

— **Call for Papers** —  
A Symposium on  
**Advances and Challenges in Joining and Assembly Processes**

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

### Technical Focus

Joining and assembly is an essential element in manufacturing complex structures and products - from custom products such as aircrafts, ships and medical devices to high volume products such as automobiles, appliances and microelectronics devices. Current trends in joining and assembly are: (a) increasingly micro- and nano- in scales; (b) using more advanced and dissimilar materials; (c) requiring predictable and improved joining for better assembly, and (d) enhanced automation, improved quality control, long-term reliability and reduced cost. We are hence inviting researchers from academia, government and industry to share the advances and innovations in the field of joining and assembly. The symposium will consist of paper presentations and panel discussions. Specific topics of interest include, but are not limited to:

- Advanced joining technologies including solid state joining for similar or dissimilar materials, such as friction stir welding, ultrasonic welding, laser welding, wire-bonding, magnetic pulse welding;
- Materials joining and assembly process modeling & characterization, including advanced computational models such as multi-scale and multi-phase models, multi-station models for complex manufacturing systems, as well as integrated rigid-elastic-plastic assembly models;
- Agile joining and assembly systems (e.g., joining and assembly with automation and adaption using advanced sensors and robotic controls);
- On-line joining and assembly monitoring, and off-line nondestructive evaluation;
- Cost, quality and reliability in joining and assembly.

### 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form](#) must be filled out and the presenting author must [pre-register](#) by April 06, 2017 or the paper will be withdrawn from the conference.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/](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/msec2017/](http://www.asmeconferences.org/msec2017/).**

### 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 or ASME J. of Micro and Nano-Manufacturing
- organize a state-of-the-art paper that will be the lead article in the special issue

### Organizers:

Dr. Jingjing Li, Penn State University, University Park, PA, USA, Ph: (814) 865-7601, [jul572@psu.edu](mailto:jul572@psu.edu)  
Dr. Aleksandra Fortier, University of North Texas, Denton, TX, USA, Ph: (940)369-8030, [drafortier@gmail.com](mailto:drafortier@gmail.com)  
Dr. Nilesh Kumar, North Carolina State University, Raleigh, NC, USA Ph:305-905-4820, [nileshiisc@gmail.com](mailto:nileshiisc@gmail.com)  
Dr. Wayne Cai, General Motors Global R&D Center, Warren, MI, USA, Ph: (248) 807-3949, [wayne.cai@gm.com](mailto:wayne.cai@gm.com)

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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.