

# — Call for Papers —

A Symposium on

## Advances in Modeling, Analysis, and Simulation of Manufacturing Systems for Optimized Throughput and Performance

Sponsored by the ASME Manufacturing Engineering Division's  
*Manufacturing Systems Technical Committee*

2019 ASME International Manufacturing Science & Engineering Conference (MSEC)

June 10-14, 2019

Erie, Pennsylvania

Hosted by Pennsylvania State University, The Behrend College

### Technical Focus

Manufacturing systems are complex systems, which comprise products, equipment, process, people, logistics, information, control and support functions. The operations throughput has been the main performance indicator for the manufacturing development and execution. Significant new advances, such as on the principles, methodology, computer simulation, and applications, have been made by industrial practitioners and academic researchers. This symposium will focus on the research, development, and application efforts addressing the advancement of development, operation, continuous improvement of manufacturing systems. Presentations in this session will portray the latest developments in the principles, practices, tools, processes, and applications. Specific topics of interest include, but are not limited to:

- Innovative visions and strategies on manufacturing system development and system throughput
- Innovations in algorithms and models of manufacturing operation throughput
- New concepts of total maintenance management and their impact on operations performance
- Buffer design, optimization, and analysis for complex manufacturing systems
- Process flow optimization for the throughput of manufacturing systems
- Automation control optimization for the throughput of manufacturing systems
- New approaches of data analysis of manufacturing operations status
- New model-based analysis complex manufacturing systems
- Discrete event simulation for the prediction of manufacturing systems performance
- Comprehensive approaches of bottleneck identification in manufacturing operations
- Production management and process flow conditioning for the throughput of manufacturing systems
- Production monitoring systems with integrated product and process information
- New production monitoring systems for complex manufacturing operations

### Paper Submission

Authors are encouraged to submit an abstract and full manuscript for review by **November 02, 2018** via the conference website. Final revised manuscripts must be submitted by **March 15, 2019**. The copyright transfer form must be filled out and the presenting author must pre-register by **April 05, 2019** or the paper will be withdrawn from the conference. Authors may also consult [www.asme.org/divisions/med/call/](http://www.asme.org/divisions/med/call/) for updates. **No papers are to be submitted to the organizers; submissions will only be accepted via the conference website at [www.asmeconferences.org/msec2019/](http://www.asmeconferences.org/msec2019/).**

### Additional Symposium Activities

To highlight advancements in this technical area, symposium organizers will:

- work to attract a high profile international keynote speaker including honorarium
- organize a special issue in the ASME J. of Manufacturing Science and Engineering
- organize a state-of-the-art paper that will be the lead article in the special issue

### Organizers:

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\* The conference is collocated with NAMRI/SME's 47th North American Manufacturing Research Conference (NAMRC47), which will have a separate call-for-papers. Please note that submissions of the same paper to more than one conferences are not permitted