

# Introduction to Industrial Gas Turbines



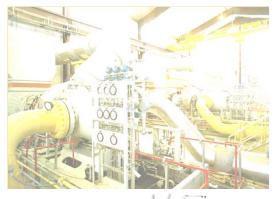
Rainer Kurz
Solar Turbines Incorporated

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### Overview

- Introduction
- Thermodynamics/Brayton Cycle etc.
- Gas Turbine Components and Performance
- Gas Turbine Package Systems
- Applications for Industrial Gas Turbines:
  - Upstream/Midsteam
  - · Power Gen, LNG, etc
- Maintaining Performance
  - Inlet Air /Fouling
  - Water Washing
  - Fuel (Gas, Liquid)
- Testing
- Questions

## Introduction to Industrial Gas Turbines



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#### **Presenters**

Dr. Rainer Kurz is the Manager, Systems Analysis at Solar Turbines Incorporated, in San Diego, California. His organization is responsible for predicting compressor and gas turbine performance, for conducting application studies, and for field performance testing. Dr. Kurz attended the Universitaet der Bundeswehr in Hamburg Germany, where he received the degree of a Dr.-Ing. in 1991, and was elected ASME Fellow in 2003. He has authored numerous publications about turbomachinery related topics, with an emphasis on compressor applications, dynamic behavior, and gas turbine operation and degradation. Dr. Kurz is the chair of the IGTI Oil and Gas Applications Committee, a member of the Gas Machinery Research Council Project Supervisory Committee, the Texas A&M Turbomachinery Symposium Advisory Committee, the Asia Turbomachinery and Pump Symposium Advisory Committee, and the SDSU Aerospace Engineering Advisory Committee.

**Dr.Klaus Brun** manages the Machinery Section at Southwest Research Institute. His experience includes positions in engineering, project management, and management at Solar Turbines, General Electric, and Alstom. He holds two patents (4 patents pending), authored over 80 papers, and published a textbook on gas turbines. Dr. Brun won an R&D 100 award in 2007 for his Semi-Active Valve invention and ASME Oil & Gas Committee Best Paper awards in 1998, 2000, 2005, 2009, and 2010. He was chosen to the "40 under 40" by the San Antonio Business Journal. He is a past member of the ASME-IGTI Board of Directors and a past Chairman of the ASME Oil & Gas Applications Committee, as well as a member of the Asia Turbomachinery and Pump Symposium Advisory Committee. He is also a member of the API 616, 617, and 691 Task Forces, the Gas Turbine Users Symposium Advisory Committee, the Fan Conference Advisory Committee, and the Latin American Turbomachinery Conference Advisory Committee. Dr. Brun is the Editor of Global Gas Turbine News, Executive Correspondent of Turbomachinery International Magazine, and an Associate Editor of the ASME Journal of Gas Turbines for Power.

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