



**Journal of
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Guest Editorial

Special Section: Manufacturing Science Engineering Conference 2024



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The 19th ASME International Manufacturing Science and Engineering Conference (MSEC 2024), sponsored by the Manufacturing Engineering Division (MED) of ASME, was held from June 17, 2024 to June 21, 2024 in Knoxville, TN. New to the MSEC 2024 technical program was the introduction of brief papers in addition to full-length papers. Brief papers are styled after the technical briefs of the *Journal of Manufacturing Science and Engineering* (JMSE). Brief papers undergo full peer review and are published in the conference proceedings in the same manner as full papers.

However, they are shorter in length than full papers and, therefore, can be used to report preliminary research results for early feedback from the manufacturing community.

MSEC 2024 received 238 submissions—102 (42%) brief papers and 137 (57%) full papers. After rigorous peer review, 204 technical papers—91 (45%) brief papers and 113 (55%) full papers—were accepted for publication. The technical papers had global representation, with authors from 22 countries across five continents, including the US, China, Germany, Australia, Brazil, and South Africa.

Among the accepted technical papers, MSEC symposium organizers nominated 16 full papers to be fast-tracked to the JMSE. All of the papers, together with their reviews, were sent to the JMSE Editor-in-Chief for a new round of journal paper review. A total of eight top MSEC full papers received positive journal reviews and were compiled and published in this JMSE Special Section on MSEC 2024. The papers selected for this special section cover a wide range of topics. They come from technical tracks of the ASME MED, including advanced materials manufacturing, bio-manufacturing, life cycle engineering, manufacturing processes, nano/micro/meso manufacturing, and quality and reliability.

As a leading international conference held annually on manufacturing process technology, MSEC acts as a global bridge between industry, government laboratories, and academic institutions. This Special Section showcases recent manufacturing research advancements presented at MSEC 2024. It also provides a platform for researchers and practitioners to widely disseminate their research findings and innovative practices that may inspire future scientific and technological breakthroughs.

We would like to thank all of the symposium organizers of MSEC 2024 for their dedicated management of the symposia and for guarding the quality of the papers to be fast-tracked, which has contributed



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a great deal to the success of this Special Section. We would also like to thank all of the reviewers of the paper submissions for their detailed suggestions to improve the papers' quality. Special thanks are to the ASME MED Executive and Technical Committees and the ASME staff, especially Lori Lee and Elizabeth Bruce. Their outstanding contributions in managing the submitted technical papers ensured the high-quality publication of this Special Section for MSEC 2024.

JMSE continues to seek close partnerships with MED and MSEC to serve our manufacturing community. Authors of accepted JMSE papers published between Mar. 2023 and Feb. 2024 were offered the opportunity to present their papers at MSEC 2024. A record number of 20 authors selected this option and presented their journal-quality research work in MSEC 2024. This has expanded the opportunity for colleagues in our manufacturing community to submit their top research papers to JMSE and then disseminate them in a presentation to our manufacturing community at MSEC.

This Special Section marks another important step for JMSE to connect with MED and MSEC. As the brief papers get more established at MSEC, we envision future brief papers being fast-tracked to JMSE technical briefs. Future Technical Program Chairs and JMSE Editors will continue to make this a seamless process. JMSE seeks top research papers from our colleagues and strives to serve our community as a platform for the timely publication of high-impact research work.

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