

Sixth International Human Factors Rail Conference – Programme

Venue: London Bridge – Prospero House, 241 Borough High St, London, SE1 1GA

Monday 6th November 2017

	Rooms with capacities			
Time	Illuminate (300)	Smile 1 (80)	Smile 2 and 3 (80)	Smile 4 (80)
08:30-10:00	Registration Refreshments and Breakfast available			
10:00 – 10:15	Conference opening - <i>Ann Mills</i>			
10:15 - 11:00	Keynote address Applying Human Factors expertise when ‘people have had enough of experts’ Overcoming industry inertia by influencing and implementing from the ‘ivory tower’ <i>Andrew Taylor, Great Western Railway</i>			
11:00 - 11:20	Break - Refreshments			
	Platform Train Interface & Passengers (1) <i>Emma Lowe NR</i>	Driver reliability <i>Jordan Smith RSSB</i>	Fatigue <i>Toni Flint RSSB</i>	
11:20 - 11:45	Understanding the risk associated with train dispatch (70) <i>Namrita Kohli & Anita Weltz</i>	Exploring the limits of train driver reliability (55) <i>Huw Gibson, Justin Willett, Graham Lewis & Chris Harrison</i>	Fatigue as a factor in high risk rail incidents (117) <i>Dan Basacik, Huw Gibson & Nic Bowler</i>	WORKSHOP Human Factors integration for rail infrastructure projects: A workshop to share best practice, identify opportunities for improvement and address future challenges (124) <i>Richard Bye</i>
11:45 - 12:10	Travel risk SFAIRP Assessment: An analytic approach adopting bow-tie and barrier approaches (32) <i>Mark Andrew</i>	The impact of innovative devices in the train cab on train driver workload and distraction (19) <i>Vera Verstappen, Marit Wilms & Richard van der Weide</i>	Key performance indicators (KPIs) for staff fatigue management systems (35) <i>Jeremy Mawhood</i>	
12:10 - 12:35	Sliding doors: optimising door closure arrangements to improve boarding and alighting (66) <i>Richard Roels, Ed Smith, Natasha Perry, Jordan Smith & Belinda Tucker</i>	Curbing train control personnel unsafe acts stemming from unintended errors by focussing on cognitive processes and functions (95) <i>Nokubonga (Sma) Ngcamu-Tukula</i>	Countering train driver fatigue in automatic train operation (33) <i>Niels Brandenburger, Martin Wittkowski & Anja Naumann</i>	

12:35 - 13:00	Improving the experience for rail passengers and operators by providing improved crowding information (168) <i>James Pritchard & Kirsten Revell</i>	Education on looking based on human characteristics (84) <i>Tetsuya Komiyama & Koichiro Taki</i>	Preparing rail industry guidance on biomathematical fatigue models (45) <i>Viravanh Somvang, Philippe Cabon, Brenton Hayward & Ann Mills</i>	
13:00 - 13:50	Lunch			
	Platform Train Interface & Passengers (2) <i>Sam Waters RSSB</i>	Train driving <i>Dan Basacik RSSB</i>	Competence & Training <i>Paul Leach RSSB</i>	
13:50 - 14:15	Inclusive design in our London stations - a European perspective (61) <i>Toby Garner & Louise Walker</i>	Driver development plans: practical steps for improving culture <i>Harry Blanchard</i>	It was acceptable in the 80s - The validation of the train driver psychometric assessment process (108) <i>Mary-Elizabeth Cross, Priya Shah & Paul Leach</i>	
14:15 - 14:40	Optimising the platform train interface for people with reduced mobility (150) <i>Martin Stout, Eric Harris & Derek Hirst</i>	Human factors applications of On-Train-Data-Recorders (96) <i>Nora Balfe & Sean Geoghegan</i>	Selecting high performing train drivers: the role of attention and cognitive flexibility (127) <i>Anthea Hickey, Michael Collins & Christopher Jackson</i>	
14:40 - 15:05	The impact of on-train camera/monitors (OTCM) remaining on during dispatch on drivers' responses to hazards on the line (189) <i>Charlotte Kaul, Huw Gibson & Charlotte Morrison</i>	Operational safety indicators using real train driving data (58) <i>Rawia El Rashidy, Peter Hughes, Miguel Figueres-Esteban & Coen van Gulijk</i>	Taking a Human Factors approach to safety critical communications training: A case study (125) <i>Claire Turner, Paul Townsend, Emma Lowe & Huw Gibson</i>	

15:05 - 15:25				
Break - Refreshments				
	Platform Train Interface & Passengers (3) <i>Paul Leach RSSB</i>	SPADs <i>Huw Gibson RSSB</i>	Non-Technical Skills <i>Ann Mills RSSB</i>	
15:25 - 15:50	Enabling innovation in delivering high capacity rail (46) <i>David Watts & Jamie Chan-Pensley</i>	Assessing multi-SPAD signals: Establishing a systems approach (86) <i>Fiona Kenvyn & Danni Maynard</i>	Improving safety and performance through enhanced competence management – The role of non-technical skills (71) <i>Philippa Murphy & Priya Shah</i>	
15:50 - 16:15	An evaluation of RSSB's guidelines for the management of train and station passenger crowds (15) <i>Sam Waters, Patrick Waterson & Michael Woods</i>	Integrating data for SPAD management (92) <i>Miguel Figueres-Esteban, Peter Hughes, Rawia El Rashidy & Coen Van Gulijk</i>	A model for the development of railway trainers in integrating non-technical skills into training and assessment: An international case study of train driver skills development (37) <i>Andrew Russell & Joep Von Berg</i>	
16:15 - 16:40	Developing non-technical skills to help improve safety at the platform train interface (28) <i>Paul Leach</i>	Common claims on SPADs – Truth or myth? (81) <i>Andreas Lumbe Aas</i>	Once upon a time....using storytelling to promote NTS development (149) <i>Emma Lowe</i>	
16:40 - 17:05	Ride along: Frequent travellers and information use during the work commute (98) <i>Shalaka Kurup, David Golightly, David Clarke & Sarah Sharples</i>		A study of extracting and sharing non-technical skills among train drivers in JR East (26) <i>Takashi Enomoto</i>	

17:10 – 17:30	<p style="text-align: center;">Poster introduction session <i>Ann Mills RSSB</i></p> <ul style="list-style-type: none"> • Physiological measurement of human performance: more than meets the eye (138) <i>Abigail Fowler, David Golightly & Sarah Sharples</i> • Practical visualisation and communications tools for changes to complex user roles in the operational railway (65) <i>Dominic Russell, Amanda Elliott & Simon Macmull</i> • A study on behavioural characteristics of elderly pedestrians on railroad crossings (48) <i>Yuji Morimoto, Hiroko Takeuchi & Yuki Ashitaka</i> • Closing the human components of hazards through operational rules, training modules and operational testing (57) <i>Jan Asmussen, Amanda Elliott & Simon Macmull</i> • ETCS fitment in our trains – Tools and techniques (89) <i>Toby Garner & Harry Blanchard</i> • Application of the theory of situational awareness in the context of rail signalling (54) <i>Birte Thomas-Friedrich & Jan Grippenkovén</i> • Detecting the undetectable of human-machine interaction to improve rail resilience (100) <i>Salvatore La Delfa, Simon Enjalbert, Philippe Polet & Frederic Vanderhaegen</i> • Human error and mindfulness (9) <i>Angel Martinez & Francisco Ortiz Nasarre</i> • A multi-modal and multi-criterion serious game to support rail eco-driving based on human behaviour learning (90) <i>Ioic Hombert, Salvatore La Delfa & Frederic Vanderhaegen</i> • A field survey of texting while walking in stations (43) <i>Hiroko Takeuchi, Mayuko Ueda, Shizuka Nakamura, Yuki Ashitaka & Kazushige Wada</i> • Evacuation behaviours and rescue activities in railroad tunnel fire accidents (31) <i>Yutaka Yoshida</i> • Development of web resources on fatigue for the rail industry in GB (118) <i>Dan Basacik & Ann Mills</i> • Cyber security threat in future railway (62) <i>Eylem Thron</i> • Testing a high frequency timetable concept with railway traffic operators in a multi-actor simulation setting (152) <i>Stan Albers, Boris de Groot, Julia Lo, Jurjen Mug, Edith Philipsen, Emdzad Sehic, Jan Jaap Vermeire & Cor van 't Woudt</i> • Exploring train drivers knowledge of fatigue reduction strategies within their Train Operating Company (169) <i>Nicola Legg & Gail Steptoe-Warren</i> • Shift2Rail – European Rail Innovation on Human Factors (183) <i>Judit Sandor</i> • Using multi-method approaches to investigate passenger's safety perception in train station environments (193) <i>Andrea Schneider, Jasmin Thurau, Franco Ehrat, Beat Vollenwyder, Eva Krueger</i>
17:30 - 19:30	<p style="text-align: center;">Time to view conference posters, mingle with delegates and catch up with old friends</p> <p style="text-align: center;">Beer, wine, soft drinks and snacks available</p>

Tuesday 7th November 2017

	Rooms with capacities			
Time	Illuminate (300)	Smile 1 (80)	Smile 2 and 3 (80)	Smile 4 (80)
08:30-09:00	Refreshments and Breakfast available			
09:00 – 09:45	Keynote address The safety culture stack – building inter-organisational resilience in the aviation industry <i>Barry Kirwan, EUROCONTROL</i>			
	Signaller & Workload <i>Sam Waters RSSB</i>	Route Knowledge <i>Alice Monk RSSB</i>	Culture (1) <i>Brendan Ryan UoN</i>	
09:50 – 10:15	From London to Doha; How to leverage signaller workload benchmarks for new signalling projects (85) <i>Mark Lowten & Paul Salkeld</i>	Route knowledge in the GB railway and the route story approach (137) <i>Aoife Finneran, Huw Gibson, Sam Waters, Gemma Say, Glen Brunsten, Jonathon Gregory & Brendan Ryan</i>	Lessons from the design of a resilience engineering based train management in station system diagnostic method (53) <i>Eric Rigaud, Christian Neveu & Stella Duvenci-Langa</i>	WORKSHOP Improving safety performance through the application of non- technical skills (72) <i>Philippa Murphy</i> 09:50 - 13:00
10:15 – 10:40	Measuring rail signaller workload in a highly realistic simulated environment (52) <i>Birte Thomas- Friedrich, Philipp Schneider, Heiko Herholz, & Jan Grippenkovon</i>	Route knowledge in Germany: A simulator study (44) <i>Birgit Milius & Anne Lorenz</i>	Safety culture: Assessment and continuous improvement – new requirement for safety and performance in railways (63) <i>Lena Kecklund, Jan Skriver & Marcus Lavin</i>	
10:40 – 11:05	An innovative methodology to evaluate workload (120) <i>Philippe Cabon & Viravanh Somvang</i>		Integrating human factors and safety culture into the railway safety management system (64) <i>Lena Kecklund, Jan Skriver & Sara Peterson</i>	
11:05 - 11:25	Break - Refreshments			

	Traffic Management <i>Nora Balfe CRR</i>	User Experience <i>Harvey McIntosh RSSB</i>	Culture (2) <i>Bernard Penners UIC</i>	
11:25 - 11:50	Day in the life of: Finding the value in the everyday (128) <i>Richard Bye</i>	Optimising the design of a Rule Book app through an end-user focussed methodology (59) <i>Jordan Smith</i>	Safety culture across different transport sectors: Collecting data confidentially for better comparisons (93) <i>Chris Langer</i>	WORKSHOP continued
11:50 - 12:15	Thameslink traffic management workload framework: new technology and multiple roles (140) <i>Kate Moncrieff</i>	Measuring user experiences in a railway related environment (24) <i>Birgit Milius</i>	Assessing human factors and organisational culture in the supply of critical rolling stock products (67) <i>Richard Roels, Ed Smith, Ann Mills, John Barber, Graham Nicholas, Matthew Dalton, Belinda Tucker & Kevin Thompson</i>	
12:15 - 12:40	Traffic management systems and human factors impact (110) <i>Ged Morrisroe & Daniel Simmons</i>	WORKSHOP Innovations in signalling design (151) <i>Matthew Weingarth & Natasha Purewal</i> 12:15 – 13:05	Showing success in assessment and improving safety culture on the DLR (Industrial application) (104) <i>Vicky Gliddon & David Nicholls</i>	
12:40 – 13:05	New railway, old challenges (144) <i>Anthony Coplestone</i>		Safety climate validation for UK rail infrastructure workers: Analysis of the nomological network for the design engineers and rail maintenance workers (42) <i>Rajkiran Kandola, Matteo Curcuruto & James Morgan</i>	
13:05 – 14:00	Lunch			

	Future Railway (1) <i>Jordan Smith RSSB</i>	Security <i>Jerry Mawhood ORR</i>	Culture (3) <i>Mary-Elizabeth Cross RSSB</i>	
14:00 - 14:25	Challenges and strategies for an effective organisational structure in a complex rail socio-technical system (25) <i>Michelle Nolan-McSweeney, Brendan Ryan & Sue Cobb</i>	Adapting operational rules for degraded mode based on a human centred risk assessment (34) <i>Po-Chi Huang & Birgit Milius</i>	Integration of human factors into a safety management system in a metro railway company (88) <i>Pilar Calvo Holgado, Antonio Castellano & Baltasar Gil</i>	WORKSHOP Lost in translation? Turning technical RBTNA findings into practical strategies for non-technical skills development (190) <i>Joanne Smyth & Todd Shardlow</i>
14:25 - 14:50	Putting the human at the centre of the Digital Railway (129) <i>Laura Sutton & Richard Bye</i>	Towards an understanding of the security challenges within the railway industry (79) <i>Sethunya Matsie</i>	Non-technical skills: The foundation for a fair safety culture - The human resilience toolbox for the 21st century railway (38) <i>Paul Davison</i>	
14:50 - 15:15	Human Factors input into the Systems architecture for Digital Railway (136) <i>Kate Fairhall & Nic Bowler</i>	Human Factors in rail cyber security (51) <i>Amanda Widdowson</i>	Introducing a human factors approach to incident investigation at the Port of Felixstowe (123) <i>Harvey McIntosh, Alice Monk & Dan Basacik</i>	
15:15 – 15:35	Break - Refreshments			
	Future Railway (2) <i>Mark Young RAIB</i>	Level Crossings & Maintenance <i>Dan Basacik RSSB</i>		
15:35 – 16:00	Can we feed the beast of automation? An analysis of the operational and organisational impact on railway traffic management (56) <i>Amanda Elliott & Simon Macmull</i>	An unorthodox approach to assessing risks at level crossings and trespassing areas (13) <i>Ian Naish</i>		WORKSHOP continued

16:00 – 16:25	<p>Digitalisation: Harnessing data to improve service efficiency, effectiveness, safety and reliability (115) <i>Suzanne Heape, Christopher Lowe, Elizabeth Bowen & Nadia Jouni</i></p>	<p>Development of human factors guidance to manage human errors in axle end re-assembly (121) <i>Alice Monk, Paul Ferraby, Huw Gibson & David Fletcher</i></p>		
16:25 – 16:50	<p>User tests of innovative interaction with a 3D operator workstation (16) <i>Marc Burkhardt, Damaris Dose, Anne Christ, Nadine Ruth & Elke Grabe</i></p>			
19:00 – 23:00	<p>Conference Dinner – Oxo2, Oxo Tower Wharf, South Bank, London Sparkling wine & canapes on arrival Three course dinner with Tea & coffee</p>			

Wednesday 8th November 2017

	Rooms with capacities			
Time	Illuminate (300)	Smile 1 (80)	Smile 2 and 3 (80)	Smile 4 (80)
08:30-09:00	Refreshments and Breakfast available			
09:00 – 09:45	Keynote address Health and safety excellence: The relevance of the story behind the London 2012 construction Programme <i>Lawrence Waterman OBE, Park Health & Safety</i>			
	ERTMS Driving (1) <i>Anita Weltz RSSB</i>	Human Factors Integration (1) <i>Kate Moncrieff NR</i>	Human Performance Classification <i>Priya Shah RSSB</i>	
09:50 – 10:15	Safety with ERTMS under scrutiny (36) <i>Heidi van Spaandonk</i>	Sydney Metro: Integrating HF principles - how can you tell if it is SFAIRP? (73) <i>Sue Milner</i>	Classifying human performance and system failures in the GB rail industry (47) <i>Stephanie Cynk, Dan Basacik, Huw Gibson & Stuart Smith</i>	WORKSHOP Independent assurance: What a practitioner should know (103) <i>Harry Blanchard, Toby Garner, Simon Macmull & Amanda Elliott</i> Duration approx. 60 mins
10:15 – 10:40	Coexistent operation of ERTMS and train protection systems (AWS and TPWS) – Data collection methodology for the user testing of the driver machine interface (27) <i>Sam Waters & Charlotte Morrison</i>	Rail human factors engineering within agile software development practices (30) <i>Christopher Lowe & Suzanne Heape</i>	A proposal of a fuzzy cognitive map modelling human cognitive process with emphasis of situation awareness errors (109) <i>Laila Bouargane & Abdelghani Cherkaoui</i>	
10:40 – 11:05	ERTMS transitions: what impact do they have on train drivers? (49) <i>Alice Monk, Mary-Elizabeth Cross, Lynne Collis, Stuart McFarland, Robert Agutter & David Fletcher</i>	Designing with drivers: Standardising pictograms in train cabs (29) <i>Laura Lewis, Elaine Thompson, Jamie Capon, Andrew Shirra & Susan Cassidy</i>		
11:05 - 11:25	Break - Refreshments			

	ERTMS Driving (2) <i>Anita Weltz RSSB</i>	Human Factors Integration (2) <i>Mike Carey NR</i>	Accidents & Incidents (1) <i>Philippa Murphy RSSB</i>	
11:25 - 11:50	ERTMS pilot in the Netherlands – impact on the train driver (40) <i>Richard van der Weide, David de Bruijn & Melcher Zeilstra</i>	Addressing the catch 22: No user, no train (102) <i>Fiona Bird & Christopher Patrick</i>	The complexity of railway accident investigations – a system in its own right (91) <i>Jessica Hutchings</i>	WORKSHOP continued
11:50 - 12:15	ERTMS roll out from a train driver's perspective (7) <i>Richard van der Weide</i>	Human Factors integration with Asian rolling stock manufacturers (74) <i>Karen Priestley & Lisa Kelly</i>	Non-technical skills in rail accidents: panacea or pariah? (133) <i>Mark Young & Tabitha Steele</i>	
12:15 - 12:40	A review of operational safety during ETCS roll out – a Belgian case study (39) <i>Elaine Thompson, Peter Geens, Bogdan Godziejewski & Joost Bolck</i>	Thinking inside the box: GMRT 2161 and the Schrödinger's cat problem (101) <i>Lisa Kelly & Christopher Patrick</i>	Determining the role of technology in South African railway occurrences (76) <i>Inga Dambuza</i>	
12:40 – 13:05	ERTMS discussion		A cross-sectional study exploring the impact of work-related stressors on safety motivation and safety behaviours (97) <i>Maria Matthews, James Morgan & Stuart Webster-Spriggs</i>	
13:05 – 14:00	Lunch			

	Signaller <i>Richard Bye NR</i>	Suicide & Sustainability <i>Charlotte Kaul RSSB</i>	Accidents & Incidents (2) <i>Alice Monk RSSB</i>	
14:00 - 14:25	Signaller requirements for ETCS data and commands (111) <i>Ged Morrisroe</i>	Evaluating rail suicide prevention measures (94) <i>Brendan Ryan, Urszula Wronska & Ian Stevens</i>	Improving the ability to direct the rescue of passengers and oversee restoration in the event of a major railway disorder (18) <i>Kuratani Masato, Kusakami Ken, Sato Hiroaki & Sakaniwa Jun</i>	
14:25 - 14:50	Development of Team Resilience Training (TRT) (80) <i>Hideaki Ueno & Nobutake Sakai</i>	Using contextual information in the evaluation of the effectiveness of mid-platform fencing (114) <i>Urszula Wronska & Brendan Ryan</i>		
14:50 - 15:15	Reducing the risk of signallers giving level crossing users permission to cross when it is not safe to do so (130) <i>Chris Hack & Mike Carey</i>	Embedding a sustainable development culture; recommendations to overcome the barriers and embrace a culture of sustainability (14) <i>Mary-Elizabeth Cross & Michelle Papayannakos</i>		
15:15 – 15:30	Conference Close – <i>Ann Mills</i>			

Thursday 9th November 2017

Technical visits