

DOKTORANDUSZOK FÓRUMA/Doktorand Forum

2021. november 19. / 19. November 2021.

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

- 8⁰⁰ **Hla Gharib** (supervisor: Dr. György Kovács)
Technical diagnosis and maintenance of machines supported by Expert System
- 8¹⁵ **Mohammad Alzghoul** (supervisor: Dr. Attila Szilágyi)
Transverse vibration dynamical modeling and validation of a continuous pinned-pinned-free beam with an overhang point mass
- 8³⁰ **Sebastian Cabezas** (supervisor: Dr. Attila Szilágyi)
Fundamental Solution of the 1D-Parabolic Heat Conduction Equation by the Method of Fourier and Green-s Function Method
- 8⁴⁵ **Róbert Lipták** (supervisor: Dr. István Bodnár)
Simulation of fault detection in photovoltaic arrays
- 9⁰⁰ **Imre Marada** (supervisor: Dr. János Bihari)
Design problems and possible analysis of small plastic gears
- 9¹⁵ **Mustafa M. Hasan** (supervisor: Dr. Krisztián Hriczó)
Numerical Simulation of The Heat And Mass Flow of a Solar Collector Applying Alternative Liquids
- 9³⁰ **Fruzsina Fülöp** (supervisor: Dr. Mária Marosné Berkes)
An overview of the achievements of the experimental work on tribological studies on wear-resistant ceramic coatings and their utilization in future work
- 9⁴⁵ **Pusta Jalalova** (supervisor: Dr. Mária Marosné Berkes)
Comparison of the reliability of the layer thickness measurement on TiAlN and CrAlN ceramic coatings using ball cratering method (Calotest) or studying the conventional microscopic section of specimens

- 10⁰⁰ **Shiraz Ahmed Siddiqui** (supervisor: Dr. Mária Marosné Berkes)
Comprehensive overview of the effect of duplex treatment on the tribological performance of a plastic mould tool steel
- 10¹⁵ **Mohammed Alktranee** (supervisor: Dr. Péter Bencs)
Effect of using passive cooling on the behavior of photovoltaic module
- 10³⁰ **Yassine Chahboub** (supervisor: Dr. Szabolcs Szávai)
Application of ANN approach to predict the failure of pipeline
- 10⁴⁵ **Hasan Nazha** (supervisor: Dr. Szabolcs Szávai)
Ankle-foot orthosis from CT images to 3D prototype
- 11⁰⁰ **Alhamzawi Mortda Mohammed Sahib** (supervisor: Dr. Szabolcs Szávai)
Optimization of a composite sandwich structure
- 11¹⁵ **Zoltán Tarpay** (supervisor: Dr. György Kovács)
Fiber-reinforced composite rubber conveyor belts - sustainability
- 11³⁰ **Lucas Alexandre de Carvalho** (supervisor: Dr. Zsolt Lukács)
Determination of friction input parameters for enhanced Coulomb models
- 11⁴⁵ **Okhunjon Sayfidinov** (supervisor: Prof. Dr. Gabriella Vadászné Bognár)
Different noise terms effect on discretized Kardar-Parisi-Zhang equation
- 12⁰⁰ **Mohsen Khalili Najafabadi** (supervisor: Prof. Dr. Gabriella Vadászné Bognár, co-supervisor: Dr. Krisztián Hriczó)
CFD analysis of nanofluid flow inside a pipe using Ansys Fluent
- 12¹⁵ **Meknassi Raid Fekhreddine** (supervisor: Prof. Dr. Tisza Miklós)
Non-Linear strain paths in Sheet Metal Forming
- 12³⁰ **Zárszó/Afterword**

DOKTORANDUSZOK FÓRUMA/Doktorand Forum

2021. november 26. / 26. November 2021.

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professor

- 8⁰⁰ **Wallyson Thomas alves da Silva** (supervisor: Dr. Attila Szilágyi)
 Dynamic analysis of an internal turning tool with elastic foundation
 (Winkler model)
- 8¹⁵ **Iyad Al- Najjar** (supervisor: Dr. Attila Szilágyi, co-supervisor: Dr. László
 Kollár)
 Modern vibration challenges in wind turbines blades
- 8³⁰ **Alaa Iskandar** (supervisor: Dr. Béla Kovács)
 Evolutionary and Reinforcement learning methods for swarm robotic
 systems
- 8⁴⁵ **Ammar Saliby** (supervisor: Dr. Béla Kovács)
 Minimize annual energy consumption by investigating heat transfer
 problems in building components
- 9⁰⁰ **Jamal Karmoua** (supervisor: Dr. Béla Kovács, co-supervisor: Dr. Dobossy
 Ádám)
 Intelligent Control System to Identification Welding Tracks
- 9¹⁵ **Al-Janabi Humam Karem Jalghaf** (supervisor: Dr. Endre Kovács, co-
 supervisor: Dr. Betti Bolló)
 New stable explicit algorithms for heat equation
- 9³⁰ **Saleh Mahmoud** (supervisor: Dr. Endre Kovács)
 New Explicit Asymmetric Hopscotch Methods for the Heat Conduction
 Equation
- 9⁴⁵ **Issa Omle** (supervisor: Dr. Endre Kovács)
 New positivity preserving algorithms for conductive heat transfer

- 10⁰⁰ **Ali Habeeb Askar** (supervisor: Dr. Dr. Endre Kovács, co-supervisor: Dr. Betti Bolló)
Systematic testing of recent stable and explicit algorithms for the heat conduction equation
- 10¹⁵ **Ádám Nagy** (supervisor: Dr. Endre Kovács)
Novel Numerical Methods for Diffusion Type Equations Suitable for Arbitrary Spatial Grids
- 10³⁰ **Kriston József Balázs** (supervisor: Dr. Károly Jálics)
Benefits and Limitations of Acoustic Methods in the Vehicle Transmission Diagnostics – A Case Study
- 10⁴⁵ **Abderrazek Messoudi** (supervisor: Dr. László Péter Kiss)
Stability investigation using Green functions
- 11⁰⁰ **Pálma Kapitány** (supervisor: Dr. Tamás Szabó)
Development of Test Bench Elements for Reproducible Measurements of Electromagnet
- 11¹⁵ **Jemal Ebrahim** (supervisor: Dr. Zsolt Lukács)
Analyses of the relative velocity field in cold roll bonding of multilayer sheet metal
- 11³⁰ **Mohamad Klazly** (supervisor: Prof. Dr. Gabriella Vadászné Bognár)
A new viscosity model for nanofluid
- 11⁴⁵ **Houssam Sabbabi** (supervisor: Prof. Dr. János Lukács)
Review of fatigue strength evaluation of local stresses in welded joints
- 12⁰⁰ **Ahmad Yasser Dakhel** (supervisor: Prof. Dr. János Lukács)
Full-scale tests of transporting pipeline sections containing girth welds
- 12¹⁵ **Levente Tugyi** (supervisor: Dr. Zoltán Siménfalvi, co-supervisor: Dr. Gábor L. Szepesi)
Methane jet flow simulation through a hole
- 12³⁰ **László Kovács** (supervisor: Prof. Dr. Szilárd Szabó, co-supervisor: Dr. Betti Bolló)
Eltérő motor-szelepvezérlés áramlásra gyakorolt hatásának elemzése numerikus szimulációval
- 12⁴⁵ **Horváth Péter** (supervisor: Dr. Károly Jálics)
FEM analysis of noise, vibration and efficiency of switched reluctance machine considering the manufacturing tolerances, excentricity, assembly errors and component level failures
- 13⁰⁰ **Zárszó/Afterword**