

— **Call for Papers** —
A Symposium on
Manufacturing Systems based on Cloud Technologies and Industrial Internet

Sponsored by the ASME Manufacturing Engineering Division's
Manufacturing Systems Technical Committee
2019 ASME International Manufacturing Science and Engineering Conference (MSEC)*
June 10-14, 2019
Erie, Pennsylvania
Hosted by Pennsylvania State University, The Behrend College

Technical Focus

Various new technologies have transformed manufacturing into a highly inter-connected “open” space, where manufacturing becomes increasingly smarter, agile and service-oriented. Cloud manufacturing allows manufacturing companies to “virtualize” manufacturing resources and offer them as consumable cloud-based services over the Internet. Cloud manufacturing incorporates but moves beyond the data handling focus of cloud computing, to facilitate the management of distributed resources in a centralized way, building scale, maximizing resource utilization and increasing productivity. Meanwhile, Industrial Internet provides the power of low-cost sensing, remote analytics, and new level of connectivity permitted by the internet. The transformation from current solution to the next generation of manufacturing system relies on a number of key technologies, including Cloud, Industrial Internet, cyber-physical systems, digital twins, etc. This symposium focuses on all of these key technologies in the areas of cloud-based manufacturing and industrial internet. Papers are invited in, but not limited to, the following areas:

- Cloud platform and architecture design
- Cloud manufacturing resources management and servicelisation
- Industrial Internet and Industrial IoT
- Semantics and ontology of Cloud manufacturing
- Information and communication technologies for Cloud manufacturing
- Service-oriented process planning, scheduling and manufacturing technologies
- Cyber-physical systems
- Cloud manufacturing for supply chain management
- Digital Twins
- Blockchain in Manufacturing
- Industrial case studies

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out by March 8, 2018, and the presenting author must [pre-register](#) by **April 05, 2019**; or the paper will be withdrawn from the conference.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/ 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/.**

Additional Symposium Activities

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

- work to attract a high profile international keynote speaker
- organize a special issue in the ASME Journal of Manufacturing Science and Engineering or ASME Journal of Micro and Nano-Manufacturing
- organize a state-of-the-art paper that will be the lead article in the special issue

Organizers:

Dr. Xi (Vincent) Wang, KTH Royal Institute of Technology, Sweden. 46 8 790-9024; wangxi@kth.se
Prof. Xun Xu, University of Auckland, New Zealand. 814-898-6469; xun.xu@auckland.ac.nz
Prof. Lihui Wang, KTH Royal Institute of Technology, Sweden. +46 8-790 8305; lihuiw@kth.se
Dr. Yujie Chen, Caterpillar Inc. 1 309 494 3683; chen_yujie@cat.com

* 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.