

DOKTORANDUSZOK FÓRUMA/Doktorand Forum

2024. november 22. / 22 November 2024.

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 Materials engineering and mechanical technology;

Section of Manufacturing systems and processes;

Section of Assembly systems;

Section of Structural integrity;

Helye/Venue: Building C1, Ground Floor, Room 1.

A szekció elnöke/ Chairman of the Section: Prof. Dr. János Lukács, Dr. Zsolt Maros

Titkár/Secretary: Antal Nagy

- 9⁰⁰ **Illés Sas** (supervisor: Prof. Dr. János Lukács)
Welding and investigation of post weld treatment on Alform 960 x-treme welded joints
- 9¹⁵ **Abdulkhkim Shukurea Rahmato** (supervisor: Dr. Péter Zoltán Kovács)
Effect of pre-strain on the tensile shear strength of similar Al5754-H22 aluminium alloys joined by clinching
- 9³⁰ **László Koroknai** (supervisor: Dr. László Kuzsella)
Evaluation of acoustic waves
- 9⁴⁵ **Afraa Khattab** (supervisor: Dr. Csaba Felhő, Dr. István Sztankovics)
A Review of plunge milling: Technique, Challenges and Future Direction
- 10⁰⁰ **Hla Gharib** (supervisor: Prof. Dr. György Kovács)
Technical diagnosis and maintenance of marine diesel engine supported by expert system
- 10¹⁵ **Jakiya Sultana** (supervisor: Dr. Gyula Varga)
Numerical Analysis of Jute-PLA Composite RVE Using ANSYS Material Designer: A Finite Element Investigation
- 10³⁰ **Szilárd Smolnicki** (supervisor: Dr. Gyula Varga)
Optimising the energy efficiency of diamond burnishing with different burnishing forces
- 10⁴⁵ **Frezgi Tesfom Kebede** (supervisor: Dr. Csaba Felhő)
New burnishing tool feed method in a higher number of passes for surface roughness improvement
- 11⁰⁰ **Ádám Pap** (supervisor: Dr. Marcell Gáspár, Dr. Ákos Meilinger)
Welding Criteria Related To Hydrogen Transport In Carbon Steel Pipelines
- 11¹⁵ **Inácio Junqueira** (supervisor: Dr. Csaba Felhő)
Investigation Of The Effect Of Wall Thickness On Vibration And Surface Roughness In Turning Of Iron Steel.

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

Section of Mechanics of solids;

Section of Transport processes and machines;

Section of Energy and chemical engineering systems design

Helye/Venue: Building A3, Room 201

A szekció elnöke/ Chairman of the Section: Prof. Dr. László Baranyi

Titkár/Secretary: Levente Tugyi

- 9⁰⁰ **Abderrazek Messaoudi** (supervisor: Dr. László Péter Kiss)
Stability of Arches Subjected to an Arbitrary Radial Concentrated Load
- 9¹⁵ **Marwen Habbachi** (supervisor: Dr. Attila Baksa)
Investigation Of Single Point Incremental Forming Of Pure Aluminum Alloy Al 1050: Prediction Of Forming Force And Thickness Distribution
- 9³⁰ **Ammar Saliby** (supervisor: Dr. Béla Kovács)
PCM Capsule Shape Optimization For Efficient Thermal Management
- 9⁴⁵ **Alaa Alrudhan** (supervisor: Vadászné Prof. Dr. Gabriella Bognár)
History , Application and previous Studies (Numerical & Experimental) of Metal Foams
- 10⁰⁰ **Aimen Tanougast** (supervisor: Dr. Krisztián Hriczó)
Comparative Analysis Of Turbulence Models For Flow And Heat Transfer In Corrugated Channel With Vortex Generators
- 10¹⁵ **Khayrullaev Husniddin** (supervisor: Dr. Endre Kovács)
Exploring The Performance Of Some Efficient Explicit Numerical Method With Good Stability Properties For Huxley's Equation
- 10³⁰ **Andicha Zain** (supervisor: Dr. Krisztián Hriczó, Dr. Imre Ferenc Barna)
2D Heat Conduction Solution Using Explicit Method
- 10⁴⁵ **Mustafa Moayad Hasan** (supervisor: Dr. Krisztián Hriczó)
Comparative Numerical Study Of Various Analysis Methodologies Of A Dual-Purpose Solar Collector (Dpsc): Identifying The Optimal Approach
- 11⁰⁰ **Salman Brbhan** (supervisor: Dr. Zoltán Szamosi)
Enhancing LFR System Performance By Using Concave Absorber Tubes

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

Section of Product development and design;
Section of Design of machines and elements;
Section of Design of engineering structures;

Helye/Venue: Building A3, Room 115

A szekció elnöke/ Chairman of the Section: Vadászné Prof. Dr. Gabriella Bognár

Titkár/Secretary: Dávid Bodnár

- 9⁰⁰ **Karam Shaaya** (supervisor: Dr. Ferenc Sarka)
*The Damages Of Plastic Gears - Similarities And Differences Between
3D-Printed And Conventionally Manufactured Gears*
- 9¹⁵ **Muhammad Ali Sadiq** (supervisor: Prof. Dr. György Kovács)
Future Trends And Use Of Composites In Aviation Industry
- 9³⁰ **Al-Timmimi Sulaiman Mustafa** (supervisor: Dr. Szabolcs Szávai)
*Tribological Behavior of Hybrid Metal Matrix Composite Based Iron-
Al2O3-ZrO2 Reinforced with Nanoparticles of MoS2 and Gr.*
- 9⁴⁵ **Iyad Al-Najjar** (supervisor: Dr. Károly Jálics, Dr. László Kollár)
Icing On Wind Turbine Blades
- 10⁰⁰ **Md Mazedur Rahman** (supervisor: Dr. Szabolcs Szávai)
*Finite Element Investigations On Buckling And Damage Analysis Of
Curved Stiffened Panels With Cutouts On Hybrid Composite Panels With
Titanium Foils Under Compressive Loads*
- 10¹⁵ **István Besenyei** (supervisor: Dr. Zoltán Bihari)
Finite Element Tests For Aluminium Profiles
- 10³⁰ **Alireza Aghakhani** (supervisor: Dr. Ágnes Judit Takács)
Driving the Future: Sustainable Automotive Design Simplified
- 10⁴⁵ **Tamás Bence Venczel** (supervisor: Dr. Krisztián Hriczó, Dr. László Berényi)
Application Of Agile Product Development Methods In Automotive
- 11⁰⁰ **Eszter Borsodi** (supervisor: Dr. Ágnes Judit Takács)
*Investigation of Integrating the Circular Approach in Engineering
Design*
- 11¹⁵ **Dávid Bodnár** (supervisor: Dr. Károly Jármái)
Frequency Response Optimization Of An Industrial Robot Arm
- 11³⁰ **Apáti Sándor** (supervisor: Dr. György Hegedűs, Dr. Sándor Hajdu)
*Optimizing battery life with non-linear compensation using it in jigsaw
motors*