

Invited Session on “Lean Production in the context of the 4th Industrial Revolution – challenges, implications and opportunities” for IFAC MIM2019

Invited Session (code **1ya31** - use this identification code in the submission)
9th IFAC Conference on Manufacturing Modeling, Management, and Control (MIM 2019)
Berlin, Germany, 28/29/30 August 2019
<https://blog.hwr-berlin.de/mim2019/> <https://ifac.papercept.net/>

Session Chairs:

- Prof. Dr. Enzo Morosini Frazzon, Federal University of Santa Catarina, Brazil
- Prof. Dr. Guilherme Tortorella, Federal University of Santa Catarina, Brazil
- Prof. Dr. Rapinder Sawhney, University of Tennessee Knoxville, USA
- Prof. Dr. Paolo Gaiardelli, Università di Bergamo, Italy

The integration of Industry 4.0 (I4.0) technologies into management approaches and operational practices such as the ones inherent to Lean Production (LP) systems can lead to contradictory effects on manufacturers’ operational performance. On one side, the adoption of I4.0 technologies allows to identify problems earlier supporting decision-making processes and problem-solving initiatives closer to takt. Such feature is aligned with LP principles, which aim to solve problems at root cause by clearly identification of process’ abnormalities. On the other hand, the incorporation of these technologies entails a high level of capital expenditure and tend to exempt people from their responsibility over the processes they operate. From this perspective, LP practices and principles may appear conflicting with I4.0, as lean implementation reinforces simple and low-tech methods for problem solving and encourages people to own their processes, even though a certain level of automation is admitted (autonomation or *jidoka*). Thus, the challenges and benefits of this integration are quite unknown and deeper studies to investigate its effects are necessary.

Track topics:

The track chairs invite scientists, engineers and decision makers from government, industry and academia to contribute with theoretical and applied research papers. The session will cover the technology-based integration with lean production principles and practices, and its effect on firms’ operational performance. The aim of this session is to attract high-quality papers in these areas. Special attention will be directed towards practical relevance and empirical approaches that can foster innovation in manufacturing and operations management.

Submission

For author guidelines, please refer to www.ifac-control.org. All papers must be submitted electronically using Symposium Manuscript Management System (CMMS). All papers must be prepared in a 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 and submit it online by December 15, 2018.

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 invited session paper. **Submission as an invited paper requires the invited session code **1ya31**. Several international journals are associated with the MIM 2019 for publication of special issues.**

Paper submission closure	December 15, 2018
Notification of acceptance/rejection	February 20, 2018
Deadline for the final submission	March 15, 2019