ASAM INTERNATIONAL CONFERENCE

Dec. 10–11, 2019
Dresden, Germany

ORGANIZATIONAL

Day and Time	Tuesday, Dec. 10, 2019	9:00 – 17:00
	Wednesday, Dec. 11, 2019	9:00 – 16:00

Venue
International Congress Center
Ostra-Ufer 2
01067 Dresden, Germany
Phone: +49 351 216-0
www.dresden-congresscenter.de

Hotel Recommendation
Maritim Hotel
Ostra-Ufer 2
01067 Dresden, Germany
Phone: +49 351 216-0
www.maritim.de (Code: ASAM)

Dinner Reception
Tuesday, Dec. 10, 2019

www.asam.net

ASAM e.V.

Altlaufstr. 40
85635 Höhenkirchen, Germany

Phone: +49 8102 806160
Fax: +49 8102 806168
E-Mail: info@asam.net

www.asam.net

ASAM

Association for Standardization of
Automation and Measuring Systems

AUTONOMOUS DRIVING –

Standardized Virtual Development
as a Key to Future Mobility

In cooperation with

STAATSMINISTERIUM
FÜR WIRTSCHAFT
ARBEIT UND VERKEHR

Freistaat
SACHSEN

ASAM

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AUTONOMOUS DRIVING –
Standardized Virtual Development as a Key to Future Mobility

■ The increasing number of driver assistance systems in the car culminating in the fully autonomous operation, implies that the interaction with the environment is gradually delegated from the driver to the vehicle. Therefore, the development of these driving systems can no longer be based solely on the understanding of the driver, the vehicle, and their interaction but must additionally take the environment into account.

Virtualized development is the key to manage this increased complexity. And it goes along with a radical change in the "classical" test methods: New concepts must be developed for comprehensive vehicle validation in both the real and virtual world.

These new concepts will be subject of the 4th **ASAM International Conference** taking place on Dec 10–11, 2019 in Dresden, Germany.

We will discuss various aspects of autonomous driving:
– Virtual verification and validation
– Strategies for sensor modeling and data fusion
– Artificial Intelligence and Machine Learning
– Standardization to support these new processes
– Excursions to infrastructural challenges and cyber security

ASAM invites you to take part in this exciting event. Look forward to two days with 40 presentations hosted in two tracks. An exhibition demonstrating the latest products and solutions will round up the conference. We are excited to welcome you in Dresden.

About the Conference
The ASAM International Conference is a biennial event that attracts more than 200 participants both managers and experts from the automotive industry worldwide. The conference focusses on the latest technologies and processes used in global development and validation of vehicles with specific emphasis on process integration, functional validation and quality.

STAATSMINISTERIUM FÜR WIRTSCHAFT ARBEIT UND VERKEHR | Freistaat SACHSEN

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REGISTRATION FEE

	Early Bird*	Regular	The following services are included
Members:	510 EUR + VAT	590 EUR + VAT	– Participation in the conference
Non-Members:	810 EUR + VAT	890 EUR + VAT	– Dinner Reception on Dec. 10, 2019
Students:	150 EUR + VAT	150 EUR + VAT	– Entry to the exhibition
*until Sep 27, 2019			– Conference documents
			– Lunch and refreshments on both days

TERMS OF CANCELLATION: Cancellations made before Nov. 10, 2019 (date of receipt of cancellation notice) will be subject to a processing fee of 100 EUR. Cancellations made after Nov. 10, 2019 and no-shows will result in a forfeiture of the full participation fee unless another person is designated. Cancellations require a written notice to dorothee.bassermann@asam.net

PRIVACY NOTICE: https://www.asam.net/privacy/

PROGRAM TUESDAY, DEC. 10, 2019

09:00 - 09:20	Welcome

Session I: **General Aspects of Autonomous Driving**

09:20 - 09:50	**KEY NOTE:** The German Government's Strategy on Automated and Connected Driving / Dr. T. Miethaner, Federal Minsitry of Transport a. Digital Infrastructure
09:50 - 10:20	European View on Standardization in Vehicle Development – Process Integration, Functional Validation and Big Data Systems[1] / DG MOVE
10:20 - 10:50	*Coffee Break & Exhibition*
10:50 - 11:20	**KEY NOTE:** Development of Connected and Automated Vehicles (CAV) – Different Approaches / Prof. Dr. F. Köster, DLR
11:20 - 11:50	**KEY NOTE:** Paradigm Change – From Field Testing to Scenario-Based Testing[1] / Prof. Dr. G. Prokop, Technical University of Dresden
11:50 - 13:20	*Lunch & Exhibition*

Session II: **From Development to Homologation**

13:20 - 13:50	**KEY NOTE:** The AV Test Fleet of the Future is Virtual / Z. Greenstein, NVIDIA
13:50 - 14:20	Handling the Complexity of Developing Automated Driving Functions with Scenario-Based Systems Engineering (SBSE) / Audi AG
14:20 - 14:40	Virtual-Based Homologation of AV Systems / TÜV SÜD Czech
14:40 - 15:00	Certification of Autonomous Vehicles in Synthetic Environments / XPI Simulation
15:00 - 15:30	*Coffee Break & Exhibition*

Session III: **Testbed Dresden – Synchronized Mobility 2023**

15:30 - 15:50	"Synchrone Mobilität 2023" – An Initiative of the Free State of Saxony / Fraunhofer IVI
15:50 - 17:00	Vehicle Architecture for Automated Driving in Urban Areas[1] / IAV GmbH
	HMI in the Vehicle / Technical University of Chemnitz
	ITS Testbed Backend for Highly Automated Urban Traffic[1] / Fraunhofer IVI
	Roadside Infrastructure for Connected Driving / MUGLER AG
	Simulation based Research of Optimal Longitudinal Control of Automated Vehicles with GLOSA Functionality / Technical University of Dresden
	Traffic and Accident Scenarios Merged in the Harmonized PCM v5 Standard – Harmonization & Collection Methods[1] / VUFO, Fraunhofer IVI

[1] Working Title

PROGRAM WEDNESDAY, DEC. 11, 2019

Session IV:	**Standardized virtual development**	**Session V: Virtual Validation + Verification**
9:00 - 9:20	Development of a 3D Model Exchange Format With Physical Material Properties for Virtual Development, Test and Validation / BMW AG	Moving Testing from "Proving Ground" to "Proving Cloud" / IPG Automotive GmbH
9:20 - 9:40	Real Driving Validation of Highly Automated Driver Assistance Systems based on OTX standardization / ASAM e.V.	Scenario-Based Validation Framework for highly automated/autonomous vehicles / AVL List GmbH
9:40 - 10:00	Semantically Rich Distributed Data Science Platforms – Patterns for Future Standardized Virtual Development in autonomous driving iASYS Technology Solutions Pvt Ltd.	OpenSCENARIO for Automated Vehicle Validation and Verification / Siemens Product Lifecycle Management Software Inc.
10:00 - 10:20	No Bit Lost – High Volume MDF4 Recording in ADAS Development / ViGEM GmbH	The Road to Cloud: Cloud based Validation of Automotive Software / dSPACE GmbH
10:20 - 10:50	*Coffee Break & Exhibition*	*Coffee Break & Exhibition*
10:50 - 11:10	Enabling Virtual Product Validation: Quality Measures and Traceability / BMW AG	Traffic in Co-Simulation as a Standard Toolchain for Automotive Development / PTV AG
11:10 - 11:30	Boosting the Development of OpenDRIVE Through Integration Into Standardised GIS Frameworks / DLR e.V.	Testing Challenges for Autonomous Driving: From ASAM OpenX to the Evaluation of Millions of Simulations / TraceTronic GmbH
11:30 - 11:50	OpenSCENARIO Beyond Simulation – Application Methods for Field Testing / Fraunhofer IVI	Coverage Driven Verification – A Novel Approach for Virtual Testing and Validation / Foretellix Ltd.
11:50 - 12:10	Open Standards as a Leverage for the Development of Automated Driving / Vector Informatik GmbH	Extraction of Real-World Driving Scenarios and Generation of Effective-Valid Scenarios for Autonomous Vehicles and ADAS Using Artificial Intelligence / AKKA GmbH & Co. KGaA
12:10 - 13:45	*Lunch & Exhibition*	*Lunch & Exhibition*

Session VI:	**Artificial Intelligence / Machine Learning**	**Session VII: Sensor Modeling and Data Fusion**
13:45 - 14:15	**KEY NOTE:** Current Trends in Machine Learning for Automated Driving / Dr. A. Jungmann, IAV GmbH	
14:15 - 14:35	Object Detection in Autonomous Driving Scenarios / FusionSystems GmbH	New Sensor Modeling Approach for Autonomous Driving Simulation and Sensor Simulation / OTSL Inc., COSEDA Technologies GmbH
14:35 - 14:55	Convolutional Tunneling and Its Application in Neural Network / Automotive Artificial Intelligence GmbH	Data Fusion Development for Series Production / BASELABS GmbH

Session VIII:	**Cyber Security**	An Efficient Approach to Generate Tagged Traffic Scenario Models from Naturalistic Driving Data / CHJ Automotive
14:55 - 15:15	An Update on SAE Scenario Development and Cyber Security for ADS / SAE International	
15:15 - 15:45	**KEY NOTE:** Cyber Security Innovation Lead / Dr. M. Cheah, HORIBA MIRA	
15:45 - 16:00	Closing Remarks	

More details: www.asam.net/conferences-events