



Editorial Message: Special Issue on Advances Fuzzy Methods on Learning, Control, and Modeling

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Advances Fuzzy methods have emerged as a hot research field that covers a wide spectrum of modern fuzzy technology. In recent, Advances Fuzzy methods on Learning, Control, and Modeling have been the popular directions in fuzzy systems and its applications. Advances Fuzzy methods on Learning, Control, and Modeling on this special issue have Fuzzy Broad Learning Adaptive Control for Voice Coil Motor Drivers, Design for a Fluidic Muscle Active Suspension Using Parallel-Type Interval Type-2 Fuzzy Sliding Control to improve Ride Comfort, A Cyber-Security Contribution to Estimation and Event-Based Control Scheduling Co-design for Polytopic and T-S Fuzzy Models Using a Lyapunov Approach, Soft Subspace Fuzzy Clustering with Dimension Affinity Constraint, Autonomous Vehicle Trajectory Combined Prediction Model based on CC-LSTM, Course-grained Multi-scale EMD based Fuzzy Entropy for Multi-target Classification during Simultaneous SSVEP-RSVP Hybrid BCI Paradigm, Toward CNN-Based Motor-Imagery EEG Classification with Fuzzy Fusion, Fuzzy Transform, and Least-Squares Fuzzy Transform: Comparison and Application, F-EvoRecSys: An Extended Framework for Personalized Well-Being Recommendations Guided by Fuzzy Inference and Evolutionary Computing, and Analysis of Chaotic Behavior for the Confliction Model with Fuzzy External Force. Besides, Advances Fuzzy methods on Learning, Control, and Modeling have been successfully used in many areas, such as adaptive control for voice coil motor drivers,

interval type-2 fuzzy sliding control, cyber-security contribution to estimation and event-based control, subspace fuzzy clustering, autonomous vehicle trajectory combined prediction model, least-squares fuzzy transform, classification, personalized well-being recommendations guided, etc. The objective of this special issue is to explore novel Advances Fuzzy methods on Learning, Control, and Modeling at 2021 International Conference on Fuzzy Theory and Its Applications (iFUZZY 2021) that is an international conference that takes place in Formosan Naruwan Hotel- Resort Taitung, Taitung Country, Taiwan during October 5–8, 2021 with virtual conference and physical conference in Formosan Naruwan Hotel- Resort Taitung, Taiwan. Papers submitted to the International Journal of Fuzzy Systems (IJFS) special issue were initially reviewed by the guest editor and accepted as the oral presentation. In accordance with the strict paper review procedure of IJFS, we invited IJFS associate editors as the reviewers of all the oral presentations with virtual/physical conference in iFUZZY 2021. These papers have oral presentation virtual/physical conference on a question-and-answer session with three reviewers and are open to all the audiences. Totally ten papers were selected according to the review criterion on completeness and technical contributions and asked for quality improvements according to the reviewers' comments. Throughout the elaborative revisions by the authors, these ten papers have finally been accepted for publication in the IJFS special issue Advances Fuzzy methods on Learning, Control, and Modeling. As for the presented contents of these ten papers in the special issue, we make brief introductions to their contributions on Advances Fuzzy methods on Learning, Control, and Modeling that have two papers in this volume, these articles provide interesting and timely innovative results covering: Autonomous Vehicle Trajectory Combined

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Prediction Model based on CC-LSTM and Toward CNN-Based Motor-Imagery EEG Classification with Fuzzy Fusion. Three papers in volume 24(6), these articles provide interesting and timely innovative results covering: A Cyber-Security Contribution to Estimation and Event-Based Control Scheduling Co-design for Polytopic and T-S Fuzzy Models Using a Lyapunov Approach, F-EvoRecSys: An Extended Framework for Personalized Well-Being Recommendations Guided by Fuzzy Inference, and Fuzzy Transform and Least-Squares Fuzzy Transform: Comparison and Application. Two papers in volume 24(5), these articles provide interesting and timely innovative results covering: Soft Subspace Fuzzy Clustering with Dimension Affinity Constraint, and Course-grained Multi-scale EMD based Fuzzy Entropy for Multi-target Classification during Simultaneous SSVEP-RSVP Hybrid BCI Paradigm. One paper in volume 24(4), this article provide interesting and timely innovative results covering: Analysis of Chaotic

Behavior for the Conflicion Model with Fuzzy External Force. Two papers in volume 24(3), these articles provide interesting and timely innovative results covering: Fuzzy Broad Learning Adaptive Control for Voice Coil Motor Drivers, and Design for a Fluidic Muscle Active Suspension Using Parallel-Type Interval Type-2 Fuzzy Sliding Control to improve Ride Comfort. These ten papers bring a rich collection of Advances Fuzzy methods on Learning, Control, and Modeling to illustrate the main technical achievements on the IJFS special issue of iFUZZY 2021. Finally, I would like to acknowledge all the contributors to this special issue on the IJFS special issue of iFUZZY 2021.

Guest Editor, IJFS Special Issue on Advances Fuzzy methods on Learning, Control, and Modeling of iFUZZY 2021.