

IEEE TRANSACTIONS ON CYBERNETICS

A PUBLICATION OF THE IEEE SYSTEMS, MAN, AND CYBERNETICS SOCIETY

IEEE
SMC

Systems, Man, and Cybernetics Society

Indexed in PubMed® and MEDLINE®, products of the United States National Library of Medicine

PubMed

MEDLINE
U.S. National Library of Medicine

JUNE 2022

VOLUME 52

NUMBER 6

ITCEB8

(ISSN 2168-2267)

PART I OF TWO PARTS

REGULAR PAPERS

Neural-Network Control of a Stand-Alone Tall Building-Like Structure With an Eccentric Load: An Experimental Investigation	<i>H. Gao, W. He, L. Zhang, and C. Sun</i>	4083
Global Stability of Bidirectional Associative Memory Neural Networks With Multiple Time-Varying Delays	<i>Y. Sheng, Z. Zeng, and T. Huang</i>	4095
Second-Order Consensus for Multiagent Systems With Switched Dynamics	<i>Y. Liu, H. Su, and Z. Zeng</i>	4105
Learning Both Dynamic-Shared and Dynamic-Specific Patterns for Chaotic Time-Series Prediction	<i>S. Feng, M. Han, J. Zhang, T. Qiu, and W. Ren</i>	4115
Optimization of Granulation–Degranulation Mechanism Through Neurocomputing	<i>P. Nie, X. Zhu, W. Pedrycz, Z. Ming, and Z. Li</i>	4126
Recursive State Estimation for Networked Multirate Multisensor Systems With Distributed Time-Delays Under Round-Robin Protocol	<i>Y. Shen, Z. Wang, B. Shen, and Q.-L. Han</i>	4136
An Efficient Iterative Learning Predictive Functional Control for Nonlinear Batch Processes	<i>X. Liu, L. Ma, X. Kong, and K. Y. Lee</i>	4147
Group Consensus in Finite Time for Fractional Multiagent Systems With Discontinuous Inherent Dynamics Subject to Hölder Growth	<i>Y. Zhang, H. Wu, and J. Cao</i>	4161
Dynamic Sparse Subspace Clustering for Evolving High-Dimensional Data Streams	<i>J. Sui, Z. Liu, L. Liu, A. Jung, and X. Li</i>	4173

(Contents Continued on Page 4081)

A New Aggrandized Class Topper Optimization Algorithm to Solve Economic Load Dispatch Problem in a Power System	<i>A. Srivastava and D. K. Das</i>	4187
ℓ_2 - ℓ_∞ Control of Discrete-Time State-Delay Interval Type-2 Fuzzy Systems via Dynamic Output Feedback	<i>Y. Zeng, H.-K. Lam, B. Xiao, and L. Wu</i>	4198
Analog Control Circuit Designs for a Class of Continuous-Time Adaptive Fault-Tolerant Control Systems	<i>X.-Z. Jin, W.-W. Che, Z.-G. Wu, and H. Wang</i>	4209
Subspace Sparse Discriminative Feature Selection	<i>F. Nie, Z. Wang, L. Tian, R. Wang, and X. Li</i>	4221
FLeAC: A Human-Centered Associative Classifier Using the Validity Concept	<i>M. Kadkhoda, M.-R. Akbarzadeh-T., and F. Sabahi</i>	4234
Contribution-Based Cooperative Co-Evolution for Nonseparable Large-Scale Problems With Overlapping Subcomponents	<i>Y.-H. Jia, Y. Mei, and M. Zhang</i>	4246
DMIB: Dual-Correlated Multivariate Information Bottleneck for Multiview Clustering	<i>S. Hu, Z. Shi, and Y. Ye</i>	4260
Stabilization of Positive Systems With Time Delay via the Takagi–Sugeno Fuzzy Impulsive Control	<i>M.-J. Hu, J. H. Park, and Y.-W. Wang</i>	4275
Novel Fixed-Time Stability Criteria for Discontinuous Nonautonomous Systems: Lyapunov Method With Indefinite Derivative	<i>Z. Cai, L. Huang, and Z. Wang</i>	4286
Expert Opinion Fusion Framework Using Subjective Logic for Fault Diagnosis	<i>P. Xu, J.-H. Cho, and A. Salado</i>	4300
A New Settling-time Estimation Protocol to Finite-time Synchronization of Impulsive Memristor-Based Neural Networks	<i>X. Wang, J. H. Park, H. Yang, and S. Zhong</i>	4312
Security Control of Multiagent Systems Under Denial-of-Service Attacks	<i>Y. Wang, J. Lu, and J. Liang</i>	4323
Active Disturbance Rejection Control of Euler–Lagrange Systems Exploiting Internal Damping	<i>C. Ren, Y. Ding, L. Hu, J. Liu, Z. Ju, and S. Ma</i>	4334
Event/Self-Triggered Consensus Control of Multiagent Systems With Undesirable Sensor Signals	<i>J. Wang, C. Wang, D. Wang, and F. Deng</i>	4346
Resilient Adaptive Neural Control for Uncertain Nonlinear Systems With Infinite Number of Time-Varying Actuator Failures	<i>K. Lu, Z. Liu, Y. Wang, and C. L. Philip Chen</i>	4356
Guaranteed Cost for an Event-Triggered Consensus Strategy for Interconnected Two Time-Scales Systems With Structured Uncertainty	<i>Y. Lei, Y.-W. Wang, I.-C. Morărescu, and J.-W. Xiao</i>	4370
Practical Stabilization of Networked Takagi–Sugeno Fuzzy Systems via Improved Jensen Inequalities	<i>H. Zhang, J. Liu, S. Xu, and Z. Zhang</i>	4381
Robust Least-Squares Support Vector Machine Using Probabilistic Inference	<i>X. Lu and Y. Bai</i>	4391
An Efficient Artificial Bee Colony Algorithm With an Improved Linkage Identification Method	<i>H. Gao, Z. Fu, C.-M. Pun, J. Zhang, and S. Kwong</i>	4400
Online Semisupervised Active Classification for Multiview PolSAR Data	<i>X. Nie, M. Fan, X. Huang, W. Yang, B. Zhang, and X. Ma</i>	4415
Fixed-Time Synchronization of Complex Dynamical Networks: A Novel and Economical Mechanism	<i>N. Li, X. Wu, J. Feng, and J. Lü</i>	4430
Approximate Optimal Tracking Control of Nondifferentiable Signals for a Class of Continuous-Time Nonlinear Systems	<i>Y. Fu, C. Hong, J. Fu, and T. Chai</i>	4441
Distributed Robust Optimization Algorithms Over Uncertain Network Graphs	<i>Z. Wu and Z. Li</i>	4451
Towards Class-Imbalance Aware Multi-Label Learning	<i>M.-L. Zhang, Y.-K. Li, H. Yang, and X.-Y. Liu</i>	4459
Visual Sentiment Analysis With Social Relations-Guided Multiattention Networks	<i>J. Xu, Z. Li, F. Huang, C. Li, and P. S. Yu</i>	4472
Neural \mathcal{H}_2 Control Using Continuous-Time Reinforcement Learning	<i>A. Perrusquía and W. Yu</i>	4485
Generic Mechanism for Waveform Regulation and Synchronization of Oscillators: An Application for Robot Behavior Diversity Generation	<i>Y. Zhu, L. Zhang, and P. Manoonpong</i>	4495
Deep Learning Versus Traditional Solutions for Group Trajectory Outliers	<i>A. Belhadi, Y. Djenouri, D. Djenouri, T. Michalak, and J. C.-W. Lin</i>	4508
ALSA: Adversarial Learning of Supervised Attentions for Visual Question Answering	<i>Y. Liu, X. Zhang, Z. Zhao, B. Zhang, L. Cheng, and Z. Li</i>	4520
Deep Multiview Union Learning Network for Multisource Image Classification	<i>X. Liu, L. Jiao, L. Li, L. Cheng, F. Liu, S. Yang, and B. Hou</i>	4534
Dissipativity-Based Consensus Tracking of Singular Multiagent Systems With Switching Topologies and Communication Delays	<i>X. Jiang, G. Xia, Z. Feng, Z. Jiang, and Z.-G. Wu</i>	4547
Adaptive Approximation-Based Tracking Control for a Class of Unknown High-Order Nonlinear Systems With Unknown Powers	<i>Y.-H. Liu, Y. Liu, Y.-F. Liu, C.-Y. Su, Q. Zhou, and R. Lu</i>	4559

Finite-Time Extended Dissipative Filtering for Singular T-S Fuzzy Systems With Nonhomogeneous Markov Jumps	<i>Y. Tian and Z. Wang</i>	4574
Event-Triggered Exponential Stabilization for State-Based Switched Inertial Complex-Valued Neural Networks With Multiple Delays	<i>X. Li, J.-A. Fang, and T. Huang</i>	4585
Multilabel Classification With Group-Based Mapping: A Framework With Local Feature Selection and Local Label Correlation	<i>J. Ma, B. C. Y. Chiu, and T. W. S. Chow</i>	4596
Distributed Fixed-Time Coordination Control for Networked Multiple Euler–Lagrange Systems	<i>T. Xu, Z. Duan, Z. Sun, and G. Chen</i>	4611
Visual-Depth Matching Network: Deep RGB-D Domain Adaptation With Unequal Categories ...	<i>Z. Cai, X.-Y. Jing, and L. Shao</i>	4623
Free-Will Arbitrary Time Consensus for Multiagent Systems	<i>A. K. Pal, S. Kamal, X. Yu, S. K. Nagar, and X. Xiong</i>	4636
Distributed Iterative FIR Consensus Filter for Multiagent Systems Over Sensor Networks	<i>L. Li, P. Shi, and C. K. Ahn</i>	4647
Semisupervised Learning via Axiomatic Fuzzy Set Theory and SVM	<i>W. Jia, X. Liu, Y. Wang, W. Pedrycz, and J. Zhou</i>	4661
Density-Aware Curriculum Learning for Crowd Counting	<i>Q. Wang, W. Lin, J. Gao, and X. Li</i>	4675
Convolutional Recurrent Reconstructive Network for Spatiotemporal Anomaly Detection in Solder Paste Inspection	<i>Y.-H. Yoo, U.-H. Kim, and J.-H. Kim</i>	4688
Analysis of Equilibria for a Class of Recurrent Neural Networks With Two Subnetworks	<i>F. Xu, L. Liu, J. M. Zurada, and Z. Yi</i>	4701
Difference-Guided Representation Learning Network for Multivariate Time-Series Classification	<i>Q. Ma, Z. Chen, S. Tian, and W. W. Y. Ng</i>	4717
Optimal Steady-State Regulator Design for a Class of Nonlinear Systems With Arbitrary Relative Degree	<i>R. Li and G.-H. Yang</i>	4728
Multikernel Capsule Network for Schizophrenia Identification	<i>T. Wang, A. Bezerianos, A. Cichocki, and J. Li</i>	4741
Weighted Kernel Fuzzy C-Means-Based Broad Learning Model for Time-Series Prediction of Carbon Efficiency in Iron Ore Sintering Process	<i>J. Hu, M. Wu, L. Chen, K. Zhou, P. Zhang, and W. Pedrycz</i>	4751
Multitask, Multilabel, and Multidomain Learning With Convolutional Networks for Emotion Recognition	<i>G. Pons and D. Masip</i>	4764
Neural System Identification With Spike-Triggered Non-Negative Matrix Factorization	<i>S. Jia, Z. Yu, A. Onken, Y. Tian, T. Huang, and J. K. Liu</i>	4772
A ν -Constrained Matrix Adaptation Evolution Strategy With Broyden-Based Mutation for Constrained Optimization	<i>A. Kumar, S. Das, R. K. Misra, and D. Singh</i>	4784
Learning-Based Control Policy and Regret Analysis for Online Quadratic Optimization With Asymmetric Information Structure	<i>C. Tan, L. Yang, and W. S. Wong</i>	4797
Strategic Topological Formation for Wireless Control Systems	<i>A. W. Al-Dabbagh, A. S. Mehr, and T. Chen</i>	4811
Controllable and Identity-Aware Facial Attribute Transformation	<i>D. S. Tan, J. H. Soeseno, and K.-L. Hua</i>	4825
Real-Time Human Action Recognition Using Locally Aggregated Kinematic-Guided Skeletonlet and Supervised Hashing-by-Analysis Model	<i>B. Sun, S. Wang, D. Kong, L. Wang, and B. Yin</i>	4837
<hr/>		
TECHNICAL CORRESPONDENCE		
Fine Tuning of Deep Contexts Toward Improved Perceptual Quality of In-Paintings	<i>Q. Chang, K.-W. Hung, and J. Jiang</i>	4850
