

— 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
2016 ASME Manufacturing Science and Engineering Conference (MSEC)*
June 27 – July 1, 2016
Virginia Tech, Blacksburg, Virginia, USA

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 **December 01, 2015** via the conference website. Final manuscripts must be submitted by **March 31, 2016**. The copyright transfer form must be filled out by **March 28, 2016** and the presenting author must pre-register by **April 25, 2016** or the paper will be withdrawn from the conference. Authors may also consult <https://www.asme.org/events/msec/present-publish/call-for-papers.aspx> for updates. *No papers are to be submitted to the organizers; submissions will only be accepted via the conference website at www.asmeconferences.org/msec2016/.*

Organizers

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* The conference is collocated with NAMRI/SME's 44th North American Manufacturing Research Conference (NAMRC44) that will have a separate call-for-papers.