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Special Session on

"Network-based Control Systems and Their Applications"

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Call for Papers

Network-based control systems have attracted increasing attention due to their widespread applications to intelligent power systems, unmanned marine vehicles, intelligent transportation systems, sensor networks, Internet of Things, and so on. While network-based control systems have remarkable advantages such as low cost in installation and maintenance, flexibility in communication architectures, and high reliability, they introduce some significant challenges in control and estimation due to various communication constraints such as network-induced delays, packet dropouts, limited bandwidth, network attacks and so on. Therefore, this special section aims to seek a series of latest techniques and methods for networked control systems.

Topics of the Session:

- Network-based tracking control
- Event-triggered control and filtering
- Attack-resilient control
- Attack detection and identification
- Distributed estimation over sensor networks
- Distributed cooperative control of multi-agent systems
- Fault detection for networked control systems
- Communication resource scheduling and allocation
- Distributed optimal control