Control Theory and Technology

Volume 18 · Number 1 · February 2020

Mathematical model derivation of an unmanned circulation control aerial vehicle UC^{2}AV
M. Agha · K. Kanistras · M.J. Rutherford · K.P. Valavanis **1**

Backstepping approach for design of PID controller with guaranteed performance for micro-air UAV
Y. Kartal · P. Kolaric · V. Lopez · A. Dogan · F. Lewis **19**

Mutual information of cylinder pressure and combustion phase estimation in spark ignition engines
H. Di · T. Shen **34**

A novel control solution for improved trajectory tracking and LVRT performance in DFIG-based wind turbines
A. Hashemi · C. Conficoni · A. Tilli **43**

Stability and weighted sensitivity analysis of robust controller for heat exchanger
S. Gupta · R. Gupta · S. Padhee **56**

Class conditional distribution alignment for domain adaptation
K. Cao · Z. Tu · Y. Ming **72**

Adaptive nonsingular fast terminal sliding mode control for underwater manipulator robotics with asymmetric saturation actuators
Z. Zhou · G. Tang · H. Huang · L. Han · R. Xu **81**

Stability analysis for time delay control of nonlinear systems in discrete-time domain with a standard discretisation method
J. Lee · G.A. Medrano-Cerda · J.H. Jung **92**

* * * *

Recent advances on dynamic learning from adaptive NN control
M. Wang · C. Wang **107**

Erratum to: Distributed active fault tolerant control design against actuator faults for multiple mobile robots 110

International conferences in 2020 & 2021 111

Volume 18 · Number 2 · May 2020

Special issue on multiagent-based system modeling and control practices

Editorial
T. Nakakuki · T. Shen · S. Kanae **113**

Cooperative control and communication of intelligent swarms: a survey
K. Hou · Y. Yang · X. Yang · J. Lai **114**

Analysis of finite-time regulation property of biomolecular PI controller
P. Rong · T. Nakakuki **135**

Robust network structures for conserving total activity in Boolean networks
S. Azuma **143**

Multi-agent graphical games with input constraints: an online learning solution
T. Wang · B. Wang · Y. Liang **148**

Diffusion logistic regression algorithms over multiagent networks
Y. Du · L. Jia · S. Kanae · Z. Yang **160**

Finite-time non-fragile filtering for nonlinear networked control systems via a mixed time/event-triggered transmission mechanism
Z. Lu · J. Lu · J. Zhang · F. Xu **168**

Real-time optimization of energy consumption under adaptive cruise control for connected HEVs
J. Zhang · F. Xu **182**

Distributed optimal energy consumption control of HEVs under MFG-based speed consensus
Q. Fu · F. Xu · T. Shen · K. Takai **193**

Energy-efficient receding horizon trajectory planning of high-speed trains using real-time traffic information
D. He · L. Zhou · Z. Sun **204**

Volume 18 · Number 3 · August 2020

A review on charging behavior of electric vehicles: data, model and control
Q.S. Jia · T. Long **217**

H-infinity position transfer and regulation for floating offshore wind turbines
E. Escobar · R. Nagamune **231**

Application of dynamic sensor activation on operating automated headlights
H. Ding · Y. Qian · C. Gong · Y. Hou · W. Wang **246**

Air quality short-term control in an industrial region under adverse weather conditions
Y. Skiba · D. Parra-Guevara **257**

Multi-agent system motion planning under temporal logic specifications and control barrier function
X. Huang · L. Li · J. Chen **269**

Adaptive high-order sliding mode control based on quasi-time delay estimation for uncertain robot manipulator
B. Brahmi · M. Driscoll · M.H. Laraki · A. Brahmi **279**

Robustness analysis and distributed control of a networked system with time-varying delays
Z. Wang · T. Zhou **293**

Regional averaged controllability for hyperbolic parameter dependent systems
M. Abdelli · A. Hafdallah · F. Merghadi · M. Louafi **307**

Learning implicit information in Bayesian games with knowledge transfer
G. Chen · K. Cao · Y. Hong **315**

Distributed best response dynamics for Nash equilibrium seeking in potential games
S. Huang · P. Yi **324**

* * * *

New directions in distributed Nash equilibrium seeking based on monotone operator theory
P. Yi · T. Wang **333**

International conferences in 2021 I

Volume 18 · Number 4 · November 2020

Special issue on emerging challenges in multi-agent sensing, control and optimization

Editorial
B.K. Ghosh · J. Hu · X. Hu **337**

Distributed stochastic mirror descent algorithm for resource allocation problem
Y. Wang · Z. Tu · H. Qin **339**

Robust statistical approach to stereo disparity maps denoising and refinement
J. Okae · J. Du · Y. Hu **348**

Distributed policy evaluation via inexact ADMM in multi-agent reinforcement learning
X. Zhao · P. Yi · L. Li **362**

Distributed multi-agent temporal-difference learning with full neighbor information
Z. Peng · J. Hu · R. Luo · B.K. Ghosh **379**

Design of tracking observers for locally jointly observable systems
D. Xu · X. Wang · Y. Hong **390**

Consistent Kalman filters for nonlinear uncertain systems over sensor networks
X. He · W. Xue · H. Fang · X. Hu **399**

Consensus with preserved privacy against neighbor collusion
S. Zhang · T.O. Timoudas · M.A. Dahleh **409**

Finite-time consensus protocols for multi-dimensional multi-agent systems
J. Wei · B. Besselink · J. Wu · H. Sandberg · K.H. Johansson **419**

Minimum energy optimal external torque control of human binocular vision
B.K. Ghosh · B. Athukorallage **431**

* * * *

Recent advances on formal methods for safety and security of cyber-physical systems
X. Yin · S. Li **459**

Volume contents