

Doctoral Seminar

23 November 2023, 9:00 am

István Sályi Doctoral School of Mechanical Engineering Sciences

Section of Mechanics of Solids

Venue: Building A3, Room 201

Chairman of Section: Prof. Dr. László Baranyi

Secretary: Tamás Pusztai

- 9⁰⁰ **Tatiane Domokos** (supervisor: Dr. Attila Baksa, Dr. Szabolcs Szávai)
Prediction of FLD using Gurson model
- 9²⁰ **Alaa Iskandar** (supervisor: Dr. Béla Kovács)
Deep Reinforcement Learning for Swarm Robotics Systems
- 9⁴⁰ **Marwen Habbachi** (supervisor: Dr. Attila Baksa)
Numerical investigation of incremental sheet metal forming of
Aluminum Alloy
- 10⁰⁰ **Abderrazek Messaoudi** (supervisor: Dr. László Péter Kiss)
Buckling of Arches with Geometric Imperfections

Doctoral Seminar

23 November 2023, 9:00 am

István Sályi Doctoral School of Mechanical Engineering Sciences

Section of Transport Processes and Machines

Venue: Building A3, Room 201

Chairman of Section: Prof. Dr. László Baranyi

Secretary: Tamás Pusztai

- 10²⁰ **Humam Kareem Jalghaf Al-Janabi** (supervisor: Dr. Endre Kovács, Dr. Betti Bolló)
Simulation of Phase Change Materials in Building Walls using Effective, Heat Capacity Model by recent numerical methods
- 10⁴⁰ **Issa Omle** (supervisor: Dr. Endre Kovács, Dr. Betti Bolló)
Applying recent efficient numerical methods for long-term simulations of heat transfer in walls to optimize thermal insulation
- 11⁰⁰ **Al-Magsoosi Ali Habeeb Askar** (supervisor: Dr. Endre Kovács, Dr. Betti Bolló) Analytical and Numerical Results for the Diffusion-Reaction Equation When the Reaction Coefficient Depends on Simultaneously the Space and Time Coordinates
- 11²⁰ **Aimen Tanougast** (supervisor: Dr. Krisztián Hriczó)
Numerical simulations of turbulence flow in corrugated channel
- 11⁴⁰ **Ammar Saliby** (supervisor: Dr. Béla Kovács)
CFD Modeling for Phase Change Materials
- 12⁰⁰ **Husniddin Khayrullaev** (supervisor: Dr. Endre Kovács)
Examining the performance of several numerical methods to solve the heat equation
- 12²⁰ **Mustafa Moayad Hasan** (supervisor: Dr. Krisztián Hriczó)
Numerical Simulation of a Dual-purpose Solar Collector
- 12⁴⁰ **Andicha Zain** (supervisor: Dr. Krisztián Hriczó)
Optimizing methods to minimize annual energy consumption by investigating heat transfer problems in building components

Doctoral Seminar

24 November 2023, 12:30

István Sályi Doctoral School of Mechanical Engineering Sciences

Sections of Design of Machines and Elements, Product Development and Design

Venue: Building A3. Room 115

Chairman of Section: Prof. Dr. Károly Jármai

Secretary: Imre Marada

- 12³⁰ **Hasan Nazha** (supervisor: Dr. Szabolcs Szávai)
Tongue and groove: modelling and experimental fitting study
- 12⁵⁰ **Venczel Tamás Bence** (supervisor: Dr. Krisztián Hriczó, Dr. László Berényi)
Investigation of automotive risk factors using Q-method at an international automotive Tier-1 supplier in Poland
- 13¹⁰ **Alireza Aghakhani** (supervisor: Dr. Ágnes Judit Takács)
Biomimicry: Reshaping Design Methodology
- 13³⁰ **Zainab Ali** (supervisor: Prof. Dr. Gabriella Vadászné Bognár)
Investigating the Influence of Surface Roughness on Vehicle Resistance and Performance
- 13⁵⁰ **Imre Marada** (supervisor: Dr. János Bihari)
The dynamic measurement of the recirculation torque for small plastic gear pairs
- 14¹⁰ **Judit Albert** (supervisor: Dr. Ágnes Judit Takács)
A method for optimizing the design of mechanical construction performance through interactive multi-criteria decision making
- 14³⁰ **Hla Daoud** (supervisor: Prof. Dr. Gabriella Vadászné Bognár)
CFD Study of The Influence of An Interceptor on The resistance of High-speed Vessels
- 14⁵⁰ **Md Mazedur Rahman** (supervisor: Dr. Szabolcs Szávai)
Effect of layer weight on the fdm printed pla cubic and cubic latticestructure in manufacturing time and weight
- 15¹⁰ **Eszter Borsodi** (supervisor: Dr. Ágnes Judit Takács)
Using artificial intelligence in product design

Doctoral Seminar

23 November 2023, 15:00 pm

István Sályi Doctoral School of Mechanical Engineering Sciences

Sections of Design of Machine Tools, Designing of Mechatronics Systems

Venue: Building A5, Room 312

Chairman of Section: Dr. Tamás Szabó, Dr. György Hegedűs (online)

Secretary: Pálma Kapitány

- 15⁰⁰ **István Tüske** (supervisor: Dr. György Hegedűs)
Determination of joint parameters for a given tool path using
inverse kinematics
- 15²⁰ **Iyad Al-Najjar** (supervisor: Dr. Károly Jálics, Dr. László Kollár)
Modal experiment: Wind blade
- 15⁴⁰ **Sebastian Cabezas** (supervisor: Dr. Péter Bencs, Dr. György Hegedűs)
Thermal contact resistances of static and moving heat sources
- 16⁰⁰ **Pálma Kapitány** (supervisor: Dr. Tamás Szabó, Dr. László Rónai)
Choice of measuring card for analysis of electromagnet
- 16²⁰ **Bálint Siktár** (supervisor: Dr. György Hegedűs, Dr. József Kakuk)
Literature on Cam-follower mechanism
- 16⁴⁰ **Sándor Apáti** (supervisor: Dr. György Hegedűs)
Electromechanical Model of Jigsaw

Doctoral Seminar

23 November 2023, 15:00 pm

István Sályi Doctoral School of Mechanical Engineering Sciences

Section of Energy and Chemical Engineering System Design

Venue: Building A5, Room 312

Chairman of Section: Dr. Tamás Szabó, Dr. György Hegedűs (online)

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Salman Brbhan (supervisor: Dr. Zoltán Szamosi)

Optimization of Performance of Green Concentrating Solar Thermal
Power Plants Based on LCA

Doctoral Seminar

23 November 2023, 10:00 am

István Sályi Doctoral School of Mechanical Engineering Sciences

Sections of Manufacturing Systems and Processes, Assembly Systems

Venue: Building C1, Room 1

Chairman of Section: Dr. Zsolt Maros

Secretary: Antal Nagy

- 10⁰⁰ **Frezgi Tesfom** (supervisor: Dr. Csaba Felhő)
Burnishing process effect on 3D Printed metal surface
- 10²⁰ **Inácio Manuel Junqueira** (supervisor: Dr. Csaba Felhő)
Process monitoring and control in the milling machine using
Industry 4.0 tools
- 10⁴⁰ **Afraa Khattab** (supervisor: Dr. Csaba Felhő)
Additive manufacturing for transportation braking systems
- 11⁰⁰ **Hla Gharib** (supervisor: Dr. György Kovács)
Technical diagnosis and maintenance of machines supported by
Expert System
- 11²⁰ **Rahmato Abdulhakim Shukurea** (supervisor: Dr. Péter Zoltán Kovács)
Experimental and Theoretical Analysis of Clinch Joint of Sheets
Metal
- 11⁴⁰ **Antal Nagy** (supervisor: Prof. Dr. János Kundrák)
Roughness unevenness of milled surfaces machined with single or
double milling marks
- 12⁰⁰ **Jakiya Sultana** (supervisor: Dr. Gyula Varga)
Influences of 3D printing parameters on the mechanical properties
of wood PLA filament: an experimental analysis by Taguchi
method

Doctoral Seminar

23 November 2023, 10:00 am

István Sályi Doctoral School of Mechanical Engineering Sciences

Section of Materials Engineering and Mechanical Technology, Material Inspection

Venue: Building A4, Basement Room 12

Chairman of Section: Prof Dr. János Lukács

- 10⁰⁰ **Pusta Jalalova** (supervisor: Prof. Dr. Mária Maros Berkes)
Application of 2D and 3D profilometry in evaluation of scratching
behaviour of polycrystalline diamond coatings
- 10²⁰ **Jemal Ebrahim Dessie** (supervisor: Dr. Zsolt Lukács)
Numerical Modeling of Kinematic hardening behavior for W-temper
AA 6082 Aluminum Alloy
- 10⁴⁰ **Gábor Szabolcs Terdik** (supervisor: Dr. Ákos Meilinger)
Properties of heat affected zones in case of hardfacing
- 11⁰⁰ **László Koroknai** (supervisor: Dr. László Kuzsella)
Characterization of the anisotropy of DC01 steel sheet through
acoustic emission testing