

# Call for Symposium Proposals (MSEC 2021)

ASME – Manufacturing Engineering Division  
2021 ASME International Manufacturing Science & Engineering Conference (MSEC)  
June 21-25, 2021 (tentative)  
Cincinnati, Ohio, USA  
Hosted by the University of Cincinnati, College of Engineering and Applied Science

The Manufacturing Engineering Division (MED) of ASME and the North American Manufacturing Research Institution of SME are pleased to co-sponsor the **2021 International Manufacturing Science & Engineering Conference (MSEC)** and the 49<sup>th</sup> North American Manufacturing Research Conference (NAMRC). The collocated conferences will be hosted by the University of Cincinnati College of Engineering and Applied Science on June 21-25, 2021 (tentative pending changes due to coronavirus pandemic), in Cincinnati, Ohio, USA.

Proposals for technical symposia, including panel sessions, are being solicited for MSEC 2021. Those interested in organizing a technical symposium are urged to contact the relevant MED Technical Committee Chair (or Program Chairs) for additional information on submitting a proposal. Each proposal is limited to **three (3) organizers** (larger teams will only be considered after proposal review by the organizing committee). It is strongly encouraged that organizing teams consist of members from academia, industry, and government labs. Funds may be available to support high-profile researchers who do not typically attend MSEC to serve as symposium invited speakers. Further, papers deemed as “journal-quality” by the symposium organizers will be nominated for publication in the ASME Journal of Manufacturing Science and Engineering or the ASME Journal of Micro and Nano Manufacturing. Such papers will proceed through an expedited review process before being accepted for publication by the journals.

The MED’s Technical Committees and their corresponding contacts are listed below:

- **Additive Manufacturing**  
Chair: Dr. Jarred Heigel, Third Wave Systems, 703-744-8216, [jarred.heigel@thirdwavesys.com](mailto:jarred.heigel@thirdwavesys.com)
- **Manufacturing Processes**  
Chair: Prof. Ihab Ragai, Penn State University, The Behrend College, 814-898-6469, [ifr1@psu.edu](mailto:ifr1@psu.edu)
- **Manufacturing Equipment and Automation**  
Chair: Prof. Burak Sencer, Oregon State University, 541-737-5919, [burak.sencer@oregonstate.edu](mailto:burak.sencer@oregonstate.edu)
- **Manufacturing Systems**  
Chair: Dr. Michael Brundage, National Institute of Standards & Technology, 301-975-8798, [michael.brundage@nist.gov](mailto:michael.brundage@nist.gov)
- **Quality and Reliability**  
Chair: Prof. Yong Wang, Binghamton University, 607-777-3845, [yongwang@binghamton.edu](mailto:yongwang@binghamton.edu)
- **Life Cycle Engineering**  
Chair: Dr. Nancy Diaz-Elsayed, University of South Florida, 760-220-8167, [nancyd1@usf.edu](mailto:nancyd1@usf.edu)
- **Nano/Micro/Meso Manufacturing**  
Chair: Prof. Rajiv Malhotra, Rutgers, The State University of New Jersey, 848-445-5058, [rajiv.malhotra@rutgers.edu](mailto:rajiv.malhotra@rutgers.edu)
- **Biomufacturing**  
Chair: Prof. Roland Chen, Washington State University, 509-335-0376, [roland.chen@wsu.edu](mailto:roland.chen@wsu.edu)
- **Advanced Materials Manufacturing**  
Chair: Prof. Srikanth Pilla, Clemson University, 864-283-7216, [spilla@clemson.edu](mailto:spilla@clemson.edu)

For more information, please contact any of the above Technical Committee Chairs or the Technical Program Chair: Prof. Karl Haapala (541-737-3122, [karl.haapala@oregonstate.edu](mailto:karl.haapala@oregonstate.edu)) or the Technical Program Co-Chair: Prof. Yong Chen (213-740-7829, [yongchen@usc.edu](mailto:yongchen@usc.edu)). The paper submission and review process will be done utilizing the ASME Conference Web Tool, available in September 2020.

## Important Dates (subject to change)

Submission of symposium proposals to TC Chairs for review: .....**June 15, 2020**  
Publication of Call for Papers for selected symposium proposals: .....July 15, 2020  
Submission of full manuscripts (or abstracts) for review: .....**November 9, 2020**  
.....(extended to Nov. 23, 2020)  
Notification of paper (or abstract) acceptance:.....February 8, 2021  
Submission of revised papers and posters for review: .....March 1, 2021  
Notification of acceptance for revised papers and posters:.....March 15, 2021  
Submission of ASME Copyright Transfer or Permission to Publish form: .....March 26, 2021  
Submission of final, revised manuscripts: .....March 26, 2021  
Author registration deadline:.....**April 16, 2021**

## Proposal Format

Please use the included Call for Papers example as the template for symposium proposals.

# — Call for Papers —

A Symposium on

-Example-  
Please use this as a template.  
Remove textboxes.

## Advances in Modeling, Analysis, and Simulation of Manufacturing Processes

Sponsored by the ASME Manufacturing Engineering Division's  
*Manufacturing Processes Technical Committee*

(add name of other technical committee if co-sponsored)

2021 ASME International Manufacturing Science and Engineering Conference (MSEC)\*

June 21-25, 2021 (tentative)

Cincinnati, Ohio, USA

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### Technical Focus

The industrial use of trial and error approaches in manufacturing process design have been reduced with advances in computer simulation capabilities, resulting in reduced manufacturing process costs and decreased development time. It is now feasible to simulate a complete process with the appropriate conditions optimized before the actual industrial process is carried out. However, caution has to be taken when introducing physically-motivated simplifications into the simulations. Among these simplifications, for example, is to neglect material dependency parameters, use dimensionally reduced models, or assume overly-simplified constitutive laws. This symposium will focus on research advances in the areas of finite element modeling and mathematical simulation of traditional or nontraditional manufacturing processes, and application of such models to process design and control. Such models will have industrial impact by achieving better dimensional or process accuracy, better understanding of factors affecting the specific manufacturing process, and, ultimately, reduction of manufacturing costs through improved control and reduced process development time. Specific topics of interest include, but are not limited to:

- Advanced methods and tools for computer integrated manufacturing.
- Technical innovations in algorithms, material models, and new applications.
- The use of computer aided engineering in the integration of the product development process.
- Characterization of the engineering problem and definition of the required simulations.
- Simulation strategies and their effect on cost reduction of both part and process.
- Virtual control design and process planning.
- Virtual manufacturing to reduce process development time.
- Factory-level simulation and process flow optimization strategies.
- Model-based process control.

- Note -  
Ensure all listed  
topics fit the  
scope of the  
sponsoring  
technical  
committee(s)

### Paper Submission (Dates are subject to change.)

Authors are encouraged to submit a full manuscript for review by **November 9, 2020**. **Submissions will only be accepted via the conference website: <https://event.asme.org/MSEC/>**. No papers are to be submitted to the organizers. Only industry presenters have the option to present without a paper. Final revised manuscripts must be submitted by **March 26, 2021**. The copyright transfer form must be completed by **March 26, 2021**. The presenting author must register by **April 16, 2021** or the paper will be withdrawn from the conference proceedings. **High quality MSEC 2021 papers will be channeled to an ASME journal for fast-tracked review and publication.** Accepted papers can be submitted for review to any ASME journal, such as the prestigious *ASME Journal of Manufacturing Science and Engineering* or the *ASME Journal of Micro and Nano Manufacturing*.

### 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

- Note -  
Symposium organizers should  
list preferred activities to promote  
their symposium (these are only  
examples). Limit to 2-3 activities.  
May be modified with conference  
organizers pending full  
conference schedule.

### Organizers

Dr. Zhichao (Charlie) Li, DANTE Solutions, Cleveland, OH, USA. 440-234-8477; [Charlie.Li@dante-solutions.com](mailto:Charlie.Li@dante-solutions.com)

Dr. Ihab Ragai, Penn State University, The Behrend College, Erie, PA, USA. 814-898-6469; [ihab.ragai@psu.edu](mailto:ihab.ragai@psu.edu)

Dr. Alireza Shirazi, Hitachi Truck Mfg. Ltd., Guelph, ON, Canada. 519-823-2000x5028; [ashirazi@hitachitruck.com](mailto:ashirazi@hitachitruck.com)

\* The conference is collocated with NAMRI/SME's 49th North American Manufacturing Research Conference (NAMRC49), which will have a separate call-for-papers. Please note that submission of the same paper to more than one conference is not permitted.