

KLAUS BRUN, Ph.D.
Program Director
Machinery Program
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Dr. Brun's research interests are in the areas of turbomachinery oil & gas machinery, power generation, aero-thermal fluid dynamics, process system analysis, energy management, advanced thermodynamic cycles, instrumentation and measurement, and combustion technology. He is widely experienced in performance prediction, off-design function, testing, degradation, uncertainty diagnostics, and root-cause failure analysis of gas turbines, combined-cycle power plants, reciprocating compressors, centrifugal compressors, steam turbines, and pumps.

Dr. Brun's past research and doctoral work focused on internal flow measurements and computational fluid dynamics in mixed flow rotating machinery. He has also been involved in research on automotive torque converters, transient pipe flows, acoustic pulsations, rotating compressible flows, bearing design, seals, laser diagnostics, heat transfer, advanced gas turbine cycles, and air emissions technology.

Dr. Brun's professional experience includes positions in engineering, business development, project management, and management. He has worked on a wide range of gas turbine project applications, including combined-cycle power plants, pipeline compression stations, offshore compression, gas gathering, water-flood, enhanced oil recovery (EOR) nitrogen injection, gas lift, liquefied natural gas (LNG) plants, gas re-injection, methanol production plants, gas storage, integrated-gasification combined-cycle (IGCC) power plants, steel mill off-gas power generation, and volatile organic compound (VOC) destruction.