

Special Session on CCAM and Smart Infrastructures

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I. AIM AND SCOPE

As the transportation sector undergoes a transformative shift towards increased automation and enhanced connectivity, integrating Cooperative Intelligent Transport Systems (C-ITS), automated driving technologies, and smart infrastructure emerges as a pivotal opportunity. This integration can significantly improve safety, optimise efficiency, increase resilience and promote sustainability within our mobility systems. This session will delve into the latest breakthrough innovations, explore theoretical advancements, and examine real-world implementations shaping transportation's future. Participants from academia and industry are welcomed with their contribution toward a more intelligent and responsive mobility landscape. Spoke 7 (CCAM and Smart Infrastructures) of the Italian National Center for Sustainable Mobility (CN MOST) supports the special session; however, the proposition of high-quality contributions from non-MOST scientists, practitioners and businesses is strongly encouraged.

II. TOPICS OF INTEREST

We invite contributions on, but not limited to, the following topics:

- C-ITS services for safety and traffic effectiveness
- Real-world applications and pilot deployments of V2X technologies
- Development and implementation of smart roads
- Infrastructure design for mixed traffic scenarios (manual and automated vehicles)
- Novel approaches to traffic flow optimisation under CCAM
- CCAM for public transportation
- Evaluation of CCAM's potential to reduce emissions and energy consumption
- Societal and economic impacts of CCAM deployment, including equity considerations and public acceptability
- Testing, assessment and qualification of CCAM solutions and services
- Promoting the adoption of CCAM and removing technological and operational barriers

III. EXPECTED NUMBER OF PAPERS

We expect a strong response to this session and aim to select, through a rigorous peer-review process, 4-5 high-quality, original contributions previously not published or presented. The peer-review process could propose including some of the proposed contributions in an eventual poster session.

IV. DISSEMINATION PLAN

To ensure maximum visibility and impact of the Special Session, a specific "Call for papers" will be distributed through the MT-ITS website, professional platforms such as LinkedIn, academic mailing lists, and the National Center for Sustainable Mobility (CN-MOST) international network.

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