

**Open Invited Track on “Simulation modeling, machine learning and optimization algorithms to support decision making in production and logistics”**

**Invited track code pw275**

IFAC INCOM 2021

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17th IFAC Symposium on Information Control Problems in Manufacturing

<https://incom2021.org>

**Chairs:**

- Tobias Reggelin, Otto von Guericke University Magdeburg, GERMANY
- Sebastian Lang, Fraunhofer IFF Magdeburg, GERMANY
- Stefan Galka, OTH Regensburg, GERMANY
- Sebastian Meißner, Landshut University of Applied Sciences, GERMANY
- Lorena Reyes-Rubiano, University of Natural Resources and Life Sciences Vienna, AUSTRIA

*Enterprises still make a lot of decisions in production and logistics based on simple rules or the individual know-how of the decision-makers. The same applies for public/governmental authorities for decisions related to public logistics systems. The use of simulation modeling, machine learning, and optimization algorithms can lead to drastically better decision making in enterprises and authorities. The ongoing digitization, the pursuit of concepts related to Industry/Logistics 4.0, further increasing computational power and more and more well-educated employees in enterprises and authorities provide an excellent basis for the application of the above-mentioned models to support decision making in enterprises and authorities. For this reason, this track focusses on all kind of models related to simulation, optimization and machine learning and their applications to support both real-time operational decisions and middle/long-term decisions in production and logistics which go beyond the state of the art.*

**Track topics:**

The track chairs invite researchers and decision makers from academia and industry to contribute theoretical and applied research papers in areas including but not limited to the following topics:

*Methods: Microscopic, mesoscopic, macroscopic, hybrid, and adaptive simulation models. Models from the field of artificial intelligence, e.g. machine learning. Optimization models.*

*Applications: Production and Logistics. Real-time operational decision making, tactical decision making, and strategic decision making. Digital Twins. Virtual commissioning. Assistance systems. Automated and autonomous solutions for decision making.*

**Submission:**

For author guidelines, please refer to [www.ifac-control.org](http://www.ifac-control.org). All papers must be submitted electronically using <https://ifac.papercept.net> and must follow the two-column format in accordance with the IFAC manuscript style. Please use the official IFAC instructions and template to prepare your contribution as full-length draft paper. Submission details are available on the symposium website. All submissions must be written in English. All papers that conform to submission guidelines will be peer-reviewed by IPC members. The corresponding author submits the paper online (pdf format) as an open invited track paper. Submission as an invited paper requires the invited session code: **pw275**. Several international journals are associated with the conference for publication of special issues.

**Important dates:**

November 13, 2020	Draft paper submission
January 15, 2021	Notification of acceptance
March 15, 2019	Deadline for the final submission