

Innovation at GE

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Abstract

GE has a rich heritage of innovation. The Global Research Center (GRC) is leading the way in innovation at GE. It supports the various GE businesses, such as GE Power & Water, Oil & Gas, Aviation, Transportation, Healthcare, and Home & Business Solutions. GRC is headquartered in Niskayuna, New York, with branches all over the US, Europe, Asia, and South America. An overview of the research being conducted in the Aero Thermal Mechanical Systems organization will be given, with specific examples in locomotive engines and jet engine turbine cooling technology.

Presenter Bio:

Dr. Wontae Hwang joined GE Global Research Center in 2008. He has been involved in various projects, ranging from locomotive engines to supersonic jet engines and integrated gasification combined cycle (IGCC). He is now leading projects that utilize medical MRI scanners, IR cameras, and other measurement techniques to investigate flow physics and heat transfer in gas turbines and aircraft engines. Before joining GE, Dr. Hwang was a postdoctoral researcher at the Combustion Research Facility at Sandia National Laboratories, where he worked on combustion strategies and optical diagnostics in a Homogeneous Charge Compression Ignition (HCCI) engine. He received his PhD degree at Stanford University in Mechanical Engineering in 2005, in the area of turbulent particle-laden flows.