

— **Call for Papers** —
A Symposium on
Reliability Engineering and System Safety in Advanced Manufacturing

Sponsored by the ASME Manufacturing Engineering Division's
Quality and Reliability 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

With the rapid development of complex and advanced manufacturing machines and equipment in recent years, predictive analytics has been increasingly crucial for improving reliability, system safety, productivity and cost efficiency. This symposium focuses on research advances in state-of-the-art modeling, computational, and experimental approaches to addressing reliability engineering and safety issues in advanced manufacturing.

Specific topics of interest include, but are not limited to:

- Reliability and safety of additive manufacturing systems.
- Reliability issues related to additively manufactured components.
- Process monitoring, diagnostics, and prognostics in advanced manufacturing including both subtractive manufacturing processes (e.g., milling and turning) and additive manufacturing processes.
- Novel sensors for non-destructive testing and evaluation for advanced manufacturing processes.
- Preventive and predictive maintenance methodologies and applications.
- Novel machine learning and data mining algorithms in predictive maintenance and reliability engineering.
- Advanced modeling and simulation for large-scale predictive analytics.
- Maintenance scheduling in the context of Industry 4.0.

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out by March 19, 2020 and the presenting author must [pre-register](#) by **April 15, 2020** or the paper will be withdrawn from the conference.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.

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
- organize a state-of-the-art paper that will be the lead article in the special issue

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.