Call for Papers for Special Session

INDUSTRY & SOCIETY 5.0: OPTIMIZATION AND LEARNING IN HUMAN AND INDUSTRIAL ENVIRONMENTS

at the 17ᵗʰ International Symposium on Operations Research in Slovenia (SOR '23)
which will be held in Bled, Slovenia, September 20 – 22, 2023.

Organized and chaired by: Prof. Dr. Drago Bokal and Prof. Dr. Janez Povh

Industrial environments specifically and human environments in general yield challenging problems for mathematical modelling and optimization due to unpredictable conditions and human factors, as well as due to human desire for creativity that opposes respecting limitations of optimality conditions. **Optimization models are regardless ubiquitous in such environments, as for instance, limited amount of time available for desired activities imposes a knapsack optimization problem on every industrial process, organization and each individual.**

This special session addresses **theoretical and empirical studies of optimization of processes in industry and other environments** where human, user, or some other autonomous agent participates in implementing optimal solution obtained from an underlying mathematical model. Instances of such applications specifically address digital twins of devices and processes, where data is processed in (near) real time and process parameters or agent decisions are optimized. **Challenges not related to theoretical modelling problems include vaguely defined criterion functions, robustness of solutions, tools aiding efficient implementation of optimal solutions, sensory systems for optimization problem data acquisition, sensory data quality etc.**

The 17ᵗʰ International Symposium on Operations Research in Slovenia - SOR'23

Bled, Slovenia, September 20-22, 2023

https://sor.fov.um.si/

Prospective authors are invited to submit original papers prepared according to SOR'23 instructions for authors.

The papers should address the topics including, but not limited to:

- Optimization models in the context of digital transformation and **Industry & Society 5.0**.
- Optimization models **within corporate performance management processes**.
- Optimization models **within digital twin setting**.
- **Enterprise**-wide optimization.
- **Optimization models** of individual user experience.
- **Evaluation** of stakeholder experience in process optimization.
- Criterion functions and users (**QoS, QoE, other specific metrics**).
- Criterion functions in **cultural** environments.
- Criterion functions in **biological** environments.
- Social **signaling and optimization** with users.
- **Planning and implementation** of experiments with users.
- **Sensors and sensory networks** for user measurement.
- **Situational dependence** of user models.
- **Laboratory and distributed** experiments, particularly applications of HPC.
- **Experience sampling.**

DEADLINES:

- Submission of contributed papers: June 2, 2023
- Referee's reports: July 3, 2023
- Submission of revised papers and copies of bank transfer: August 25, 2023

Note: When submitting the paper, please, select "Special Session on Industry & Society 5.0: Optimization and Learning in Human and Industrial Environments".