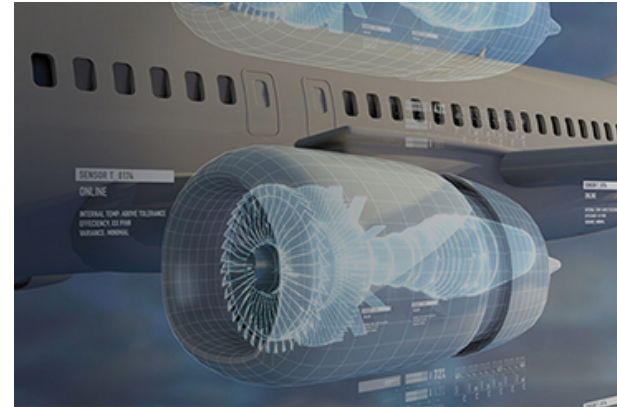




American Institute of
Aeronautics and Astronautics
Dayton-Cincinnati Section

Lunch 'n' Learn
Spinning Digital Threads in
Aerospace
Guest Speaker:
Dr. Eric J. Ruggiero
Friday 19 Oct 2018; 11:45 AM



Abstract: Leveraging GE's deep domain knowledge with data streams from engine assets is at the heart of the Digital Industrial revolution. Digital Industrial is more than just data. It's maximizing value for customer fleets in several ways, including: Asset Monitoring, to help reduce unplanned maintenance and inspection burden; Fleet Optimization, to ensure flight paths and fuel burn are as efficient as possible; and Improved Reliability, to understand changes in operation severity that may adversely affect the performance of the product. Advanced manufacturing, encompasses the intersection of digital and manufacturing technologies. The initial performance and geometry of aircraft engine components is the beginning of the Digital Twin life of every asset deployed in the field. Digital Twin asset models thereby demand integration of sensor and inspection technology on the manufacturing shop floor, at levels never before demanded of supply chain. This presentation will illustrate the framework that makes the Digital Industrial possible in the aircraft engine industry, connecting the dots between sensors, digital twin models, and analytics to provide additional value to the customer. Examples will be provided to illustrate how analytics are used to help the customer and product. The presentation will also discuss some of the challenges facing industry today, providing context for future research directions.

Biography: : Dr. Eric J. Ruggiero received his Ph.D. from Virginia Tech in Mechanical Engineering. Dr. Ruggiero started his industrial research career at GE Global Research serving as Lab Manager for the Turbine Heat Transfer Technologies Laboratory. In 2014, Dr. Ruggiero was promoted to Engineering Leader for the Sustaining Commercial Thermal Systems Design team at GE Aviation. In this role, he had responsibility for the hot gas path thermal design for GE's commercial aviation fleet. He currently leads the Aero & Thermal Technologies organization within Military Propulsion and Power Engineering at GE Aviation. He has received numerous awards from AIAA and ASME, including the 2013 AIAA Lawrence Sperry. Most recently, Dr. Ruggiero was honored with the 2018 ASME IGTI Best Paper Award in Turbomachinery. He is an Associate Fellow of the AIAA, and a Lifetime Member of the ASME.

Location

China Garden Buffett
Airway Center
112 Woodman Drive
Dayton OH 45432

Lunch

Buffett style, all-you-
can-eat Asian cuisine.

