

57th International Instrumentation Symposium 2011

**St. Louis, Missouri, USA
20-24 June 2011**

ISBN: 978-1-61839-032-5

Printed from e-media with permission by:

Curran Associates, Inc.
57 Morehouse Lane
Red Hook, NY 12571



Some format issues inherent in the e-media version may also appear in this print version.

Copyright© (2033) by International Society of Automation - ISA
All rights reserved.

Printed by Curran Associates, Inc. (2013)

For permission requests, please contact International Society of Automation - ISA
at the address below.

International Society of Automation - ISA
67 Alexander Drive
Research Triangle Park, NC 27709 USA

Phone: (919) 549-8411
Fax: (919) 549-8288

info@isa.org

Additional copies of this publication are available from:

Curran Associates, Inc.
57 Morehouse Lane
Red Hook, NY 12571 USA
Phone: 845-758-0400
Fax: 845-758-2634
Email: curran@proceedings.com
Web: www.proceedings.com

57th International Instrumentation Symposium

20-24 June 2011

Analysis Procedures for Thermographic Phosphor Lifetime Thermometry ÁÆ

Application of Artificial Neural Networks to Flame Detection ÁÆ

Application of Valve Leak Monitoring System to the Valves for Optimized Power Reactor 1000 (OPR1000) ÁÆ

AX30IBDAQ-16: Data Acquisition and Control System On-A-Chip ÁÍ

Bus Architectures for Real-Time Safety-Critical Distributed Control Systems ÁG

Coaxial cable Bragg grating sensors for large strain measurement ÁH

Comparison Between Single And Double Electrode Capacitive techniques Applied to Blade Tip Timing ÁG

Concentrically Symmetric Hollow Core Interferometer for Common Path Optical Coherence Tomography ÁG

Green Energy Technologies to Improve Vehicle Propulsion Efficiency ÁG

Green Fuels From Algae ÁÆ

High-Temperature and Hostile Environment Sensing Through Stress-Wave Propagation ÁÆ

Integrated High-Temperature Electronics and Distributed Architectures for Turbofan Engine Monitoring and Control ÁÆ

Integrated Instrumentation & Sensor Systems for Aerospace Systems Control ÁÍ

Integrated Standardized Fault-Tolerant Sensing Nodes for an Intelligent Turbine Engine Control System ÁÍ

Intelligent and Robust Sensors Using Fiber Optic Network for Distributed Engine Control ÁÍ

Introduction to Piezoelectric Sensors ÁÍ

Methodology for Design of a Vibration Operated Valve for Abrasive Viscous Fluids ÁJI

Real-Time Thermographic-Phosphor-Based Temperature Measurements of Thermal Barrier Coating Surfaces Subjected to a High-Velocity Combustor Burner Environment ÁÆ

Refractive Index Sensor Based on an Optical Microresonator Using a Hollow Sphere with Porous Wall ÁGG

Second-Order Method for Designing Controllers ÁH

Smart Sensors and Actuators for Distributed FADEC Systems ÁG

Temperature and Heat Flux Measurement Methods using Ultrasound ÁG

The repeatability of exercise data collected by a triple-axis accelerometer. ~~AG~~ J

Thin Film Wheatstone Bridge Heat Flux Gauge Evaluation ~~AG~~ G

Turbine Inlet Gas Temperature Measurement System ~~AG~~ I

Turbo-Machinery Monitoring Measures for Propulsion Safety and Affordable Readiness ~~AG~~ E

Visualization of cavitation bubbles around a butterfly valve - Measurement of the number and size of cavitation bubbles ~~AG~~ I