Deutsches Zentrum
für Luft- und Raumfahrt
German Aerospace Center

ITS mobility

Technische
Universität
Berlin

4th German Workshop on Rail Human Factors

Welcome!

- Katharina Seifert (German Aerospace Center)
- Birgit Milius (TU Berlin)
- Anja Naumann (German Aerospace Center)

Rules & Regulations

- Three presentations and then a Q&A: Write your questions in the chat and please add to whom it is directed.

- Breaks with structured discussions after session I and session III in breakout rooms

- Lunchbreak is scheduled

- Feedback questionnaire will be sent separately

- Please mute your microphone and deactivate your camera, unless you are saying something then both should/can be activated

Session I: *Automation/ Train Control Systems*

Automation/ Train Control Systems
Chair: Anja Naumann (German Aerospace Center)

09:10   **A prototype to develop and evaluate remote control workplaces for future automated railway operation**

Niels Brandenburger, Anja Naumann (German Aerospace Center)

09:30   **Creating driver-vehicle collaboration in autonomous environments: Siemens Autonomous Tram**

Sabine Berghaus, Philipp Quaet-Faslem, Kristian Weiss (Siemens Mobility/Siemens AG)

09:50   **Remote driving options as a fallback system for automated trains**

Baris Cogan, Birgit Milius, Heiko Herholz (TU Berlin)

10:10   **Questions & Answers**

Interactive Session I

- Driverless driving – in car or train – is a hot topic, discussed often especially in the media.

    - What is your view of it. When will we have driverless trains in regular mainline rail traffic?
    - What are the main driving factors?
    - What are the main obstacles?

Session II

Ergonomics and Usability of advisory and assistance systems

10:55 **Reducing Monotony in Rail Signaling by Secondary Tasks with Various Levels of Difficulty – An Experimental Study**

Jonas Brüngger, Mario Niederhauser, Michaela Wirth, Josua Peter, Tanja Huber (University of Applied Sciences Northwestern Switzerland)

11:15 **Use of modern communication devices in the train driver's cab – risks and design options**

Nicole Stoller, Giulio Nisoli, Jonas Brüngger, Stefan Wahrstätter, Melisa Dittrich, Karin Hostettler, Katrin Fischer (University of Applied Sciences Northwestern Switzerland)

11:35 **The development of a joint cognitive system of train driver and ATO GoA2 at Netherlands Railways**

Inge van Kooten-Satter, Vera Verstappen, Stan Albers, Lammert Visser, Ellen Dircks (Netherlands Railays)

11:55 **Questions & Answers**

Lunch break

Session III
Human Factors Integration/ Rules and Standards I

12:45 **Is a train coming? – Effects of two low-cost safety measures on road user behavior at a passive level crossing**

Annika Dreßler, Joana Illgen, Jan Daniel Grippenkoven (German Aerospace Center)

13:05 **Developing trainings to improve cognitive skills of technical operator in the railway domain**

Stefan Wahrstätter, Jonas Brüngger, Nicole Stoller, Giulio Nisoli, Karin Hostettler, Katrin Fischer (University of Applied Sciences and Arts Northwestern Switzerland)

13:25 **Integration of UX into CENELEC 50128 based processes**

Marc Burkhardt (Siemens Mobility GmbH)

13:45 **Questions & Answers**

Interactive Session II

- As we automate more and more functions in the train and in railway operations, we need to adapt the training of personnel.

  - How do requirements and needs for personnel change?
  - What will be our biggest challenges in getting people trained? Which approaches will work?

Session IV
Human Factors Integration/ Rules and Standards II

14:30   **Good Rules**

Giulio Nisoli, Nicole Stoller, Stefan Wahrstätter, Karin Hostettler, Katrin Fischer (University of Applied Sciences Northwestern Switzerland)

14:50   **ERA Safety Culture Programme**

Bart Accou (European Union Agency for Railways)

15:10   **What role for the EU regulator as regards Human and Organisational Factors (HOF) in railway automation?**

Jayne Yeo (European Union Agency for Railways)

15:30   **Questions & Answers**

Farewell!