Program

PhD Workshop organized by
the Institute of Management Science, IMW, TU Vienna, and
the Laboratory on Engineering and Management Intelligence, EMI,
Institute for Computer Science and Control, SZTAKI

Venue: SZTAKI, Kende utca 13-17, H-1111 Budapest, Hungary

Date: May 4-5, 2023

4th May (Thursday), 2023

Venue: SZTAKI, Lágymányosi u. 11, Innovation and Demonstration Space, 6th floor		
10:30 – 11:00	***Opening, agenda***	
11:00 – 12:00	***Introductions of the institutes***	
12:00 – 13:00	Lunch	
13:00 – 14:00	***Demonstrations in SZTAKI's Innovation and Demonstration Space***	
Venue: SZTAKI, Kende utca 13-17, Big Lecture Hall, basement		
Section on human-machine cooperation		
14:00 – 14:10	*Steffen Nixdorf, IMW*	*An assessment model for reciprocal learning in human-machine collaboration in manufacturing*
14:10 – 14:20	*Clara Fischer, IMW*	*Safety-related design and simulation of collaborative human-robot applications*
14:20 – 14:30	*Zahra Safari Dehnavi, IMW*	*AI-based task allocation between human and robots*
14:30 – 14:40	*David Kostolani, IMW*	*Visually-driven ambient intelligence in assisted working scenarios*
14:40 – 15:15	Coffee and Talk (Matchmaking)	
Section on production planning, scheduling and control		
15:15 – 15:25	*Fabian Holly, IMW*	*A contribution to supporting the transformation of Austria's mechanical engineering sector into a circular economy*
15:25 – 15:35	*Johannes Breitschopf, IMW*	*Simulation-based optimization of flexible energy systems in manufacturing with local energy production and storage components*
15:35 – 15:45	*Alexander Gaal, IMW*	*A metaheuristics-based approach to solving medical residency scheduling problems*
15:45 – 15:55	*Tamás Cserteg, EMI*	*Multi-operation optimal blank localization for machining*
15:55 – 16:05	*Evelin Szögi, EMI*	*Load balancing problems*
16:05 – 16:15	*Richárd Beregi, EMI*	*Agent-based control of cyber-physical production systems*
16:15 – 16:25	*Ádám Szaller, EMI*	*Trust-based resource sharing in manufacturing*
16:25 – 17:00	Coffee and Talk (Matchmaking)	

5th May (Friday), 2023

Venue: SZTAKI, Kende utca 13-17, Big Lecture Hall, basement		
8:30 – 9:00	Coffee, get together	
Section on design, decision support		
9:00 – 9:10	*Tanja Zigart, IMW*	*Multi-criteria evaluation of industrial assistance systems*
9:10 – 9:20	*Bernd Hader, IMW*	*Safety- and security-related assessment methods for continuous integration and deployment*
9:20 – 9:30	*Atieh Karbasi, IMW*	*Inclusive design and development of individualizable work systems in manufacturing*
9:30 – 9:40	*Stefanie Eisl, IMW*	*A component-based circular economy strategy selection model for wind turbines*
9:40 – 9:50	*Theresa Madreiter, IMW*	*Dr. Opera – Multicriteria decision support framework for orchestrating sustainability factors in operation management strategies*
9:50 – 10:00	*Zsombor Szádoczki, EMI*	*Analytic hierarchy process and incomplete pairwise comparison matrices from a graph theoretic viewpoint*
10:00 - 10:10	*Linus Kohl, IMW*	*An AI-enhanced framework for competence-based maintenance planning in semiconductor manufacturing*
10:10 – 11:00	Coffee and Talk (Matchmaking)	
Section on data analytics and machine learning		
11:00 – 11:10	*Júlia Bergmann, EMI*	*Industrial data analytics: Defining and refining production system models through machine learning*
11:10 – 11:20	*Anh Tuan Hoang, EMI*	*IDENAS: Internal dependency exploration based neural architecture search*
11:20 – 11:30	*Ambrus Tamás, EMI*	*Probabilistic methods in reproducing kernel Hilbert spaces*
11:30 – 11:40	*Bálint Horváth, EMI*	*Nonparametric confidence bands in Paley-Wiener spaces with convex optimization*
11:40 – 11:50	*Szabolcs Szentpéteri, EMI*	*Reinforcement learning based resource management in immunotherapies*
11:50 – 12:00	*Horváth Dániel, EMI*	*Sim2real transfer learning in robotics*
12:00 – 12:30	Coffee and Talk (Matchmaking)	
12:30 – 13:30	Lunch	