IEEE WF-IoT 2024 Workshop on Transformative Results on Autonomous Vehicles for Reliable Services in the Air and on Land (TRAVERSAL)
Ottawa, Canada, 10-13 November, 2024
Submission Link: https://edas.info/newPaper.php?c=31878&track=125373

Workshop Chairs
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Important Dates
- **Submission deadline:** July 20th, 2024
- **Notification:** August 30th, 2024
- **Camera-ready submission:** September 10th, 2024
- **Workshop date:** November 10-13, 2024-TBD

Kinds of accepted submissions
- **Workshop papers:** provide original research contributions (must not exceed 6 pages including references; up to two additional pages may be purchased for camera ready paper).

Publication Details
All accepted papers that are presented by one of the authors at the workshop will be published in the IEEE WF-IoT 2024 workshop proceedings and IEEE Xplore. Please submit your papers in the PDF format via EDAS.
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Call for Papers
Autonomous Vehicles, Uncrewed Aerial Vehicles (UAVs) and their enabling technologies including Artificial Intelligence (AI), 5G/6G and quantum sensing pave the way for many new services and applications that will play a key role for intelligent services. We invite submissions for the TRAVERSAL workshop, focused on the fusion of Autonomous Vehicles (AV), Uncrewed Aerial Vehicles (UAVs), and their enabling technologies such as Artificial Intelligence (AI), 5G/6G, and quantum sensing. These innovations open pathways to a plethora of new services and applications, pivotal for the advancement of intelligent systems. The primary goal of TRAVERSAL is to address the critical need for integrating AV/UAV components into cohesive solutions while considering human and legal parameters often overlooked in existing frameworks. As a result, TRAVERSAL offers a multidisciplinary platform encompassing communications, networking, cybersecurity, software reliability, quantum-level sensing, AI interpretability, human factors analysis, and legal/policy dimensions.

The topics of interest include (but are not limited to) the following:
- Integration of AV/UAV Building Blocks: Novel approaches for integrating AV/UAV components into cohesive systems, considering human-centric and legal constraints.
- Communications and Networking for AV/UAV Ecosystems: Advances in communication protocols, networking architectures, and wireless technologies to support seamless connectivity and collaboration among AVs/UAVs.
- Cybersecurity in Autonomous Systems: Techniques and methodologies for ensuring the security, privacy, and resilience of AV/UAV systems against cyber threats and attacks.
- Software Trustworthiness: Strategies for enhancing the reliability, robustness, and safety of software deployed in autonomous vehicles and aerial vehicles.
- Quantum Sensing Applications: Innovations in quantum sensing technologies for detecting and analyzing microgravity-level variations, enhancing navigation, and perception capabilities of AVs/UAVs.
- Artificial Intelligence and Explainability: Advances in AI algorithms, machine learning models, and techniques for enabling intelligent decision-making, as well as methods for explaining AI-driven decisions in autonomous systems.
- Human Factors Analysis: Studies and methodologies for understanding human behavior, cognition, and interaction with AVs/UAVs to improve user experience, trust, and safety.
- Legal and Policy Dimensions: Examination of legal and regulatory frameworks governing the deployment, operation, and liability aspects of autonomous vehicles and aerial vehicles, and their implications on societal acceptance and adoption.
- Machine Learning and Deep Learning Applications: Exploration of machine learning and deep learning applications in autonomous technologies, including perception, planning, control, and predictive maintenance.
- Reliable Services for Autonomous Technologies: Development of reliable and efficient services enabled by autonomous technologies, including transportation, logistics, surveillance, agriculture, and emergency response.