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Topic

Repair Technology for Jet Engine Turbine Blade by Directed Energy Deposition

Directed energy deposition (DED) is one of the additive manufacturing processes and considered as an effective method to repair the parts in aerospace and other industries. In this study, DED equipped with heating component and inert gas shield system which mitigate the effect of cracks or oxidation was applied to TiAl adopted in turbine blade for commercial engines. A unique γ based microstructure was obtained by the present DED. The tensile and creep properties were also investigated.

About the Speaker

Kazuhiro (Kaz), as a managing director and COO/CTO, is leading advanced research and development (R&D) and innovation at AeroEdge, a Japan based aerospace startup, manufacturing TiAl turbine blade for the LEAP engine with SAFRAN. The R&D fields vary from additive manufacturing, casting, materials, smart machining, sustainability, IoT, to AI. Kaz earned his MEng. in the US, Ph.D in engineering, focusing on additive manufacturing in Japan, and MBA in the UK.