstka M., Klusák J., Keršner Z.: <i>ON THE ENERGY RELEASE RATE OF THE CRACK EMANATING FROM THE INCLUSION INTERPHASE</i> 806
15:45 – 16:00	<b><i>Coffee Break – Hotel Lobby</i></b>

16:00 – 17:30	<b><i>Fracture Mechanics</i></b> Chairmen: B. Ligaj, J. Vorel	<b>(FRA II)</b>
16:00	Roupec J., Mazurek I., Strecker Z., Kubík M., Macháček O.: <i>TENSILE STRENGTH OF PURE IRON SAMPLES MANUFACTURED BY SELECTIVE LASER MELTING METHOD</i>	830
16:15	Topolinski T., Ligaj B., Mazurkiewicz A., Miterka S.: <i>EVALUATION OF DEFORMATIONS OF THICK-LAYER GLUED JOINTS APPLIED IN CONSTRUCTION OF RAIL VEHICLES</i>	986
16:30	Maćkowiak P., Ligaj B.: <i>DAMAGE TO ADHESIVE SINGLE LAP JOINT MADE OF MATERIALS WITH DIFFERENT PROPERTIES UNDER STATIC LOADING CONDITIONS</i>	598
16:45	Ševeček O., Majer Z., Kotoul M.: <i>INFLUENCE OF CERAMIC FOAM PARAMETERS ON THE FRACTURE BEHAVIOUR UPON THE TENSILE TEST</i>	862
17:00	Valentová S., Vorel J., Šejnoha M.: <i>EFFECTIVE ELASTIC AND STRENGTH PROPERTIES OF UNIDIRECTIONAL FIBROUS CERAMIC COMPOSITES</i>	1010
17:15	Vorel J., Kabele P.: <i>BACK ANALYSIS FOR DETERMINATION OF TENSION-SOFTENING DIAGRAM</i>	1042
17:30 – 20:00	<b><i>D i n n e r – Restaurant</i></b>	

### ***Wednesday – 17 May 2017 – Lecture Hall I***

9:00 – 10:30	<b><i>Fluid Mechanics</i></b> Chairmen: K. Peszyński, O. Hubova	<b>(FLU III)</b>
9:00	Klečková J., Hamza J.: <i>NUMERICAL SIMULATION OF STEAM FLOW AROUND VIBRATING TURBINE BLADES</i>	462
9:15	Plánička S., Vimmr J.: <i>NUMERICAL SIMULATIONS OF FREE SURFACE FLOWS USING A THREE-EQUATION MODEL</i>	786
9:30	Mauro F., Cerni P., Nabergoj R.: <i>RANS CALCULATIONS ON SUBMERGED BODIES</i>	630
9:45	Vrchota P., Prachař A., Hospodář P., Dolgopyat D., Seifert A.: <i>SIMPLIFIED OSCILLATORY BOUNDARY CONDITION FOR EFFICIENT CFD SIMULATION OF AFC EFFECT</i>	1050
10:00	Hubova O., Konecna L.: <i>WIND FLOW AROUND HIGH-RISE BUILDINGS AND ITS INFLUENCE ON THE PEDESTRIAN COMFORT</i>	386
10:15	Siwulski T., Warzyńska U.: <i>THE ADVANTAGES OF A NEW HYDRAULIC CYLINDER DESIGN WITH A CONTROL SYSTEM</i>	874
10:30 – 10:45	<b><i>Coffee Break – Hotel Lobby</i></b>	



10:45 – 11:45	<b><i>Fluid Mechanics</i></b> Chairmen: O. Hubova, K. Peszyński	<b>(FLU IV)</b>
10:45	Kořínek T., Petříková M.: <i>AN INVESTIGATION OF MASS TRANSFER IN A VORTEX SHEDDING PAST SQUARE CYLINDER</i>	482
11:00	Wydrych J., Borsuk G., Pochwała S.: <i>ANALYSIS OF THE EROSION WEAR MODELING RESULTS OF THE PNEUMATIC CONVEYING SYSTEMS</i>	1074
11:15	Smyk E., Wawrzyniak S., Perczyński D., Kolber P.: <i>AXISYMMETRIC VALVE WITH SYNTHETIC JET ACTUATOR</i>	886
11:30	Borsuk G., Wydrych J., Pochwała S.: <i>COMPARING TURBULENCE MODELS FOR GAS-PARTICLE MIXTURE PNEUMATIC CONVEYING</i>	202
11:45 – 14:00	<b><i>L u n c h – Restaurant</i></b>	

***Thursday – 18 May 2017 – Lecture Hall I***

9:00 – 10:15	<b><i>Mechatronics</i></b> Chairmen: J. Tůma, J. Krejsa	<b>(MCT I)</b>
9:00	Dudek D., Kazala R., Straczynski P.: <i>JITTER ANALYSIS OF MQTT PROTOCOL FRAMES IN MOBILE ROBOT CONTROL SYSTEM</i>	286
9:15	Kšica F., Vetiška J., Hadaš Z.: <i>METHODOLOGY FOR PREDICTING DYNAMIC BEHAVIOUR OF MACHINE TOOLS BASED ON A VIRTUAL MODEL</i>	534
9:30	Krejsa J., Vechet S.: <i>THE EVALUATION OF HOKUYO URG-04LX-UG01 LASER RANGE FINDER DATA</i>	522
9:45	Tůma J., Šuránek P., Mahdal M.: <i>ALL-PASS FILTERS AS A TOOL FOR CONVERTING A POSITIVE FEEDBACK TO A NEGATIVE FEEDBACK WHEN CONTROLLING WEAKLY DAMPED SYSTEMS</i>	990
10:00	Gidlewski M., Jemioł L., Żardecki D.: <i>SENSITIVITY INVESTIGATIONS OF THE LANE CHANGE AUTOMATED PROCESS</i>	330
10:15 – 10:30	<b><i>Coffee Break – Hotel Lobby</i></b>	
10:30 – 11:45	<b><i>Mechatronics</i></b> Chairmen: J. Nevrlý, S. Vechet	<b>(MCT II)</b>
10:30	Záda V.: <i>APPLICATION OF HAMILTONIAN MECHANICS IN EXPONENTIALLY STABLE CONTROL OF ROBOTS</i>	1086

<b>10:45</b>	<b>Němec Z., Nevrlý J.:</b> <i>MODELING OF ROAD ROLLER DRIVE EQUIPPED WITH HYDROSTATIC RECOVERY OF KINETIC ENERGY</i>	<b>706</b>
<b>11:00</b>	<b>Strecker Z., Strmiska T., Roupec J., Kubík M., Macháček O.:</b> <i>DESIGN OF FAST MAGNETORHEOLOGICAL DAMPER USING SOFT MAGNETIC COMPOSITES</i>	<b>934</b>
<b>11:15</b>	<b>Kumpán P.:</b> <i>SEGMENTATION OF HUMAN MOTION ACCELERATION WITH PROBABILISTIC CLASSIFIER</i>	<b>566</b>
<b>11:30</b>	<b>Woś P., Dindorf R.:</b> <i>LEAK MEASURING SYSTEM OF COMPRESSED AIR IN PIPELINE</i>	<b>1070</b>
<b>11:45 – 14:00</b>	<b><i>Closing Ceremony &amp; L u n c h – Restaurant</i></b>	

### **4.3. Lecture Hall II - Detailed Programme**

**(Golf Simulator - next door the Mini Golf in the basement)**

<i>Mechanics of Solids (SOL I and II)</i>	<i>Tuesday</i>
<i>Mechanics of Solids (SOL III and IV)</i>	<i>Wednesday</i>
<i>Mechanics of Solids (SOL V)</i>	<i>Thursday</i>
<i>Thermomechanics (TER I)</i>	<i>Thursday</i>

#### ***Tuesday – 16 May 2017 – Lecture Hall II***

<b>9:00 – 10:45</b>	<b><i>Mechanics of Solids</i></b>	<b><i>(SOL I)</i></b>
	<b>Chairmen: V. Píšťek, P. Porteš</b>	
<b>9:00</b>	<b>Kriváček J., Sadovský Z.: ON THE CHOICE OF GEOMETRICAL IMPERFECTIONS IN GMNIA STRENGTH CALCULATIONS OF THIN-WALLED STRUCTURES</b>	<b>526</b>
<b>9:15</b>	<b>Sokol Z., Fíla J., Eliášová M.: LOAD BEARING TEST OF WALL FROM HOLLOW GLASS BLOCKS USING VITRALOCK INSTALLATION SYSTEM</b>	<b>902</b>
<b>9:30</b>	<b>Kebli B., Baka Z.: AXISYMMETRIC DEFORMATION OF AN ELASTIC MEDIUM WEAKENED BY AN ANNULAR CRACK</b>	<b>450</b>
<b>9:45</b>	<b>Bojczuk D., Szeleblak W.: OPTIMAL REPAIR AND REINFORCEMENT OF BAR STRUCTURES USING FINITE TOPOLOGY VARIATIONS</b>	<b>186</b>
<b>10:00</b>	<b>Dvořáková E., Patzák B.: COMPUTATIONAL PERFORMANCE OF A DSG-BASED ISOGEOMETRIC BEAM ELEMENT</b>	<b>290</b>
<b>10:15</b>	<b>Mikeš K., Jirásek M.: ON EFFICIENCY OF QUASICONTINUUM SIMULATION OF CRACK PROPAGATION IN ELASTIC-BRITTLE DISORDERED LATTICES</b>	<b>662</b>
<b>10:30</b>	<b>Kučíková L., Vorel J., Sýkora J., Šejnoha M.: EFFECTIVE HEAT AND MOISTURE TRANSPORT PROPERTIES OF SPRUCE</b>	<b>550</b>
<b>10:45 – 11:00</b>	<b><i>Coffee Break – Hotel Lobby</i></b>	

11:00 – 12:45	<b><i>Mechanics of Solids</i></b> Chairmen: M. Musil, I. Baláž	<b>(SOL II)</b>
11:00	Myšáková E., Lepš M.: <i>SHIFTING OF LHS DESIGN FOR SURROGATE MODELING</i>	690
11:15	Löffelmann F.: <i>FAILURE INDEX BASED TOPOLOGY OPTIMIZATION FOR MULTIPLE PROPERTIES</i>	590
11:30	Baláž I., Koleková Y.: <i>PLASTIC RESISTANCE OF ALUMINUM I-PROFILE UNDER BENDING AND TORSION ACCORDING TO CONTINUOUS STRENGTH METHOD</i>	102
11:45	Havelka J., Sýkora J., Kučerová A.: <i>CALDERÓN'S INVERSE PROBLEM IN CIVIL ENGINEERING</i>	370
12:00	Ziolkowska J.: <i>POLYURETHANE COATINGS AND METHODS OF EXAMINATION OF THEIR PROPERTIES</i>	1130
12:15	Sýkora J., Kučerová A., Zeman J.: <i>CONSTRUCTION OF RANDOM FIELD BASED ON IMAGE ANALYSIS</i>	958
12:30	Žák J.: <i>FULL WIDTH WARP TENSION SENSOR</i>	1102
12:45 – 14:00	<b><i>L u n c h – Restaurant</i></b>	
14:00 – 16:00	<b><i>Reliability</i></b> Chairmen: M. Eliášová, J. Králík	<b>(REL I)</b>
14:00	Králík J.: <i>PROBABILITY NONLINEAR ANALYSIS OF THE FAILURE OF THE NPP HERMETIC STEEL DOOR DUE TO ACCIDENTAL EXTREME OVERPRESSURE</i>	514
14:15	Sokolski P.: <i>ON WEAR PROCESSES IN PIN JOINTS IN CATERPILLARS OF LARGE-SIZE WORKING MACHINES</i>	910
14:30	Sokolski M., Sokolski P.: <i>ACOUSTIC CLIMATE IN THE CABINS AS A FACTOR OF REBUILDING EFFECTIVENESS OF LONG TERM OPERATED BUCKET WHEEL EXCAVATORS – A CASE STUDY</i>	906
14:45	Vida R., Halvonik J.: <i>INFLUENCE OF COMPRESSIVE STRESS ON SHEAR FORCE DISTRIBUTION IN BRIDGE DECK SLABS</i>	1026
15:00	Krejsa J., Sýkora M.: <i>PROBABILISTIC ESTIMATION OF A BRIDGE FATIGUE LIFE IN ACCORDANCE TO fib MODEL CODE 2010</i>	518
15:15	Laco K., Borzovič V.: <i>SHEAR FORCES OF THE APPROACH SLABS OF THE ROAD BRIDGES</i>	582
15:30	Gilewski W., Pelczyński J.: <i>THE INFLUENCE OF ORTHOTROPY LEVEL FOR PERPENDICULAR TO GRAIN STRESSES IN GLULAM DOUBLE TAPERED BEAMS</i>	342

15:45	Pichal R., Machacek J.: <i>EXPERIMENTAL AND NUMERICAL STUDY OF STAYED STEEL COLUMNS</i>	774
16:00 – 16:15	<i>Coffee Break – Hotel Lobby</i>	
16:15 – 17:30	<b>Reliability</b> Chairmen: J. Králík, M. Eliášová	<b>(REL II)</b>
16:15	Pravdová I., Eliášová M.: <i>INFLUENCE OF AN INITIAL IMPERFECTION ON THE LATERAL AND TORSIONAL BUCKLING OF A HYBRID BEAM</i>	802
16:30	Janouchová E., Kučerová A., Sýkora J.: <i>ROLE OF RANDOM FACTORS IN NONLINEAR REGRESSION: A CASE STUDY FOR ESTIMATION OF THERMOPHYSICAL PARAMETERS</i>	410
16:45	Košťal R., Janhuba L., Hlinka J.: <i>INTELLIGENT SCHEDULED MAINTENANCE METHODOLOGY FOR GENERAL AVIATION STRUCTURES BASED ON MSG-3 AND MULTIPLE- CRITERIA DECISION MAKING ANALYSIS</i>	498
17:00	Augustín T., Fillo E.: <i>INFLUENCE OF GROUND STRESS DISTRIBUTION ON PUNCHING RESISTANCE</i>	94
17:15	Stopel M., Cichański A., Skibicki D.: <i>MODELING OF PRESTRESSED BOLT CONNECTION IN LS-DYNA CRASH TEST ANALYSIS OF ROAD INFRASTRUCTURE</i>	922
17:30 – 20:00	<i>D i n n e r – Restaurant</i>	

### *Wednesday – 17 May 2017 – Lecture Hall II*

9:00 – 10:15	<b>Mechanics of Solids</b> Chairmen: J. Juračka, I. Jebáček	<b>(SOL III)</b>
9:00	Kadlíček T., Janda T., Šejnoha M.: <i>THE CALIBRATION PROGRAM FOR THE HYPOPLASTIC SAND MODEL</i>	430
9:15	Valeš J., Kala Z.: <i>WEAK AXIS BUCKLING - ELASTIC RESISTANCE OF A COLUMN</i>	1014
9:30	Benešovský M., Návrát T., Petruška J.: <i>VERIFICATION OF FAST ALGORITHM FOR CROSS-ROLL STRAIGHTENING</i>	134
9:45	Blatnická M., Blatnický M., Sága M., Kubiak M.: <i>STRESS ANALYSIS OF PART OF THE WELDED STRUCTURE</i>	162
10:00	Blatnický M., Dižo J., Blatnická M., Svoboda M.: <i>DESIGN OF A ROBOT MANIPULATOR WORKING SCREW REVOLUTIONS</i>	166
10:15 – 10:30	<i>Coffee Break – Hotel Lobby</i>	

<b>10:30 – 11:45</b>	<b><i>Mechanics of Solids</i></b> Chairmen: J. Petruška, K. Frydryšek	<b>(SOL IV)</b>
<b>10:30</b>	<b>Fiedler J., Koudelka T.:</b> <i>CALCULATION OF SHELL STRUCTURES BY USING LAYERED MODEL</i>	<b>306</b>
<b>10:45</b>	<b>Koudelka T., Krejčí T., Kruis J.:</b> <i>NUMERICAL MODELLING OF EXPANSIVE CLAYS</i>	<b>502</b>
<b>11:00</b>	<b>Mat'as M., Frydryšek K.:</b> <i>RELIABILITY ASSESSMENT OF THE PRETENSIONED BOLTS BASED ON PROBABILITY</i>	<b>626</b>
<b>11:15</b>	<b>Bošanský M., Patzák B.:</b> <i>ON PARELLELIZATION OF LINEAR SYSTEM EQUATION SOLVER IN FINITE ELEMENT SOFTWARE</i>	<b>206</b>
<b>11:30</b>	<b>Aizikovich S., Vasiliev A., Volkov S., Mitrin B.:</b> <i>MATHEMATICAL MODELING OF MICRO INDENTATION OF A TRANSVERSELY ISOTROPIC HALF-SPACE WITH FUNCTIONALLY GRADED COATING BY A CONICAL INDENTER</i>	<b>74</b>
<b>11:45 – 14:00</b>	<b><i>L u n c h – Restaurant</i></b>	

***Thursday – 18 May 2017 – Lecture Hall II***

<b>9:00 – 10:</b>	<b><i>Mechanics of Solids</i></b> Chairmen: J. Kruis, V. Goga	<b>(SOL V)</b>
<b>9:00</b>	<b>Murín J., Goga V., Kutíš V., Hrabovský J., Sedlár T., Paulech J.:</b> <i>MODELLING AND MEASUREMENT OF NON-UNIFORM ELASTOSTATIC TORSION OF HOLLOW CROSS-SECTION BEAMS</i>	<b>682</b>
<b>9:15</b>	<b>Němeček J., Kruis J., Koudelka T.:</b> <i>MODELING OF CHLORIDE MIGRATION IN CONCRETE</i>	<b>710</b>
<b>9:30</b>	<b>Katrňák T.:</b> <i>DESIGN OF NEW PARAMETERS FOR EVALUATION OF LOAD CAPACITY OF SEMI-SHELL STRUCTURES</i>	<b>442</b>
<b>9:45</b>	<b>Kulhavý P., Surovátková M., Petrů M.:</b> <i>ALTERNATIVE POSSIBILITIES OF BIAXIAL TESTING OF FIBER AND FABRIC MATERIALS IN NONSTANDARD CONDITIONS</i>	<b>562</b>
<b>10:00</b>	<b>Bucci V., Marino A., Mauro F., Sandron C., Mattiazzo G.:</b> <i>REDESIGN OF A WAVE ENERGY CONVERTER IN FERROCEMENT</i>	<b>222</b>
<b>10:15 – 10:30</b>	<b><i>Coffee Break – Hotel Lobby</i></b>	

<b>10:30 – 11:30</b>	<b><i>Thermomechanics</i></b> <b>Chairmen: Z. Jegla, J. Horáček</b>	<b><i>(TER I)</i></b>
<b>10:30</b>	<b>Jegla Z., Reppich M.: VERIFICATION OF A NEW THERMAL CALCULATION METHOD BY INDUSTRIAL RADIANT CHAMBER MEASUREMENTS</b>	<b>418</b>
<b>10:45</b>	<b>Mašek J., Brožek P., Horák M.: THERMO-VACUUM TEST CHAMBER DEVELOPMENT FOR HEAT SWITCH TESTING IN SIMULATED MARTIAN CONDITIONS</b>	<b>622</b>
<b>11:00</b>	<b>Šulc S., Šmilauer V., Wald F.: COUPLED SIMULATION FOR FIRE-EXPOSED STRUCTURE USING CFD AND THERMO-MECHANICAL MODELS</b>	<b>946</b>
<b>11:15</b>	<b>Zachar M., Guzej M., Horský J.: NUMERICAL THERMAL COMPARISON OF HEAT SINK MATERIALS FOR AUTOMOTIVE LED HEADLAMPS</b>	<b>1078</b>
<b>11:30 – 14:00</b>	<b><i>Closing Ceremony &amp; L u n c h – Restaurant</i></b>	

## **4.4. Mini-Poster Hall & Hotel Lobby Detailed Programme**

**Mini-Poster (POS)**

**Wednesday**

**Note:**

All of the entered Mini-posters exhibited at the Conference will be accepted into the competition for the **Prize of the Managing Director of the ŽĎAS Company**.  
The special committee – under chairmanship of **Ing. David Zalaba**, technical director of the ŽĎAS company.

### **Wednesday – 17 May 2017 – Mini-Poster Hall & Hotel Lobby**

<b>(POS)</b>	<b>Chairmen: D. Zalaba, M. Formánek, J. Petruška, J. Horáček, J. Zapoměl, K. Peszinski, V. Fuis, J. Náprstek, C. Fischer, I. Zolotarev,</b>
<b>BIO</b>	<b>Duda S., Gembalczyk G., Jureczko P.: THE EFFECT OF BODY WEIGHT UNLOADING ON KINEMATIC GAIT PARAMETERS DURING TREADMILL WALKING</b> <span style="float: right;"><b>282</b></span>
<b>BIO</b>	<b>Frydryšek K., Drábková S., Plášek M.: BIOMECHANICS - AIRFLOW IN THE NASAL CAVITY AND THE NASAL SEPTUM PERFORATION</b> <span style="float: right;"><b>314</b></span>
<b>BIO</b>	<b>Goethel F. M., Mrozowski J., Awrejcewicz J.: COORDINATIVE PATTERNS AND GAIT STABILITY ACCESSED BY NONLINEAR DYNAMICS APPROACH: A PRELIMINARY STUDY</b> <span style="float: right;"><b>346</b></span>
<b>BIO</b>	<b>Jureczko M., Jureczko P.: ANALYSIS OF RELATIONSHIP BETWEEN POSTURAL STABILITY AND DEGREE OF VISUAL IMPAIRMENT</b> <span style="float: right;"><b>426</b></span>
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<b>FLU III</b> <b>WED 9:45</b>	<b>Vrchota P., Prachař A., Hospodář P., Dolgopyat D., Seifert A.:</b> <i>SIMPLIFIED OSCILLATORY BOUNDARY CONDITION FOR EFFICIENT CFD SIMULATION OF AFC EFFECT</i>	<b>1050</b>
<b>POS – BIO</b>	<b>Wirwicki M., Andryszczyk M., Andrzejewska A., Topoliński T.:</b> <i>TESTING THE STRENGTH OF THE ADHESIVE CONNECTION IN SPECIMEN - MONOTONIC TENSILE AND SHEAR WITH UNDER VARIABLE LOAD</i>	<b>1054</b>
<b>POS – BIO</b>	<b>Wodarski P., Michnik R., Gzik M., Jurkojc J., Bieniek A., Nowakowska K.:</b> <i>VARIANTS OF UPPER LIMB MOTION INDEX CALCULATIONS IN THE ASSESSMENT OF UPPER LIMB MOTION DYSFUNCTION</i>	<b>1058</b>
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<b>POS – REL</b>	<b>Zajac P., Kwasniowski S.:</b> <i>RELIABILITY OF AUTOMATIC IDENTIFICATION SYSTEMS IN LOGISTICS SYSTEMS</i>	<b>1098</b>
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<b>DYN V THU 10:15</b>	<b>Zemanová A., Zeman J., Janda T., Šejnoha M.:</b> <i>FREE VIBRATION ANALYSIS OF LAMINATED GLASS BEAMS USING DYNAMIC EFFECTIVE THICKNESS AND OTHER APPROACHES</i>	<b>1122</b>
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