



The 2023 IEEE International Conference on Systems, Man, and Cybernetics (SMC 2023) is the flagship conference of the IEEE Systems, Man, and Cybernetics Society. It provides an international forum for researchers, educators, and practitioners to learn, share knowledge, report most recent innovations and developments, and exchange ideas and advances in all aspects of systems science and engineering, human-machine systems, and cybernetics. The theme of the SMC 2023 conference is ‘Improving the Quality of Life’. Contributions to theory and practice, including but not limited to, the following technical areas, are invited:

Systems Science & Engineering

Adaptive Systems
Autonomous Systems
Communications
Conflict Resolution
Consumer and Industrial Applications
Control of Uncertain Systems
Cooperative Systems and Control
Cyber-physical Systems
Decision Support Systems
Digital Twins
Discrete Event Systems
Distributed Intelligent Systems
Electric Vehicles and Electric Vehicle Supply Equipment
Enterprise Information Systems
Fault Monitoring and Diagnosis
Homeland Security
Infrastructure Systems and Services
Intelligent Green Production Systems
Intelligent Power Grid
Intelligent Transportation Systems
Large-Scale System of Systems
Manufacturing Automation and Systems
Mechatronics
Micro and Nano Systems
Quality and Reliability Engineering
Robotic Systems
Service Systems and Organizations
Smart Buildings, Smart Cities and Infrastructures
Smart Metering
Smart Sensor Networks
Space Systems
System Architecture
System Modeling and Control
Technology Assessment
Trust in Autonomous Systems

Human-Machine Systems

Affective Computing
Assistive Technologies
Augmented Cognition
Biometrics and Applications
Brain-Computer Interfaces
Cognitive Computing
Companion Technology
Cooperative Work in Design
Entertainment Engineering
Environmental Sensing, Networking and Decision-Making
Ethics of AI and Pervasive Systems
Haptic Systems
Human-Centered Transportation
Human-Collaborative Robotics
Human Enhancements
Human-Machine Interaction
Human Factors
Human Perception in Multimedia
Human Performance Modeling
Human Space Flight
Information Systems for Design and Marketing
Intelligent Assistants
Interactive and Digital Media
Kansei Engineering
Medical Informatics
Multimedia Systems
Resilience Engineering
Shared Control
Systems Safety and Security
Team Performance and Training
Telepresence
User Interface Design
Virtual/Augmented/Mixed Reality
Visual Analytics/Communication
Wearable Computing

Cybernetics

Agent-Based Modeling
AIoT
AI and Applications
Artificial Immune Systems
Artificial Social Intelligence
Artificial Life
Big Data Computing
Biometric Systems and Bioinformatics
Cloud and Robotics Integration
Complex Networks
Computational Intelligence
Computational Life Science
Cybernetics for Informatics
Cyborgs
Deep Learning
Evolutionary Computation
Expert and Knowledge-Based Systems
Fuzzy Systems and their Applications
Metaheuristic Algorithms
Hybrid Models of Computational Intelligence
Image Processing and Pattern Recognition
Computational Intelligence in Information Assurance
Intelligent Internet Systems
Knowledge Acquisition
Machine Learning
Machine Vision
Media Computing
Neural Networks and their Applications
Optimization and Self-Organization Approaches
Quantum Cybernetics
Quantum Machine Learning
Representation Learning
Soft Computing
Socio-Economic Cybernetics
Swarm Intelligence

Timeline

Special Session Proposals: 01.02.2023
Special Session Acceptance Note: 15.02.2023
Paper Submissions: 30.03.2023
Workshop/Tutorial Proposals: 30.03.2023
Workshop/Tutorial Acceptance Note: 15.04.2023
Paper Acceptance Note: 15.05.2023
Final Paper Submission: 15.06.2023
Early Registration: 15.06.2023
Late Registration: 25.09.2023

Advisory Committee

Imre Rudas (Chair), Sam Kwong, Vlad Marik, Saeid Nahavandi, Ljiljana Trajkovic, Edward Tunstel

Organizing Committee

General Chair: Adrian Stoica
General Co-Chair: Ferat Sahin
Program Chair: Vladik Kreinovich
Program Co-Chairs: Mariagrazia Dotoli, Dongrui Wu, Ildar Batyrshin
Keynotes Chair: Enrique Herrera-Viedma
Special Sessions Chair: Giancarlo Fortino
Tutorials Chair: Shun-Feng Su
Finance Chair: Gina Tang
Publications Chair: Robert Kozma
Workshops Chair: Tiago H. Falk
Workshops Co-Chair: György Eigner
Posters Chair: Ching-Chih Tsai
On-line Track Chair: Tadahiko Murata
Virtual Exhibition Chair: Thomas Strasser
Publicity Chair: Ljiljana Trajković
Publicity Co-Chair: Yumi Iwashita
Future Directions Forum Chair: Okyay Kaynak
Women in Engineering Chair: Karen Panetta
New Faculty Colloquium Co-Chairs: David Kaber and David Mendonca
More organizers on the conference website

The 13th Workshop on Brain-Machine Interface (BMI) Systems will be held as part of IEEE SMC 2023. The BMI Workshop is organized by the IEEE SMC Technical Committee on Brain-Machine Interface Systems. Participation is free to all registered IEEE SMC 2023 attendees.

BMI Workshop Organizers

Honorary Chair: Michael H Smith
General Co-Chairs: Tiago H. Falk, Ljiljana Trajkovic, Christoph Guger