



The World's Leading Automotive Cyber Security Conference



The Venue

We are looking forward to welcoming you in Stuttgart, Germany! The 17th escar conference will take place at the International Congresscenter Stuttgart (Messe Stuttgart):

Landesmesse Stuttgart GmbH
ICS International Congresscenter Stuttgart
 Messeplazza 1, 70629 Stuttgart, Germany



europe.escar.info



Tickets

Student (age limit: 27 years)	369,00 EUR*
Regular	949,00 EUR*
	*plus 19% VAT

Each Ticket includes:

- Get together with welcome drink and snack
- Social program: Airport Tour
- Conference dinner at the Mövenpick hotel
- Lunch & coffee breaks
- Conference proceedings

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Contact

Henning Frohn
 Conference Manager
 +49 (0)234 927 898-19
 frohn@is-its.org

Organiser:
 isits AG International School of IT Security
 Huestr. 30, 44787 Bochum, Germany

Sponsors



17th escar Europe

escar – Embedded Security in Cars

19th and 20th of November 2019
 Stuttgart, Germany

Main Topics

- 2 keynote speakers, 3 invited talks
- More than 10 reviewed presentations & poster sessions
- For the first time in escar history there will be 2 workshops & 2 tutorials
- Exchange of the most recent insights on Automotive Cyber Security
- Connect with international experts from industry, academia and government

europe.escar.info

Top Speaker



Amit Elazari Bar On
 Intel Corporation
 UC Berkeley's School of Information Master



Sebastian Faust
 Technical University of Darmstadt



Jonathan Petit
 Qualcomm Technologies, Inc.



Timo Winkelvos
 Volkswagen AG



Albert Held
 Daimler AG

Organizer:



Conference Program

Tuesday, November 19th, 2019

08:30–09:00 Registration Workshop Participants

09:00–12:00 Workshops, Tutorials, Social Event

12:00–13:30 Lunch

Official begin of 17th escar Europe conference

13:30–13:45 Chairman's welcome and opening address

13:45–14:30 Keynote

Legal Aspects of Vulnerability Disclosure and Bug Bounties and Regulatory Trends
Amit Elazari Bar On

Session I – Security Management and Post-Quantum Crypto

14:30–15:00 **Establishing an Automotive Cyber Defense Center**

Falk Langer, Fabian Schueppel and Lukas Stahlbock

15:00–15:30 **Post-Quantum Key Exchange Mechanism for Safety Critical Systems**

Tim Fritzmann, Jonas Vith and Johanna Sepulveda

15:30–16:15 Coffee Break

16:15–16:45 Invited talk

Blockchain Technology: Hope, Hype, High-Tech
Sebastian Faust

Session II – Intrusion and Misbehavior Detection

16:45–17:15 **Application-aware Intrusion Detection: A Systematic Literature Review and Implications for Automotive Systems**

David Schubert, Hendrik Eikerling and Jörg Holtmann

17:15–17:45 **Deterministic Sybil Attack Exclusion in Cooperative-Intelligent Transportation Systems**
Jan Trauernicht and Norbert Bißmeyer

17:45–18:15 **Intrusion Detection and Prevention System for FlexRay against Spoofed Frame Injection**
Takeshi Kishikawa, Ryo Hirano, Yoshihiro Ujiie, Tomoyuki Haga, Hideki Matsushima, Kazuya Fujimura and Jun Anzai

19:30 – ∞ Dinner at

MÖVENPICK HOTEL STUTTGART AIRPORT
Flughafenstraße 50
70629 Stuttgart
Germany

Please note that attending dinner requires a pre-reservation.



Social Program: Enjoy an exclusive airport tour at the Stuttgart Airport!

Taking place: November 19th, 10:00 am – 12:00 am

The social program is held parallel to our workshops and tutorials and is not overlapping with the presentations. For more information please visit europe.escar.info

Wednesday, November 20th 2019

09:00–09:45 Keynote

Automated Driving Security
Jonathan Petit

Session III – Safety and Security

09:45–10:15 **Safety Goals in Vehicle Security Analyses – A Method to Assess Malicious Attacks with Safety Impact**

David Förster, Claudia Loderhose, Thomas Bruckschlögl and Franziska Wiemer

10:15–10:45 **The Challenge of being Safe and Secure – Designing Process Interfaces between Safety and Security**

Joachim Graf, Juergen Klarmann, Claudia Loderhose and Franziska Wiemer

10:45–11:30 Coffee Break

11:30–12:00 Invited talk

Volkswagen Vehicle Key Management System – Key to Cryptography in Cars: Challenges, Requirements, Solution
Timo Winkelvos

Session IV – Securing Onboard Communication

12:00–12:30 **Introducing HSM-based secure on-board communication in vehicles – Challenges and Lessons Learned**

Frederic Stumpf, Christopher Pohl, Daniel Hoettges and Tobias Klein

12:30–13:00 **Assessment and Guidance for AUTOSAR Secure Onboard Communication Application**
David Tromba and Julia Huber

13:00–14:30 Lunch & Poster & Exhibition

14:30–15:00 Invited talk

UN Regulation Automotive Cybersecurity
Albert Held

Session V – (In-)Secure Boot

15:00–15:30 **Secure Boot Revisited: Challenges for Secure Implementations in the Automotive Domain**
Liron Kaneti, Steffen Sanwald, Marc Stöttinger and Martin Böhner

15:30–16:00 **Insecure Boot**
Andrea Barisani

16:00–16:15 Outlook and closing remarks by the Chairman

Additional Workshops and Tutorials

Taking place November 19th, 09:00 am – 12:00 am

Our workshops and tutorials are held parallel to our social program and are not overlapping with the presentations.

Workshop 1: Practical In-Vehicle Communications Hacking
Henrik Ferdinand Nölscher, Javier Vazquez

Workshop 2: Hands on Cryptography – A Practical Tutorial to Encryption, Digital Signatures, and Certificates
Prof. Dr.-Ing. Jan Pelzl

Tutorial 1: E/E Security in Cars
Ramona Jung

Tutorial 2: Implementing Cybersecurity Management Systems
Jan-Felix van Dam & Moritz Minzlaff