NSERC Network for Holistic Innovation in Additive Manufacturing (HI-AM)

Metals for Additive Manufacturing

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Metal Additive Manufacturing (AM) has garnered significant attention in the research community over the last ten years or so, although the first direct metal part was made using a modern AM fabricator over 25 years ago. This presentation covers the development of metal additive manufacturing and provides a snapshot of the current state of the art in terms of process development and part service properties. Lessons learned from recent research at The University of Texas at Austin will be presented on the use of elemental powder feedstock in AM in an attempt to create crack-free aluminum-based parts using difficult-to-process alloy systems (i.e., AISI 6061 Al).