



## Call for Papers

# 2020 IEEE International Conference on Systems, Man, and Cybernetics (SMC 2020)

7-10 October, 2020, Metro Toronto Convention Centre (MTCC), Toronto, Ontario, Canada

MTCC - South Building, 222 Bremner Boulevard, Toronto, Ontario M5V 3L9, Canada

### General Chair

Hossam A. Gabbar, University of Ontario Institute of Technology

### General Co-Chair

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### Special Sessions Co-Chairs

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Enrique Herrera Viedma, University of Granada

Robert Kozma, University of Memphis

### Publication Co-Chairs

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Mohamed Elgendi, University of British Columbia

Hamed Shah-Mansouri, University of British Columbia

### Awards Chair

Larry Hall, Florida State University

Philip Chen, University of Macau

### Poster Sessions Co-Chairs

Jonathan Wu, University of Windsor

Haibin Zhu, Nipissing University

### Industrial Track Co-Chairs

Fakhri Karray, University of Waterloo

The 2020 IEEE International Conference on Systems, Man, and Cybernetics (SMC 2020) will be held in Metro Toronto Convention Centre (MTCC), Toronto, Ontario, Canada. SMC 2020 is the flagship conference of the IEEE Systems, Man, and Cybernetics Society. It provides an international forum for researchers and practitioners to report most recent innovations and developments, summarize state-of-the-art, and exchange ideas and advances in all aspects of systems science and engineering, human-machine systems, and cybernetics. Advances in these fields have increasing importance in the creation of intelligent environments involving technologies interacting with humans to provide an enriching experience and thereby improve quality of life. Papers related to the conference theme are solicited, including theories, methodologies, and emerging applications. Contributions to theory and practice, including but not limited to the following technical areas, are invited:

Systems Science and Engineering	Human-Machine Systems	Cybernetics
Communications Conflict Resolution Consumer/Industrial Applications Control of Uncertain Systems Cooperative Systems and Control Decision Support Systems Discrete Event Systems Distributed Intelligent Systems Enterprise Information Systems Fault Monitoring and Diagnosis Homeland Security Intelligent Power Grid Infrastructure Systems & Services Intelligent Green Production Systems Intelligent Transportation Systems Large-Scale System of Systems Manufacturing Systems/Automation Mechatronics Micro and/or Nano Systems Quality/Reliability Engineering Robotic Systems Service Systems & Organizations Smart Metering Smart Cities Smart Buildings and Infrastructures Smart Sensor Networks System Modeling and Control Technology Assessment	Assistive Technology Augmented Cognition Brain-based Information Communications Design Methods Entertainment Engineering Human-Computer Interaction Human Factors Human Performance Modeling Human-Machine Cooperation & Systems Human-Machine Interface Web Intelligence Interaction Information Visualization Information Systems for Design/Marketing Interactive and Digital Media Interactive Design Science & Engineering Kansei (sense/emotion) Engineering Medical Informatics Multimedia Systems Multi-user Interaction Resilience Engineering Supervisory Control Systems Safety and Security Team Performance and Training Systems User Interface Design Virtual and Augmented Reality Systems Wearable Computing	Agent-Based Modeling Artificial Immune Systems Artificial Life Awareness Computing Biometric Systems and Bioinformatics Computational Intelligence Computational Life Science Cybernetics for Informatics Evolutionary Computation Expert and Knowledge-Based Systems Fuzzy Systems and their applications Information Assurance & Intelligent Multimedia Computation Heuristic Algorithms Hybrid Models of Neural Networks, Fuzzy Systems, and Evolutionary Computing Image Processing/Pattern Recognition Intelligent Internet Systems Knowledge Acquisition in Intelligent Machine Learning Machine Vision Media Computing Medical Informatics Neural Networks and their Applications Optimization Quantum Cybernetics Quantum Machine Learning Self-Organization Swarm Intelligence

Pierluigi Siano, University of Salerno

**Workshops Co-Chairs**

Chris Nemeth, Applied Research Associates, Inc.  
Abdulmotaleb El Saddik, University of Ottawa

**SMC WiE Co-Chairs**

Birsen Donmez, University of Toronto  
Karen Panetta, Tufts University  
Vanessa Batista Schramm, Federal University of Campina Grande

**SMC Junior Chair**

György Eigner, Óbuda University

**Tutorials Chair**

Sam Kwong, City University of Hong Kong

**Submission Co-Chairs**

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Maurizio Repetto, Politecnico di Torino

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Gerald Penn, University of Toronto

**Exhibition and Donations Chair**

Hugo Sanchez-Reategui, IEEE Toronto

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**Important Dates**

February 16, 2020	Deadline for submission of proposals for Special Sessions
March 15, 2020	Acceptance/rejection notification of proposals for Special Sessions
April 5, 2020	Deadline for submission of contributions for Regular, Special Sessions, and Industrial Papers
April 5, 2020	Deadline for submission of contributions for SMC Junior Papers
April 5, 2020	Deadline for submission of proposals for Tutorials and Workshop Sessions
April 26, 2020	Acceptance notification for Tutorials and Workshop Sessions
May 24, 2020	Acceptance notification for Regular, Special Sessions, and Industrial Papers
May 24, 2020	Acceptance notification for SMC Junior Papers
May 24, 2020	Submission deadline for Workshop Papers
July 12, 2020	Final papers due for Regular, Special Sessions, Industrial, SMC Junior, and Workshop Papers
August 2, 2020	Deadline for early registration
October 11-14, 2020	Conference dates

**Regular Papers**

Prospective authors are invited to submit full-length papers electronically through the conference website. Papers (6-8 pages) should be concise but contain sufficient details and references to allow critical review.

**Special Sessions**

Special Sessions provide a focused discussion of new and innovative topics. Special Session organizers should collect at least eight papers, download the special session proposal template from the SMC 2020 website, and submit the completed proposal to the Special Sessions Chairs.

**Industrial Papers**

These contributions are intended to promote contributions from industries on technology development, innovations, and implementations, which will facilitate collaboration between industrial and academic members of the SMC community.

**SMC Junior Papers**

SMC 2020 is inviting students and juniors to submit short papers to promote their innovations and contributions in the different research and application fields within SMC, including work in progress and demonstration applications. These papers will not be included in IEEE Xplore.

**Workshop Papers**

These contributions are intended to promote contributions from applied research and applications, including work in progress, and facilitate increased collaboration between industrial and academic members of the SMC community.

Note: Accepted papers that are not physically presented at SMC 2020 will be excluded from the IEEE Xplore.