

— **Call for Papers** —
A Symposium on
**Innovations in Equipment Design, Tooling, and Control/Automation to
Enhance Manufacturing Processes**

Sponsored by the ASME Manufacturing Engineering Division's
Manufacturing Equipment Technical Committee
2017 ASME International Manufacturing Science and Engineering Conference (MSEC)*
June 4-8, 2017
University of Southern California

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. used in 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)
- 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)

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.

Paper Submission

Authors are encouraged to submit an abstract and full manuscript for review by **November 03, 2016** via the conference website. Final revised manuscripts must be submitted by **March 08, 2017**. The copyright transfer form must be filled out and the presenting author must pre-register by April 06, 2017 or the paper will be withdrawn from the conference. Authors may also consult 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/msec2017/.**

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*The conference is collocated with NAMRI/SME's 45th North American Manufacturing Research Conference (NAMRC45) and JSME's International Conference on Materials and Processing (ICMP 2017), both of which have a separate call-for-papers. Please note that submissions of the same paper to more than one conference are not permitted.