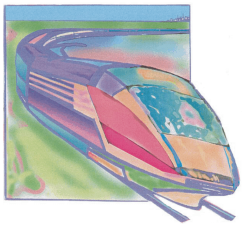
Järnvägsgruppen



KTH Railway Group invites you to a seminar on

How can digitalisation and automation make railways more efficient?

Thursday, Oct 1, 2020, 13:00 – 16:30
Online via Microsoft Teams. If you want to participate, please register via railwaygroup@kth.se

Rail transport has a number of system inherent advantages like low energy usage and high transport capacity. However, there is also a common perception that the full potential of rail transport is not used today. The European Commission is pushing for a change in the European transport system, by funding the large research programme Shift2Rail. This programme has been running for some years and is right now planning for a second phase. This year's seminar will focus on the possible contributions of digitalisation and automation to make railway transport more efficient in the future.

Everyone is talking about digitalisation today, especially in transport. When can we expect autonomous cars in larger scale on our roads for example? The buzz words digitalisation, automatization, machine learning, digital twin, etc. are frequently used in road maps for future development of railway transport as well. In the seminar we will try to show some examples of concrete benefits these new technologies can bring. Will rail operation be even safer? Can operational and maintenance costs be reduced? Will the capacity on an existing network increase? What are critical issues that have to be taken into account?

As usual, after the presentations there will be time for discussion with all presenters.

Program

13:00	Welcome and Introduction, Sebastian Stichel, Director KTH Railway Group
13:10	Automatic Train Operation – Reality for metros but a challenge for the railway, Justus Stern, SJ AB Rolling Stock Division, Centre of Competence.
13:40	The Main Line ATO Journey – A GB Rail Perspective, Imtithal Aziz, Network Rail, Control Command & Signalling Engineering.
14:10	Digitalisation and automation – Opportunities and challenges for public transport, Kristina Löwenberg and Robert Lagnebäck, Region Stockholm, Strategisk utveckling
14:40	Break.
15:00	Working with Standardization and Joint Projects; Some reflections on Similarities and Differences Between Railways and Wireless Communications Mats Bengtsson, KTH Railway Group.
15:30	Reduction of infrastructure maintenance costs using machine learning and digital twins. Carlos Casanueva, KTH Railway Group.
16:00	Questions and Answers
16:20	End of the seminar.