

CONFERENCE PROGRAMME

PROGRAMME OVERVIEW

Monday, June 5th

17:00 – 20:00 Registration, accommodation

18:00 – 20:00 Welcome drink, dinner

Tuesday, June 6th

08:00 – 12:00 Registration, accommodation

09:00 – 09:15 Conference opening

09:15 – 10:15 Plenary Section

10:15 – 10:45 Coffee break

10:45 – 12:00 Section 1

12:00 – 13:00 Lunch

13:00 – 14:30 Section 2 (Young Researchers Competition)

14:30 – 15:00 Coffee break

15:00 – 16:30 Sponsors Section

17:00 – 18:00 Scientific committee meeting

18:00 – 20:00 Dinner

Wednesday, June 7th

08:00 – 12:00 Registration, accommodation

09:00 – 10:15 Section 3

10:15 – 10:45 Coffee break

10:45 – 12:00 Section 4

12:00 – 13:00 Lunch

13:00 – 14:00 Section 5

14:00 – 15:00 Poster Section

15:30 – 17:30 Accompanying event (Discover Košice)

19:00 – 24:00 Social evening

Thursday, June 8th

09:15 – 10:15 Section 6

10:15 – 10:30 Conference ending

11:00 – 12:00 Lunch



TUESDAY, June 6th, 2023

Plenary Section

Tuesday		Chairman: BOCKO Jozef
09:15 – 09:45	NIESŁONY A., CZEKAJ K., MAZUREK B.: From Fatigue Behaviour of Materials to Fatigue Life of Machine Elements or Structures	
9:45 – 10:15	DUSZA J.: Micro/nanomechanical Testing of High Entropy Ultra High Temperature Ceramics	

Section 1

Tuesday		Chairman: HAGARA Martin
10:45 – 11:00	HALAMA R., CIENCIALA J., NATARAJAN A.V., HAJNYŠ J.: Uniaxial LCF Properties of Additively Manufactured IN718	
11:00 – 11:15	KOŘÍNEK M., HALAMA R., HAJNYŠ J., STŘÍLKA D.: Determination of the Initial Anisotropy of INNOCEL 718 Manufactured by Additive Manufacturing	
11:15 – 11:30	PALIČKA A., TESÁREK P., PROŠEK Z.: Experimental Verification of the Material Properties of Concrete 50 Years Old Wastewater Treatment Plant	
11:30 – 11:45	PROŠEK Z., TESÁREK P. PALIČKA A.: Effect of Si-based Waste Material on the Final Mechanical Properties of Cement Pastes	

Section 2 (Young Researcher Competition)

Tuesday		Chairman: DOUBRAVA Karel
13:00–13:15	RYBANSKÝ D., ŠOTOLA M., SOUČEK R., MARŠÁLEK P.: Design and Behaviour of 3D Printed Joint Connecting Various Polymer Materials	
13:15–13:30	ČAPEK J., TROJAN K., HALAMA R., GANEV N., HAJNYŠ J., KOŘÍNEK M., KOLAŘÍK K.: Residual Stress Analysis of Additively Manufactured AlSi10Mg Alloy	
13:30–13:45	TROJAN K., ZETKOVÁ I., ČAPEK J., THURNVALD P., GANEV N., KEPKA M. jr.: Optimization of 3D Printing Parameters to Minimize Residual Stresses in Maraging Steel	
13:45–14:00	HORÁK P., SOVJÁK R., PEŠKOVÁ Š., VÍTEK P.: UHPC as a Lost Formwork for Bridge Structures	
14:00–14:15	BOUALLEG A., CIRKL D.: Characterisation of PolyJet Composite Material at Different Strain Rates	
14:15–14:30	JONÁŠ M., ZATLOUKAL J.: Thermal actions on final lining of the Mezno tunnel	

Sponsors Section

Tuesday		Chairman: HUŇADY Róbert
15:00 – 15:15	LABTECH s.r.o.	
15:15 – 15:30	SHIMADZU SLOVAKIA	
15:30 – 15:45	HBP měřicí technika	
15:45 – 16:00	X-Sight s.r.o.	
16:00 – 16:15	IDIADA CZ, a.s.	

WEDNESDAY, June 7th, 2023

Section 3

Wednesday	Chairman: HALAMA Radim
09:00 – 09:15	KOVÁCS B., ALWAFIIE M.A., BOCKO J.: Studying the Distribution of Stress in Two-dimensional Compression Piezoelectric Cells under Load-truck Conditions
09:15 – 09:30	DOUBRAVA K., KOTTNER R., PADOVEC Z., RŮŽIČKA M., SEDLÁČEK R., BLAHA D., SCHMIDOVÁ N.: The Sensor Bolt as an Assessment Tool of GRP Tank Technology
09:30 – 09:45	JONÁŠ M., ZATLOUKAL J.: Thermal Actions on Final Lining of the Mezno Tunnel
09:45 – 10:00	KROPIK B., DOUBRAVA K., MAREŠ T.: Identification of the Bending Moment on the Paddle of a Kayaker
10:00 – 10:15	BOCKO J., PÁSTOR M., HAGARA M., LENGVARSKÝ P.: Measurement of Moments of Forces on the Control Mechanism of Gate Valves of Hydraulic Power Station

Section 4

Wednesday	Chairman: PÁSTOR Miroslav
10:45 – 11:00	VARGA P., TÓTH T., HUDÁK R., HUŇADY R., KOSTKA J.: Mechanical Evaluation of the PEEK Cranial Implants
11:00 – 11:15	EZENWANKWO J., KYOSEV Y., PETRÍKOVÁ I., ŽÁK J.: FEM Micro-mechanics of a Laminated Composite
11:15 – 11:30	CÉZOVÁ E.: Methods and Means of Teaching Experimental Methods
11:30 – 11:45	MUSILOVÁ R., VOSTŘÁK M., TROJAN K.: Residual Stress Measurement Measured by Different Type of Method on the 3D Print-thermal Spray
11:45 – 12:00	KOSTKA J., FRANKOVSKÝ P., DELYOVÁ I., SIVÁK P., KICKO M.: Modal Analysis of Structural Elements using Optical Experimental Methods of Mechanics

Section 5

Wednesday	Chairman: PADEVĚT Pavel
13:00 – 13:15	DOUBRAVA R., OBERTHOR M., BĚLSKÝ P.: Bird Strike Tests Verification of Simulation for Development of Composite Inlet for Tilt-rotor Aircraft
13:15 – 13:30	HDAIB M.Y.A., PETRÍKOVÁ I.: Uniaxial Compression of Porous Magnetorheological Elastomer
13:30 – 13:45	MIKULA P., RYUKHTIN V.: On a Possibility of High-Resolution Neutron Diffraction Observation of Inconel 718 Substructure Phases
13:45 – 14:00	KANAVAL J.: Overview of the Development of Methods of Experimental Testing of Fasteners and Screw Connections at the Department of Designing and Machine Parts of the Faculty of Mechanical Engineering, CTU in Prague

Poster Section

Wednesday	Chairman: HUŇADY Róbert
14:00 – 15:00	JAKUBOVIČOVÁ L., VAŠKO M., SÁGA M.: Application of Multiaxial Fatigue Analysis to Damage Prediction of Transport Machinery
14:00 – 15:00	ŠAVRNOCH Z., SAPIETOVÁ A., DEKÝŠ V., DRVÁROVÁ B.: Contribution to the Creation of Virtual Models of Rotary Machines
14:00 – 15:00	ONDREJOVÁ B., BEDNARČÍKOVÁ L., MICHALÍKOVÁ M., ŽIVČÁK J.: Podometric Assessment of Gait Parameters
14:00 – 15:00	PÁSTOR M., LENGVARSKÝ P., HAGARA M., SAPIETOVÁ A., GAŠPAR Š.: Increasing the Carrying Capacity of Anchor Bolts by Design Modification of the Nut
14:00 – 15:00	RŮŽEK R., HOMOLA P., KARKULÍN A.: Effect of Treatment on the Mechanical Properties of Additive Manufactured Ti-6Al-4V Parts
14:00 – 15:00	JÍROVÁ R., PEŠÍK L., KROBOTOVÁ A.: Measurement Device for Experimental Investigation of Bolted Joint Diagram in Applications with Non-Metallic Materials
14:00 – 15:00	HORNÝ L., CHLUP H., MENDO VÁ K., SOBOTKA Z., PETŘIVÝ Z., KRONEK J., KOHAN M., BALINT T., SCHNITZER M.: Mechanical Properties of 3D Printed Resorbable Material for Manufacturing of Vascular Replacements
14:00 – 15:00	JÍRA A., DUPAL J.: Biodegradable vs. Conventional Implants in Skeletal Traumatology: A Study of Load Capacity in the Inner Ankle Region
14:00 – 15:00	ŘEHOUNEK L., FROLO M., JÍRA A.: Splinted and Unsplinted Dental Implants: A QCT/FEA Study
14:00 – 15:00	KRONEK J., HORNÝ L., CHLUP H., SOBOTKA Z., PETŘIVÝ Z., SUCHÝ T., VIŠTEJNOVÁ L., KUŽELOVÁ KOŠŤÁKOVÁ E.: Mechanical Properties of Collagen-Polylactide/Capro-lactone Composite for Pulmonary Artery Banding
14:00 – 15:00	VÁCLAVÍK J., MUSILOVÁ R., DOPIERALA L.: Investigations on Steel Beams with Glued CFRP Plates
14:00 – 15:00	BOHÁČ P., APOSTOLOPOULOS V., MARCIÁN P., MAHDAL P., PAZOUREK L., NÁVRAT T.: Comparison of the Mechanical Effect of Chemical and Thermal Adjuvants on the Cortical Bone during Intralesional Bone Neoplasm Removal
14:00 – 15:00	PADEVĚT P., BITTNAR P., BITTNAR Z.: Concrete Loaded in the Axial Direction with Strengthening Reinforcement in the Transverse Direction

THURSDAY, June 8th, 2023

Section 6

Thursday	Chairman: BOCKO Jozef
09:15 – 09:30	HUŇADY R., KALAVSKÝ A., PALIČKA P., KENDER Š.: Determination of the Elastic Constants of a Composite Using FE Model Updating Method
09:30 – 09:45	HAGARA M., LENGVARSKÝ P., HUŇADY R., PÁSTOR M., PALIČKA P.: Analysing the Influence of the Inner Pressure on the Modal Parameters of the Vessel
09:45 – 10:00	PALIČKA P., HUŇADY R., HAGARA M., FABIAN M.: Development and Verification of the Child Headform Numerical Impactor
10:00 – 10:15	PÁSTOR M., LENGVARSKÝ P., HAGARA M., HUŇADY R.: Prediction of Failures in Welded Structure using Numerical and Experimental Methods
