



ASTM INTERNATIONAL CONFERENCE ON ADDITIVE MANUFACTURING

Research To Application Through Standardization

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JW Marriott Orlando Bonnet Creek Resort & Spa

Submit an Abstract at www.amcoe.org/icam2022



Symposium Organizers

- Darren Beckett, Sigma Labs, USA
- Ajay Krishnan, EWI, USA
- Abdallah Nassar, Pennsylvania State University, USA
- Tuan Tran, NTU, Singapore

In-Process Control and In-Situ Monitoring in Additive Manufacturing

As the field of Additive Manufacturing (AM) quickly evolves, in-process control and in-situ monitoring become more essential, as the printing process could significantly impact quality of AM parts. The AM community recognizes that more integrated efforts to accelerate the standardization of in-situ monitoring can play a significant role in advancing AM industrial adoption.

This symposium explores the following topics on the integration of in-process control and in-situ monitoring and with AM in an Industry 4.0 environment:

- Landscape analysis of in-process control and in-situ monitoring in AM
- Challenges and development of in-process control and in-situ monitoring in AM
- Validation of in-situ monitoring data
- Integration of in-situ monitoring, in-process control, and modeling approaches
- Application of machine learning and AI in in-process control and in-situ monitoring
- Development and validation of defect-signal-property relationships
- In-situ monitoring to aid post-print NDE
- Qualification and certification enabled by in-situ monitoring
- Standardization of in-situ monitoring and in-process control



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Research to Standards

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