



International Conference
"MECHATRONIC SYSTEMS AND MATERIALS"



**The 18th International Conference
Mechatronic Systems and Materials
(MSM – 2025)
Vilnius Gediminas Technical University**

Programme

**October 9, 2025,
Vilnius, Lithuania**
<https://vilniustech.lt/368851>

2025-10-09 (Thursday)

Moderator dr. Marius Šumanas

Vilnius Gediminas Technical University, Lithuania

Join Zoom Meeting

<https://liedm.zoom.us/j/98279096722>

Meeting ID: 982 7909 6722

Join instructions

<https://liedm.zoom.us/meetings/98279096722/invitations?signature=0qjugKb5agNZYya7z7Ku2-e8r-3GINqkU5uzewy7Hs8>

10:00-10:10	Opening Welcome Doc. dr. Justinas Gargasas , dean Faculty of Mechanics
Keynote presentations:	
10 ¹⁰ -10 ²⁵	1st keynote presentation <i>Permutation Entropy Based Feature Extraction for Bearing Fault Diagnosis</i> prof. dr. Minvydas Ragulskis
10 ²⁵ -10 ⁴⁰	2nd keynote presentation <i>Flexible Polymeric and Biopolymeric Sensors: a Leap to a Smart World</i> prof. dr. Vytautas Bučinskas
10 ⁴⁰ -10 ⁵⁵	3rd keynote presentation <i>Human Gait Monitoring Using Piezo-resistive Sensors</i> doc dr. Andrius Dzedzickis
11 ⁰⁰ -11 ¹⁵	<i>Alternative Progressive Stamping Injection Determination by Eddy Current Sensors Readings</i> Ph.D. Juras Skardžius, Ph.D. Justinas Gargasas
11 ¹⁵ -11 ³⁰	<i>Interaction Effects between Novel Resin Modifiers and Asphalt Binder Based on Fineness Parameters</i> B.S. Yixin Pan
11 ³⁰ -12 ⁰⁰	Lunch
12 ⁰⁰ -12 ¹⁵	<i>Multi-Scale Rheological Properties of Municipal Solid Waste Fly Ash-Asphalt Mastic Materials</i> B.S. Weili Chen

12 ¹⁵ -12 ³⁰	<i>Evaluation of the Ride Smoothness of Railway Rolling Stock with a Pneumatic Suspension System</i> Prof. Vitaliy Korendiy, Prof. Vitalii Kovalchuk, Ph.D. Andrii Kuzyshyn
12 ³⁰ -12 ⁴⁵	<i>Development of a Tool Centre Point Tracker for Performance Monitoring of Industrial Robots</i> M.S. Mantas Makulavičius, B.S. Artem Konotopchyk, Ph.D. Marius Šumanas, Ph.D. Andrius Dzedzickis
12 ⁴⁵ -13 ⁰⁰	<i>Analysis of the Influence of Flexible Ring Fillet Length on the Contact Characteristics and Motion Stability of Power Roll Rings</i> Prof. Junye Li, M.S. Xinjun Xie, Prof. Gaopeng Shuai, Prof. Haiyan Wu, Prof. Hongwei Zhang, Prof. Haihong Wu, Prof. Weihong Zhao
13 ⁰⁰ -13 ¹⁵	<i>Numerical Evaluation of Horn Geometry Influence on VHCF Ultrasonic Test Parameters</i> M.S. Lukas Garalis, Ph.D. Nikolaj Višniakov, Ph.D. Andrius Čeponis
13 ¹⁵ -13 ³⁰	<i>Numerical Simulation Study on the Rolling Behavior and Local Stress of Power Rolling Rings by the Thickness of Flexible Rings</i> Prof. Junye Li, M.S. Chao Han, Prof. Bin Lv, Prof. Zengwei Zhou, Prof. Lifeng Zhu, Prof. Guangfeng Shi, Prof. Jianhe Liu
13 ³⁰ -13 ⁴⁵	<i>Modeling of Stresses Arising on the Surface of Locomotive Wheel Pairs when Moving Along a Rail Track</i> Ph.D. Kamoliddin Inoyatov, Prof. Sherzod Fayzibaev, Ph.D. Irina Soboleva, Ph.D. Rodion Nigay, B.S. Vasila Ergasheva
13 ⁴⁵ -14 ⁰⁰	<i>Seismic Safety and Stability of Hydraulic Structures</i> Ph.D. Shaxnoza Egamberdiyeva, Ph.D. Shaxnoza Egamberdiyeva
14 ⁰⁰ -14 ¹⁵	<i>Numerical Simulation of Flexible Ring Arc Radius on Power Rolling Ring</i> Ph.D. Chengyu Xu, M.S. Yankai Liu, Ph.D. Haihong Wu, Prof. Guodong Ni, Prof. Junye li, Ph.D. Jingran Zhang, Ph.D. Jiaxin Xiong, Ph.D. Jianhe Liu