XL. Conference of Machine and Product Designers

Miskolc, 7th to 8th November 2024 (Thursday to Friday)

– PROGRAM –

date/time: **7th November 2024 (Thursday) 10.00-12.20 (Plenary session)**
location: **Headquarters of MAB (3. Erzsébet square, Miskolc), Auditorium (I. floor)**
chairman: **Dr. JÁLICS Károly**

10:00 **10:05** *Dr. Jálics Károly* associate professor University of Miskolc: **OPENING**

10:10 **10:30** *Dr. Ficzere Péter* associate professor Budapest University of Technology and Economics: **Industry 5.0 or Industry 4.2**

10:40 **11:00** *Molnár János* development manager ZF Hungária Kft: **Presentation of the application practice of design and development in the automotive industry in connection with university education**

11:10 **11:30** *Torkos Zoltán* MSc optometrist, optician master Z-OPTIKA Miskolc: **The optics and mechanics of making glasses**

11:40 **12:00** *Dr. Jálics Károly* associate professor University of Miskolc: **Investigation of the time delay of arrival (TDOA) method for diagnostic purposes on motor vehicles**

12:00 **12:20** Questions, informal conversation

12:45 **13:45** Lunch and coffee break for registered participants of the seminar

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Miskolc, 7th to 8th November 2024 (Thursday to Friday)

– PROGRAM –

date/time: **7th November 2024 (Thursday) 14.00-18.00 (1. Professional section)**
location: **Headquarters of MAB (3. Erzsébet square, Miskolc), Auditorium (I. floor)**
chairman: **Dr. TAKÁCS Ágnes, Dr. GOTTHARD Viktor**

14:00 **14:10** *Prof. Dr. Jármai Károly* professor University of Miskolc: **Motion enlargement at structures, literature review, application**

14:20 **14:30** *Dr. Gotthard Viktor* managing director G-MAX Europe Kft: **Mofular pinciple design (DFM) theory and practice: modular design of giant 3D-printer and product development**

14:40 **14:50** Zsila Klaudia Fanni development engineer ZF Hungária Kft: **Development and application of the oil filling test method**

15:00 **15:10** Paróczai Soma simulation engineer ZF Hungária Kft: **Stress analysis of gearbox housing and dimensioning for fatigue**

15:20 **15:30** *Torkos Dorka* BSc optician Z-OPTIKA, Miskolc: **The history of glasses**

15:40 **16:00** coffee break

16:00 **16:10** *Bodnár Dávid* PhD student University of Miskolc / engineer, Emerson Automation FCP Kft. Eger: **Industrial robot arm damping coefficient and frequency response testing with measurement and finite element methods**

16:20 **16:30** *Molnár Luca* MSc student Budapest University of Technology and Economics: **3D printing and mechanical evaluation of lattice structures of lumbar stabilization spinal implants**

16:40 **16:50** *Bártfai András* PhD student Budapest University of Technology and Economics: **Experimental validation of the tuneable clamping table optimal tuning and design of a compatible workpiece**

17:00 **17:10** *Németh Géza* assistant professor University of Miskolc: **Variety of trapezoidal machines and specification of their models**

17:20 **17:30** *Szalánczi Dávid* PhD student University of Miskolc: **Efficiency improvement of solar panels using infrared reflective foils in perc technology**

17:40 **17:50** *Siktár Bálint* PhD student University of Miskolc: **Investigating the kinematics and the vibration of a hedge trimmer**

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– PROGRAM –

date/time: **7th November 2024 (Thursday) 14.00-18.00 (2. Professional section)**
location: **Headquarters of MAB (3. Erzsébet square, Miskolc), Deák hall (I. floor)**
chairman: **Dr. LOVAS László, Dr. SARKA Ferenc**

14:00 **14:10** *Dr. Sarka Ferenc* associate professor University of Miskolc: **Reconstruction of a wormgear drive using 3D printing - Case study**

14:20 **14:30** *Besenyei István* PhD student University of Miskolc: **Bending test of aluminium profil for Mechanical engineering**

14:40 **14:50** *Dr. Bihari Zoltán* associate professor University of Miskolc: **Only one kind of nut? – Not (nut) everyone's cup of tea**

15:00 **15:10** *Albert Judit* PhD student University of Miskolc: **Optimizing Sealing Performance with Finite Element Method and Multi-Criteria Decision-Making Approach**

15:20 **15:30** *Dr. Sarka Ferenc* associate professor University of Miskolc: **Improving the heat conduction properties of railway brake blocks by macro-structural changes, using a simplified finite element model**

15:40 **16:00** coffee break

16:00 **16:10** *Messaoudi Abderrazek* PhD student University of Miskolc: **The influence of non-symmetrical supports on the stability of arches**

16:20 **16:30** *Shaaya Karam* PhD student University of Miskolc: **Manufacturing issues with 3D printed gears—literature survey**

16:40 **16:50** *Iyad Al-Najjar* PhD student University of Miskolc: **Applying Mode-Superposition Method on a wind turbine blade**

17:00 **17:10** *Mustafa M. Hasan* PhD student University of Miskolc: **Multifunctional Applications of a Dual-Purpose Solar Collector Across Diverse Sectors**

17:20 **17:30** *Katreen Ebrahem* PhD student University of Miskolc: **3D Numerical Design And Testing Of Personalized Intervertebral Disc Prostheses**

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date/time: **8th November 2024 (Friday) 9:00-12.30 (3. Professional section)**
location: **Headquarters of MAB (3. Erzsébet square, Miskolc), Auditorium (I. floor)**
chairman: **Dr. SZABÓ Ferenc János, Dr. DÖMÖTÖR Csaba**

9:00	**9:10**	*Dr. Szabó Ferenc János* associate professor University of Miskolc: **Grapho-analytical optimization in 3D**
9:20	**9:30**	*Dr. Szabó Ferenc János* associate professor University of Miskolc: **Extreme load of the undercarriage of a car**
9:40	**9:50**	*Tóth Csilla* park leader, *Dr. Kovács Zoltán*, *Dr. Háry András* ZalaZONE Science Park Kft.: **The relationship between university services and new technologies in science and technology parks**
10:00	**10:10**	*Kapitány Pálma* assistant lecturer University of Miskolc: **Development of curtain moving system with remote control and automatic operation in case of fire**
10:20	**10:30**	coffee break
10:40	**10:50**	*Sári-Barnácz Viktor* leading expert Robert Bosch Kft. / PhD student, Obuda University: **Indirect hyperelastic material model identification using production line data of automotive sealing assembly process**
11:00	**11:10**	*Dr. habil Darabos Anita DLA* assistant professor Budapest University of Technology and Economics: **Ecodesign products...?**
11:20	**11:30**	*Marada Imre* PhD student University of Miskolc: **Analysing the pitch faults of small plastic gears**
11:40	**11:50**	*Bányai Kristóf* BSc student University of Miskolc: **Analysis of tribological parameters of coatings**
12:00	**12:10**	*Dr. Dömötör Csaba* associate professor University of Miskolc: **Requirements and possibilities for components optimized for additive manufacturing**
12:10	**12:15**	CLOSING WORD