Editorial

Networked Systems with Complexities and Their Applications to Engineering

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Received 11 June 2013; Accepted 11 June 2013

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The aim of this special issue is to highlight the most significant recent developments on the topics of networked systems, especially networked control systems, multiagent systems, and cyber-physical systems, their modeling, identification, stability analysis, and estimation facing with various problems, such as random communication delay, packet loss, data quantization, saturation, communication constraints, random faults, and switched systems. The topics to be covered include the following: networked control systems (mathematical modeling, event-triggered control, stochastic control, fault detection and diagnosis, scheduling algorithm, control and communication codesign, quantized control, nanosensors, multichannel transmission, etc.); multiagent systems (consensus, cooperation, filtering, flocking, synchronization, pinning control, formation control, evolutionary computation, particle swarm optimization, etc.); cyber-physical systems (wireless sensor network, internet of things, smart grid, intelligent transportation system, system of system, etc.).

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