Submit an abstract to:

**Mechanics and Structural Reliability**

**Advancing Current and State-of-the-Art Application of Ni- and Co-based Superalloys**

Superalloys are critical to operation and future design of a wide variety of propulsion and power-generation components in the aerospace, marine, and energy industries. Their industrial application is often driven by excellent long-term stability and durability at elevated temperatures or in aggressive environments because they display a good balance of mechanical strength, fatigue, and creep resistance, as well as corrosion and oxidation resistance.

This symposium aims to attract papers on current and state-of-art application of Ni- and Co-based superalloys. Topics of interest may include (but are not limited to):

- Viability of fabrication with additive manufacturing methods (powder bed techniques and direct energy deposition)
- Relationships of metallurgical processing with microstructure and performance (i.e. casting, forging, and heat treatment)
- Mechanisms of ambient and elevated temperature plasticity, creep, fatigue, creep-fatigue, crack growth, and environmental damage
- Mitigation of environmental, thermal, and thermal mechanical damage, including improved coatings for service operation
- Advancement in joining, repair, and rejuvenation of superalloys

**ORGANIZERS**

Chantal Sudbrack, QuesTek Innovations LLC, USA
Mario Bochiechio, Pratt & Whitney, USA
Kevin Bockenstedt, ATI Specialty Materials, USA
Katerina Christofidou, University of Cambridge, United Kingdom
James Coakley, University of Miami, USA
Martin Detrois, National Energy Technology Laboratory, USA
Laura Dial, GE Global Research, USA
Bij-Na Kim Lee, LPW Carpenter Additive/Lancaster University, United Kingdom
Victoria Miller, University of Florida, USA
Kinga Unocic, Oak Ridge National Laboratory, USA

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Questions? Contact programming@tms.org