

**Faculty of Mechanical Engineering, University of Maribor,  
Smetanova ulica 17, 2000 Maribor  
Conference room: B-304**

**DAY 1: 23.4.2026**

8:00 – 9:00	<b>Registration</b>
9:00 – 9:15	<b>Opening remarks</b>
<b>Session 1 [chair: prof. dr. Zoran Ren]</b>	
9:15 – 9:35	<i>Smart Energy Management in Manufacturing Systems: Integrating Industry 4.0 Concepts and Advanced Predictive Models</i> , <b>Marcin Bączyk</b>
9:35 – 9:55	<i>Development of Sustainable Insulation Material from Recycled Post-Consumer Cigarette Filters</i> , <b>Salomé Alexandra Ramalho Mateus</b>
9:55 – 10:15	<i>Identification of the Chemical Composition of the Material on the Surface of a Jet engine turbine blade</i> , <b>Alicja Szymańska</b>
10:15 – 10:35	<i>Optimisation of Extrusion and Injection Molding of PLA-Based Bonded Magnets with Spherical Nd-Fe-B Particles</i> , <b>Tilen Švarc</b>
10:35 – 11:00	<b>Coffee Break</b>
<b>Session 2 [chair: prof. dr. Zbigniew Kłos]</b>	
11:00 – 11:20	<i>Technical Feasibility of Hydrotreated Vegetable Oil (HVO) as a Blending Component in Aviation Turbine Fuels</i> , <b>Klaudia Strugarek</b>
11:20 – 11:40	<i>Numerical-Experimental Development of the Inclined Notch Concept for Uniform Fatigue Crack Propagation Through the Wall Thickness of the PRNB Test Specimen</i> , <b>Domagoj Opačak</b>
11:40 – 12:00	<i>Simulating the Impact of Pre-Chamber Volume and Orifice Spatial Distribution on Hydrogen TJI Flame Propagation</i> , <b>Marcelina Gorzyska</b>
12:00 – 12:20	<i>Validation of a Neural Network Drag Force Surrogate for Particle Clusters in Laminar Pipe Flow</i> , <b>Jakob Kokovnik</b>
12:20 – 13:20	<b>Lunch Break</b>
<b>Session 3 [chair: assist. Aleksej Rikić]</b>	
13:20 – 13:40	<i>Effect of the External Payload on the Aerodynamic Performance of an Aircraft Wing Section</i> , <b>Nejc Vovk</b>
13:40 – 14:00	<i>Industrial Lyophilizer Equipment Capability Limit: A CFD Analysis</i> , <b>Alen Bihar Bobinski</b>
14:00 – 14:20	<i>Development of a 3D Finite Volume Method for Lyophilization in Vials</i> , <b>Domen Godec</b>
14:20 – 14:40	<i>Numerical Investigation of Batch Freezing Uniformity in Controlled Nucleation Freeze-Drying</i> , <b>Matija Založnik</b>
16:00 – 18:00	<b>Social Event – Guided Maribor City Tour (Meeting point: FS UM Entrance)</b>

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**DAY 2: 24.4.2026**

**Session 4 [chair: assist. Nejc Vovk]**

9:00 – 9:20	<i>Development and Construction of a Prototype Passenger Aircraft Simulator Based on Generic Technology: Implications for Pilot Training Safety, <b>Kinga Niemier</b></i>
9:20 – 9:40	<i>Comparison of Exhaust Emissions in Road and Air Transport Between the Cities of Poznan and Ljubljana Based on the Author's Model, <b>Piotr Pielecha</b></i>
9:40 – 10:00	<i>Impact of Park &amp; Ride on Peak-Hour Congestion: A Corridor-Based Simulation Study, <b>Nyelson Argolo Andrade</b></i>
10:00 – 10:20	<i>Towards ENIG Replacement: Plasma Jet Printed Gold Nanoparticles on Ceramic Substrates for High-Frequency Applications, <b>Lan Kresnik</b></i>
10:20 – 10:50	<b>Coffee Break</b>

**Session 5 [chair: assist. Matija Založnik]**

10:50 – 11:10	<i>Helium Bubble Formation in Irradiated Al-Mn-Cu Alloy, <b>Lara Hočurščak</b></i>
11:10 – 11:30	<i>Low-Cycle Fatigue Assessment of TPMS Structures, <b>Aleksej Rikić</b></i>
11:30 – 11:50	<i>High-Cycle Fatigue of Chiral Auxetic Structures: Experimental and Numerical Investigation, <b>Žiga Žnidarič</b></i>
11:50 – 12:10	<i>Evaluation of KSA Subject Implementation in a Selected Aviation Training Organization in Poland, <b>Katarzyna Pietrzak</b></i>
12:10 – 13:10	<b>Lunch Break</b>

**Session 6 [chair: assist. Žiga Žnidarič]**

13:10 – 13:30	<i>Hydrogen in Transport: Review of Technologies, Infrastructure and Future Prospects, <b>Aleksander Ludwiczak</b></i>
13:30 – 13:50	<i>A Study on Risk-Taking Tendencies Among Students and Pilots, <b>Kacper Korzeniowski</b></i>
13:50 – 14:10	<i>Methodological Issues and Challenges in Aircraft Engine Emission Testing, <b>Jakub Niklas</b></i>
14:10 – 14:30	<b>Closing Remarks &amp; POZ-MAR 2027 (assoc. prof. dr. Nejc Novak &amp; prof. dr. Zbigniew Kłos)</b>