# The 20th IEEE International Conference on Advanced Video and Signal-Based Surveillance (AVSS)

**July 15 – 16, 2024**

**Niagara Falls Marriott on the Falls, Niagara Falls, Canada**

[**http://avss2024.or**](http://www.ieee-mipr.org/)**g**

**Joint conference collocation with the IEEE International Conference on Multimedia and Expo (ICME) 2024**

AVSS 2024 marks the 20th edition of the IEEE International Conference on Advanced Video and Signal-Based Surveillance, sponsored by the IEEE Signal Processing Society (SPS). AVSS is a premier international forum in image and video processing and signal-based analytics that brings together experts from academia, industry, and government to advance the frontiers of theories, methods, systems, and applications. In addition, AVSS 2024 also explores the robustness, security, privacy, and fairness issues in applying AI and machine learning algorithms for image and video analytics. AVSS 2024 will feature a main conference and multiple associated workshops, challenge contests, and tutorials. Topics of interest include, but are not limited to:

**Topics**

**Image and Video Analytics**

• Detection, Segmentation, and Recognition

• Face, Pose, and Gesture Analysis

• Action, Activity, and Event Understanding

• Image and Video Synthesis, Generative AI

• Biometrics

• Tracking, Counting, Motion Analysis

• Multi-view or 3D Analytics

• Aerial and Drone Video Analysis

• Datasets and Evaluation

**Model Security, Privacy, Fairness and Robustness**

• Privacy-Preserving Machine Learning

• Adversarial Machine Learning

• Secure Data Sharing and Exchange

• Authentication and Authorization

• Security and Privacy in the Internet-of-Things

• Trustworthy AI, Ethical Use of AI Technologies

**Other Signal and Multi-modal Analytics**

• Vision-Language, LLM, and Foundational Models

• Fusion Approaches for Multi-modal Data Processing

• Registration, Calibration, Robust Analysis of Multiple Sensors or Modalities

• Audio Analysis

• Multi-spectrum Image/Video Analysis

**IoT and Signal Analytics**

• Cybersecurity Threat Detection and Response

• Forensic Analysis of Manipulated or AI-Generated Contents•

• Edge AI Computation

**Systems and Applications**

• System and Applications for Smart Cities

• System and Applications for Public Safety

• System and Applications for Home and Business Security

• System and Applications for Critical Infrastructure

**Paper Submission:**

Prospective authors are invited to submit high-quality full papers representing original results. Submissions are limited to **six** pages in double-column IEEE format, including figures, tables, and references. The conference will also accept short papers and demo papers (**four** pages including references in the same format and with the same deadline). The CMT online submission site is at <https://cmt3.research.microsoft.com/AVSS2024/>. All accepted papers presented in AVSS 2024 will be published in the conference proceedings that will be also available in the IEEE Xplore digital library.

**Important Dates:**

* Paper submission due: **March 15, 2024 Anytime on Earth (AoE)**
* Paper review available: **April 30, 2024**
* Notification of acceptance: **May 12, 2024**
* Camera-ready deadline: **May 19, 2024**