



CALL FOR PAPERS

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TOPIC AREAS

The IEEE International Conference on Autonomous Systems (ICAS 2020) will take place in Montréal, Québec, Canada on August 12-14, 2020. The IEEE ICAS 2020 will be a premier international forum for presenting the technological advances and research results in the fields of theoretical, experimental, and applied Autonomous Systems (AS). Original papers are invited from multidisciplinary, interdisciplinary and transdisciplinary perspectives on subject topics in Autonomous Systems (AS) including, but not limited to, the following:

THEORETICAL FOUNDATIONS OF AS

- » Intelligent Foundations of AS
- » System Foundations of AS
- » Mathematical Foundations of AS
- » Computational Foundations of AS
- » Brain Science Foundations of AS
- » Cognitive Foundation of AS
- » Bottlenecks of Adaptive Systems
- » Indeterministic & Uncertainty Behaviors of AS
- » Interaction Between Humans and AS
- » Autonomous Computing Platforms
- » Neurological Foundations of AS
- » Signal Processing Theories of AS

EMERGING FIELDS OF AS

- » Autonomous Computers
- » Autonomous Algorithms
- » Brain-inspired AS
- » Machine Learning
- » Autonomous IoTs
- » Self-driving Vehicles and Vessels
- » Autonomous Robots
- » Real-time AS
- » Autonomous Unmanned Systems
- » Trustworthiness of AS
- » Mission Critical Systems
- » Autonomous Perception/Computer Vision

AS ENGINEERING

- » Applied Paradigms of AS
- » Autonomous Programming
- » Cognitive Inference Engines
- » Autonomous Robots
- » Distributed AS
- » Embedded AS
- » Communications among AS
- » Communications Between AS and Humans
- » Autonomous Operating Systems
- » Autonomous Sensors
- » Autonomous Swarms
- » Social AS

The following special tracks will also accept papers from the main submissions:

Autonomous Medical Robotic Systems, Co-Chairs: Darto Farina (UK) and Mahdi Tavakoli (Canada)

Security and Resilience of Autonomous Cyber-Physical Systems, Co-Chairs: Deepa Kundur (Canada) and Mohammad Al Janaideh (Canada)

Autonomous Control Systems, Co-Chairs: Amir Aghdam and Walter Lucia (Canada)

Autonomous Transportation Systems, Co-Chairs: Chun Wang (UK) and Anjali Awasthi (Canada)

Signal Processing for Self Aware and Social Autonomous Systems, Co-Chairs: Usman Khan (USA) and Hoi-To Wai (Hong Kong)

IMPORTANT DATES

February 20, 2020
Special Sessions
Proposals Deadline

April 15, 2020
Paper
Deadline

June 1, 2020
Notification of Paper
Acceptance

June 15, 2020
Final Submission of
Accepted Papers