

ASME Journal of Manufacturing Science and Engineering

# Special Issue for In-Space Manufacturing

Submission due date:

**April 1, 2024**

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**In-space servicing, assembly, and manufacturing (ISAM)** are of core interest to this call for scholarly work. ISAM is intended for operational resilience and habitation in space and advancing technologies for Earth and in space. Microgravity, abundant radiant energy, ultra-high vacuum, extreme temperatures, ores, and more are significant raw material resources for ISAM-delivered production. Applications for ISAM are in various key areas including biomanufacturing, pharma, semiconductors, mobility, agriculture and food, energy, communications, and more. Keeping space clean and free of waste from prior and ongoing missions is another in-situ resource for ISAM's utilization. ISAM is powering Space 2.0 including commerce, security, and exploration objectives. This is the world's first exclusive collection of papers in the prestigious and peer-reviewed *ASME Journal of Manufacturing Science and Engineering*. It is aimed to form a valuable archival foundation as the field advances in decades to come, delivering trillions of dollars of economic opportunity and capability for in-space habitation.

Publication formats: Technical Briefs, Review Papers, Scholarly Research Papers.

**Scholarly publications are invited in (though not limited to) topics like:**

<i>Resilient designs for ISAM</i>	<i>Semiconductor and microelectronics fabrication</i>
<i>In-situ Resource Utilization (ISRU)</i>	<i>Manufacturing and testing equipment for extra-terrestrial platforms</i>
<i>Manufacturing processes: Additive manufacturing, Assembly, Joining, Casting, and Machining, and other</i>	<i>Operations planning</i>
<i>Advanced materials</i>	<i>Standards</i>
<i>Robotics and autonomy</i>	<i>Application of AI/ML for ISAM</i>
<i>Digital manufacturing</i>	<i>Detection and remediation of debris in low Earth orbit (LEO)</i>
<i>Manufacturing platforms and factories in space</i>	<i>Governance and policies for ISAM</i>
<i>Biomanufacturing</i>	<i>Education and Curriculum</i>
<i>Logistics and supply chain</i>	
<i>Sustainability including recycling, reuse and more</i>	



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