DOKTORANDUSZOK FÓRUMA/Doctoral Seminar

2026. november 23. / 23 November 2026

GÉPÉSZMÉRNÖKI ÉS INFORMATIKAI KAR/Faculty of Mechanical Engineering and Informatics

Sályi István Gépészeti Tudományok Doktori Iskola/ István Sályi Doctoral School of Mechanical Engineering Sciences

Gépek és szerkezetek tervezése tématerület/Design of machines and structures;
Termékfejlesztés és tervezés/Product Development and Design;
Termékfejlesztés és tervezés/Product Development and Design;
Gépek és elemeik tervezése/Design of machines and elements;
Energetikai és vegyipari gépészeti rendszerek tervezése/Energy and chemical engineering systems design;
Mérnöki szerkezetek tervezése/Design of engineering structures;
Mechatronikai rendszerek tervezése/Design of mechatronic systems;
Gyártási rendszerek és folyamatok/Manufacturing systems and processes.

Helye/Venue: Institute of Machine and Product Design, Building A/3., room number:115
A szekció elnöke/ Chairman of the Section: Prof. Dr. Gabriella Bognár Vadászné
Titkár/Secretary: Benedek Zsolt Kulcsár

8^{30} **Al Rudhan Alaa Mohammed Abed** (supervisor: Prof. Dr. Gabriella Bognár Vadászné)
Assessment of Mesh Independence for Fluid Flow and Heat Transfer in Hexagonal Porous Media

8^{45} **Rohály Áron** (supervisor: Dr. Ágnes Takács; co-supervisor: Dr. Károly Jálics)
Research Methods and Engineering Applications in Halfshaft Development

9^{00} **Kulcsár Benedek Zsolt** (supervisor: Dr. Szabolcs Szávai)
Use of inverse finite element approach for the extension of instrumented indentation test result curves

9^{15} **Árvai Tamás** (supervisor: Dr. Károly Jálics)
The effects of various types of engine mounts on wave propagation in vehicular structures

9^{30} **Karam Dheyaa Jirjees Shaaya** (supervisor: Dr. Ferenc Sarka)
Experimental investigation of dimensional accuracy and structural performance of additively manufactured polymer gears

9^{45} **Batoul Wanous** (supervisor: Dr. Ferenc Sarka)
Creep Testing of Polymers: Equipment, Standards and Accelerated Testing Method

10^{00} **Besenyei István** (supervisor: Dr. Zoltán Bihari)
Possibilities for optimising the cross-sections of aluminium profiles for mechanical engineering

10^{15} **Szabó Sándor Imre** (supervisor: Dr. Zoltán Bihari)
Mechanical Characterization of Composite Gears Produced by Additive Manufacturing

10^{30} **Borsodi Eszter** (supervisor: Dr. Ágnes Takács)
Comparative Analysis of Circular Product Evaluation Methods: Positioning the CPDS Framework

10^{45} **Ebrahem Katreen** (supervisor: Dr. Szabolcs Szávai)
A Preliminary Study of Wear Behaviour in Artificial Lumbar Disc Implants

11^{00} **Suller Lili** (supervisor: Prof. Dr. Gabriella Bognár Vadászné and Prof. Dr. József Faitli)
Rheological Properties of Fine-Grained Bentonite, Dolomite, and Ash-Water Suspensions

11^{15} **Suller Lili** (supervisor: Prof. Dr. Gabriella Bognár Vadászné and Prof. Dr. József Faitli)
Numerical Modeling of Couette Flow in Concentric Cylinder Rheometers

DOKTORANDUSZOK FÓRUMA/Doctoral Seminar

2026. november 25. / 25 November 2026

GÉPÉSZMÉRNÖKI ÉS INFORMATIKAI KAR/Faculty of Mechanical Engineering and Informatics

Sályi István Gépészeti Tudományok Doktori Iskola/ István Sályi Doctoral School of Mechanical Engineering Sciences

Gépészeti anyagtudomány, gyártási rendszerek és folyamatok tématerület/Engineering material science, production systems and processes;
Gyártási rendszerek és folyamatok/Manufacturing systems and processes;
Gépészeti anyagtudomány és mechanikai technológiák/Materials engineering and mechanical technology;
Szerkezetintegritás/Structural integrity.

Helye/Venue: Institute of Materials Sciences and Technology, A/4. builindg, groundfloor, room number 44.
A szekció elnöke/ Chairman of the Section: Prof. Dr. János Lukács, Dr. Zsolt Maros
Titkár/Secretary: Dr. Abd Al Al Sahm Alden Anis Mohammad

10^{00} **Mikayil Valizada** (supervisor: Dr. István Sztankovics)
Machining of Carbon-Fibre-Reinforced PEEK Composites: Inherent Challenges, Defect Formation, and Tool Wear Mechanisms

10^{15} **Smolnicki Szilárd** (supervisor: Dr. Gyula Varga)
Investigation of 42CrMo4 hardened steel diamond burnishing under various process parameters based on the characteristics of the Abbott–Firestone curve

10^{30} **Abdulhakim Shukurea Rahmato** (supervisor: Dr. Péter Zoltán Kovács)
Directional Impact response and failure Mechanism of Clinched EN AW5754 Aluminium Alloy Joints under Instrumented Charpy Loading

10^{45} **Tanuj Namboodri** (supervisor: Dr. Csaba Felhő co-supervisor: Dr. István Sztankovics)
Physics-Informed Machine Learning for Chatter Detection in Thin-Walled Cylinder Turning of 1.4301 Steel

11^{00} **Németh Kristóf** (supervisor: Dr. András Molnár, co-supervisor: Prof. Dr. Marcell Gyula Gáspár)
Laser Source, Layer Number and filler Alloy Effects on the precipitation hardening of laser-cladded Maraging Layers

11^{15} **Koroknai László** (supervisor: Dr. László Kuzsella)
Determination of macroscopic plastic formability parameters for hot-rolled S235JR structural steel plates of three different thicknesses using non-destructive Lamb wave Time-of-Flight (ToF) measurement

11^{30} **Khattab Afraa** (supervisor: Dr. Csaba Felhő, co-supervisor: Dr. István Sztankovics)
Material-Based Investigation of Surface Topography in Up and Down-Milling Under Varying Cutting Conditions

11^{45} **Kőrössy László** (supervisor: Dr. Ákos Meilinger)
Instrumented Impact Testing of G3Si1 Steel Produced via WAAM/CMT Technology

12^{00} **Elisha Zaheer** *(supervisor: Prof. Dr. János Lukács)*
Comparison of Fatigue Crack Propagation in Pipeline Steels in a Hydrogen Environment

12^{15} **Pap Ádám** *(supervisor: Prof. Dr. Marcell Gyula Gáspár, co-supervisor: Dr. Ákos Meilinger)*
Hydrogen Influence on the Tensile Properties of Simulated HAZ in L450M Pipeline Steel

12^{30} **Elcin Musajev** *(supervisor: Prof. Dr. Marcell Gyula Gáspár, co-supervisor Dr. Raghawendra Pratap Singh Sisodia)*
Instrumented Charpy-V notch testing of P355N

12^{45} ***Salimi Abderrahman*** *(*supervisor: Dr. István Sztankovics*)*
Transfer Learning for Data-Efficient tool Wear Prediction in Aluminum Alloy Machining

13^{00} **El Majdoub Wafae** (supervisor: Dr. István Sztankovics)
Integration of Time- and Frequency-Domain Cutting Force Features for Enhanced Cylindricity Prediction Using Machine Learning

13^{15} **Reham Ali Mohammad Alhdayat** *(*supervisor: Dr. Raghawendra Pratap Singh Sisodia)
Medium-Mn Steels as Third-Generation Advanced High-Strength Steels

13^{30} **Inácio Manuel Junqueira** (supervisor: Dr. Csaba Felhő)
Process monitoring and control of production equipment using industry 4.0 tools

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2025. november 25. / 25 November 2025

GÉPÉSZMÉRNÖKI ÉS INFORMATIKAI KAR/Faculty of Mechanical Engineering and Informatics

Sályi István Gépészeti Tudományok Doktori Iskola/ István Sályi Doctoral School of Mechanical Engineering Sciences

Gépészeti alaptudományok tématerület/Basic engineering sciences;
Szilárd testek mechanikája/Mechanics of solids.

Helye/Venue: Building A/3, room number: 201.
A szekció elnöke/ Chairman of the Section: Prof. Dr. László Baranyi
Titkár/Secretary: Tollár Sándor

13^{00} **Szemán Bence (**supervisor: Dr. Attila Baksa)
Revisiting Metallization Ratcheting in Plastic-Encapsulated Power Devices

13^{15} **Szalánczi Dávid** (supervisor: Dr. Péter Bencs)
Photovoltaic Technology Modelling for Logistics Facilities with Limited Rooftop Space

13^{30} **Wekesa Simon Waswa** (supervisor: Dr. Krisztián Hriczó; co-supervisor: Dr. Winifred Mutuku)
Ball bearing thermomechanics of magnetoviscous hybrid nanogrease with rotary magnetic field

13^{45} **Vadai Zsolt** (supervisor: Dr. Balázs Tóth) The Variational Structure of a p-Version Temporal Finite Element Formulation for the Linear Harmonic Oscillator

14^{00} **Vadai Zsolt** (supervisor: Dr. Balázs Tóth) Variational Aspects of a p-Version the Variational Structure of a p-Version Temporal Finite Element Formulation for the Linear Harmonic Oscillator

14^{15} **Manaf Noofal Taha Ahmed** *(supervisor: Dr Péter Bencs)* Numerical Investigation of Thermal Stratification and Inlet-Induced Mixing in a Hot Water Storage Tank Using CFD

DOKTORANDUSZOK FÓRUMA/Doctoral Seminar

2026. november 19. / 19 November 2026

GÉPÉSZMÉRNÖKI ÉS INFORMATIKAI KAR/Faculty of Mechanical Engineering and Informatics

Sályi István Gépészeti Tudományok Doktori Iskola/ István Sályi Doctoral School of Mechanical Engineering Sciences

Section of Design of mechatronic systems;
Section of Design of engineering structures;
Section of Design of machine tools.

Helye/Venue: Institute of Machine Tools and Mechatronics, A/5. building, 3rd floor, room number: 312
A szekció elnöke/ Chairman of the Section: Dr. György Hegedűs
Titkár/Secretary: Dr. Kristóf Szabó

10^{00} **Leskó Gergő** (supervisor: Dr. György Hegedűs)
Investigation of the Effect of Engagement Parameters on Wear and Damage of Starter Motor Pinions

10^{15} **Szombathelyi Máté** (supervisor: Dr. Máté Petrik)
Experimentals on dust explosion characteristics of raw and processed polymeric materials

10^{30} **Siktár Bálint** (supervisor: Dr. György Hegedűs, co-supervisor: Dr. József Kakuk)
Advances in cam.follower design used in hedge cutters

10^{45} **Muhammad Ali Sadiq** (supervisor: Prof. Dr. György Kovács)
Multi-Objective Optimization of a Composite FRP Laminated Sandwich Structure Using Artificial Neural Network and Particle Swarm Optimization Algorithm

11^{00} **Ali Alyousef** *(supervisor: Dr. Péter Veres)*
Recent Devolopments in Facility Layout Problem

11^{15} **Mouchane Brahim** (supervisor: Prof. Dr. György Kovács)
Optimum design of liquefied petroleum gas (LPG) composite cylinders by Genetic Algorithm method