# **IEEE CASE 2017**

13th IEEE International Conference on Automation Science and Engineering

August 20 - 23, 2017, Xi'an, China

http://www.case2017.org

General Chair Xiaohong Guan, Xi'an Jiaotong University General Co-chair Qianchuan Zhao, Tsinghua University Program Chair Qing-Shan Jia, Tsinghua University Program Co-chair Mariagrazia Dottoli, Politecnico di Bari Special Sessions Chairs Hesuan Hu, Xi Dian University

Birgit Vogel-Heuser, Technical University of Munich

## Automation for next industry revolution

- The advances in information science and technology allow us to make many automation systems smarter and sometimes creative.
- Particular attention to: Internet of Things, Smart Buildings, Smart Cities, Smart Transportation, Smart Evacuation...









#### **CALL FOR PAPERS**

The 13th IEEE International Conference on Automation Science and Engineering (IEEE CASE 2016), sponsored by the IEEE Robotics and Automation Society (RAS), will be held in Xi'an, China, August 20 to 23, 2017. IEEE CASE is a flagship automation conference of the IEEE RAS and constitutes the primary forum for cross-industry and multidisciplinary research in automation. Its goal is to provide a broad coverage and dissemination of foundational research in automation among researchers, academics, and practitioners.

The technical program of IEEE CASE 2017 will consist of tutorials/workshops, keynote/plenary speeches, automation forums, and oral presentations. Papers describing original work on abstractions, algorithms, theories, methodologies, and case studies are invited. Accepted and presented papers will be published in the conference proceedings, and submitted for inclusion into IEEEXplore as well as other Abstracting and Indexing (A&I) databases. IEEE CASE is an offspring of the journal IEEE Transactions on Automation Science and Engineering. The journal will publish a Special CASE Issue of top-rated papers. IEEE Robotics and Automation Letters will also accept journal quality publications in conjunction to CASE 2017.

Regular papers and special session proposals and papers should be submitted online at the conference website at www.case2017.org. One new feature of CASE 2017 is that the authors of the papers published or accepted in and after 2016 by IEEE Transactions on Automation Science and Engineering or IEEE Transactions on Robotics can request presentation of their papers at the conference in the newly organized "transaction paper sessions". General inquiries should be addressed via Email to the Program Chair, Prof. Qingshan JIA at jiaqs@mail.tsinghua.edu.cn. The best conference paper award, the best application paper award, and the best student paper award will be selected. The organizing committee of CASE 2017 cordially invite

you to submit full paper contributions and hope to see you

in Xi'an, China in August 2017!

#### STEERING COMMITTEE

Mengchu Zhou (chair), New Jersey Inst. Tech.

Fan-Tien Cheng, Nat. Cheng Kung Univ.

Hyouk Ryeol Choi, Sungkyunkwan Univ.

Nak Young Chong, Japan Advanced Inst. of Sci. and Tech.

Maria Pia Fanti, Politecnico di Bari

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Yu Sun, Univ. of Toronto

Michael Wang, Chinese U of Hong Kong

John Wen, Rensselaer Poly. Institute

Dan O. Popa, University of Louisville

#### **IMPORTANT DATES**

Jan. 11, 2017	Special session proposal submission
Jan. 29, 2017	Special session acceptance notification
	Tutorial/workshop proposal submission
Feb. 08, 2017	Contributed paper submission
Feb. 15, 2017	RA-L submission
Feb. 26, 2017	Tutorial/workshop acceptance notification
May 11, 2017	Paper acceptance notification
May 25, 2017	RA-L notification
May 27, 2017	Conference registration opens
Jun. 12, 2017	Final paper submission

#### **CONFERENCE TRACKS**

### Future Manufacturing Systems

- Reconfigurable manufacturing systems
- Industrial robotics
- Coordination and scheduling
- CPS and industrial Internet

## Foundation of Automation

- Discrete event systems
- Hybrid systems
- Fault analysis and recovery
- System modelling and simulation
- Monitoring and control

#### Life Sciences and Healthcare

- Lab automation
- Automation in treatment diagnosis and disease
- Hospital and medical robotics
- Healthcare management systems

# Automation in Meso, Micro and Nano-scale

- Cluster tool scheduling
- Fab modelling and analysis
- Metrology
- Nano-manufacturing

# Big Data for Automation

- Web, Data and Text Mining
- Web services and service oriented architectures
- Machine learning
- Software engineering in automation
- Workflow management systems

# Automation in Logistics and Supply Chain Management

- Material handling and assembly
- IT-enabled Planning, coordination and scheduling
- Resource allocation and management
- Automation in remanufacturing and reverse logistics

# Networked and Control Systems

- Distributed control systems
- Multiagent planning and control
- Sensor/actuator networks
- Wireless communication and control

# Cyber Physical Energy Systems

- Smart buildings
- Intelligent transportation systems
- Smart Cities
- Micro and smart grids

# And others topics.

#### XI'AN

Xi'an is a famous historical and cultural city in China. It is the cradle of the Chinese nationality, the birthplace of the Chinese civilization and the representative of the Chinese culture. The city was first established more than 3100 years ago and it has been taken as a capital for 1129 years for 13 dynasties. It is one of the most ancient capitals of the world, in the company of Athens, Rome and Cairo. The city once functioned as the political, economic and cultural center of China and as the starting point of the renowned Silk Road. Due to its long history and rich culture, the city is reputed to be the natural history museum.



Guest Room



Hotel Hallway



**Qujiang District** 



Terra Cotta Warriors and Horses



City Wall of Ming Dynasty