

CALL FOR PAPERS

2025.iavvc.org

Submission Process & Deadlines

February 16, 2025

Abstract Submission Deadline
 (200–500 words)

March 30, 2025

Full Paper Submission Deadline (6 pages +2 with additional payment)

June 29, 2025

Author Notification (Accept or Reject)

July 27, 2025

Final Paper Submission & Author Registration Deadline

We will regularly update the website with more specific information regarding paper submission and conference content.

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Join us for an inspiring and dynamic event in the beautiful setting of Baden-Baden (Germany), where cutting edge technology meets visionary minds! The 2025 IEEE IAVVC – International Automated Vehicle Validation Conference promises to provide a unique platform for innovating and collaborating in the field of Automated Vehicle Validation.

Authors of an accepted, registered, and presented paper at IEEE IAVVC 2025, and which subsequently will appear in the IEEE IAVVC 2025, proceedings in IEEE Xplore, are eligible to submit a technically extended version of their IEEE IAVVC 2025, paper to the IAVVC Special Section in the IEEE Transactions on Instrumentation and Measurement (TIM).

What to expect:

- » **Engaging workshops:** Explore key topics in automated driving and participate in hands-on demonstrations, both at the conference venue and the Karlsruhe Institute of Technology (KIT).
- » **Networking opportunities:** Connect with leaders from industry, research, policy, and regulatory bodies, fostering meaningful exchanges of ideas and insights.
- » **Project incubation:** Spark new collaborative research projects and partnerships to drive the future of automated mobility.
- » **Lively discussions:** Engage in inspiring conversations about the challenges and opportunities driving the validation landscape.
- » **Stunning setting:** Immerse yourself in the unique charm of Baden-Baden, renowned for its historic elegance and welcoming atmosphere.

The 2025 IEEE IAVVC addresses key topics in automated and connected vehicle validation, including cutting edge V&V processes, testing methodologies, regulatory frameworks, and AI-driven advancements. The conference explores innovations in areas such as X-in-the-loop testing, cybersecurity, V2X infrastructure, data protocols, and emerging technologies like generative AI, foundation models, and high-performance computing.

The accepted papers presented at the conference will be published in the IAVVC 2025 proceedings and will be available on IEEE Xplore®.

Testing and Simulation

- » X-in-the-loop (XiL) testing in cyberphysical CAV testbeds
- » Generative AI for digital twin and simulation in AV development and testing
- » AI-based traffic analysis and transportation system

Vehicle Systems and Architectures

- » Software-defined vehicle and infrastructure system architectures
- » Lifecycle management of software and hardware updates for CAVs
- » Next generation/AI-based vehicle perception and control systems

Connectivity and Infrastructure

- » V2X infrastructure development
- » Data sharing and data communication protocols and assessment in the context of ADAS/AV operation
- » Next-generation methodologies for EV charging and V2G infrastructure

Operational and Risk Management

- » ADAS/AV operational risk assessment
- » New approaches for teleoperating and telemonitoring of CAVs

Validation and Verification (V&V) Processes

- » V&V processes for automated vehicle development
- » New methodologies for Connected and Autonomous Vehicles (CAV) testing
- » Safety of the Intended Functionality (SOTIF) in ADS and CAVs
- » Validation of robotaxi fleet operation

Artificial Intelligence (AI) in AV Development

- » Foundation Models (FM) and Large Language Models (LLMs) in AV development and validation
- » Data security and privacy in learning methods for AV and CAV
- » Equity and Fairness in AV and transportation accessibility
- » Leveraging high-performance computing for automated driving

Regulations, Safety, and Security

- » Regulatory frameworks for highly and fully automated vehicles and related infrastructure
- » New methods to ensure compliance towards cybersecurity standards and regulations
- » Digitalization of Laws and Standards for ADS and CAVs