Faculty of Engineering

Department of Mechanical Engineering

12th INTERNATIONAL SCIENTIFIC CONFERENCE ON ADVANCES IN MECHANICAL ENGINEERING

(ISCAME 2026)

5-6 November, 2026 Debrecen, Hungary

CONFERENCE PROGRAMME

organized by

Department of Mechanical Engineering
Faculty of Engineering, University of Debrecen

and

Working Commission in Mechanical Engineering
Specialized Committee in Engineering
Regional Committee in Debrecen, Hungarian Academy of Sciences

and

Scientific Association of Mechanical Engineers

COMMITTEES OF ISCAME 2026

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University of Debrecen

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University of Debrecen

WELCOME MESSAGE

On behalf of the ISCAME Scientific and Organizing Committee I am pleased to welcome you to Debrecen for the 12th International Scientific Conference on Advances in Mechanical Engineering organized by the Department of Mechanical Engineering, Faculty of Engineering of the University of Debrecen, the Working Commission of Mechanical Engineering (Specialized Committee in Engineering, Regional Committee in Debrecen, Hungarian Academy of Sciences) and the Scientific Association for Mechanical Engineering. The ISCAME is part of the 12th Mechanical Engineering Days.

The main goal of ISCAME is to yearly bring together engineers working on research, development and practical application in the field of mechanical engineering. Furthermore, the purpose of this Conference is to provide opportunities for scientists and engineers to meet and to discuss current research, new concepts and ideas and establish possibilities for future collaborations in all aspects of mechanical engineering.

I am pleased to inform you that **332 experts** from higher education have registered for this year's conference from altogether **27 countries** representing **36 nations**. In the framework of ISCAME **238 abstracts** were submitted and **171 presentations** will be given and **66 posters** will be exhibited.

This year we have invited four experts to give plenary lectures. Our first speaker is **Aleksandar SEDMAK**, a professor at the University of Belgrade and the former president of the European Structural Integrity Society. Our second speaker is **Hans-Peter KEMSER**, the CEO of the BMW Manufacturing Hungary Ltd. in Debrecen. This is followed by **Carsten GACHOT**, a professor at the Technical University of Wien. Last but not least, **Viktor SÁRI-BARNÁCZ** will give a presentation, as a lead expert at Robert Bosch Ltd. The accompanying program of ISCAME is an exhibition by graphic artist **Viktor KOSTYÁL**, featuring artworks depicting some of Hungary's greatest mechanical engineers. Additionally, the artist will create live portraits of ISCAME conference participants upon request.

We invite you to be an active participant in this Conference and to contribute to any topic of your scientific interest. We hope that the 12th International Scientific Conference on Advances in Mechanical Engineering will have an important impact on the research in all topics included in its program.

It is also an honour for us to have a privilege to invite you to the 12th Mechanical Engineering Industrial Exhibition and Job Fair. The Department of Mechanical Engineering of the University of Debrecen will host – parallel to ISCAME – the event, called "Mechanical Engineering Industrial Exhibition and Job Fair" where **28 companies** will exhibit. This professional program will surely benefit the visitors who want to get up-to-date knowledge with the latest technology.

We want to express our appreciation to all members of the committees involved in the preparation of this Conference and to all the staff who are managing the different aspects of the Conference and to all the contributing authors and participants who will create the real Conference.

Yours Sincerely,

Tamás MANKOVITS
Chair of ISCAME, Head of Department
Department of Mechanical Engineering
Faculty of Engineering, University of Debrecen

INTERNATIONAL SCIENTIFIC CONFERENCE ON ADVANCES IN MECHANICAL ENGINEERING

5-6 November 2026, Debrecen, Hungary

TECHNICAL PROGRAMME

(12th ISCAME and 12th Mechanical Engineering Exhibition and Job Fair)

Thursday, 5th of November 2026 (2-4 Ótemető street, Debrecen)

09:00 – 15:00 **Mechanical Engineering Exhibiton and Job Fair** (Aula of the Faculty of Engineering)
list of the exhibiting companies: Mechanical Engineering Exhibition and Job Fair
09:00 – 16:00 **Exhibition - Hungary's greatest mechanical engineers** (Library, Faculty of Engineering)
12:00 – 16:00 **ISCAME registration** (Aula of the Faculty of Engineering)
13:00 – 13:30 **ISCAME welcome and technical information** (Library, Faculty of Engineering)
13:30 – 17:00 **ISCAME poster exhibition** (1st floor, Gallery of the Faculty of Engineering)

13:30 – 17:15 **ISCAME sessions**
APPLIED AND THEORETICAL MECHANICS I. and II.
FLUID MECHANICS
MACHINE AND PRODUCT DESIGN I.
MATERIALS SCIENCE (TESTING) I. and II.
MATERIALS SCIENCE (TECHNOLOGY) I. and II.
INDUSTRIAL PROCESSES I. and II.
ENGINEERING OPTIMIZATION I.
MANUFACTURING SCIENCE I.

15:00 – 16:00 **ISCAME poster session** (1st floor, Gallery of the Faculty of Engineering)
18:00 – 20:00 **ISCAME cultural program** – participation only with invitation card
20:00 – 23:00 **ISCAME banquet** – entrance only with invitation card

Friday, 6th of November 2026 (2-4 Ótemető street, Debrecen)

08:30 – 15:00 **ISCAME registration** (Aula of the Faculty of Engineering)
09:00 – 10:40 **ISCAME official opening and plenary lectures** (Lecture Hall, U.0.02., ground floor)
10:40 – 11:00 **ISCAME group photo** (meeting at the Aula of the Faculty of Engineering)
11:15 – 15:00 **ISCAME poster exhibition** (1st floor, Gallery of the Faculty of Engineering)
11:15 – 14:00 **lunch** (Restaurant of the Forest Center, 4 Tüzér street, Debrecen)

11:30 – 17:15 **ISCAME sessions**
APPLIED AND THEORETICAL MECHANICS III.
ENGINEERING OPTIMIZATION II.
MACHINE AND PRODUCT DESIGN II.
POLYMER ENGINEERING
ENGINEERING MANAGEMENT
ARTIFICIAL INTELLIGENCE IN ENGINEERING PROBLEMS I. and II.
STRUCTURAL INTEGRITY
MATERIALS SCIENCE (TESTING) III. and IV.
MATERIALS SCIENCE (TECHNOLOGY) III.

13:00 – 14:00 **ISCAME poster session** (1st floor, Gallery of the Faculty of Engineering)

DETAILED PROGRAMME OF ISCAME 2026

Thursday, 5th of November 2026 (2-4 Ótemető, Debrecen)

12:00 – 16:00 **ISCAME registration** (Aula of the Faculty of Engineering)
13:00 – 13:30 **ISCAME welcome and technical information** (Library, Faculty of Engineering)
13:30 – 17:00 **ISCAME poster exhibition** (1st floor, Gallery of the Faculty of Engineering)
13:30 – 17:15 **ISCAME sessions**
15:00 – 16:00 **ISCAME poster session** (1st floor, Gallery of the Faculty of Engineering)

13:30 – 14:45 **Session APPLIED AND THEORETICAL MECHANICS I.**
(Technical Mechanics Laboratory, 1st floor, room U.1.08)
Chairman: **Sándor HAJDU**, University of Debrecen, Hungary
Secretary: **Gábor RUZICSKA**, University of Debrecen, Hungary

13:30 – 13:45 **Márk STOJANOVIC, Giuseppe HABIB**
Numerical Analysis of a Vibroadhesion Model
13:45 – 14:00 **Ádám FEKETE, László MOLNÁR**
Conceptual Study of a Multi-Element Racing-Car Wing
14:00 – 14:15 **Zsolt VADAI**
Variational Aspects of a P-Version Temporal Finite Element formulation for the Linear Harmonic Oscillator
14:15 – 14:30 **Kezia Lima GASCOIGNE, Zoltán MAJOR, Tamas MANKOVITS**
Rubber Bumper Optimization Based on Machine Learning
14:30 – 14:45 **Péter SZALAI, Máté ANTALI**
Tuning the Vibration Spectra of Piano Strings Based on the Energy Distribution of Vibration Modes

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13:30 – 15:00 **Session FLUID MECHANICS**
(Machine Elements Laboratory, 1st floor, room A.1.18)
Chairman: **Ferenc SZODRAI**, University of Debrecen, Hungary
Secretary: **Tibor PÁLFI**, University of Debrecen, Hungary

13:30 – 13:45 **Houssem ZAIRI, Csaba HORVÁTH**
Rotor Noise and Human Perception in Multirotor UAVs: A Literature Review
13:45 – 14:00 **Bálint KOCSIS, Balázs PRITZ, Csaba HORVÁTH**
Methodology for Carrying out Phased Microphone Array investigations on Centrifugal Turbomachinery Applications
14:00 – 14:15 **Gyula Richárd KISS, Horváth MIKLÓS, Szánthó ZOLTÁN**
Dynamic Simulation of Various Configurations for Dhw Production in District Heating Substations
14:15 – 14:30 **Péter KALMÁR**
Hidden Parameters of Oscillating Bubbles: Matching Non-Spherical Bubble Measurements with GPU-Accelerated Simulations
14:30 – 14:45 **Attila KÁLMÁN, Rocio Montejo RODRIGUEZ, Tomas Jorda SIQUIER, Péter TÖRZSÖK, Martha L. GRAY**
Parametric CFD Analysis of Conjugate Heat Transfer in the Ureter: the Protective Role of Intraureteral Flow durinig Energy-Based Endoscopic Surgery
14:45 – 15:00 **Levente LÓRÁNT, Péter CSIZMADIA**
Experimental Investigation of Performance Curve Degradation in a Radial Centrifugal Pump for Non-Newtonian Fluid

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13:30 – 15:00 **Session MATERIALS SCIENCE (TESTING) I.**

(Metallography Laboratory, 1st floor, room A.1.17)

Chairman: **Eszter KÓKAI,** Széchenyi István University, Hungary
Secretary: **Gábor BALOGH**, University of Debrecen, Hungary

13:30 – 13:45 **Elcin MUSAYEV, Marcell GÁSPÁR, Raghawendra SISODIA**
Welding HAZ Characterization of Operating P355N Pipeline by Physical Simulation

13:45 – 14:00 **Enikő Réka FÁBIÁN, Sándor TAKÁCS**
Changes in Microstructure during Laser Welding of Press Hardened Steel

14:00 – 14:15 **Kaisi XUE, Wang ZHANG**
Dual-View Feature Fusion Detection of Weld Defects in Paut based on C-Scan and S-Scan Images

14:15 – 14:30 **Eszter KÓKAI, Péter PÉCZI-KOVÁCS**
Wettability and Adhesive Joint Strength of thermoplastics Treated with Argon and Nitrogen Plasma

14:30 – 14:45 **Benjámin KÖRÖMI, Norbert SIMON, Zoltán WELTSCH**
How can surfaces for adhesive bonding be systematically designed, characterized and validated?

14:45 – 15:00 **Péter PÉCZI-KOVÁCS, Miklós BERCZELI, Zoltán WELTSCH**
Effect of Femtosecond Laser on DP600 and CFRP Adhesive Joints

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13:30 – 15:00 **Session MATERIALS SCIENCE (TECHNOLOGY) I.**

(Composite Technology Laboratory, 4th floor, room A.4.13)

Chairman: **István BUDAI,** University of Debrecen, Hungary
Secretary: **Balázs BERNA**, University of Debrecen, Hungary

13:30 – 13:45 **Hakan GÖCELER, Agnieszka TOMALA, Carsten GACHOT**
Mitigating Substrate-Coating Interactions in MXene-Functionalized Titanium Implants via Controlled Surface Engineering and Sintering Processes

13:45 – 14:00 **Julianna FINTA, Dóra KOVÁCS, Imre Norbert ORBULOV**
Life beyond Syntactic Metal Foams

14:00 – 14:15 **Adrián Gergely NAGY, István BUDAI**
Creation of a Foamed Emulsion for the Preparation of Pharmaceutical Dosage Form

14:15 – 14:30 **Gabriel BATIN**
PLA Auxetic Materials Printed by FDM

14:30 – 14:45 **Balázs BERNA, István BUDAI**
Aspects of Additive Technology in the Production of Dosage Forms

14:45 – 15:00 **Dóra KOVÁCS, Alexandra KEMÉNY, Zalán Csaba KÓNYA, Imre Norbert ORBULOV**
Closing the Loop on Metal Foams: Challenges and Opportunities in Recycling

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ISCAME 2025 group photo

13:30 – 15:15 **Session INDUSTRIAL PROCESSES I.**
(Emerson Pneumatics Laboratory, ground floor, room A.0.26)
Chairman: **Lajos GULYÁS,** University of Debrecen, Hungary
Secretary: **Richárd GARAY**, University of Debrecen, Hungary

13:30 – 13:45 **Máté SZOMBATHELYI, Máté PETRIK**
Measuring Flammability and Explosive Properties of High-Density Polyethylene Dust
13:45 – 14:00 **András SZIGEDI, Tibor POÓS**
Data-Driven Modelling of Fluidized-Bed Drying Using Machine Learning Methods
14:00 – 14:15 **Csanád GYŐRI, Botond KURUCZ, Tibor POÓS**
Estimation of Centrifugal Pump Best Efficiency Points Using Dimensionless Characteristic Curve Approximation
14:15 – 14:30 **Hamza Ali Noufal ABU-ZIENAH, Tibor POÓS**
Temperature-Profile-Based Determination of Heat Transfer Coefficients above Heated and Unheated Evaporating Water Surface
14:30 – 14:45 **Tibor POÓS, Barbara CZIPRISZ**
Water Evaporation into Air in a Closed Isothermal System
14:45 – 15:00 **Tibor POÓS, Boglárka MÉRGES**
Commissioning and Development of a Pilot-Scale Spray Dryer
15:00 – 15:15 **Tibor POÓS, Gábor Zsombor KASZÁS**
Experimental Hydrodynamic and Sealing Integrity Analysis of Magnetically Clamped 3D-Printed Tantalum Patches in Glass-Lined Reactors

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13:30 – 15:15 **Session ENGINEERING OPTIMIZATION I.**
(Engineering Diagnostics Laboratory, ground floor, room A.0.16)
Chairman: **Árpád FORBERGER,** SciEngineer Kft., Hungary
Secretary: **Attila DEBRECENI**, University of Debrecen, Hungary

13:30 – 13:45 **Rita Alexandra TURCSÁNYI**
Development of A General Method to Determine the Real Energy Efficiency of a Vehicle Based on Nominal Reference Values
13:45 – 14:00 **Imola Lenke CSAJBÓK, Dániel NEMES**
An Optimization Case Study for Vehicle Resistance Parameter Identification
14:00 – 14:15 **Kira KULCSÁR, Kornél SARVAJCZ**
The Application of Multisensor Drone-Based Surveying Methods for the Study of Complex Environments
14:15 – 14:30 **Szabolcs Csaba ANTAL, Kornél SARVAJCZ**
Precision Broadband RF Monitoring System for Analyzing Spatial Radiation Characteristics
14:30 – 14:45 **Peter SAGHEGYI, Attila Karoly VARGA**
Authoring Requirements for AI Composed Supply Chain Visuals
14:45 – 15:00 **Arpad FORBERGER**
Optimization technics for mass reduction with COMSOL Multiphysics
15:00 – 15:15 **Zsolt MOLNAR**
Present and Future Solutions of AI in Automotive



The Main Building of the University of Debrecen

15:15 – 17:00 **Session APPLIED AND THEORETICAL MECHANICS II.**
(Technical Mechanics Laboratory, 1st floor, room U.1.08)
Chairman: **Natasa TRISOVIC,** University of Belgrade, Serbia
Secretary: **Máté FILE**, University of Debrecen, Hungary

15:15 – 15:30 **Liu YUE**
Thermo-Electric-Mechanical Coupled Modeling of Adaptive Flexible Thermoelectric Grasping Device
15:30 – 15:45 **Tamás GÖRÖGH, Péter BÉDA**
Jumping Nonlinearities with Inerters in Vehicle System
15:45 – 16:00 **Bence SZEMÁN, Attila BAKSA**
Revisiting Metallization Ratcheting in Plastic-Encapsulated Power Devices
16:00 – 16:15 **Máté FILE, Imre KÁLLAI, Dávid HURI, Tamás MANKOVITS**
Meso Modelling of Polymer Sandwich Structures
16:15 – 16:30 **Attila GEROCS, Elena-Stela WISZNOVSZKY, Zoltan-Iosif KORKA, Andrei KOMJATY, Geza-Mihai ERDODI, Timea GEROCS**
Analytical and Dynamic Calculation of the Parameters for a Reaction Torque Reduction System
16:30 – 16:45 **Jasur NAMOZOV, Ro'ziboy XURRAMOV**
Effect of Elliptical Cutout Area on the Free Vibration Behavior of Laminated Composite Plates: A Finite Element Investigation
16:45 – 17:00 **Marine MIKILYAN, Susanna GHARIBYAN**
Supersonic Stability of Ferromagnetic Plate in Magnetic Field

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15:15 – 17:00 **Session MACHINE AND PRODUCT DESIGN I.**
(Machine Elements Laboratory, 1st floor, room A.1.18)
Chairman: **Levente CZÉGÉ,** University of Debrecen, Hungary
Secretary: **Tibor PÁLFI**, University of Debrecen, Hungary

15:15 – 15:30 **Sándor APÁTI, Sándor HAJDU**
Prediction of Battery Runtime of Jigsaws Using a Linear Cutting Force Model
15:30 – 15:45 **Boris KOSIĆ, Aleksandra NIKITOVIĆ, Nataša TRIŠOVIĆ, Zorana JELI**
Visualization of Coupler Points Performance in Four-Bar Linkages for Straight Line Mechanisms.
15:45 – 16:00 **Oleksandr USTYNENKO, Juraj ONDRUŠKA, Andriy GRABOVSKIY**
Evaluation of Materials and Design Solutions for Internal Thermal Insulation of the FZG Test Gearbox Housing
16:00 – 16:15 **Juraj ONDRUŠKA**
Rationale for the Design Requirements of a Rigid Shaft Coupling for a Hybrid-Drive Spindle
16:15 – 16:30 **Roman PROTASOV, Juraj ONDRUŠKA, Eliška CÉZOVÁ**
Dynamic Model of a Hybrid-Drive Spindle for Determining the Parameters of Rigid Shaft Couplings
16:30 – 16:45 **Gergő LESKÓ, György HEGEDŰS**
Investigation of the Effect of Engagement Parameters on Wear and Damage of Starter Motor Pinions
16:45 – 17:00 **Katalin KOVÁCH, Viktor GOTTHARD, Péter Tamás ZWIERCZYK**
Presentation of Concept Generation for Modular Product Development using an AI-supported Design Tool

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The City Centre of Debrecen and the Békás Lake

15:15 – 17:00 **Session MATERIALS SCIENCE (TESTING) II.**
(Metallography Laboratory, 1st floor, room A.1.17)
Chairman: **Alexandra KEMÉNY,** Budapest University of Technology and Economics, Hungary
Secretary: **Gábor BALOGH,** University of Debrecen, Hungary

15:15 – 15:30 **Csilla WIENER, Szabolcs JÓNÁS, Gergő Zsolt MARTON, Fanni BALOGH, Imre Norbert ORBULOV, Péter TAMÁS-BÉNYEI**
Bending Behaviour of Sandwich Beams with Aluminium Syntactic Foam Cores

15:30 – 15:45 **Alexandra KEMÉNY, Péter BÁLINT, Imre Norbert ORBULOV**
Density-Dependent Quasi-Static Compressive Behavior of Functionally Graded Aluminum Syntactic Foams

15:45 – 16:00 **Szabolcs JÓNÁS, Vilmos NYÁRY, Kata Eszter RAJKÓ**
Finite Element Simulation of Cup Drawing of 2205 Duplex Stainless Steel: Sensitivity to Process Parameters and Material Model Uncertainty

16:00 – 16:15 **Yuxuan WANG, Xiao XU, Wenhui SHI, Lanting LIN**
High- and Low-Temperature Mechanical Performance of 2196 Al–Cu–Li Extruded Profiles

16:15 – 16:30 **Dorottya VARGA, Kristóf BOBOR, Noémi Zsuzsanna BOCSÓ, Alexandra KEMÉNY, Attila SZLANCSIK**
In Situ Electrical Resistance Monitoring of Lead-Free Solder Alloys During Plastic Deformation

16:30 – 16:45 **Manuel VITE-TORRES, Mayra S. TOVAR-OLIVA, Esequiel A. GALLARDO-HERNÁNDEZ, Juan R. Laguna- CAMACHO, Jennifer L. AMADOR-GONZÁLEZ**
Study of the Cavitation Erosion Phenomenon in 6061-T6 Aluminum

16:45 – 17:00 **Bálint FERENCZI, Iveta ČAČKOVÁ, Viliam ČAČKO, Shane SHABU**
Effect of Filler Type on the Tensile Properties of Fff-Printed Pla Composites

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15:15 – 17:00 **Session MATERIALS SCIENCE (TECHNOLOGY) II.**
(Composite Technology Laboratory, 4st floor, room A.4.13)
Chairman: **Zoltán WELTSCH,** Széchenyi István University, Hungary
Secretary: **Balázs BERNA,** University of Debrecen, Hungary

15:15 – 15:30 **Nabil BELOUFA**
DFT Study of the Structural, Electronic, and Optical Properties of Lead-Free $Cs_2AgScCl_6$ Double Perovskite

15:30 – 15:45 **Zoltan WELTSCH**
Advanced Surface and Joining Technologies for Automotive Structural Materials

15:45 – 16:00 **Ferenc TAJTI, Miklós BERCZELI, Tóth GÁBOR, Zoltán WELTSCH**
Modification Options for the Interfacial Properties of Various Modern Automotive Materials

16:00 – 16:15 **Miklós BERCZELI,**
Potential Applications of Adhesive Bondings in New Fields

16:15 – 16:30 **Péter PÉCZI-KOVÁCS, Miklós BERCZELI**
Innovations and Development Trends in Adhesive Bonding Technology towards 2027

16:30 – 16:45 **Xiao XU, Chengdong SUN, Yongxiao WANG**
Grain Growth Behavior and Mechanism of Longitudinal Welds in 2196 Al-Cu-Li Extrusions

16:45 – 17:00 **Sahm ALDEN, Ábel Fodor; Marcell GÁSPÁR**
Dissimilar Joining of DX51D+Z Galvanized Steel and 6082-T6 Aluminium Alloy by CMT Process

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15:15 – 17:00 **Session INDUSTRIAL PROCESSES II.**
(Emerson Pneumatics Laboratory, ground floor, room A.0.26)
Chairman: **Lajos GULYÁS,** University of Debrecen, Hungary
Secretary: **György HÓDOS,** University of Debrecen, Hungary

15:15 – 15:30 **Bendegúz KIS, László HÉGELY**
The Impact of Product Purity on the Energy Demand of Semi-Batch Distillation

15:30 – 15:45 **Sohaibullah ZARGHOON, Jan RYBÁŘ, Sardar MAROOFI, Jozef LEJA, Tomáš ČAMAJ, Patrik BALASKÓ, Peter ONDERČO**
Digital Monitoring and Data-Driven Prediction of Temperature Profile in an Induction Reheating Furnace

15:45 – 16:00 **Virag SZENTPETERY**
New Approaches to Phosgene Neutralization: Hydrodynamic Characterization and Catalytic Opportunities of Packed Columns

16:00 – 16:15 **Lívia VASS, Tamás BÁNYAI**
Multi-Criteria Performance Assessment of Urban Logistics Systems

16:15 – 16:30 **Antel ANWAR, Péter Tamás LÁNG, László HÉGELY**
Comparison of the Energy Demand of Distillation Processes for the Separation of Dichloromethane-Acetone, Acetone-Water and Hexane-Heptane Mixtures

16:30 – 16:45 **Fanni CSIKÓS, Letícia PEKK, Zoltán WELTSCH**
From Intellectual Property Protection to Market Utilisation in University Technology Transfer

16:45 – 17:00 **Ömer Faruk KARAMAN, László HÉGELY, Péter LÁNG**
Simulation-Based Optimisation and Sustainability Assessment of Batch and Pressure-Swing Distillation Processes

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15:15 – 17:00 **Session MANUFACTURING SCIENCE I.**
(Engineering Diagnostics Laboratory, ground floor, room A.0.16)
Chairman: **Sándor BODZÁS,** University of Debrecen, Hungary
Secretary: **Attila DEBRECENI,** University of Debrecen, Hungary

15:15 – 15:30 **Suratjon NURIDDINOV, Balázs MIKÓ**
Surface Roughness Profile Fitting by Parallel Random Search Method

15:30 – 15:45 **Géza HAIDEGGER, Kristina BÁRDOS, József VANCZA**
Mastering Integration of Manufacturing Science and R&D&I with Industrial Companies; The Bridge beyond Machines

15:45 – 16:00 **Mailis ZIMMERMANN, Daniel JOHANSSON, Marten MADISSOO, Tonu LEEMET**
Tool Life Calculation via Statistical Modelling in Milling C45 e

16:00 – 16:15 **Muhammad Mahirul Alam GEFFERY, Bodzás SÁNDOR**
Geometric Design and Finite Element Analysis of a Circular Form Tool for Complex Shaft Machining

16:15 – 16:30 **Inácio Manuel JUNQUEIRA, Csaba FELHŐ**
Experimental Analysis of Cutting Force, Surface Roughness, and Cylindricity in Turning of 42CrMo4 Steel

16:30 – 16:45 **Georgina Ruth ZAWEDDE, Sandor BODZAS**
Evaluation of Spur Gear Geometry Using the IM8000 Measurement System

16:45 – 17:00 **Sándor BODZÁS, Gyöngyi SZANYI**
Geometric Analysis and Design of Tangential form Tools

18:00 – 20:00 **ISCAME cultural program** – participation only with invitation card
20:00 – 23:00 **ISCAME banquet** – entrance only with invitation card

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Friday, 6th of November 2026 (2-4 Ótemető, Debrecen)

08:30 – 15:00 **ISCAME registration** (Aula of the Faculty of Engineering)
09:00 – 10:40 **ISCAME official opening and plenary lectures** (Lecture Hall, U.0.02., ground floor)

09:00 – 10:40	**ISCAME opening and plenary lectures** (Lecture Hall U.0.02., ground floor)
09:00 – 09:20	**Ferenc KUN** president for research and innovation, University of Debrecen **Tamás MANKOVITS** chair, ISCAME **Imre KOCSIS** chair, Specialized Committee in Engineering HAS **Géza HAIDEGGER**, Scientific Association of Mechanical Engineers *Welcoming words*
09:20 - 09:40	**Aleksandar SEDMAK** University of Belgrade, Serbia *Application of Fracture Mechanics Parameters to Structural Integrity Assessment*
09:40 – 10:00	**Hans-Peter KEMSER** BMW Manufacturing Hungary Kft., Hungary *Intelligent Manufacturing at BMW iFACTORY*
10:00 – 10:20	**Carsten GACHOT** Vienna University of Technology, Austria *Engineering Friction: From 2D Solid Lubricants to Laser-Textured Surfaces*
10:20 – 10:40	**Viktor SÁRI-BARNÁCZ** Robert Bosch Kft., Hungary *Practical Tribology of Elastomers*



Plenary speakers of the ISCAME 2025

10:40 – 11:00 **ISCAME group photo** (meeting at the Aula of the Faculty of Engineering)
11:15 – 15:00 **ISCAME poster exhibition** (1st floor, Gallery of the Faculty of Engineering)
11:15 – 14:00 **lunch** (Restaurant of the Forest Center, 4 Tüzér street, Debrecen)
11:30 – 17:15 **ISCAME sessions**
13:00 – 14:00 **ISCAME poster session** (1st floor, Gallery of the Faculty of Engineering)

11:30 – 12:45	**Session APPLIED AND THEORETICAL MECHANICS III.**
	(Technical Mechanics Laboratory, 1st floor, room U.1.08.)
Chairman:	**Attila BAKSA,** University of Miskolc, Hungary
Secretary:	**Máté BERECZKI**, University of Debrecen, Hungary
11:30 - 11:45	**István PÁCZELT, Attila BAKSA**
	Analysis of Cylindrical Bodies with Interference Fits
11:45 - 12:00	**Bendegúz BÁNFI, Tamás FÜLÖP, Mátyás SZÜCS**
	Analyzing a Splitting Numerical Method for Use in the Heat-Pulse Experiment of Maxwell–Cattaneo–Vernotte Heat Conducting Samples
12:00 – 12:15	**János Jonatán GEDEI, Giuseppe HABIB**
	Basins of Attraction Estimation through Speed of Convergence
12:15 – 12:30	**Gábor PÉK, Máté ANTALI**
	Analysis of Vehicle Maneuvers with Different Friction Models
12:30 – 12:45	**Mihály MAKOVSKY, Tamás KALMÁR-NAGY**
	Pin-and-Wait Control of a Linear Chain of Oscillators

11:30 – 12:45	**Session POLYMER ENGINEERING**
	(Metallography Laboratory, 1st floor, room A.1.17.)
Chairman:	**Csilla CZÉGÉNI,** University of Debrecen, Hungary
Secretary:	**György HÓDOS**, University of Debrecen, Hungary
11:30 - 11:45	**Viktória KUNSÁGI, Márton TOMIN**
	Development of an Optical Measurement Method for Evaluating Foamability in In-Situ Foaming 3D Printing
11:45 - 12:00	**Balázs KUGLER, Szabó Tamás JÓZSEF, Polyákné Kovács ANNAMÁRIA**
	Effect of Biodegradable Polymer Compound formulations on the Properties of Packaging Films
12:00 – 12:15	**Wendimagegn TAGESSE, Babak MINOFAR, Béla VISKOLCZ, Béla FISE**
	Polyurethane Chemical Recycling With Deep Eutectic Solvents: Mechanisms, Products, and Future Directions: Review
12:15 – 12:30	**Nsingani Mfutila NTELA, Kolos MOLNÁR**
	Thermal Exposure of Electrospun PLA Mats during Fused Filament Deposition: A Reduced-Order Thermal Model
12:30 – 12:45	**Yevhen YEKYMOV, Vladimir LEVEDEV**
	Composition–Temperature Processing Map of PA66 Compounds Containing Micronized Reclaimed PPPA-GF35

11:30 – 12:45	**Session ENGINEERING MANAGEMENT**
	(Emerson Pneumatics Laboratory, ground floor, room A.0.26.)
Chairman:	**József MENYHÁRT,** University of Debrecen, Hungary
Secretary:	**Tibor PÁLFI**, University of Debrecen, Hungary
11:30 - 11:45	**Wanyi SU**
	Integrated Thermal Management Design for Electric Vehicle via Multi-Agent Reinforcement Learning
11:45 - 12:00	**Gábor HASULYÓ**
	Regulatory Gaps of Hydrogen Economy
12:00 – 12:15	**Ildiko ANGERER-PETROVICKIJ**
	Results of the Emas Eco-Management and Audit Scheme At the Dunaújváros Mayor'S office
12:15 – 12:30	**Ildikó ANGERER-PETROVICKIJ, Galgóczi VIVIEN**
	Analysis and Assessment of Seasonal Variations in Air Quality in the Sajó Valley, Hungary
12:30 – 12:45	**Jozsef MENYHART**
	Comparative Assessment of Second-Life EV Battery Capacity Classes in Residential PV Systems

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13:00 – 15:30 **Session ENGINEERING OPTIMIZATION II.**
(Technical Mechanics Laboratory, 1st floor, room U.1.08)
Chairman: **Gábor BOHÁCS,** Budapest University of Technology and Economics, Hungary
Secretary: **Máté BERECZKI**, University of Debrecen, Hungary

13:00 - 13:15 **Mahmood ALHAFADHI, Mohammed Ahmed SHEHAB, Zahra'a Aamer OUDAH, Kareem A FALIH, Hassan Raheem HASSAN, Mohanad KHAIRI, Katalin BIRKÁS, Chahboub YASSINE**
Numerical and Experimental Investigation of Thermal Cycles, Microstructure Evolution, and Residual Stresses in Welded Steel Pipes

13:15 - 13:30 **Ghizlene BOUSSOUAR, Michał Jan GĘCA, Arkadiusz GOLA**
Numerical Investigation of Darcy-Forchheimer Equation Applicability for Metallic Foams with Macroscopic Pores

13:30 – 13:45 **Oleksii BONDARENKO, Roman PROTASOV, Volodymyr SIERYKOV**
Catalog Components in Mixed Discrete–Continuous Optimization of Transmissions: An Oracle-Based Approach

13:45 – 14:00 **József BENCSIK, Zsolt CONKA, Richárd Zsolt RAPPAI, Réka SVÁB**
Synchronous Node Protection Unit for Sub-Cycle Fault Detection

14:00 – 14:15 **Abdiraxim Abdijabbor ABDIKARIMOV, Taxir Mirzanovich BAYZAKOV, Abduvali Abdujalolovich TURDIBAYEV**
Method and Results of an Experimental Study on Protecting Potato Plants from the Colorado Potato Beetle

14:15 – 14:30 **Lotar László KISS, Laura VERES**
Implementing Dfsearch: Automating System Linearization for Embedded Systems

14:30 – 14:45 **Elias SAADEH, Gábor BOHÁCS**
Development of a Decision Support Model for the Transition to Autonomous Material Handling in Intralogistics Using an Environment-Fit Criterion

14:45 – 15:00 **Ádám FRANCUZ, Tamás BÁNYAI**
Space Representation and Data-Driven Objective Function Interconnection in Warehouse Logistics Optimization

15:00 – 15:15 **Luca Éva LISZI, Miklós BOLERACZKI**
Implementation of a Digital Twin Environment for a Multi-Purpose Modular CNC Machine Tool

15:15 – 15:30 **Péter BÉDA, Gyula BÉDA**
The Relationship Between the Eshelby Tensor and the Lagrange Density Function

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13:00 – 14:45 **Session MACHINE AND PRODUCT DESIGN II.**
(Machine Elements Laboratory, 1st floor, room A.1.18)
Chairman: **Sándor MANÓ,** University of Debrecen, Hungary
Secretary: **Zoltán Gergő GÉRESI**, University of Debrecen, Hungary

13:00 - 13:15 **Alaa ALRUDHAN**
Spherical-Skeletal Hexagonal Open-Cell Metal Foam

13:15 - 13:30 **Mundher A. DOOKHI**
Development and Thermo-Mechanical Evaluation of a Passive Self-Cleaning System for Photovoltaic Panels Using Daily Thermal Fluctuations in the Iraqi Environment

13:30 – 13:45 **Karam Dheyaa Jirjees SHAAYA, Ferenc SARKA**
Experimental Evaluation of Dimensional Accuracy in Additively Manufactured Polymer Gears

13:45 – 14:00 **Roland KAJDI, Miklós BOLERACZKI**
Implementation and Configuration of a Modular Multi-Technology CNC Machine Tool Architecture

14:00 – 14:15 **Syed Musa Hassan GILLANI, Gábor BALOGH**
A Sustainable Approach in Prototype Manufacturing and Developing Standardized Approaches for Machine Development – 3D Printed 3D Printer

14:15 – 14:30 **Aiden Aurgha D COSTA, Naresh BARUA, Masuk ABDULLAH, Timotei István ERDEI, Attila SZÁNTÓ, Tibor Péter KAPUSI, Péter PUSKÁS**
Flight Dynamics and Electronics Analysis of 3D Printed Piper J3 Cub

14:30 – 14:45 **Klaudia PAPP, István Attila PIROS**
Patient-Specific Design of a Telescopic Dental Prosthesis Using CT-Derived Mandibular Geometry

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13:00 – 14:30 **Session MATERIALS SCIENCE (TESTING) III**
(Metallography Laboratory, 1st floor, room A.1.17)
Chairman: **Gábor SZAKÁCS,** University of Debrecen, Hungary
Secretary: **Tamás Antal VARGA**, University of Debrecen, Hungary

13:00 - 13:15 **Tamás Antal VARGA, Bálint FAZEKAS, Tamás MANKOVITS**
Integrated Data Management and Material Model Fitting System for Mechanical Testing of Rubber Materials

13:15 - 13:30 **Ahmed Sirath Abdul GHANEE, Gábor BALOGH**
Experimental and Finite Element Investigation of the Viscoelastic Behavior of Fused Deposition Modeling 3D-Printed Thermoplastic Polyurethane Specimens with Varying Infill Structures

13:30 – 13:45 **Elisha ZAHEER, János LUKÁCS**
Comparison of the Fatigue Crack Growth Characteristics of a Vintage and a Modern Pipeline Steel Exposed to Hydrogen

13:45 – 14:00 **Roland SEPSI, Barkóczy PÉTER**
Decision Support for Optical Microscopic Particle Analysis in Technical Cleanliness Inspection

14:00 – 14:15 **Alexandra KIRI, Zoltán WELTSCH**
Vibratory Stress Relief and Residual Stress Evolution in Cast Components for Automotive Applications

14:15 – 14:30 **Karina PRÉMUS, Balázs BORBÁS, Bálint GÁBRIEL, Alexandra KEMÉNY**
The Effect of Polishing and Grit Blasting on the Surface Properties of Ti6Al4V Eli Plates

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13:00 – 14:45 **Session ARTIFICIAL INTELLIGENCE IN ENGINEERING PROBLEMS I.**
(Composite Technology Laboratory, 4st floor, room A.4.13)
Chairman: **Imre KOCSIS,** University of Debrecen, Hungary
Secretary: **Dániel NEMES**, University of Debrecen, Hungary

13:00 - 13:15 **Ákos Koppány KISS**
AI-assisted Physical Simulation with MATLAB

13:15 - 13:30 **Ziwei GAN, Wang ZHANG, YueFeng CHEN, Seyed Reza Elmi HOSSEINI, Chengkun ZHANG, Kaisi XUE, Weixin XU**
Quantitative Assessment of Welder Skills Using Kinetic-Chain-Informed Semg–Imu Multimodal Sensing

13:30 – 13:45 **Junwei ZHANG, Yan XU, Qiang CAO, Yue LIU**
Local Convex-Hull-Based Collision Detection and Optimal Path Planning for Dual-Arm Robotic Operations

13:45 – 14:00 **Haodi WANG, Qiuxia SHI, Jianhua ZHOU**
Trajectory Planning for Automatic Parking Based on an Improved Hybrid A Algorithm*

14:00 – 14:15 **Tímea VARGA, Boglárka BURJÁN-MOSONI, Imre KOCSIS**
A Chain of Errors in Algorithmic Problem Solving

14:15 – 14:30 **Ármin STEIN, Viktor GOTTHARD, Krisztina SZEGHŐ, Thomas VIETOR**
Development and Presentation of an AI-Agent-Based Methodological Framework to Support the Design of Modular Product Families

14:30 – 14:45 **Dániel NEMES**
AI-Assisted Development of an Interactive Educational Tool for Cylindrical Compression Spring Design

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13:00 – 15:15 **Session STRUCTURAL INTEGRITY**
(Emerson Pneumatics Laboratory, ground floor, room A.0.26)
Chairman: **Krisztián DEÁK,** University of Debrecen, Hungary
Secretary: **Richárd GARAY**, University of Debrecen, Hungary

13:00 - 13:15 **Martin KERNÁCS, Olivér HORNYÁK**
AI-Assisted Maintenance Prioritization under Resource and Downtime Constraints

13:15 - 13:30 **Tamás FEKETE**
A Novel Approach to Structural Integrity Assessments of Large-Scale Pressure Systems

13:30 – 13:45 **Benedek KULCSÁR, Szabolcs SZÁVAI, Judit DUDRA**
Computational Modelling of Instrumented Indentation for Fracture Toughness Estimation

13:45 – 14:00 **Ahmad Yasser DAKHEL, Judit KOVÁCS, János LUKÁCS**
Structural Integrity of Pipeline Girth Welds Based on Full-Scale Tests

14:00 – 14:15 **Ádám MOLNÁR, Gábor BALOGH**
AI based Neural Network Data Collection and Analysis Software Part Development for a Complex Fracture Mechanics AI based Software

14:15 – 14:30 **Bandar ALIYEV, Michał JUREK**
Artificial Intelligence-Assisted Damage Assessment for Structural Integrity of Composite Structural Components

14:30 – 14:45 **Gergő FEHÉR, József MENYHÁRT, Gábor BALOGH**
3D Printed Front Car Bumper Energy Absorption Zone Reinforcement with Different Infill Application

14:45 – 15:00 **Katreen EBRAHEM**
Tribology of Lumbar Disc Arthroplasty: Wear Mechanisms, Material interactions, and Design Considerations

15:00 – 15:15 **Richard GARAY, Sándor MANÓ, Tamás MANKOVITS**
Experimental and Numerical Evaluation of the Mechanical Behavior of Dmls-Manufactured Porous Ti-6Al-4V Bone Plates with Open Lattice Boundaries

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13:00 – 15:15 **Session MANUFACTURING SCIENCE II.**
(Engineering Diagnostics Laboratory, ground floor, room A.0.16)
Chairman: **Géza HAIDEGGER,** Scientific Association for Mechanical Engineers, Hungary
Secretary: **Gábor RUZICSKA**, University of Debrecen, Hungary

13:00 - 13:15 **Ľuboslav STRAKA, Andrii ZALYVCHYI**
Influence of Surface integrity of Electrical Discharge Machined Materials on Their Corrosion Behaviour

13:15 - 13:30 **Eszter SZABO, Adam JACSO, Marton TAKACS**
Review of the Structural Challenges and Compensation Strategies in Robotic Machining

13:30 – 13:45 **Ľuboslav STRAKA**
Qualitative Classification of the Machined Surface after WEDM

13:45 – 14:00 **István Gábor GYURIKA, Ivett Alexandra SIMON, Rita TURCSÁNYI**
Development of an IoT-Based Gearbox and Creating a Test Rig

14:00 – 14:15 **Anas ZARBAH**
Film formation in Grease-Lubricated Rolling Bearings: State of the Art, Limitations, and Suggested ImprovementS

14:15 – 14:30 **Zoltán BARÁTH, Péter VERES**
Adaptive Processing of Noisy Time-Series Data for Manufacturing Forecasting

14:30 – 14:45 **Gábor RUZICSKA, Ńestor Rubén BARRAZA, Levente CZÉGÉ, Tamás MANKOVITS**
Stochastic Surrogate Modeling in Manufacturing Systems: Review and New Directions

14:45 – 15:00 **Cristian-Ioan CORBA, Călin-Aron TRIPE-VIDICAN, Ștefan MIHĂILĂ**
A Comparative Study of Laser Cutting, Punch Cutting, and Waterjet Cutting for Parts Made of S355Mc Steel, AISI 430 Stainless Steel, and Al5754 H111

15:00 – 15:15 **Marwen HABBACHI, Attila BAKSA**
A Preliminary Study of Single-Point Incremental Forming of Copper Sheets

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15:00 – 17:15 **Session ARTIFICIAL INTELLIGENCE IN ENGINEERING PROBLEMS II.**
(Machine Elements Laboratory, 1st floor, room A.1.18)
Chairman: **Ákos CSERVENÁK,** University of Miskolc, Hungary
Secretary: **Zoltán Gergő GÉRESI**, University of Debrecen, Hungary

15:00 - 15:15 **Szabina MOLNÁR-ZÉKÁNY, Szilvia ÁRVAI-HOMOLYA**
Mobile Lidar-Based 3D Wound Surface Reconstruction and AI Segmentation Pipeline for Pressure Ulcer Assessment

15:15 - 15:30 **Attila DEBRECENI, Sandor BODZAS**
Feature Analysis and Linear Regression Modeling of Tensile Strength in FDM-Printed PLA

15:30 – 15:45 **Ákos CSERVENÁK**
Developing Android Application for Automated Controlling of a Small Drone

15:45 – 16:00 **Shebli Hameed SHEBLI, Oliver HORNYAK**
Evaluating Quality and Naturalness in Automated Video Dubbing Systems

16:00 – 16:15 **Muhammad Ali SADIQ, György KOVÁCS**
Finite Element Based Artificial Neural Network Surrogate Modelling of Composite Sandwich Structures for Wind Turbine Blade Applications

16:15 – 16:30 **Ali ALYOUSEF, Péter VERES**
Recent Developments in Facility Layout Optimization for Dynamic Manufacturing Systems

16:30 – 16:45 **Dora DOBOVECZKI, Szilvia ÁRVAI-HOMOLYA**
Comparative Evaluation of Machine-Learning Models for AI-Assisted Physiotherapy Prioritization

16:45 – 17:00 **Mohammed Iqbal Dohan ALMURUMUDHE, Oliver HORNYAK**
XCap-VAD: An Explainable Capsule-Transformer Framework for Weakly Supervised Video Anomaly Detection

17:00 – 17:15 **Erika B. VARGA, Attila BAKSA**
Integrating Browser-Based Educational Games into Moodle for Engineering Education

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15:00 – 17:15 **Session MATERIALS SCIENCE (TESTING) IV.**
(Metallography Laboratory, 1st floor, room A.1.17)
Chairman: **Tímea VÁRADI,** AC2T research GmbH, Austria
Secretary: **György HÓDOS**, University of Debrecen, Hungary

15:00 - 15:15 **Jan DUSZA**
Micro/Nano Mechanical Testing of High Entropy Ceramics

15:15 - 15:30 **Ildiko ANGERER-PETROVICKIJ**
Trends in Air Pollution in Dunaújváros

15:30 – 15:45 **Ayodeji Augustine AYITI, Omojola AWOGBEMI, Ayodeji U. AKERELE, Tolulope Peace BABATUNDE, Joshua Oluwafemi OGUNDIPE**
Influence of Usage on the Physicochemical Properties of Groundnut Oil Used to Fry Selected Food Items

15:45 – 16:00 **Réka SZABÓ, Boglárka BALOG, Péter NAGY-GYÖRGY**
Predicting the Rheological Behavior of Silica-Based Shear-Thickening Fluids at Different Concentrations and Temperatures

16:00 – 16:15 **Gizem Nur TÜLÜ, Işılsu KARAAĞA**
Investigation of the Mechanical and Acoustic Performance of Epoxy-Matrix Natural and Hybrid Composites

16:15 – 16:30 **Işılsu KARAAĞA, Elif Nur ERDAĞ**
Investigation of the Mechanical and Acoustic Behavior of Natural and Metallic Reinforcements in Sustainable Epoxy Composites

16:30 – 16:45 **Elif Nur ERDAĞ, Gizem Nur TÜLÜ**
Investigation of the Effects of Carbon Black and Quartz Reinforcements on Performance in Epoxy-Based Composites

16:45 – 17:00 **Richárd WAGNER, Emőke IMRE, Borbála BIRÓ**
Techniques to Increase the Humus Content of Sandy Soils

17:00 – 17:15 **Tímea VÁRADI, Marko PILJEVIĆ, Hakan GÖÇERLER, Carsten GACHOT, Zsolt KÜRTI, Szilvia GYÖNGYÖSI, Csilla Enikő CZÉGÉNI, Sándor MANÓ**
Tribological and Rheological Characterization of Lubricants and Model Fluids for In Vitro Testing of Orthopaedic Implant Stability

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15:00 – 16:45	**Session MATERIALS SCIENCE (TECHNOLOGY) III.** (Composite Technology Laboratory, 4th floor, room A.4.13)
Chairman:	**Sándor PÁLINKÁS,** University of Debrecen, Hungary
Secretary:	**István DOMOKOS**, University of Debrecen, Hungary
15:00 - 15:15	**Tomasz DEMBICZAK, Robert KRUZEL** *Analysis of the Mechanical Properties of Tool Ceramics Produced by Spark Plasma Sintering*
15:15 - 15:30	**György LEDNICZKY, Zoltán WELTSCH** *Simulation-Based Prediction of Dimensional Changes During Metal Injection Molding and Sintering*
15:30 – 15:45	**Muhammad Khaddam ALJAMEH, Mate SZUCS** *Grain Refinement of an Al Alloy by Friction-Assisted Lateral Extrusion*
15:45 – 16:00	**Imre BOLVÁRI, Ferenc HAREANCZ** *Investigation of Process Parameters in Layers Produced by Laser Metal Deposition (LMD)*
16:00 – 16:15	**Mohanad Khairi FADHIL, Mohammed Qasim KAREEM, Mahmood ALHAFADHI, Peter BAUMLI** *Effect of Stainless Steel Mesh Size in Double-Layer Arrangements on Oil–Water Separation Efficiency*
16:15 – 16:30	**Reham ALHDAYAT, Raghawendra P. S. SISODIA** *Evolution of High-Mn and Medium-Mn Steels for Advanced Automotive Applications*
16:30 – 16:45	**Shohruh RAKHMATALIEV, Dániel KONCZ-HORVÁTH, Zoltán HERCEG, Márton BENKE** *White Cast Iron as a Dissolution-Resistant Material in Molten SAC205 Solder Alloy*

ISCAME Posters

Thursday, 5th of November 2026 (2-4 Ótemető, Debrecen)

15:00 – 16:00 **ISCAME poster session** (1st floor, Gallery of the Faculty of Engineering)

Friday, 6th of November 2026 (2-4 Ótemető, Debrecen)

13:00 – 14:00 **ISCAME poster session** (1st floor, Gallery of the Faculty of Engineering)

Dilmurod AKBAROV	*Comparative Assessment of Electrical and Vibration Indicators for Abnormal Condition Detection in Induction Motors*
Dilmurod AKBAROV, István BENDIÁK, Sándor SEMPERGER	*Development and Field Validation of a Multi-Parameter Protection System for Industrial Induction Motors under Abnormal Operating Conditions*
Tamás ANTAL	*Energy Analysis and Heat Loss Examination of Crop Drying System*
Attila ARADI, Attila Károly VARGA	*A Sample-Indexed Multi-Channel Hydrophone Measurement Architecture with Software-Embedded Timestamp, GNSS, and Sensor Tracks*
György BARANYAI, Kinga TAMÁSI, Melinda DARÁZSI, Lajos DAKU	*Development of Acrylic-Based Adhesives*
István BENDIÁK, Sándor SEMPERGER	*Frequency-Rank and Sideband-Symmetry-Based Bearing Condition Assessment Using Motor Current Signature Analysis*
István BENDIÁK, Sándor SEMPERGER	*Speed-Adaptive Rotor-Slot Spectral Mapping and Soft-Foot Spectral-Hill Analysis in Squirrel-Cage Induction Motors Using Motor Current Signature Analysis*
Sándor BODZÁS	*Evolution of Metal Casting Technologies: from Traditional Moulding to Digital Manufacturing*
Iveta ČAČKOVÁ, Viliam ČAČKO, Bálint FERENCZI, Shane SHABU	*Influence of Manufacturing Conditions on the Flexural Strength of Composite Boards Produced from Recycled Materials*
Amra TALIĆ ČIKMIŠ, Zerina BABIĆ, Aida IMAMOVIĆ	*Multi-Criteria Selection of an Industrial Fluid Flow Measurement System in the Conceptual Design Phase*

Csilla Enikő CZÉGÉNI, Tímea VÁRADI, Sándor MANÓ, Szilvia GYÖNGYÖSI	*Methodological Development for Measuring the Surface Wettability of Implant Materials*
Ján DIŽO, Miroslav BLATNICKÝ, Alyona LOVSKA, Rafal MELNIK	*Assessment of the Impact of a Moving Load to Vehicle Driving Properties*
Branislav DJORDJEVIC, Lazar JEREMIC, Aleksandar JOVANOVIC, Zoran RADOSAVLJEVIC, Stefan DIKIC, Ana PETROVIC	*Fad-Based Structural Integrity Assessment of Reconstructed Convective Superheater Collectors with Multiple Weld Defects*
Attila ERŐS, Tamás József SZABÓ, Annamária POLYÁKNÉ KOVÁCS	*Injection Moulding Process Optimization with Direct and Indirect Pressure Sensor Systems*
Bence FABIAN, Rajmond GAL, Mate Istvan NAGY, Csongor GAL	*Effect of the Surface Quality of Continuously Cast Steel Billets on the Surface of Finished Reinforcing Bars*
Tamás FEKETE	*Application of Alternating Current Hydraulic Drive*
Tamas FILEP, Mátyás ANDÓ, Béla J. SZEKERES,	*Image-Based Analysis of Chip Formation*
Mátyás Csongor GÁL, Bence FÁBIÁN, István Máté NAGY, Rajmond GÁL	*Investigation of Slag Basicity in Secondary Steelmaking*
Rajmond GÁL, Zsófia FORGÁCS, György KAPTAY	*Development of an Operational Data-Based Mass Balance Model for Electric Arc Furnace Steelmaking*
Alexandra HAMZA, István KOCSERHA	*Effect of Amorphous SiO_2 Addition on Phase Formation and Mechanical Properties of Brick Clays*
Mariann Éva HEGEDŰS, Zsolt DOBÓ	*Hydrogen Production from Hydrocarbon Gases via Thermal Pyrolysis*
Flóra Mónika HEGYI, Anna SYCHEVA, Mariann Szabóné KOLLÁR	*Functionalization of Bacterial Nanocellulose for Advanced Material Systems*
Krisztian HORVATH	*Influence of Bearing Support Stiffness on the Vibroacoustic Response of a Gear-Driven System*
Emőke IMRE, Adane AKATE, Delphin Kabey MWINKEN	*Permeability Model Building for Binary Mixtures of Coarse Sands*
Emőke IMRE, Adane AKATE, Delphin KABEY	*Model Building for the Permeability of Binary Mixtures of Coarse Sands*
Emőke IMRE, Adane AKATE, Delphin KABEY	*The Validation of a Pore Size Distribution – Water Retention Curve Soil Model with Double Inverse Problem Solution*
Lukas KAPSHAMMER, Andreas KAPSHAMMER, Michael LACKNER, Winoj BALASOORIYA, Bernd SCHRITTESSER, Umut CAKMAK	*Temperature and strain-rate dependency of experimental thermoplastic urethan (TPU) grades for hydrogen applications*
Aswin KARKADAKATTIL, Arjun KALATH	*Active-Learning-Assisted Monte Carlo Reliability Analysis of CubeSat Thermal–Structural Panels Under Coupled Orbital and Material Uncertainty*
Yannick Douglas NGANKANG KEMAYOU	*Experimental Analysis of Heat Transfer Enhancement Using Nanofluids in Microchannel Heat Sinks*
Shamsa KHALID, Mate CZAGANY, Peter BAUMLI	*Electrodeposition from Ionic Liquids and Deep Eutectic Solvents: Co, Ni and Co-Ni Systems*
MBOGO KISAKYE,	*Role of Robotics in LDC Countries*
Dániel KISS, György HEGEDŰS	*Generalised Modelling and Collision Detection for Machining Non-Standard Threads with Non-Profiled Tools*
Annamária POLYÁKNÉ KOVÁCS	*Analysis of Aramid Fiber-Reinforced Aliphatic Polyketone Composites*
Balázs KUGLER, Szabó Tamás JÓZSEF, Polyákné Kovács ANNAMÁRIA	*Effect of Biodegradable Polymer Compound formulations on the Properties of Packaging Films*
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INFORMATION TO CHAIRMEN, TO PRESENTERS AND TO VISITORS

Chairmen, Presenters and on-line registered Visitors are invited for lunch (Friday) and coffee (Thursday and Friday), but it is connected to registration at the registration desk at the Aula in the building of the Faculty of Engineering on the Conference days.

To Presenters:

- The official language of ISCAME is English;
- Show up to the session 10 minutes before the session begins;
- Each oral presentation will take maximum **12 minutes** + 3 minutes Q/A;
- The files required for the presentation (PowerPoint or PDF) must be uploaded and tested in the computer placed in the room before the respective presentation session.

To Poster Presenters:

- The official language of ISCAME is English;
- The Poster Exhibition will be opened on Thursday 5 November, 13:30 and can be visited until 6 November, 15:00. It means from Thursday 13:30 onwards posters can be put on display (Location: Faculty of Engineering, 1st floor, Gallery).
- Poster sessions are scheduled on 5 November, from 15:00-16:00 and on 6 November 13:00-13:40. At these times anyone interested should be received in front of the posters;
- Posters will be displayed on vertical boards with maximum dimensions of 1000mm (width) x 2000mm (height), the recommended poster size is standard A0 with page orientation portrait.

To Chairmen:

- During the presentations enforce time limits strictly so that no author monopolizes someone else's time;
- One presentations are complete the remainder of the time can be used for informal discussion with the audience and session participants. It is your job to field questions from the audience.

In any case please contact:

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