

ASTM INTERNATIONAL CONFERENCE ON ADVANCED MANUFACTURING

Research to Application through Standardization

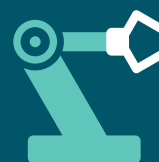
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Industry 4.0: Robotics and Automation

Advanced Manufacturing (AM) technologies are the latest advancements in the CAD/CAM field of the last few decades. These technologies have enabled faster prototyping and optimized part geometries, leading to increased innovation and speed to market. Combining robotics and automation with AM processes unlocks new production capabilities and scale. The current challenge is to bring more of this technology to the production line, which can increase production efficiency while improving product quality and consistency, reducing labor costs, and enhancing safety. This symposium aims to bring together industry experts from robotics, automation, and advanced manufacturing to discuss these challenges, share new capabilities, and propose strategies to take the next step forward.

Topics of interest include but are not limited to:

- Robotics-enabled advances to Advanced Manufacturing processes (ex: Machine Tending)
- Robotics for upstream and downstream manufacturing processes – material handling; post-print finishing; support material removal
- Robotics for automated testing/inspection
- Robotics safety
- Prototyping vs. short runs (batch) vs. mass production
- Hybrid Manufacturing
- Case studies, challenges, and best practices for AM applications in robotics and automation, in the areas of:
 - Material Handling
 - Assembly
 - Welding
 - Painting including Coating
 - Packaging
 - Palletizing



Symposium Organizers

- Azadeh Haghighi, University of Illinois, USA
- Matt Robinson, Southwest Research Institute, USA
- Sina Sareh, Royal College of Art, United Kingdom
- Milt Walker, Intel, USA



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Research to Standards

ADDITIVE MANUFACTURING