

— **Call for Papers** —  
A Symposium on  
**Innovations in Equipment Design, Control and Automation**

Sponsored by the ASME Manufacturing Engineering Division's  
*Manufacturing Equipment & Automation Technical Committee*  
2020 ASME International Manufacturing Science and Engineering Conference (MSEC)\*  
June 22 – 26, 2020  
Cincinnati, Ohio  
Hosted by the University of Cincinnati, College of Engineering and Applied Science

**Technical Focus**

Advances in manufacturing technologies have to be aided by innovations in manufacturing equipment, tooling, and control/automation for effective deployment and commercialization. Most often, innovations in equipment/tooling design or control/automation are inspired by the requirements of a new manufacturing technology or the need to improve existing manufacturing processes. This symposium focuses on such demonstrated innovations in the design and control of equipment or components that enable new or improve existing manufacturing technologies. Specific topics of interest include, but are not limited to:

- Hybrid machine systems (e.g., system combining additive and subtractive manufacturing)
- Design and control of high precision motion systems (e.g. lithography, deposition, micro-machining)
- Advances in sensors, actuators, motion command algorithms for positioning systems
- Novel multi-axis machine structures and controllers (e.g., serial kinematics, parallel kinematics, hybrid configurations, coarse-fine stages)
- Sensor-assisted manufacturing (e.g., sensor assisted 3D printing or machining)
- Data-driven machine tool/process automation and control
- High speed and precision spindles
- Nozzles for additive manufacturing (e.g., ink jet, electrospinning, FDM)
- Novel tool holders and tool path planning (e.g., in machining), Tool design (e.g., in forming)
- Automation in metrology systems

Papers must demonstrate the testing of the new design or control methods to improve a manufacturing process. Contributions from the industry in this area are particularly encouraged. High quality papers will be recommended to be included in a special issue in the ASME Journal of Manufacturing Science and Engineering. A high profile international keynote speaker may be invited by the symposium organizers.

**Paper Submission**

Authors are encouraged to submit an abstract and full manuscript for review by **November 15, 2019** via the conference website. Final revised manuscripts must be submitted by **March 26, 2020**. The [copyright transfer form](#) must be filled out by March 19, 2020 and the presenting author must [pre-register](#) by **April 15, 2020** or the paper will be withdrawn from the conference. **No papers are to be submitted to the organizers; submissions will only be accepted via the conference website at <https://event.asme.org/MSEC/>.**

All papers accepted by MSEC2020 can be further submitted to any ASME journals, such as the highly prestigious Journal of Manufacturing Science and Engineering, for consideration of archival publication. In addition, high quality MSEC2020 papers will be automatically channeled to relevant ASME journals for fast-tracked publications.

**Organizers:**

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\* The conference is collocated with NAMRI/SME's 48th North American Manufacturing Research Conference (NAMRC48) and LEM&P (Leading Edge Manufacturing / Materials and Processing) by The Japan Society of Mechanical Engineers (JSME), which will have a separate call-for-papers. Please note that submissions of the same paper to more than one conferences are not permitted.