# **CALL FOR PAPERS - SPECIAL SESSION**

"Applied AI for Emerging Autonomous Systems: Innovations and Challenges"
for CODIT 2025

July 15-18, 2025 • Split, Croatia

## **Session Co-Chairs:**

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## Session description:

This special session deals with the problem of manipulating Artificial Intelligence (AI) to enable the development of emerging autonomous systems across diverse domains, such as self-driving vehicles, drones, robotics, connected healthcare, and smart infrastructure. These systems are transforming the technological landscape by relying on AI for learning, perception, decision-making, and adaptability. However, significant challenges remain in ensuring their efficiency, safety, and robustness, especially in complex and dynamic environments.

The goal is to explore recent advancements, address current challenges, and showcase practical applications of AI in autonomous systems.

This session aims to promote interdisciplinary discussions between researchers, industry professionals, and practitioners to advance innovative, applicable solutions and identify future trends in this growing field. The topics of interest include, but are not limited to:

- Perception and Data Processing: Al-driven methods for processing large-scale sensor data (e.g., cameras, LIDAR, radar, IoT devices).
- Planning and Decision-Making: Models and algorithms for autonomous navigation, optimization, and decision-making in complex environments.
- Adaptive Learning: Reinforcement learning, federated learning, and transfer learning techniques for scalable and evolving autonomous systems.
- Safety and Robustness: Approaches to ensure resilience of autonomous systems against adversarial attacks, failures, and environmental uncertainties.
- •Real-World Applications: Case studies of Al deployment in autonomous systems across transportation, healthcare, agriculture, logistics, and smart cities

### **SUBMISSION**

Papers must be submitted electronically for peer review through PaperCept by February 07, 2025:

http://controls.papercept.net/conferences/scripts/start.pl. In PaperCept, click on the CoDIT 2025 link "Submit a Contribution to CoDIT 2025" and follow the steps.

**IMPORTANT:** All papers must be written in English and should describe original work. The length of the paper is limited to a maximum of 6 pages (in the standard IEEE conference double column format).

#### **DEADLINES**

February 07, 2025: deadline for paper submission April 27, 2025: notification of acceptance/reject May 17, 2025: deadline for final paper and registration