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# ICIEA 2008

## THE 3rd IEEE CONFERENCE ON INDUSTRIAL ELECTRONICS AND APPLICATIONS

3 - 5 June 2008

Holiday Inn, Singapore

The 3rd IEEE Conference on Industrial Electronics and Applications (ICIEA 2008) will be held during 3-5 June 2008, in Holiday Inn, Singapore. The Conference is organized by IEEE Industrial Electronics (IE) Chapter of Singapore Section.

The conference will serve as an exciting major forum for scientists, engineers and practitioners throughout the world to present and discuss the latest technology advancement as well as further trends and needs in Industrial Electronics. Conference scope covers all areas of the theory and methods of electronics, control, systems, instrumentation for industrial applications. In addition to the technical sessions, there will be plenary sessions.

**The Proceedings of ICIEA will be included in the IEEE Xplore database and indexed by EI Compendex and ISI Proceedings.**

Authors are invited to submit full papers describing original research. Areas of interest include, but are not limited to:

**Automation:** Instrumentation systems, Flexible manufacturing systems, Process automation, Man-machine interactions, Computer integrated manufacturing, Factory modeling and simulation, Intelligent automation.

**Computational Intelligence:** Neural networks, Fuzzy systems, Genetic algorithm, Industrial applications of evolutionary computing, Industrial applications of intelligent systems.

**Control Systems and Applications:** Adaptive and intelligent control, Hybrid control, Digital control theory and development, Robust control, Nonlinear systems and control, Process control, System theory and applications, Networked control, Cooperative control, Cybernetics and new methodologies.

**Energy and Environment:** Energy management and control systems, Energy recovery, Alternative and green energy, Waste management and recycling techniques, Waste water treatment techniques, sensor technologies, etc.

**Mechatronics:** Robotics, Sensors and sensor fusion, Industrial vision, Motion control, Micro electromechanical systems, Integrated circuitry design and systems.

**Power Electronics:** Power devices and components, Power quality control, FACTS, PFC, STATCOM, Harmonic analysis and compensations, Energy systems, High frequency converters and SMPS, switching circuits and power (AC/AC, AC/DC, DC/AC and DC/DC) converters, Motors and drives, High performance controls.

**Signal Processing:** Image processing, Signal processing, Modeling and simulation, Estimation and identification, Instrumentation and transportation electronics, Vision and multi-media.

**Network and Communication Technologies:** Emerging networking trends, Network protocols, Mobile computing, Mobile networks, Mobile agents, Network architectures, Network services, Network routing, Design and performance evaluation of new network applications and systems, Congestion control, 4G wireless systems, Sensor and ad hoc networks, Network coding.

**Emerging Technologies:** Modeling and simulations of biological systems, Biomedical instrumentation and application, Micro-electromechanical systems, Electric vehicles and intelligent transportation, Industrial applications of multimedia technologies, Portable electronics, Integrated systems and processes.

**Invited Sessions:** The Technical Program Committee is soliciting proposals for invited sessions focusing on topics of the conference. Prospective organizers should submit proposals to the Technical Co-Chairman, Dr. Tseng, King Jet via email [ekjtseng@ntu.edu.sg](mailto:ekjtseng@ntu.edu.sg) by 1 January 2008.

**Submission Format:** Please submit full papers to the Conference website address <http://www.ieeeiciea.org/> by **15 December 2007**. All submitted papers should be in the form of pdf or word file and are to be limited to a maximum length of 6 pages (A4 size, single space, Times Roman of font size 10, two columns format), including figures, tables and references. Please use the template which is available from the website. Upon acceptance, authors will be required to register and present their papers. Papers will be published in the conference proceedings only if at least one of the authors is officially registered. Each registration covers a maximum of two papers.

### Keynotes:

- "Energy, environment, and process automation"**  
-Dr. Tariq Samad, Honeywell Automation and Control Solutions, USA
- "Power factor compensation in electrical systems in nonsinusoidal regimes with nonlinear loads"**  
-Professor Romeo Ortega, LSS-Supelec, FRANCE
- "Decision and control in supervisory discrete event systems: Application to manufacturing and wireless sensor networks"**  
-Professor Frank L. Lewis, The University of Texas at Arlington, USA

## Important Dates:

Deadline for Full Paper submission	15 December 2007
Notification of Acceptance	15 January 2008
Deadline for Camera Ready Manuscript Submission	1 March 2008
Deadline for Authors' Registration	1 April 2008