Call for Papers IEEE Transactions on Human-Machine Systems
Special Issue on Trustworthy Human-Autonomy Teaming:
Featured Research from the 4th International Conference on Human-Machine Systems (ICHMS 2024)

This special issue (SI) is motivated by the success of the 4th IEEE International Conference on Human-Machine Systems in 2024 (ICHMS 2024). ICHMS is intended to foster the development and dissemination of research for advancing the science and engineering of human-machine systems at multiple levels, including systems, computing technology, and human-automation interaction. The conference stresses methodological innovation, novel results, and implications for practice in a broad range of application areas, including transportation, healthcare, and autonomous systems. ICHMS 2024 attracted world leading experts and researchers, resulting in a highly selective and high-quality refereed proceedings publication. The proposed Special Issue seeks high-quality and significant extensions of contributions presented at ICHMS 2024. The main objective of this special issue is to cover progress and contributions on brain-inspired autonomous systems at multiple scales, including cognitive science, engineering, and design for safe and trusted human-autonomy teaming. This special issue aims to provide a platform for innovative research on technological aids for verifiable AI decisions, trust modeling, measures, and management, as well as addressing fundamental issues of trust and barriers to adoption of AI-enabled autonomy in complex socio-technical systems. Submissions to the SI will align with the call for contributions to ICHMS 2024 and must also fall within the scope of the IEEE Transactions on Human-Machine Systems (THMS). We welcome a broad range of contributions for advancing the understanding of human-machine systems, whether through analysis, design, operations, or other aspects. Potential contributions may address, but are not limited to, the following topics:

Assured Autonomy	Human-Autonomy Cooperation and Teaming	Trust Modeling, Measurement, and Management
Augmented Cognition	Human Performance Modeling	Web-based Interactive Systems
Authority/Control Transfer	Human-Machine/Robot Interaction	User State Monitoring
Brain-Inspired Autonomous Systems	Interaction-Centered Design	Wearable Computing
Brain-Machine Interfaces	Intelligent Adaptive Systems	User-AI Agent Interaction
Decision-Support and Recommender Systems	Multi-User Interaction	Virtual and Mixed Reality Systems
Ethical Aspects of Human-AI Symbiotic Systems	Resilience Engineering in Human-AI Symbiotic Systems	Team Performance and Training Systems

Submission Guidelines:
Manuscripts submitted to this Special Issue must present an extension of a research study presented at ICHMS 2024, featuring no less than 40% new results, inferences, and conclusions. Papers should be submitted through http://mc.manuscriptcentral.com/thms, with a cover letter stating: "This manuscript is being submitted to the Special Issue "Trustworthy Human-Autonomy Teaming: Featured Research from the 4th International Conference on Human-Machine Systems." For detailed submission information, please refer to the "Information for Authors" section at http://www.ieeesmc.org/publications/transactions-on-human-machine-systems/special-issues.

Important Dates:
SI Manuscript initial submission: November 15, 2024
Decision from first round of reviews: February 28, 2025
Revised manuscript submission: April 30, 2025
Notification of final decision: June 30, 2025
Final manuscript submission: July 31, 2025
Expected publication: August 31, 2025

Guest Editors:
Giuseppe D'Aniello, University of Salerno, Fisciano, SA, Italy, gidaniello@unisa.it
Marina Gavrilova, University of Calgary, Canada, mgavrilo@ucalgary.ca
Ming Hou, Defence Research and Development Canada, ming.hou@drdc-rddc.gc.ca
Daniel Lafond, Thales Research and Technology, Canada, daniel.lafond@thalesgroup.com
Arash Mohammadi, Concordia University, Montreal, Canada, arash.mohammadi@concordia.ca
Jay Wang, Monmouth University, West Long Branch, NJ, USA, jwang@monmouth.edu
Hui Yu, University of Portsmouth, Portsmouth, United Kingdom, hui.yu@port.ac.uk