





Railway Innovation Workshop

DTU Lyngby June 3rd 2019, Building 303A

- 09:30-10:00 Registration // coffee and networking // Poster Exhibition
- 10:00-10:05 Welcome and setting the scene Poul-Erik Hansen, CenSec/Inno-Pro
- 10:05-10:15 **Current innovation activities at DTU** Henrik Sylvan, RailTech DTU
- 10:15-10:35 **On track with safety automated verification of railway control systems** Signe Geisler, Department of Applied Mathematics and Computer Science, DTU
- 10:35-11:00 The Roads2Rails project learning from road engineering by testing asphalt under the tracks in order to build and maintain a more efficient rail infrastructure Tulika Bose, DTU Byg
- 11:00-11:20 Fault detection and predicting faults how to convert the good old railway into a modern digital railway using new tools and methods in planning Emil Hovad, Department of Applied Mathematics and Computer Science, DTU
- 11:20-11:30 Fruit and coffee
- 11:30-11:55 Eco-friendly train operation creating the battery-powered Desiro Cityjet for Austrian Railways ÖBB for better services on non-electrified lines Jens Lind, Siemens
- 11:55-12:20 During and after the ERTMS installation: how to effectively keep up high reliability and long life of the new system with real-time diagnostics and web applications Sebastian Kobylarz, Alstom

- 12:20-13:00 Lunch break (sandwich)
- 13:00-13:25 Train procurement in Norway in new organization optimizing towards passenger needs, market segments, technical system concept, financing, etc. Ove Skovdahl, Jernbanedirektoratet
- 13:25-13:50 Upgrading of existing lines to 250 km/h for mixed passenger/freight traffic could such a project demonstrate positive net benefits (identification of the first stretches) Lennart Lennefors, Trafikverket
- 13:50-14:15 Development of high-speed and very high-speed trains – time matters Lasse Toylsbjerg-Petersen, Bombardier Transportation
- 14:15-14:35 The new app-based fare system in Skåne – based on a simple, easy-to-understand zone structure Skånetrafiken (tba)
- 14:35-14:45 Coffee refill and cake
- 14:45-15:10 **Threats and Resilient Measures in Railways on Cyber Security** Alexander Bishop, Ricardo Rail UK
- 15:10-15:35 Space applications on the Follo railway line project Dr. Regula Frauenfelder, NGI Norge
- 15:35-15:55 Do we really know what wind forces hit our railway infrastructure can we improve methods and knowledge to avoid accidents like the Great Belt train disaster? Prof. Jakob Mann, DTU Wind
- 15:55-16:00 Conclusions and closing of today's pre-summit

16:00 Drinks and networking

Venue

You can find Railway Innovation Workshop at DTU Lyngby campus, Building 303A (auditorium 49). A Letbane station is placed just outside (a complete 1:1 mock-up model), however no trains running yet! You can find information on <u>bus services</u> at www.rejseplanen.dk. By car – plenty of <u>parking lots</u> offered at campus!

Registration

The workshop is open for everybody. Register at <u>www.censec.dk</u> scroll down /Events /June 3 Contact: communications manager, Louise Juel Broch $\rightarrow \underline{louise@censec.dk}$

Exhibition

A small poster exhibition arranged in the lobby (no charge)

ADDITIONAL

The Transport Summit on June 4 includes a railway session "Rail evolution – less cost and smarter operations" Please register separately at: www.transportsummitdtu.com