

**Title:**

Big Data and Artificial Intelligence

Abstract:

With the appearance and development of big data, how to make the best use of the big data becomes a challenging issue which includes the big data acquisition, big data analysis and big data processing, etc. In this background, multi-agent systems and artificial intelligence theories are paid much attention to solve the challenging issue and have seen great success. For example, neuro network has been widely used to process big data in many applications, such as smart transport, smart healthcare, and face recognition. In specific, big data could be used to predict the transport situation and thus some corresponding transport managements could be made in advance to decrease the traffic jams and potential accidents. Additionally, multi-agent systems have also been widely used to make the use of big data, focusing on allocating resources/tasks in unpredicted and dynamic environments in a cooperative or competitive way, such as the applyment of smart agents in weather report radar systems, smart grid, Robocup, and disaster rescues. In this background, this workshop aims to attract the state-of-the-art study in both theory innovation and applications of real life in the fields of big data, multi-agent systems and artificial intelligence, to acquire, process and consequently benefit from the really valuable big data.

Scope and Topics:

Potential topics include but are not limited to:

- ✧ Multi-agent Systems
- ✧ Big Data Analysis
- ✧ Internet of Things
- ✧ Artificial Intelligence
- ✧ Resource/task allocation in dynamic environments

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Dr Quan Bai received his PhD (2007) and MSc (2002) from the University of Wollongong, Australia, and graduated with double bachelor's degree (2001) from Tianjin University, China. After he received his PhD, Quan worked as a Postdoctoral Research Follow for the University of Wollongong (2007-2009), and for the



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Dr Chih-Hsien Hsia was born in Taipei city, Taiwan, in 1979. He received the Ph.D. degree from Tamkang University, New Taipei, Taiwan, in 2010. In 2007, he was a Visiting Scholar with Iowa State University, Ames, IA, USA. From 2010 to 2013, he was a Postdoctoral Research Fellow with the Department of Electrical Engineering, National Taiwan University of Science and Technology, Taipei, Taiwan. From 2013 to 2015, he was an Assistant Professor with the Department of Electrical Engineering at Chinese Culture University, Taiwan. He was an Associate Professor with the Department of Electrical Engineering, Chinese Culture University, Taiwan, from 2015 to 2017. He currently is an Associate Professor with the Department of Computer Science and Information Engineering, National Ilan University, Taiwan. His research interests include DSP IC Design, Multimedia Signal Processing, and Information Education. Dr. Hsia is the Chapter Chair of IEEE Young Professionals Group, Taipei Section, the Chapter Chair of IET Young Professionals Group, Taipei Local Network, and the Director of the IET Taipei Local Network. He is the Technical Program Chair of IEEE International Symposium on Intelligent Signal Processing and Communications Systems in 2019, the IEEE International Conference on Consumer Electronics in 2018, and the IEEE International Cognitive Cities Conference in 2018. He has served as a Guest Editor of three special issues of the Journal of Internet Technology, the Journal of Applied Science and Engineering and the Journal of Computers. He has served on Editorial Board of the Journal of Control Science and Engineering and the Al-Bahir International Journal of Applied Sciences. Currently, he is Associate Editor of the Journal of Computers.

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Dr Dayong Ye received his B.Eng degree in Measurement and Control from Hefei University of Technology, China in 2003, and M. Phil and PhD degrees in computer science from University of Wollongong, Australia in 2009 and 2013, respectively. Now he is a research fellow at University of Technology, Sydney, Australia. He has published over 30 academic papers, most of which are in IEEE Transactions series. He also served as a reviewer for over 20 journals and conferences. His research interests include multi-agent systems, cloud computing, power grid systems, sensor networks and privacy preserving.

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