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19 – 21 June 2019, Xi'an, China

<http://www.ieeieicia.org>

The 14th IEEE Conference on Industrial Electronics and Applications (ICIEA 2019) will be held during 19-21 June 2019, in Xi'an, China. The Conference is organized by IEEE Industrial Electronics Chapter of Singapore, Xi'an University of Technology, and IEEE Singapore Section. IEEE Industrial Electronics Society is the financial and technical sponsor. **The proceedings of past ICIEA have been included in the IEEE Xplore database, Web of Science and indexed by EI Compindex.**

ICIEA 2019 marks the 14<sup>th</sup> Anniversary of the ICIEA conferences. As a premier conference, ICIEA provides 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:

**Artificial Intelligence:** Natural language interaction, Text analysis, Image analysis, Video analysis, Speech recognition, Object recognition, Gesture recognition, Statistical learning, Machine learning, Deep learning, Reinforcement learning, Predictive analytics, Data analytics, Knowledge representation, Reasoning, Neural networks, AI applications, Design for AI chip and systems

**Control and Systems:** Adaptive and intelligent control, Distributed and decentralized control, Games, Hybrid control, Networked control, Nonlinear systems, Optimization and optimal Control, Predictive control, Process control, Robust control, System identification and filtering, Uncertain systems, Control system applications

**Cyber-physical Systems:** Smart grid, Intelligent transportation systems, Internet of things, Mobile healthcare, Distributed computing, Infrastructure simulations, Security and privacy, Data integration and visualization, New sensing platform and senses computing

**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

**Industrial Informatics and Computational Intelligence:** Human-machine interactions, Diagnosis and prognosis, Intelligent automation, Networked embedded controllers, Machine-to-machine, Condition based maintenance, Multi-agent systems, Fuzzy systems, Genetic algorithm, Evolutionary computing, Data mining,

**Robotics:** Robotics vision, Visual servoing, Visual servoing simulation, SLAM, LIDAR, Sensors and sensor fusion, Actuators, Motion control, Robot-human collaboration, Remote operation, Autonomous mobile robot, 3D simulation, Off-line programming, AI application in robotics, Industrial application case study

**Network and Communication Technologies:** Network protocols, Mobile computing, Mobile ad hoc networks, Mobile agents, Network architectures, Quality of services, Cross-layer design/optimization, Design and performance evaluation, Traffic control, Wireless systems, MU-MIMO systems, Optoelectronics and Optical Communication.

**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, Distribution generation and electrical vehicles, Wireless power transmission, Energy harvesting

**Signal and Information Processing:** Image processing, Computer vision, Bio-image processing, Audio/video processing, Data processing, Estimation and identification, Remote sensing, Information fusion, Brain computer interface, Signal transforming and filtering, Digital system design and structures, Optimization techniques

**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 Chairs, Prof. Weihai Chen ([whchenbuaa@126.com](mailto:whchenbuaa@126.com)), Prof. Wenxiang Kang ([waiban@xaut.edu.cn](mailto:waiban@xaut.edu.cn)) or Prof. Zhihong Man ([zman@swin.edu.au](mailto:zman@swin.edu.au)), by the date listed in "Important Dates".

**Best Paper Award:** Selection of the best paper will be made based on both the technical content and presentation through three rounds. The winner will be decided in the final round on the basis of independent assessment from each member of the Award Committee led by Dr. Wenxiang Xie and Prof. Hai-Peng Ren.

**Paper Submission:** Please submit full papers to the conference website at <http://www.ieeieicia.org>. 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, three **KEYNOTE ADDRESSES** and six **DISTINGUISHED LECTURES** on the State-of-the-Art in various tracks of Industrial Electronics will be respectively delivered by:

- Prof. Ian A. Hiskens, University of Michigan, USA
- Prof. Eduardo Mario Nebot, The University of Sydney, Australia
- Prof. Isabel Trancoso, University Lisbon, Portugal
- Prof. Jiwen Lu, Tsinghua University, China
- Prof. Milos Manic, Virginia Commonwealth University, USA
- Prof. Akshay Kumar Rathore, Concordia University, Canada
- Prof. Juan José Rodríguez-Andina, The University of Vigo, Spain
- Prof. Yong-Duan Song, Chongqing University, China
- Prof. Youmin Zhang, Concordia University, Canada

#### Important Dates:

Deadline for Full Paper submission	30 November 2018	31 December 2018
Deadline for Invited and Special Sessions	30 November 2018	31 December 2018
Notification of Acceptance	15 February 2019	
Deadline for Camera Ready Manuscript Submission	15 March 2019	
Deadline for Authors' Registration	15 April 2019	

