

CAM25

International Conference on Advanced Manufacturing

Research to Application through Standardization

October 6-10 | Las Vegas, NV

Industrial Sector: Construction on Earth and Beyond

Additive manufacturing (AM) in construction has made headlines across many media outlets, both AM-specific and mainstream. The technology is expected to help improve the industry's efficiency by reducing labor, costs, and construction lead time, as well as increasing workplace safety and addressing adaptability in extreme environments. Hence, some government and commercial industry entities are investing resources into research and development in this area to accelerate its growth and adoption.

Besides revolutionizing how structures are built on Earth, AM is also seen as an ideal technology to realize construction on other planetary bodies like the Moon and Mars. This symposium aims to explore the current state of the development of AM techniques and advanced manufacturing for construction across, and outside the globe. Additionally, it will focus on the current and future possibilities of the technology in this industry.

TOPICS OF INTEREST INCLUDE BUT ARE NOT LIMITED TO:

- Types of AM technologies (hardware and software) applicable for deployment in both prefabricated and on-site construction environments
- Advanced manufacturing and robotics innovation for industrialized construction
- New materials development for additive manufacturing in construction on Earth as well as planetary surfaces
- New material preparation and delivery systems for advanced manufacturing in construction
- Improved sustainability for AM in construction and circular economy (material waste)
- AM in construction beyond Earth (materials & technologies)
- Additive construction for extreme environments & events
- Digital Inventories
- Integration of advanced manufacturing and digital technologies (e.g., AI, IOT) in construction
- Development of new test methods, or leveraging of existing processes, to demonstrate building code compliance of AM in construction
- Practical insights and case studies (e.g., innovative architecture and the use of parametric and generative design, references to existing projects and local building code compliance)



Symposium Organizers

- Gene Eidelman, Azure Printed Homes, USA
- Ramona Fayazfar, Ontario Tech University,
 Canada
- Ali Kazemian, Louisiana State University, USA
- Islam Mantawy, Rowan University, USA
- Ming Jen Tan, Nanyang Technological University, Singapore
- Timothy Wangler, ETH Zürich, Switzerland

Submit an abstract

amcoe.org/icam2025