

TRACK 1: STRUCTURES AND ADDITIVE MANUFACTURING**“ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING IN ADDITIVE MANUFACTURING”**

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ABSTRACT

Artificial Intelligence and Machine Learning is having a profound impact on the way most organizations design, manufacture, monitor, inspect and repair industrial assets, large and small. Additive manufacturing has also emerged as a key differentiator in multiple industries including aerospace. Before, during and after the manufacturing process, various datasets are collected capturing everything from powder characteristics to layer-by-layer and post-processing specific datasets. By leveraging the strengths of both Artificial Intelligence and Additive Manufacturing, GE is creating unique opportunities to drive improvements in areas like powder inventory management, improved material capability, predictive maintenance, print yields, machine turn times and many more.

In this presentation, we provide a flavor of how Artificial Intelligence and Machine Learning are augmenting and, in many cases, revolutionizing both subtractive and additive manufacturing at GE.

BIOGRAPHY OF SPEAKER

Darin DiTommaso has over 30 years of experience in the Aviation industry. He attended Purdue University and graduated with a BS degree in aerospace engineering. He came to work at GE Aviation in late 1988. He subsequently received his MBA from Xavier University.

Darin has held numerous roles of increasing responsibility within GE Aviation in positions spanning preliminary design, product development and certification, as well as revenue service operation. More recently he has led GE Aviation’s digital engineering team, vehicle health management business, and the commercial advanced technology department.

In his current role, Darin leads Military Engineering and is responsible for the design and development of new and derivative military engine products, as well as support of existing military engine products.