Dear Scholars and Researchers,

The 2nd International Conference on Intelligent Autonomous Systems (ICoIAS'2019) will be held from Feb. 28-Mar. 2, 2019 in Singapore. The Conference is technically sponsored by IEEE System, Man and Cybernetics (SMC) Singapore Chapter and the Institution of Engineers, Singapore (IES) Electrical and Electronic Engineering Technical Committee. The proceedings of ICoIAS will be included in the IEEE Xplore database and indexed by EI Compendex and Scopus.

The theme of ICoIAS'2019 is "Advancing the Frontier of Intelligent Autonomous Systems". The ICoIAS'2019 will provide a premier interdisciplinary platform for scientists, researchers, industry leaders, engineers and educators throughout the world to present and discuss the most recent innovations, trends, concerns, as well as practical challenges encountered, and streamline solutions in the fields of Intelligent Autonomous System (IAS). The meeting will provide an opportunity to highlight recent developments and to identify emerging and future areas of growth in IAS.

Nowadays, autonomous systems play an increasingly important role in both control and engineering applications. For example, millions of autonomous robots are impacting our daily life by working on assembly lines, construction sites, and even at home. More interestingly, the unmanned aerial and ground, surface and/or underwater systems have provided more efficient ways to execute various challenging tasks in difficult terrains. However, the autonomous systems are usually featured with dynamics coupling, actuator saturation, under-actuated structure, time-varying disturbance, etc., and thereby presenting great challenges and difficulties in system analysis and controller design. Recently, by employing intelligent approaches, advanced control methodologies for autonomous systems have been proposed and rapidly developed.

In the real world, the environment is complex and dynamics. As such, the autonomous systems should learn and adapt accordingly. In this context, more efforts should be focused on the methodology of the learning system on one hand. For example, fast adaptation and self-organizing capability are highly desired and research activities on this type of development should be expedited. On the other hand, one should leverage on artificial intelligence and machine learning to enhance their performance. Towards this end, deep intelligence should be integrated tightly with nonlinear design for complex control tasks of autonomous systems.

The main goal of ICoIAS'2019 is to address latest original results in advanced intelligent control of autonomous systems, including both theoretical advances and practical implementations, which are becoming more and more popular in industry and in our daily lives. Invited sessions focusing on Autonomous Systems including, but are not limited to Artificial Intelligence, Machine Learning, Intelligent Robotics, Cognitive Computing, Smart Manufacturing, Advanced Signal Processing and Communications, Bio-signal Processing and Control, etc. are welcome.

Keynote Speakers

Prof. Meng Joo Er
Nanyang Technological University, Singapore
Prof. Wu Shiqian
Wuhan University of Science and Technology, China
Prof. Chiang-Ju Chien
Huafan University, Taiwan
Prof. Ning Wang
Dalian Maritime University, China

Submission

Authors are invited to submit papers through the Electronic Submission System before October 10, 2018. For any inquiry about the conference, please feel free to contact us at: icias@zhconf.ac.cn.

Proceedings

Papers will be published in the ICoIAS'2019 Conference Proceedings. The proceedings of ICIoAS will be included in the IEEE Xplore database and indexed by Ei Compendex and Scopus.

Call for Papers (include but are not limited to)

A. Advanced Intelligent Control
   Autonomous Learning
   Composite Learning
   Disturbance Observer
   Self-organizing Algorithm
   Reinforcement Learning
   Adaptive Dynamic Programming
B. System Modeling and Optimization
   Intelligent Optimization and Applications
   System Modelling and Parameter Estimation
   Machine Learning
C. Vision and Navigation
   Sensors and architectures
   Image processing
   Pattern recognition
   SLAM technologies
D. Applications to Autonomous Systems
   Unmanned Underwater Vehicles
   Unmanned Surface Vehicles
   Robotics Systems
   Flexible Manipulators
   Unmanned Aerial Vehicles
   Spacecrafts
   Missiles

History

ICoIAS'2018 was successfully held in Nanyang Technological University, Singapore during March 1-3, 2018

Important Dates

Submission Deadline	**Oct. 10th, 2018**
Acceptance Notification	Nov. 10th, 2018
Registration Deadline	Nov. 30th, 2018
Conference Date	Feb.28-Mar.2, 2019

Contact us

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