

CALL FOR PAPERS



Special Session on Analysis and Synthesis of Networking Intelligent Systems

IECON 2018 - The 44th Annual Conference of the IEEE Industrial Electronics Society
October 21-23, 2018, Washington D.C, USA



TOPIC OF THE SPECIAL SESSION

Analysis and Synthesis of Networking Intelligent Systems

Outline of the session

Most of the practical large-scale systems can be modeled as coupling intelligent systems, where examples include distributed sensor systems and a team of robots. Recently, analysis and synthesis of networking intelligent systems have found extensive applications in various fields including information fusion, coordinated search and rescue, and scheduling of smart grids. Since each individual agent (individual) in the networking intelligent systems has limited computational and sensing abilities, distributed control and estimation design have more significant potential advantages than centralized ones in the context of distributed intelligent systems. Furthermore, it has been shown that the abundance of embedded computational and sensing resources in networking intelligent systems enables enhanced operational effectiveness through cooperative teamwork in real applications. The main focus of this special session will be on new and existing distributed analysis and synthesis approaches in distributed intelligent systems, which will certainly become an international forum for researchers in all branches of applied mathematics as well as control engineering to present, share, and summarize the most recent developments and ideas on related topics in distributed control and estimation of distributed intelligent systems.

Topics of the Session

- Modeling, identification, and optimization of networking intelligent systems
- Distributed optimization and its applications
- AI technology in networking intelligent systems
- Distributed diagnosis and fault-tolerant control
- Distributed consensus tracking control
- Synchronization, flocking, and containment control of networking intelligent systems
- Distributed approaches for energy management
- Distributed neuro-adaptive control
- Distributed cyber-physical systems
- Cyber-security for networking intelligent systems
- Distributed coordination with privacy protection

IEEE IES Technical Committee Sponsoring the Special Session (if any):

IEEE IES Network-Based Control Systems and Applications

ORGANIZED AND CO-CHAIR BY

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Author's schedule:

- Deadline for submission of special session papers
June 30, 2018
- Notification of acceptance
July 15, 2018
- Deadline for submission of final manuscripts
September 7, 2018

For additional information please visit www.iecon2018.org