

TECHNICAL MEETING

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Automation in Railway Control Avoiding a Bridge too Far

Presented by Daniel Woodland (Dr.), Eylem Thron (Dr.)

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Venue: An online webinar

Commencing at 5:30pm BST

Talk synopsis

In a Railway context, Automation could be anything from warning of a detected failure, through to driverless trains and un-staffed control. Automation offers many attractions for a railway operation, but there are potentially significant drawbacks. Over reliance or undue faith in automation systems could lead to disruption of the railway service and, in the worst cases, to unsafe conditions and accidents. Complacency can creep in when functions and activities get 'too' automated and we have a tendency to 'learn' to over-rely on their expected performance. In order to ensure that these concerns are addressed, it is essential that all aspects of the Human Machine Interface are considered during the early stages of design and that sufficient analysis is done to understand their impact. So when it comes to the rarely discussed topic of Automation in control centre systems, should we resist increases in automation, or push for more?

Speaker biography

Dr Daniel Woodland has over 25 years' experience in the railway industry, specialising in signalling, interlocking, control, system design principles (including GOA2 and GOA4); system integration; training and education. Daniel is a Principal Consultant with Ricardo Rail, President of the Institution of Railway Signal Engineers and an Honorary Senior Research Fellow at University of Birmingham.

Dr Eylem Thron has over 12 years' experience in the application of human factors (HF) and design expertise within the rail, highways, aerospace & defence industries. She provides HF support across the concept, design and implementation phases of rolling stock and infrastructure projects. She is a Senior Human Factors Consultant at Ricardo Rail and a visiting fellow in HF at University of Bournemouth.