

Automotive INVITATION

ROHDE & SCHWARZ

Make ideas real



AUTOMOTIVE TESTING SEMINAR

Pour répondre aux enjeux de test et validation des innovations technologiques de l'industrie automobile, Rohde & Schwarz France a le plaisir de vous inviter à sa prochaine journée l'**Automotive Testing Seminar** qui se tiendra :

**Le mardi 24 janvier 2023, de 9h00 à 17h00
à l'ESTACA, Montigny-Le-Bretonneux (78)**

ou **participer en ligne** pour suivre la/les session(s) de votre choix en direct.

Pour cette édition, nous vous présenterons toute une série de conférences sur des sujets d'actualité importants tels que :

- ▶ L'Ethernet facteur clé du véhicule défini par logiciel avec les nouvelles architectures dites « centrales zonales »
- ▶ L'impact des véhicules électriques sur l'environnement électromagnétique
- ▶ Le défi du test virtuel lié aux évolutions des capteurs radar pour les systèmes avancés d'aide à la conduite (ADAS)
- ▶ La connectivité: évolutions de la 5G et du C-V2X

Vous aurez également la possibilité d'échanger avec nos experts lors des démonstrations de nos produits dans l'espace d'exposition.

Pour plus d'informations sur l'agenda et l'inscription, rendez-vous sur la page de l'événement: [ici](#).

Votre équipe Rohde & Schwarz

**24 Janvier 2023
ESTACA (78)**

Montigny-Le-Bretonneux

- ▶ [Agenda](#)
- ▶ [Détails des conférences](#)
- ▶ [Intervenants](#)
- ▶ [Inscription](#)
- ▶ [Inscription en ligne](#)



Evénement

AUTOMOTIVE TESTING SEMINAR

AGENDA

Heure	Programme
08:30 – 09:00	Accueil et enregistrement
09:00 – 09:15	Discours d'ouverture - Les défis du test et de la mesure pour répondre aux enjeux de la mutation technologique dans l'industrie automobile Stéphane Blanchon, Business Development Manager Automotive, Rohde & Schwarz France
09:15 – 09:45	Introduction sur l'Automotive Ethernet facteur clé du „SDV” et dernières évolutions OPEN Alliance Josetxo Villanueva, In-Vehicle Networks Expert, Renault Group
09:45 – 10:15	Evolutions des réseaux vers de nouvelles architectures dites „centrales zonales” Xavier Cheng, Product Manager chez Rohde & Schwarz Cristian Maxim, Research engineer, IRT-SystemX
10:15 – 10:45	Pause café
10:45 – 11:30	Advances in C-V2X and Automotive Communications* Holger Rosier, Technology Manager, Rohde & Schwarz
11:30 – 12:00	Review of regulation, NCAP evaluation and testing for ACV Alain Piperno, Senior Expert Autonomous Vehicles Testing & Type Approval, UTAC
12:00 – 13:30	Déjeuner
13:30 – 14:15	Automotive radar object simulation* Andreas Ibl, Product Manager Microwave Imaging sensor, Rohde & Schwarz
14:15 - 15:00	CISPR News - The impact of electro mobility on emission measurements against CISPR 12, CISPR 25 and CISPR 36* Jens Medler, EMC Product Manager, Rohde & Schwarz
15:00 – 15:15	Conclusion Stéphane Blanchon, Business Development Manager Automotive, Rohde & Schwarz France
15:15 – 17:00	Echange et démonstrations des solutions dédiées automobiles

24 Janvier 2023

ESTACA (78)

Montigny-Le-Bretonneux

- ▶ [Invitation](#)
- ▶ [Détails des conférences](#)
- ▶ [Intervenants](#)
- ▶ [Inscription](#)
- ▶ [Inscription en ligne](#)

* Ces 3 conférences seront présentées en anglais.



Événement

AUTOMOTIVE TESTING SEMINAR

DÉTAILS DES CONFÉRENCES

Matinée

Les défis du test et de la mesure pour répondre aux enjeux de la mutation technologique dans l'industrie automobile

Intervenant : Stéphane Blanchon, Automotive Market Segment Manager chez Rohde & Schwarz

To tackle today's most challenging electronics test and measurement issues in the automotive industry, Rohde & Schwarz employs its technical expertise to develop innovative solutions for the entire automotive lifecycle from predevelopment to production. To learn more about the challenges and to overcome them, Rohde & Schwarz provides T&M equipment and custom turnkey test systems for automotive radar, connectivity, infotainment, high-performance computing and EMC compliance.

Introduction sur l'Automotive Ethernet et dernières évolutions OPEN Alliance

Intervenant : Josetxo Villanueva, In-Vehicle Networks Expert chez Renault Group
Prochainement disponible

Evolutions des réseaux vers de nouvelles architectures dites „centrales zonales“

Intervenants : Xavier Cheng, Product Manager chez Rohde & Schwarz et Cristian Maxim, Research engineer à l'IRT SystemX

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. In this presentation, you will learn about this significant development in In-Vehicle Networks and how to test it effectively. We will be discussing on measurement results of our collaboration with IRT-SystemX on the "Ethernet Faible Empreinte" project.

Advances in C-V2X and Automotive Communications

Intervenant : Holger Rosier, Technology Manager chez Rohde & Schwarz

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.

24 Janvier 2023
ESTACA (78)

Montigny-Le-Bretonneux

- ▶ [Invitation](#)
- ▶ [Agenda](#)
- ▶ [Intervenants](#)
- ▶ [Inscription](#)
- ▶ [Inscription en ligne](#)



Événement

AUTOMOTIVE TESTING SEMINAR

DÉTAILS DES CONFÉRENCES

Matinée - Suite

Review of regulation, NCAP evaluation and testing for ACV

Intervenant : Alain Piperno, Senior Expert Autonomous Vehicles Testing & Type Approval à l'UTAC

UTAC is a worldwide reference in testing & type approval, accredited Lab for Euro NCAP tests and for France type approval tests. This session will deal with a review of today regulation & testing capacities proposals & new challenges about level 2-3-4-5 regulations status for M1 vehicles, shuttles, buses, delivery robots, SW/OTA, cyber-security, AI, virtual type approval. And we will be discussing of today needs/solutions for testing & validation about physical, new protocols, new targets, rain & fog testing, digital & VIL testing, AI, V2X, and cyber-security.

Après-midi

Automotive radar object simulation

Intervenant : Andreas Ibl, Product Manager Microwave Imaging sensor chez Rohde & Schwarz

Testing automotive radar sensors function and performance is a continual process during development and certification. Historically, accurately quantifying parameters such as angular and range resolution and accuracy, required considerable investment in test resources, involving bulky, expensive and inflexible systems. Now, a new approach is available to radar sensor developers which offers low barrier to ownership, can be customized exactly to current needs and is fully expandable to future requirements. Join this presentation to find out how the capabilities of the game-changing fully-electronic R&S radar test system can be utilised in a physically-compact benchtop form defining a new level of cost efficiency whilst expandable to encompass any future radar object simulation scenario.

CISPR News - The impact of electro mobility on emission measurements against CISPR 12, CISPR 25 and CISPR 36

Intervenant : Jens Medler, EMC Product Manager chez Rohde & Schwarz

With the recent changes in CISPR 12, CISPR 25 and CISPR 36 new requirements were implemented to address the impact of electric and electric hybrid vehicles on the electromagnetic environment. At the same time, there is a high demand to reduce test time and to comprehensively record the disturbance characteristics of the device under test. Usage of FFT-based measuring receivers is the key to address these topics. The presentation will describe the applicability of FFT-based receivers for emission measurements, explain what is new in the current standards and what to expect in the next revisions of the standards then will conclude with practical use cases.

24 Janvier 2023**ESTACA (78)**

Montigny-Le-Bretonneux

- ▶ [Invitation](#)
- ▶ [Agenda](#)
- ▶ [Intervenants](#)
- ▶ [Inscription](#)
- ▶ [Inscription en ligne](#)



Événement

AUTOMOTIVE TESTING SEMINAR

INTERVENANTS

Présentations



Jens Medler
Product Manager,
EMI Test Equipment
Rohde & Schwarz

Jens Medler joined Rohde & Schwarz, Munich, Germany, a company specialising in test equipment and radio equipment in 1996. He is responsible for the standardization and application support of EMI test receivers and accessories for both hardware and software and is active member of various CISPR Subcommittees since 1999.

This includes CIS/A on EMC measurement instrumentation and methods, CIS/D on equipment on vehicles and internal combustion engine powered devices and CIS/I on information technology equipment, multimedia equipment and receivers. Since October 2017 he is acting as Convenor of CIS/A WG2; the CISPR Working Group on EMC measurement methods, statistical techniques and uncertainty. He is recipient of the IEC 1906 Award.



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).



Andreas Ibl,
Product Manager,
Microwave Imaging sensor
Rohde & Schwarz

Andreas Ibl is a product manager for Microwave Imaging sensor products at Rohde & Schwarz, having previously worked as a product manager responsible for oscilloscopes, specializing in power integrity and multi-domain analysis.

Andreas has a master's degree in engineering management from the University of Applied Sciences in Landshut and has international experience working in the USA and China.

24 Janvier 2023**ESTACA (78)**

Montigny-Le-Bretonneux

- ▶ [Invitation](#)
- ▶ [Agenda](#)
- ▶ [Détails des conférences](#)
- ▶ [Inscription](#)
- ▶ [Inscription en ligne](#)



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AUTOMOTIVE TESTING SEMINAR

INTERVENANTS

Présentations



Josetxo Villanueva
In-Vehicule networks Expert
Renault Group

Josetxo Villanueva joined Renault Group more than 10 years ago. As Telecom & System Architect, with more than 20 years of experience in automotive embedded networks, wireless infrastructure and aerospace technology, he fills the gap between commercial and technical world, creating prototypes to check the validity of new concepts, and managing technical projects to support vehicle development and R&D. Josetxo Villanueva is a In-Vehicule Networks Expert since 2019.



Crisitan Maxim
Research Engineer
IRT System X

Cristian Maxim joined IRT SystemX in 2018. As Research Engineer, he is involved in different research projects. Since 2020, he is contributing to the EFE (Ethernet Faible Empreinte) project where Cristian coordinates the realisation of an automobile Ethernet network demonstrator which allows while verifying and validating the usage of Ethernet in automotive and avionics architectures. On this project, he also contributes in the characterization of different PHY layer components (e.g. 10BASE-T1, MultiGigaBase-T1) and the timing analysis of Ethernet network communication.



Alain Piperno
Senior Expert Autonomous
Vehicles Testing
& Type Approval
UTAC

Alain Piperno joined UTAC in 2015 and since he is acting as senior expert Autonomous Vehicles Testing & Homologation, in UTAC, France. Research Leader & training doer in 2015-2019 in French research institute VEDECOM & UTAC.

Alain Piperno leads from 2015 to 2018 french automobile Working Group AV testing/homologation. He wrote in 2014 AV safety French roadmap as RENAULT Research safety leader and managed some RENAULT end to end innovations projects from 2006 to 2013 in RENAULT : tele-diagnosis, connected car services, stolen vehicle tracking, EV smart charging, smartphone software.

Alain is graduated of ENSTA PARIS Engineer school, IAE PARIS business administration and of ECOLE POLYTECHNIQUE PARIS Engineer School.

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ESTACA (78)

Montigny-Le-Bretonneux

- ▶ [Invitation](#)
- ▶ [Agenda](#)
- ▶ [Détails des conférences](#)
- ▶ [Inscription](#)
- ▶ [Inscription en ligne](#)



Événement

AUTOMOTIVE TESTING SEMINAR

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Présentations



Stéphane Blanchon
Automotive Market
Segment Business
Developer
Rohde & Schwarz France

Stéphane Blanchon is strategic business development manager for the automotive and wireless market, working for Rohde & Schwarz for more than 20 years. He started as application engineer, moved onto a product specialist for mobile communications test equipment for cellular and non-cellular technologies and has taken, in 2015, on a role as team leader for the application engineering team within Rohde & Schwarz France.

His technical expertise is focus on cellular networks (2G, 3G, 4G and 5G) and non-cellular networks (Bluetooth, WiFi).



Xavier Cheng,
Product Manager,
Rohde & Schwarz France

Xavier Cheng is an Application Engineer for Rohde & Schwarz France with an oscilloscope application focus oriented. He works for the company for more than 10 years.

Xavier has a master degree in RF electronic / optoelectronics and quantic physics.

24 Janvier 2023**ESTACA (78)**

Montigny-Le-Bretonneux

- ▶ [Invitation](#)
- ▶ [Agenda](#)
- ▶ [Détails des conférences](#)
- ▶ [Inscription](#)
- ▶ [Inscription en ligne](#)