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## escar - Embedded Security in Cars

escar conference started in 2003 in Germany and due to its continuous success the conference is now organized internationally – Europe, USA and Asia.

Its founder and organizer, isits AG was consistently supported by its event partner ESCRYPT. Moreover the conference reaches higher numbers of attendees each year. The attendees and exhibitors enjoy insightful conference days, interesting talks and good networking. Every year it proves again that escar is the leading Automotive Cyber Security conference in the world!

The overall goal and objective of escar is to provide a forum for collaboration among private industry, academia, and government regarding modern in-vehicle Cyber Security threats, vulnerabilities, and risk mitigation/countermeasures. In addition to Cyber Security, escar also addresses other automotive security issues such as electronic theft protection and new digital business models. International, high-quality speakers give recent insights and encourage discussions. Its program includes talks about security engineering, formal methods, development & validation tools, security standardization and security economics for automotive domain; as well as security of vehicular onboard, passenger and V2X communications, security of software downloads, open vehicle application platforms and many more.

We would like to thank everybody who contributes to escar's continuing success – our attendees, our speakers, our sponsors and our partners – escar is the best forum for information, discussion and exchange of ideas in an innovative and highly relevant field.

# The World's Leading Automotive Cyber Security Conference



# **Conference Program**

15<sup>th</sup> escar Europe escar – Embedded Security in Cars

November 7th–8th 2017 nhow Music and Lifestyle Hotel | Berlin | Germany



### **Conference Program**



This is a short version of the program. For more information on papers, complete authors list, social program and dinner please refer to our escar conference proceedings.

1 <sup>st</sup> Day - Nove	1st Day - November 7th 2017		
08:30-13:00	Registration & Welcome Coffee		
09:00 – 12:00	Workshops 1) Automotive Risk Assessment 2) Security in E/E Architecture  Social Event 1) Trabi Safari through Berlin 2) German Spy Museum Berlin		
12:30 -13:30	Lunch – nhow Hotel Restaurant		

#### Official begin of 15th escar Europe conference

13:45 – 14:00	Welcome and opening address
14:00 –14:40	Keynote Vehicle to Cloud – Pillars for Secure Autonomous Vehicles Matthias Schunter, Intel

#### Session 1 - Car Hacking

14:45 – 15:10	<b>TESLA Hacking 2016 and 2017</b> Sen Nie & Wenkai Zhang, Tencent
15:15 – 15:40	Probing Attacks on Physical Layer Key Agreement for Automotive Controller Area Networks Shalabh Jain, Robert Bosch LLC
15:45 -16:25	Coffee Break

#### Session 2 - Attack Paths and Protection Mechanisms

16:30 - 17:00	Invited talk
	Defeat Devices
	Moritz Contag. Ruhr University Boch

17:05-17:30	Wanna Drive? Feasible Attack Paths and Effective Protection Against Ransomware in Modern Vehicles Marko Wolf, ESCRYPT GmbH
17:35-18:00	Automotive SIEM and Anomaly Detection Using Sand-Sprinkled Isolation Forest Tomoyuki Haga, Panasonic Corporation
18:00	End of 1st conference day
19:30 − ∞	Dinner
19:30 − ∞	GENDARMERIE THE HAUPTSTADT RESTAURANT Behrenstraße 42 10117 Berlin  Please note that attending dinner requires a pre-reservation.

#### 2<sup>nd</sup> Day - November 8<sup>th</sup> 2017

08:30-09:10	Keynote What might it mean for security to be sustainable? Ross Anderson, University of Cambridge
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#### Session 3 - Security Analysis and Threat Modeling

09:15 - 09:40	On Formal Security Analysis of Automotive Systems Sigrid Gürgens, Fraunhofer Institute for Secure Information Technology
09:45-10:10	Adapting Threat Modeling Methods for the Automotive Industry Adi Karahasanovic, Combitech AB
10:15-10:55	Coffee Break

#### Session 4 - Privacy and Key Management

11:00 -11:30	Invited talk
	Reconciling Security and Privacy in V2X
	Gregory Neven, IBM

11:35 – 12:00	A Privacy-aware Data Access System for Automotive Applications Daniel Zelle, Fraunhofer Institute for Secure Information Technology
12:05 – 12:30	A Peer-to-Peer Approach to Digital Key Sharing for Vehicle Access Control Tony Rosati, ESCRYPT – Embedded Security
12:35-13:35	Lunch – nhow Hotel Restaurant

#### Session 5 - Safety and Security

13:45 – 14:10	Vehicle Safe-Mode, Limp-Mode in the Service of Cyber Security Tsvika Dagan, Tel Aviv University
14:15 – 14:40	Safety ≠ Security − A security assessment of the resilience against FI attacks on ASILD MCUs Paul van Gimst, Riscure Security Lab
14:45-15:25	Coffee Break

#### Session 6 - Blockchains in Automotive Security

15:30-16:00	Invited Talk Blockchain Christian Höppler, Robert Bosch GmbH
16:05 –16:30	Runtime Self-Protection in a Trusted Blockchain-inspired Ledger Clifford Liem, Irdeto Canada
16:35-16:45	Outlook and closing remarks Chairman
16:45	End of 15 <sup>th</sup> escar Europe conference



Follow up, download all lectures after the escar conference from the website! www.escar.info