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The 5th IEEE Conference on Industrial Electronics and Applications (ICIEA'10) is jointly organized by the IEEE Industrial Electronics (IE) Chapter of Singapore, National Chung Hsing University (NCHU) and IEEE IE, PE and CS Chapters of Taipei. It will be held in Taichung from 15th to 17th June 2010. Taichung is the third largest city in Taiwan, located in the west-center part of the island. It has a pleasant climate, and a population of just over one million people. The city is home to many high tech manufacturers related to optoelectronics and precision machinery, and in recent years has experienced rapid growth in the diversity of its cultural offerings. Taichung is surrounded by many tourist attractions, such as the Sun Moon Lake, the Ali Mountain, the Kukuan Hot Spring, the Cingjing Farm, etc. The pleasant climate, beautiful scenery, the rich history of art and culture, and the prosperous economy supply it with the glamour of a world-class metropolis.

The Proceedings of ICIEA are included in the IEEE Xplore database and indexed by EI Compendex and ISI Proceedings (to be confirmed).

ICIEA'10 is a premier conference, providing an excellent forum for scientists, researchers, engineers and industrial practitioners throughout the world to present and discuss the latest technology advancement as well as future directions and trends in Industrial Electronics. Authors are invited to submit full papers describing original research work in areas including, but not limited to,

Industrial Informatics: Human-machine interactions, Diagnosis and prognosis, Intelligent automation, Intelligent transportation system, Manufacturing execution systems, Networked embedded controllers, Machine-to-machine, Condition based maintenance, SOA, Multi-agent systems.

Computational Intelligence: Artificial neural network, Fuzzy systems, Genetic algorithm, Evolutionary computing, Machine learning, Data mining

Control and Systems: Adaptive and intelligent control, Hybrid control, Digital control theory and development, Robust control, Nonlinear systems and control, Process control, Networked control, Cooperative control, Bio-control

Energy and Environment: Energy management and control systems, Energy distribution, storage and recovery, Alternative and green energy, Waste management, Waste treatment and recycling, Water network and security, Sensor technologies, Intelligent Micro-grids

Mechatronics: Robotics, Sensors and actuators, Sensor fusion, High precision motion control, Micro electromechanical systems, industrial automation, Remote operation

Power Electronics: Power devices and components, Power quality control, FACTS, PFC, STATCOM, Harmonic analysis and compensations, Switching circuits and power converters, Motors and drives, Smart grid

Signal Processing: Image processing, Computer vision, Bio-image processing, Audio/video processing, Data processing, Estimation and identification, Remote sensing

Network and Communication Technologies: Network protocols, Mobile computing, Mobile ad hoc networks, Mobile agents, Network architectures, Quality of services, Cross-layer design/optimisation, Design and performance evaluation, Traffic control, Wireless systems

Invited and Special Sessions: The Technical Program Committee is soliciting proposals for invited and special sessions focusing on topics relevant to the theme of the conference. Prospective organizers should submit proposals to the Invited Session Chair, Prof. Fanglin Luo via email eflluo@ntu.edu.sg by 31 December 2009.

Paper Submission: Please submit full papers to the Conference website address <http://www.ieeeicicia.org> by **15 November 2009**. All submitted papers should be in the form of .pdf or .ps file and are to be limited to a maximum length of 6 pages (Letter 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.

In addition to the technical sessions, **KEYNOTE ADDRESSES** on the State-of-the-Art in various tracks of Industrial Electronics will be delivered by

- Professor Jie Huang, The Chinese University of Hong Kong, P.R. China
- Professor Keyue Ma Smedley, University of California, Irvine, USA
- Professor Krishnan Ramu, Virginia Tech, USA

Important Dates:

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| Deadline for Full Paper submission | 15 November 2009 |
| Deadline for Invited and Special Sessions | 31 December 2009 |
| Notification of Acceptance | 31 January 2010 |
| Deadline for Camera Ready Manuscript Submission | 15 March 2010 |
| Deadline for Authors' Registration | 15 April 2010 |

