



Asian Journal of Control

Call for Papers

Special Issue on “Analysis and Control of Complex Cyber-Physical Networks”

<http://www.ajc.org.tw>

A large number of coupled systems in nature and society can be modeled by complex cyber-physical networks, whose normal functioning significantly relies on the tight interactions between its physical and cyber components. Many modern critical infrastructures can be appropriately modelled as complex cyber-physical networks. Typical examples of such infrastructures are power grids, the Internet, WWW, and public transportation systems. The ubiquity of such networked systems leads to many important and fascinating scientific problems concerning how network topologies and parameters affect collective dynamics, and how to control them. Analysis and control of complex cyber-physical networks have received a lot of attention recently, from various scientific and engineering communities. Furthermore, revealing the fundamental properties and controlling the collective behaviors of networked systems not only can provide a better understanding of the emergence mechanisms for cooperative behaviors, but also can provide benefits to various applications of cyber-physical networked systems, such as smart grids, Internet of Things and unmanned aircraft systems.

The focus of this special issue is on new approaches to analysis and synthesis of complex cyber-physical networks as well as their potential practical applications. The special issue aims to establish a forum for international researchers from different fields of electrical engineering, bioinformatics, systems and control theory, and applied mathematics, to present and evaluate the most recent developments and new ideas on analysis and synthesis of complex cyber-physical networks, regarding both fundamental theory and practical applications. The topics to be covered include, but are not limited to:

- Analysis and coordination control of complex cyber-physical networks
- Bio-inspired control techniques for networked systems
- Big-data mining and analysis over complex cyber-physical networks
- Controllability and observability of complex cyber-physical networks
- Distributed cognitive architectures in robotic networks
- Distributed control and estimation of multi-agent networks
- Distributed optimization of multi-agent networks
- Deep learning and intelligent control of complex cyber-physical networks
- Distributed machine learning in complex cyber-physical networks
- Distributed reinforcement learning techniques for networked systems
- Energy management and distributed intelligent control of smart grids
- Efficient privacy protection and security of complex cyber-physical networks
- Efficient privacy protection and security of complex cyber-physical networks
- Finite-time and fixed-time control of complex cyber-physical networks
- Game analysis and control over complex cyber-physical networks

Guest Editors

Guanghui Wen

Research Center for Complex Systems and Network Sciences, School of Mathematics, Southeast University, China
ghwen@seu.edu.cn

Mahdi Jalili

School of Engineering, RMIT University, Australia
mahdi.jalili@rmit.edu.au

Wei Ren

Department of Electrical Engineering, University of California, Riverside, USA
ren@ee.ucr.edu

Guest Editorial Committee

Yongcan Cao

Department of Electrical and Computer Engineering, University of Texas at San Antonio, USA
yongcan.cao@utsa.edu

Haibo Du

School of Electrical Engineering and Automation, Hefei University of Technology, China
haibo.du@hfut.edu.cn

Guanrong Chen

Department of Electrical Engineering, City University of Hong Kong, Hong Kong SAR, China
eegchen@cityu.edu.hk

Important Dates

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January	31, 2022

Deadline for Submissions
Completion of First Review
Completion of Final Review
Receipt of Final Manuscript
Publication (Tentatively Vol. 24, No. 1)

About AJC

The Asian Journal of Control, an ACA (Asian Control Association) affiliated journal, is the first international journal originating from the Asian Pacific region and being recognized by the major body of control researchers in this region. The Asian Journal of Control publishes bimonthly high-quality papers on original theoretical and experimental research and development in the areas of control, involving all facets of control theory and its application. Functionally, this journal not only provides a forum where control researchers and practitioners can exchange their knowledge and experiences in the control areas, but also serves as an educational means for students and any others who ever likes to learn some topics in the same technical area. The journal aims to be a key interface between control communities within the Asian Pacific region and throughout the world and is listed by Science Citation Index Expanded.

How to submit

Potential authors are encouraged to upload the electronic file of their manuscript (in PDF format) through the journal's online submission website: <http://mc.manuscriptcentral.com/asjc>.

If you encounter any submission problem, please contact the editorial office: asianjcontr@ntu.edu.tw.

Editor-in-Chief: Professor Li-Chen Fu

Department of Electrical Engineering, EE II-524
National Taiwan University, Taipei 10617, Taiwan

Tel: +886-2-3366-3558
E-mail: lichen@ntu.edu.tw

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