Early Call for Papers (MSEC 2021)

ASME – Manufacturing Engineering Division
2021 ASME International Manufacturing Science & Engineering Conference (MSEC)
June 21-25, 2021
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 49th North American Manufacturing Research Conference (NAMRC). The conferences will be hosted by the University of Cincinnati College of Engineering and Applied Science on June 21-25, 2021 in Cincinnati, Ohio, USA, using a virtual conference platform.

Authors are encouraged to plan to submit a full manuscript for review. ***Submissions will only be accepted via the conference website: https://event.asme.org/MSEC/*** **(this site will not be live for 2021 until September 4th).** No papers are to be submitted to the organizers. Only industry presenters have the option to present without a paper. **High quality 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*.

Important Dates

Submission of full manuscripts (or industry abstracts) for review: .....**November 9, 2020**
Notification of paper (or industry 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**

MSEC 2021 Symposia (Details in forthcoming call for papers.)

1. **Advances in Metal Additive Manufacturing Processes**
   Primary Organizer: Dr. Wenchao Zhou, University of Arkansas, zhouw@uark.edu
2. **Advances in Bioinspired Additive Manufacturing**
   Primary Organizer: Dr. Xiangjia (Cindy) Li, Arizona State University, xiangjia.li@asu.edu
3. **Additive Manufacturing with Functional Polymers, Multi-material Structures and Composites**
   Primary Organizer: Dr. Bulent Arda Gozen, Washington State University, arda.gozen@wsu.edu
4. **Computational Methods and Process Planning for Additive Manufacturing**
   Primary Organizer: Dr. Tsz-Ho Kwok, Concordia University, tszho.kwok@concordia.ca
5. **Smart Additive Manufacturing**
   Primary Organizer: Dr. Chinedum Okwudire, University of Michigan, okwudire@umich.edu
6. **Additive Manufacturing of Ceramics, Concretes, and Composites**
   Primary Organizer: Dr. Chao Ma, Texas A&M University, cma@tamu.edu
7. **Hybrid Manufacturing Processes for Multi-Material Components**
   Primary Organizer: Dr. Saeed Farahani, Clemson University, sfaraha@clemson.edu
8. **Advances in Biomanufacturing of Tissue-Engineered Scaffolds and Organs**
   Primary Organizer: Dr. Yifei Jin, University of Nevada, yifeij@unr.edu
9. **Advances in Manufacturing, Development, and Analysis of Biomedical Devices**
   Primary Organizer: Dr. Yihao Zheng, Worcester Polytechnic Institute, yzheng8@wpi.edu
10. **Smart Manufacturing for Resilient and Environmentally-Efficient Systems**
    Primary Organizer: Dr. Nancy Diaz-Elsayed, University of South Florida, nancyd1@usf.edu
11. **Advances in Sustainable Manufacturing Processes and Systems**
    Primary Organizer: Dr. Daniel Cooper, University of Michigan, drcooper@umich.edu
12. **Tribology of Manufacturing Processes and Machinery**
    Primary Organizer: Dr. Mathew Kuttolamadom, Texas A&M University, mathew@tamu.edu
13. **Innovations in the Design and Control of Manufacturing Machines and Equipment (Joint ASME-JSME)**
    Primary Organizer: Dr. Martin Jun, Purdue University, mbgjun@purdue.edu
14. **Advanced Machining and Metrology for Smart Manufacturing Technologies (Joint ASME-JSME)**
    Primary Organizer: Dr. Takashi Matsumura, Tokyo Denki University, tmatsumu@cck.dendai.ac.jp
15. **Advances in Mechanics of Materials in Modern Manufacturing and Materials Processing Techniques**
    Primary Organizer: Dr. Dinakar Sagapuram, Texas A&M University, dinakar@tamu.edu
16. **Tool Wear Mechanisms, Measurements, and Monitoring**
    Primary Organizer: Dr. Rui Liu, Rochester Institute of Technology, rleme@rit.edu

17. **Advances in Finishing Processes: Hard Machining, Grinding, and Abrasive Finishing**
    Primary Organizer: Mr. Rahul Chaudhari, The Timken Company, rahul.chaudhari@timken.com
18. **Advances in Processing of Polymers and Polymer Composites**
    Primary Organizer: Dr. Felicia Stan, Dunarea de Jos University of Galati, felicia.stan@ugal.ro
19. **Advances in Nontraditional Manufacturing Processes**
    Primary Organizer: Dr. Murali Sundaram, University of Cincinnati, murali.sundaram@uc.edu
20. **Advances in Lightweight and Dissimilar Materials Joining**
    Primary Organizer: Dr. Yongbing Li, Shanghai Jiao Tong University, yongbinglee@sjtu.edu.cn
21. **Laser-based Advanced Manufacturing and Material Processing**
    Primary Organizer: Dr. Xin Zhao, Clemson University, xzhao5@clemson.edu
22. **Advances in Assisted and Augmented Manufacturing Processes**
    Primary Organizer: Dr. Weilong Cong, Texas Tech University, weilong.cong@ttu.edu
23. **Smart Maintenance Operations through Algorithmic Support and Human-Centered Design**
    Primary Organizer: Mr. Thurston Sexton, NIST, thurston.sexton@nist.gov
24. **Cyber-Physical Systems and Cybersecurity in Industry 4.0**
    Primary Organizer: Dr. Rui Liu, Rochester Institute of Technology, rleme@rit.edu
25. **Advances in Quality and Continuous Improvement in Manufacturing Development and Execution**
    Primary Organizer: Dr. Herman Tang, Eastern Michigan University, htang2@emich.edu
26. **Cognitive Manufacturing: Opportunities, Challenges, Technologies & Applications**
    Primary Organizer: Dr. Yuqian Lu, The University of Auckland, yuqian.lu@auckland.ac.nz
27. **Robotic Manufacturing and Assembly in Smart Factories**
    Primary Organizer: Dr. Azadeh Haghighi, University of Illinois at Chicago, ahaghi3@uic.edu
28. **Industrial Internet, Cloud and Digital Twins in the Wake of COVID-19**
    Primary Organizer: Dr. Xi (Vincent) Wang, KTH Royal Institute of Technology, wangxi@kth.se
29. **Changeable, Transformable Manufacturing & Distributed Green Supply Chains in Pandemic Recovery Efforts**
    Primary Organizer: Dr. Ahmed Azab, University of Windsor, azab@uwindsor.ca
30. **Low-dimensional Nanostructured Carbon and Related Materials: Synthesis, Self-Organization, and Printing**
    Primary Organizer: Dr. Mostafa Bedewy, University of Pittsburgh, mbedewy@pitt.edu
31. **Advances in Micro and Nano Manufacturing**
    Primary Organizer: Dr. Ping Guo, Northwestern University, ping.guo@northwestern.edu
32. **Advances in Micro- and Nano-scale Additive Manufacturing**
    Primary Organizer: Sourabh Saha, Georgia Institute of Technology, ssaha8@gatech.edu
33. **Reliability Engineering and System Safety in Advanced Manufacturing**
    Primary Organizer: Dr. Dazhong Wu, University of Central Florida, Dazhong.Wu@ucf.edu
34. **Data-Enabled Modeling, Detection, Optimization, and Prognostics for Quality and Reliability Improvement of Advanced Manufacturing Systems**
    Primary Organizer: Dr. Xiaowei Yue, Virginia Tech, xwy@vt.edu

For more information, please contact the MSEC 2021 Technical Program Chair: Prof. Karl Haapala (541-737-3122, karl.haapala@oregonstate.edu) or the MSEC 2021 Technical Program Co-Chair: Prof. Yong Chen (213-740-7829, yongchen@usc.edu), or any of the Technical Committee Chairs below.

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

The call for papers will be distributed in September 2020 following the conclusion of ASME MSEC 2020.