

# Workshop on Connected Vehicles & Autonomous Driving

January 3-8, 2023 |Hybrid Conference| Bengaluru, India.

Initiative by COMSNETS Association

## Call for Papers

### 1. Introduction:

Connected and autonomous vehicles are transforming many sectors of economy and everyday activities especially in the context of smart autonomous mobility, smart cities etc. There exist many unprecedented challenges that arise from Connected autonomous Vehicles Technologies. These include challenges related but not limited to connected vehicles security and connectivity, vehicular networks, sensor information fusion and communication, ADAS technology, vehicle-vehicle and vehicle-pedestrian interaction etc. There is also a need for customized communication technology for the integrated solutions of connected vehicles and smart mobility sub-systems.

The aim of the First International Workshop on connected autonomous vehicles and autonomous driving is to bring together engineers, researchers, and practitioners interested in the advances and applications of this field. Participants are invited to present and discuss recent developments and challenges in connected and autonomous vehicle systems. This workshop focuses on innovative applications, tools and frameworks, real-world data driven approaches, experimentation, advanced deployment and case studies in all technology areas related to connected and autonomous vehicles in the context of smart mobility, smart cities and other application domains. Studies involving economic, behavioral and environmental aspects are equally welcome.

The workshop will also include a **special session on intelligent Transportation Systems (ITS)** this year. Intelligent Transportation Systems (ITS) is an amalgamation of cutting-edge technologies and communication used in traffic control and management systems to improve the sustainability, effectiveness, and safety of transportation networks. It is an innovative facility that aims to provide information prior to road users, enhancing drivers' experiences and making safer, coordinated and 'smart' use of transport networks. ITS has diverse applications that improve many road traffic issues, including shortening travel times by delivering real-time information on traffic management.

The workshop along with the special session will serve as a forum to exchange ideas, present new results, and provide future visions on these topics.

**Topics of interest:**

- 1) Technology concerning the breadth and depth of Connected and Autonomous vehicles (CAVs) (Control, localization, safe navigation, ADAS)
- 1) Collaborative, cooperative control and planning of CAVs
- 2) Communication protocols and technologies for CAVs
- 3) Human factors and human machine interfaces for CAVs
- 4) CAV Enabled Smart Cities and infrastructure Applications, ethical and technical requirements, security and privacy aspects
- 5) 5G Technologies and Applications for CV and AVs
- 6) Vehicle to Everything (V2X) - Infrastructure (I), Pedestrian (P), Network (N) and Vehicle (V)
- 7) Sensor calibration, information processing and fusion techniques for autonomous vehicles
- 8) Vehicle Communications and Architectures.
- 9) SIL/HIL/VIL platforms for both connected and autonomous vehicles.
- 10) Simulations and Experimental Demonstrations in Testbeds - CAVs.
- 11) Autonomous driving datasets relevant to CAVs and mixed traffic scenarios
- 12) Performance evaluation in connected vehicles, advanced driver assistance, autonomous vehicles technology, etc.
- 13) Public policy, regulatory, societal and certification issues in Connected and Autonomous vehicles

**ITS Special Session Topics:**

- 1) Intelligent Infrastructure and Travelers' Guidance Systems
- 2) ITS on Road Traffic Safety, Management of Incidents, Evacuation, Emergency Events
- 3) Advanced Public Transportation Management, Traffic Management, Mobility Management
- 4) Big Data Analytics for Intelligent Transportation
- 5) Automotive safety standards for active safety.
- 6) Congestion Management and Avoidance
- 7) Advanced Commercial Vehicles Operations System
- 8) Electronic Payment Systems
- 9) ITS Traffic Theory, Field Tests and Implementation
- 10) ITS in Human Factors, Travel Behavior

## Submission Guidelines

1. Submissions must be no greater than 6 pages in length including all figures, tables, and references and must be a PDF file. A minimum number of 3 pages are required.
2. Submissions must be original work that has not been previously published or under review at another conference or journal
3. Reviews will be single-blind: authors name and affiliation should be included in the submission.
4. Submissions must follow the formatting guidelines as given on IEEE Website.
5. All workshop papers (full papers - both regular and invited) will appear in conference proceedings and be submitted to IEEE Xplore as well as other Abstracting and Indexing (A&I) databases.
6. All papers must be in Adobe Portable Document Format (PDF) and submitted through the WACI Workshop submission site on EDAS.

Workshop and/or Special Session Manuscript Submission Due	:	20th November 2022
Notification of Manuscript Acceptance	:	10th December 2022
Camera-ready Version Due	:	20th December 2022
Workshop and ITS Special Session Date	:	4th January 2023

## Special Session Chair



**Madhumita Paul**  
Indian Institute of Technology (IIT) Kharagpur, India

## Workshop Co-Chairs:

1. Dr. Alvika Gautam, Texas A&M University, USA.



2. Dr. Anil Sharma, EY, India



3 Dr. Naga Praveen Babu Mannam, TiHAN IIT Hyderabad.



4. Rashmi Gopala Rao, Mathworks, India.

