

Title: “From Concept to Sky: Transforming Aircraft Engines with AI”

Abstract: GE has been an early adopter of Artificial Intelligence (AI) for aerospace sector. This presentation highlights application of AI in GE Aerospace to drive positive outcomes in fleet management through anomaly detection, predictive analytics, component inspection and enhanced engine Time-on-Wing. Aircraft Engine Health analytics ecosystem involves acquisition of raw data from jet engines, building data science-based models and converting them into actionable insights for impactful business outcomes. Data science techniques are employed to convert raw data into intelligent data which would be fed into data science-based models for enhanced decision making through anomaly detection and predictive analytics. Next generation inspection technology is developed using Deep learning algorithms to analyze the images and videos that are captured from an engine and assist in fleet monitoring. All this information is fed back into Analytics Based Maintenance (ABM) tool to enhance predictions for optimized engine maintenance schedule.

Speaker Intro:

Rajesh Alla is the Director of Data Science at GE Aerospace, where he leads a team of data scientists dedicated to developing and deploying cutting-edge AI, machine learning (ML), and generative AI (GEN AI) models on an enterprise scale. His team's innovative solutions span various industry domains, including Aircraft Engine Health Monitoring and Commercial Engines Contracts. With 15 years of experience in the aerospace industry, Rajesh brings a wealth of expertise in both the design of aircraft engine components and the development and implementation of AI/ML models. Prior to joining GE, Rajesh worked at the Indian Space Research Organization (ISRO)

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