

Journal of Engineering for Gas Turbines and Power

Published Monthly by ASME

VOLUME 132 • NUMBER 1 • JANUARY 2010

EDITORIAL

010201 A Monthly Publication Schedule for *Journal of Engineering for Gas Turbines and Power* (JEGTP)
Dilip R. Ballal

RESEARCH PAPERS

Gas Turbines: Ceramics

011301 Ceramic Gas Turbine Development: Need for a 10 Year Plan Mark van Roode

Gas Turbines: Combustion, Fuels, and Emissions

011501 Biodiesel as an Alternative Fuel in Siemens Dry Low Emissions Combustors: Atmospheric and High Pressure Rig Testing Kexin Liu, John P. Wood, Eoghan R. Buchanan, Pete Martin, and Victoria E. Sanderson

011502 Laboratory Investigations of Low-Swirl Injectors Operating With Syngases

David Littlejohn, Robert K. Cheng, D. R. Noble, and Tim Lieuwen

Gas Turbines: Electric Power

011801 Second Law Efficiency of the Rankine Bottoming Cycle of a Combined Cycle Power Plant

S. Can Gülen and Raub W. Smith

Gas Turbines: Heat Transfer

011901 Effect of Film Cooling on Turbine Capacity
T. Povey

Gas Turbines: Manufacturing, Materials, and Metallurgy

012101 Thermomechanical Fatigue Behavior of Bare and Coated CMSX-4
T. Coppola, S. Riscifuli, O. Tassa, and G. Pasquero

Gas Turbines: Microturbines and Small Turbomachinery

A. El-Shafei and A. S. Dimitri

012301 A Study in the Process Modeling of the Startup of Fuel Cell/Gas
Turbine Hybrid Systems
Michael Shelton, Ismail Celik, Eric Liese, and David Tucker

012302 Fuel Cell/Gas Turbine Hybrid System Control for Daily Load Profile and Ambient Condition Variation
Rory A. Roberts, Jack Brouwer, and G. Scott Samuelsen

Gas Turbines: Structures and Dynamics

012502

012501 On the Numerical Prediction of Finite Length Squeeze Film Dampers Performance With Free Air Entrainment Tilmer H. Méndez, Jorge E. Torres, Marco A. Ciaccia, and

Sergio E. Díaz

Controlling Journal Bearing Instability Using Active Magnetic Bearings

012503 Dynamic Analysis of Fretting-Wear in Friction Contact Interfaces Loïc Salles, Laurent Blanc, Fabrice Thouverez, and Alexander M. Gouskov

(Contents continued on inside back cover)

This journal is printed on acid-free paper, which exceeds the ANSI Z39.48-1992 specification for permanence of paper and library materials. ⊗™

⑤ 85% recycled content, including 10% post-consumer fibers.