Additive Manufacturing in the Defense Industrial Base

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ABSTRACT

The Department of Defense (DoD) Additive Manufacturing Strategy of 2021 set forth a vision to integrate digital manufacturing into the Defense Industrial Base (DIB) to modernize national defense systems, increase materiel readiness, and enhance capabilities of the warfighter. Additive Manufacturing can enable rapid supply chain agility and address Defense Diminishing Manufacturing Sources and Material Shortages (DMSMS) through the evolution of Industry 4.0 techniques, significantly reduced manufacturing lead times, and a shorter product development process. However, the current stigma of loose regulations and subtractive manufacturing equivalency has limited adoption of additive manufacturing processes within the DoD. This work will present the current state, challenges, integration, and future opportunities of additive manufacturing in the DIB.

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