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## Additive Technologies

# Additive Manufacturing Alternative Processes (Beyond the Beam)

Additive manufacturing comprises a breadth of processes, which have significant economic potential and technical challenges. Significant resources have been committed to laser powder bed fusion and electron beam powder bed fusion processes. However, additive processes which produce green components and require consolidation processes such as sintering and HIP eliminate many short comings such as slow build rates, residual stress, and print support structures. In addition, the green part additive technologies build on existing process technology from powder materials and ceramics, which enable the additive processing of non-weldable materials. These processes include but are not limited to: binder jetting, material extrusion, filament process, nano-Inkjet printing and selective laser sintering. However, these processes introduce other challenges such as: feedstock development, alloy design, depowdering, powder recycling, binder design, debinding, full consolidation, microstructural development, sintering distortion, and sintering support structure design.

This symposium will explore the interrelationships between the various aspects on the process variables, properties, application performance, economics, and functionality of these non-beam additive processes.

### ORGANIZERS

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Abstract Deadline is July 1, 2019. Submit online at www.programmaster.org/TMS2020.