

DOKTORANDUSZOK FÓRUMA/Doktorand Forum

2022. november 18. / 18. November 2022.

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 Basic Engineering Sciences;

Section Design of Machines and Structures;

Section Engineering Material Science, Production Systems and Processes

Helye/Venue: A/3 115 Institute of Machine and Product Design

A szekció elnöke/ Chairman of the Section: Prof. Dr. Gabriella Vadászné Bognár
egyetemi tanár/ professor, Prof. Dr. Mária Marosné Berkes

- 8⁰⁰ **Hla Gharib** (supervisor: Dr. György Kovács)
Technical diagnosis and maintenance of machines supported by Expert System
- 8¹⁵ **Wallyson Thomas Alves Da Silva** (supervisor: Dr. László Péter Kiss)
Analytical and experimental capture of transient response of a boring bar with different overhangs
- 8³⁰ **József Balázs Kriston** (supervisor: Dr. Károly Jálics Jr.)
Vibration signal analysis of a motor vehicle's faulty gearbox
- 8⁴⁵ **Sándor Apáthi** (supervisor: Dr. György Hegedűs)
Analysis of manual cutting machines operating on the vibration principle
- 9⁰⁰ **Nazha Hasan** (supervisor: Dr. Szabolcs Szávai)
3D printed flexible metamaterials for the use in the joint part of ankle-foot orthosis
- 9¹⁵ **Houssam Sabbabi** (supervisor: Dr. János Lukács)
Angular and distortion measurement of s960ql, s690ql, s500mc weld joints
- 9³⁰ **Karmoua Jamal** (supervisor: Dr. Béla Kovács, Dr. Ádám Dobossy)
Design And Implementation Of Intelligent Control Systems To Identification Welding Tracks For Industrial Robots
- 9⁴⁵ **Meknassi Raid Fekheddine** (supervisor: Dr. Zsolt Lukács)
Experimental study on strain distribution of notched tensile test specimen under plane strain
- 10⁰⁰ **Ali Zainab** (supervisor: Prof. Dr. Gabriella Vadászné Bognár)
CFD study of the effects of surface roughness on the resistance

- 10¹⁵ **Al-Magsoosi Ali Habeeb Askar** (superv.: Dr. Endre Kovács, Dr. Betti Bolló)
Testing some Different Implementations of Heat Convection and Radiation in the leapfrog-Hopscotch Algorithm for Equidistant Mesh
- 10³⁰ **Omle Issa Jasem** (supervisor: Dr. Endre Kovács, Dr. Betti Bolló)
Implement several ways of the convection and radiation terms in the leapfrog-Hopscotch method and test it on a realistic wall with non-equidistant mesh
- 10⁴⁵ **Iskandar Alaa** (supervisor: Dr. Béla Kovács)
Deep Reinforcement learning for swarm robotic system
- 11⁰⁰ **Dakhel Ahmad Yasser** (supervisor: Prof. Dr. János Lukács)
Reliability of transporting pipeline girth welds based on full-scale investigations
- 11¹⁵ **Gábor Szabolcs Terdik** (supervisor: Dr. Ákos Meilinger)
The effect of hardfacing to the properties of S1100QL base material
- 11³⁰ **Imre Marada** (supervisor: Dr. János Bihari)
The analysis and temperature of small plastic gears
- 11⁴⁵ **István Tüske** (supervisor: Dr. György Hegedűs)
Speed and acceleration conditions of a tilting table with parallel kinematic
- 12⁰⁰ **Eszter Borsodi** (supervisor: Dr. Ágnes Judit Takács)
On generative design: possibilities of using Artificial Intelligence
- 12¹⁵ **Saliby Ammar** (supervisor: Dr. Béla Kovács)
Minimize annual energy consumption by investigating heat transfer problems in building components
- 12³⁰ **Cabezas Pazmino Sebastian Alejandro** (supervisor: Dr. György Hegedűs, Dr. Péter Bencs)
Thermal Experimental and Numerical Analysis of a solid Cylinder in longitudinal Direction
- 12⁴⁵ **Al-Hamzawi Mortda Mohammed Sahib** (supervisor: Dr. Szabolcs Szávai, Prof. Dr. György Kovács)
Design composite structures by using Artificial intelligence
- 13⁰⁰ **Kumar Baibhaw** (supervisor: Dr. Szamosi Zoltán, Dr. Gábor Szepesi L.)
Optimization of Solar drying techniques
- 13¹⁵ **Dessie Jemal Ebrahim** (supervisor: Dr. Zsolt Lukács)
Numerical Determination of Influential Springback Parameters for Stretch U-Bending of AA 6016-T4

- 13³⁰ **Ákos Levente Kókai** (supervisor: Prof. Dr. Mária Marosné Berkes)
Theoretical and experimental investigation of oxidation mechanisms occurring during the coating of internal combustion engine's cylinder bores by thermal plasma spray
- 13⁴⁵ **Levente Tugyi** (supervisor: Dr. Zoltán Siménfalvi, Dr. Gábor Szepesi L.)
CFD Modelling of Subsonic and Sonic Methane Gas Release and Dispersion in an Industrial Environment
- 14⁰⁰ **Alireza Aghakani** (supervisor: Dr. Ágnes Judit Takács)
Some questions on design methodology
- 14¹⁵ **Judit Albert** (supervisor: Dr. Ágnes Judit Takács)
Optimisation methodology for structural design and material selection with MCDM and FEM modelling
- 14³⁰ **Zárszó/Afterword**

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professor

- 8⁰⁰ **Frezgi Tesfom Kebede** (supervisor: Dr. Csaba Felhő)
Investigation of Cutting force components and surface roughness in milling with different cutting ratios
- 8¹⁵ **Brbhan Salman** (supervisor: Dr. Viktória Mannheim)
Life Cycle Assessment of Thermal Systems in Sustainable Buildings
- 8³⁰ **Ádám Nagy** (supervisor: Dr. Endre Kovács)
Convergence Properties of Some Newly Proposed Numerical Schemes for Heat Conduction Equation
- 8⁴⁵ **Mehdiyev Ziya** (supervisor: Dr. Csaba Felhő)
Investigation on 3D Printing Parameters of PLA Polymers for Gear Applications
- 9⁰⁰ **Al-Najjar Iyad Fawzi Yousef** (superv.: Dr. Károly Jálics Jr., Dr. László Kollár)
Vibration in wind turbine blades due to uneven load or loads removal
- 9¹⁵ **Fruzsina Fülöp** (supervisor: Prof. Dr. Mária Marosné Berkes)
Effect of the DLC top layer on the scratching behaviour of different hard ceramic coatings on X153CrMoV12 tool steel
- 9³⁰ **Messaoudi Abderrazek** (supervisor: Dr. László Péter Kiss)
Green functions for stepped beams
- 9⁴⁵ **Róbert Lipták** (supervisor: Dr. István Bodnár)
Analysis of different types of photovoltaic power systems and the related battery energy storage technologies
- 10⁰⁰ **Tamás Pusztai** (supervisor: Dr. Zoltán Siménfalvi)
Development of spring-loaded safety valve based on experimental and simulation investigation

- 10¹⁵ **Antal Nagy** (supervisor: Dr. János Kundrák)
Effect of measurement settings on areal roughness values
- 10³⁰ **Saleh Mahmoud** (supervisor: Dr. Endre Kovács)
Adaptive numerical methods for solving Heat Conduction Equation
- 10⁴⁵ **Miklós Gábor Várkuli** (supervisor: Prof. Dr. Gabriella Vadászné Bognár)
Contact ratio of spiral bevel gears
- 11⁰⁰ **Judit Kovács** (supervisor: Prof. Dr. János Lukács, Prof. Dr. –Ing. Gerald Wilhelm)
Physical simulation, welding experiments and material tests on S1100 structural steel
- 11¹⁵ **Alwafaie Mohammad Alaa** (supervisor: Dr. Béla Kovács)
Harvesting energy for ERS Automotive
- 11³⁰ **Al-Timmimi Sulaiman Mustafa Khazaal** (supervisor: Dr. Szabolcs Szávai)
Study of manufacturing and material properties of the hybrid composites with metal matrix as tool materials
- 11⁴⁵ **Habbachi Marwen** (supervisor: Dr. Attila Baksa)
Investigation of sheet metal forming process optimization methods
- 12⁰⁰ **Abd Al Al Sahn Alden Anis Mohammad** (supervisor: Dr. Marcell Gyula Gáspár, Dr. Ákos Meilinger)
Behaviour of MS1400 RSW joints under fatigue loading
- 12¹⁵ **Al-Janabi Humam Kareem Jalghaf** (s.v.: Dr. Endre Kovács, Dr. Betti Bolló)
New Stable Explicit Algorithms for Heat Conduction ,Convection, Radiation in Multilayer wall
- 12³⁰ **Jalalova Pusta** (supervisor: Prof. Dr. Mária Marosné Berkes)
A novel test method for analysing the scratching behaviour of polycrystalline diamond coatings
- 12⁴⁵ **Alsalamah Bassel** (supervisor: Dr. László Kuzsella)
The effect of temperature on the hot compression test of als7 aluminum
- 13⁰⁰ **Dávid Matusz-Kalász** (supervisor: Dr. István Bodnár)
Numerical analysis of solar cell operation
- 13¹⁵ **Pálma Kapitány** (supervisor: Dr. Tamás Szabó)
Testing options for the current of electromagnets which including permanent magnet
- 13³⁰ **László Koroknai** (supervisor: Dr. László Kuzsella)
The importance of horizontality during the scanning ultrasound examination
- 13⁴⁵ **Tamás Bence Venczel** (supervisor: Dr. Krisztián Hriczó, Dr. László Berényi)
Evolution of Startups in Automotive Supply Chain

- 14⁰⁰ **Mohammad Alzghoul** (supervisor: Dr. Ferenc Sarka, Dr. Ferenc János Szabó)
Chatter Prevention by Spindle System Structural Modifications
- 14¹⁵ **Mustafa Moayad Hasan** (supervisor: Dr. Krisztián Hriczó)
Prediction of energy efficiency of a solar air collector using artificial
neural network technique
- 14³⁰ **Zárszó/Afterword**