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Your contact:

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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

16th escar Europe escar – Embedded Security in Cars

13th to 14th of November 2018

MCE Conference & Business Centre Rue de l'Aqueduc 118 1050 Brussels, Belgium



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.

Tuesday, November 13th 2018

08:30-09:00 Registration Workshop Participants

09:00 - 12:00 Workshops

1) Foundations of Automotive Cyber Security

Trainer: Jan Pelzl
2) E/E Security in Cars
Trainer: Ramona Jung

Social Event

House of European History

12:00 Registration Conference Participants

12:30 -13:30 Lunch

Official begin of 16th escar Europe conference

13:45 – 14:00 Chairman's welcome and opening address

14:00 – 14:50 Keynote

Challenges in secure embedded system design

Bart Preneel | imec-COSIC KU Leuven | Dept. Electrical Engineering-ESAT

Session 1 - Car Hacking

14:50-15:20 Fast, Furious and Insecure: Passive Keyless Entry and Start Systems in Modern Super-

cars

Lennert Wouters

15:20 – 15:50 Automotive anti-theft retrofit kits and their

Safety and Security implications

Tobias Hoppe, Sven Kuhlmann

15:50 – 16:30 Coffee Break

Session 2 - Attacks

17:00 – 17:30 Real-World Adversarial Attacks on Traffic

Signs

Alexander Kreines

17:30 – 18:00 There Will Be Glitches: Extracting and Analy-

zing Automotive Firmware Efficiently

Niek Timmers

17:35 – 18:00 Exploring Attack Surfaces of Voltage-Based

Intrusion Detection Systems in Controller Area Networks

Sang Uk Sagong

19:30 − ∞ Dinner at Autoworld

AUTOWORLD BRUSSELS

Cinquantenaire Park 11 B-1000 Brussels; Belgium

Please note that attending dinner requires a pre-reservation. Please contact the infodesk.

Wednesday, November 14th 2018

09:00-09:50 Keynote

Dangerous Intelligence: Attacks against Machine Learning Systems

Konrad Rieck, Technical University Braunschweig | Institute of System Security

Session 3 - Security Technology

09:50 – 10:20 Woodpecker, a Software-only True Random

Generator for the CAN Bus

Tsvika Dagan

10:20 – 10:50 TCAN: Authentication Without Cryptography

on a CAN Bus Based on Nodes Location on

the Bus Eli Gavril

10:50-11:30 Coffee Break

Session 4 - Security Technology II

| 11 | 1:30-12:00 | Invited talk |
|----|------------|---|
| | | The link between Safety and Security in the Automotive industry (joint Combitech/Volvo Cars) Adi Karahasanovic Combitech, Elpidoforos Arapantonis Volvo Cars |
| 12 | 2:00-12:30 | About the future of layered Security - How to achieve security in next Generation EE-Architectures Jan Holle |
| 12 | 2:30-13:00 | Shift Left: Fuzzing Earlier in the Automotive Software Development Lifecycle using HIL Systems Ryo Kurachi |
| 13 | 3:00-14:00 | Lunch |

Session 5 - Standards

| 14:00-14:30 | Invited talk |
|--------------|---|
| | Joint Standardization Project ISO/SAE 21434 – Road vehicles – Cybersecurity engineering Gido Scharfenberger-Fabian Carmeq GmbH |
| 14:30-15:00 | Using a Protection Profile Configuration for modelling security capabilities of smart cars computers José Rico |
| 15:00-15:30 | A Comparison of the SCMS and C-ITS Proposals for V2X PKI Jan-Felix van Dam |
| 15:30 –16:00 | Outlook and closing remarks by the Chairman |



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