

Co-Organiser:



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CYSEC

Challenges in designing secure and resilient railway command and control systems

Prof. Dr. Stefan Katzenbeisser

Security Engineering Group

Profile Area Cybersecurity, Technische Universität Darmstadt

The Balancing Act of Implementing Cyber Security

Max Schubert

System Architecture LST/TK/ATO, Manager I.NPS 5

DB Netz AG

Thursday 7 February 2019 at 18.00 hours CET
at Technische Universität Darmstadt

The Welcome Reception starts at 17:00 hours. This event will also be live streamed with the possibility of participating interactively in the discussion.

This fifth Presidential Programme Technical Meeting for 2018-19 comprises two papers, both exploring Cybersecurity in Railway Signalling. This event is kindly co-organised with the profile area Cybersecurity of TU Darmstadt.

We warmly invite you to join us for this event, and to engage in the discussion that follows. These meetings provide an excellent opportunity for networking supporting your professional development. Non-members are very welcome. There is no admittance fee.

The duration of the event: about 1 ½ hours.

To attend please register at <https://bit.ly/2K0Lk0o> until 1st Feb

IRSE (4th Floor)
1 Birdcage Walk
Westminster
London, SW1H 9JJ

+44 (0)20 7808 1180
hq@irse.org
www.irse.org

Securing safety-critical railway command and control systems is still a challenging task, as both safety and security requirements have to be considered at the same time. This is particularly critical once commercial off the shelf and open networks are considered, which increase the attack surface.

In this talk we give an overview of the security threats to railway systems that have emerged recently. We also argue that problems can be solved by making systems more resilient to attacks, so that they can maintain their essential functions despite the presence of attacks.

Stefan Katzenbeisser is a professor for Security Engineering at Technische Universität Darmstadt. His main research interests lie in system security, in applied cryptography and in critical infrastructure protection. He holds a Ph.D. in Computer Science from the Vienna University of Technology. Prior to joining TU Darmstadt he has a Senior Scientist at Philips Research



Stefan Katzenbeisser

Digitization is announced as the solution to most of the current challenges within the railway sector. More capacity, higher availability, more satisfied customers through end to end navigation and information for trips are the benefits from this initiative.

Beside the challenges in building the systems, designing the networks, specifying the interfaces, a more connected railway world causes more potential cyber threats. DB is pushed by the own will and need to secure its system and officially asked to fulfil standards by the law.

Dealing side by side with legacy and digitization, the implementation of cyber security measures is a balancing act between processes, techniques and the human factor. The presentation will give an insight to the current running projects and the overall goal.

Biography Mr. Schubert to follow.



Max Schubert