Automotive Testing Seminar

POZVÁNKA

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Rohde & Schwarz Vás zve na seminář „Inovace v automobilových testovacích technologiích“

Automobilové technologie se rychle vyvíjí, stejně tak i testovací postupy využívané pro vývoj, ověřování a výrobu čipových sad, komponent a vozidel. R&S Automotive Testing Seminar Tour nabízí profesionálům z oboru příležitost dozvědět se o aktuálních tématech v automobilovém segmentu a jejich dopadu na testování a měření – od ADAS a radaru po elektrické pohonné jednotky a C-V2X.

Rohde & Schwarz Vás srdečně zve na **Automotive Testing Seminar**, který proběhne:

ve čtvrtek 9. března 2023 od 9:00 do 17:00 hodin
v Muzeu Škoda Auto v Mladé Boleslavi
na adrese: tř. Václava Klementa 294, 29301 Mladá Boleslav

Prezentace na semináři budou zahrnovat následující témata:

- **The evolution of In-Vehicle Networks to Zonal Architecture**
- **Validation of Radar-Based ADAS and AD functions on Vehicle-in-the-Loop test beds**
- **New developments in automotive CISPR standards for electric vehicles**
- **Electric Drivetrain testing, including double-pulse testing with PE Systems**
- **Advances in C-V2X and Automotive Communications**

Během semináře budete mít možnost setkat se s našimi odborníky a prohlédnout si naše vybavení.

Váš tým Rohde & Schwarz

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Program

Čas	Program	Přednášející
08:30 – 09:00	Registrace	
09:00 – 09:15	Úvod	
09:15 – 09:45	**The evolution of In-Vehicle Networks to Zonal Architecture**	Ralf Oestreicher Rohde & Schwarz
09:45 – 10:45	**Validation of Radar-Based ADAS and AD functions on Vehicle-in-the-Loop test beds**	Dr. Jürgen Holzinger AVL List GmbH
10:45 – 11:00	Přestávka na kávu	
11:15 – 12:00	**New developments in automotive CISPR standards for electric vehicles**	Mathias Hofer Rohde & Schwarz
12:00 – 13:00	Oběd	
13:00 – 13:45	**Electric Drivetrain testing, including double-pulse testing with PE Systems**	Ralf Oestreicher Rohde & Schwarz
14:00 – 15:00	**Advances in C-V2X and Automotive Communications**	Holger Rosier Rohde & Schwarz
15:00 – 15:15	Shrnutí	
15:15 – 17:00	Praktická ukázka s našimi demonstračními přístroji	

*Upozornění: Vezměte prosím na vědomí, že prezentace budou v anglickém jazyce.

Abstrakty

Téma:
The evolution of In-Vehicle Networks to Zonal Architecture

Abstrakt:
As the automotive industry develops vehicles with increased levels of autonomous driving requiring more sensors and increased connectivity, it faces the challenge of transporting and processing a huge amount of data in the vehicle. To do this in an efficient way, it is necessary to reduce In-Vehicle Network complexity, power consumption and weight, leading to a change from domain-orientated network architecture to zonal architecture. Join this webinar to learn about this significant development in In-Vehicle Networks and how to test it effectively

Téma:
Validation of Radar-Based ADAS and AD functions on Vehicle-in-the-Loop test beds

Abstrakt:
Due to the fact that homologation of a new cars mainly based on driving tests doesn't scale for SAE L3 and beyond, UNECE is assessing new methods including X-in-the-Loop. Vehicle-in-the-Loop testing complements driving on proving grounds or real roads in a safe, efficient and reproducible way. New products like AVL DRIVINGCUBE™ is a comprehensive Vehicle-in-the-Loop solution stimulating all sensors and actuators for most efficient and safe testing on vehicle level. It includes R&S radar test system with the advanced antenna array which is a very scalable and versatile. The small form factor and robust implementation makes the R&S radar test system the first choice for test bed operation.

Téma:
New developments in CISPR automotive EMI standards for electric vehicles

Abstrakt:
Automotive EMI standards are developing quickly to address the impact of electric and hybrid vehicles on the electromagnetic environment. Recent changes in CISPR 25 & CISPR 36 and the ongoing revision of CISPR 12 as well as a demand to reduce test time and record the disturbance characteristic of the device under test bring new requirements for vehicle manufacturers and component suppliers. Usage of FFT-based measuring instruments is the key for addressing these topics. The presentation will address the applicability of FFT-based receivers for EMI compliance measurements against international standards, gives an inside view on the technology of such receivers and will conclude with practical use cases. In this presentation, you will learn more about:

- New developments in CISPR EMI standards for automotive applications
- Overview of FFT-based receivers for EMI testing
- Practical approach to EMI testing

Téma:
Electric Drivetrain testing, including double-pulse testing with PE Systems

Abstrakt: soon available

Téma:
Advances in C-V2X and Automotive Communications

Abstrakt:
Cellular-V2X promises to make driving safer, more efficient and it is critical for the implementation of Advanced Driver Assistance Systems (ADAS). However, it also brings new challenges to maintain reliable connectivity between vehicles, infrastructure, pedestrians and other road users and ensure the correct operation of ADAS features. In this presentation, you can learn about the latest developments in LTE and 5G C-V2X standards in accordance with organizations such as 3GPP, ETSI & C-SAE and obtain an overview of the very dynamic regional and global market. In addition, get insights into C-V2X network architecture as well as messaging, RF, protocol and TCU application testing.

Přednášející

 **Ralf Oestreicher** Automotive Market Segment Manager Rohde & Schwarz	Ralf Oestreicher is an Automotive Market Segment Manager at Rohde & Schwarz where he is been focusing on bringing together product strategy, business development and marketing to ensure the company's e-Mobility test solutions meet customer requirements. Prior to joining R&S, Ralf was Global Key Account Manager at Isabellenhuette Heusler gaining in-depth knowledge of electric vehicle testing.
 **Dr. Jürgen Holzinger** Department Manager Advanced Solution Lab ADAS/AD Testing Solutions	Dr. Jürgen Holzinger, is leading ADAS/AD Virtual testing team inside AVL and has more than 10 years' experience in testing and simulation. He has been focusing mainly on the development of complex Vehicle-in-the-Loop projects where simulation of ADAS system is required. Prior to AVL, Juergen worked for Magna Steyr as a Project Manager responsible for different stages of car assembly and verifications. He holds the doctorate degree in Mechanical engineering and Driving dynamics from TU Graz.
 **Mathias Hofer** Team Leader Application Engineering EMC Rohde & Schwarz	Mathias Hofer is the Team Leader of the EMC application engineering team at Rohde & Schwarz, responsible for the complete EU area. Prior to joining Rohde & Schwarz, Mathias has been working in the Test & Measurement area for 15 years, dealing with a wide range of applications from RF/µWave, to Optics, and High-Speed Communications. Besides his team-lead position, he is engaged heavily in day-to-day work in EMC projects, working closely with customers on their EMC testing requirements, also acting as a strong source of know-how, industry trends, as well as best-practice in EMC to customers across the region.
 **Holger Rosier** Technology Manager, 5G Automotive Rohde & Schwarz	Holger Rosier is a Technology Manager with Rohde & Schwarz within the Automotive Market Segment. His focus is on wireless communications technologies for vertical industries, in particular for connected cars. Prior to joining Rohde & Schwarz, Holger was a Senior Technology Lead for IoT with Huawei Technologies in Germany. In this position, he led joint 5G V2X research industry projects Holger holds a University degree in Electrical Engineering & Information Technology from the RWTH Aachen University. He combined post-graduate studies on 3GPP technologies and ultra-wideband (UWB) communication with consultancy for Cooperative Intelligent Transportation Systems (C-ITS).