

Doctoral Seminar

5th May 2023

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

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

Chairman of the Section: Prof. Dr. Gabriella Vadászné Bognár professor

- 8⁰⁰ **Hasan Nazha** (supervisor: Dr. Szabolcs Szávai)
Design and evaluation of an AFO joint enriched with the auxetic mechanical metamaterials
- 8¹⁵ **Tamás Bence Venczel** (supervisor: Dr. Krisztián Hriczó, Dr. László Berényi)
Case study of risk factors in automotive industry
- 8³⁰ **Aimen Tanougast** (supervisor: Dr. Krisztián Hriczó)
Turbulent flow in A Corrugated-Trapezoidal Channel Using Winglet Vortex Generators
- 8⁴⁵ **Humam Kareem Jalghaf Al-Janabi** (supervisor: Dr. Endre Kovács, Dr. Betti Bolló)
Numerical methods to investigate the heat transfer in cylindrical coordinate
- 9⁰⁰ **Sahm Alden Anis Mohammad Abd Al Al** (supervisor: Dr. Marcell Gyula Gáspár, Dr. Ákos Meilinger)
Thermal cycle measurement of RSW using K-type thermocouples
- 9¹⁵ **Antal Nagy** (supervisor: Prof. Dr. János Kundrák)
Analysis of milled surface topography in directions different from the feed motion
- 9³⁰ **Salman Brbhan** (supervisor: Dr. Viktória Mannheim)
Comparison of traditional and renewable energy-based heating systems of buildings based on Life Cycle Assessment
- 9⁴⁵ **József Balázs Kriston** (supervisor: Jr. Dr. Károly Jálics)
Failure detection of powertrain on motor vehicles with vibroacoustic methods
- 10⁰⁰ **Tesfom Kebede Frezgi** (supervisor: Dr. Csaba Felhő)
ANOVA analysis and Taguchi design approach to optimize C45 surface roughness by sliding ball burnishing
- 10¹⁵ **Imre Marada** (superv.: Dr. János Bihari)
Measurement of the effects of faults on small plastic gears

- 10³⁰ **Break Time**
- 10⁴⁵ **Hla Gharib** (supervisor: Prof. Dr. György Kovács)
Technical diagnosis and maintenance of machines supported by Expert System
- 11⁰⁰ **Husniddin Khayrullaev** (supervisor: Dr. Béla Kovács)
Elaborating and optimizing methods to minimize annual energy consumption by investigating heat transfer problems in building component
- 11¹⁵ **István Tüske** (supervisor: Dr. György Hegedűs)
Presentation of the inverse kinematics of the tilting table
- 11³⁰ **Mohammad Jehad Mohammad Alzghoul** (supervisor: Dr. Ferenc Sarka, Dr. Ferenc János Szabó)
Improving Chatter Performance of a Lathe Spindle through Grapho-Analytical Optimization
- 11⁴⁵ **Ali Habeeb Askar Al-Magsoosi** (supervisor: Dr. Endre Kovács, Dr. Betti Bolló)
Measure the running times of the most successful numerical methods and compare them to the performance of other available solvers
- 12⁰⁰ **Issa Jasem Omle** (supervisor: Dr. Endre Kovács, Dr. Betti Bolló)
Comparison of the performance of new and traditional numerical methods for long-term simulations of heat transfer in walls with thermal bridges
- 12¹⁵ **Mohsen Khalili Najafabadi** (supervisor: Prof. Dr. Gabriella Vadászné Bognár, Dr. Krisztián Hriczó)
Convective Heat Transfer Analysis of Alumina-Water Nanofluid with Temperature-dependent properties
- 12³⁰ **Saliby Ammar** (supervisor: Dr. Béla Kovács)
Melting Process of Phase Change Material Layer Used in Building Envelope
- 12⁴⁵ **Zainab Ali** (supervisor: Prof. Dr. Gabriella Vadászné Bognár)
Investigation of the impact of surface roughness on the vehicle's resistance
- 13⁰⁰ **Róbert Lipták** (supervisor: Dr. István Bodnár)
Optimal sizing of battery storage for photovoltaic systems
- 13¹⁵ **László Koroknai** (supervisor : Dr. László Kuzsella)
The propagation of ultrasound and 3D printing
- 13³⁰ **Afterword**