Rail Human Factors

Description: In recent years, for reasons connected to the organization of the industry, technical developments, and major safety concerns, rail human factors has grown in importance at an international level. Despite its importance, however, supporting literature has been largely restricted to specialist journal publications and technical reports. Rail Human Factors addresses this imbalance by providing the first fully comprehensive overview of the area.

The volume includes contributions from leading ergonomists, psychologists, sociologists, management scientists and engineers whose common theme is to investigate, understand and design for people on the railways, including staff, passengers and the general public.

Every area of ergonomics/human factors is covered: physical design of work and equipment in maintenance; cognitive ergonomics in driving, signalling and control; organizational and social ergonomics in the way teams are formed, plans are made and organizations are structured and run.

Topics covered include:
• Systems views of rail human factors
• Driver models and performance
• Train and cab design
• Network and train control systems, including ERTMS
• Signals and signal
• SPADS
• Signalling and control center design
• Signaller performance
• Control center interfaces
• Workload, situation awareness, team working
• Human error and reliability
• Timetabling and planning
• Maintenance planning and work
• Safety climate and safety culture
• Passenger comfort and behaviour
• Station design
• Public information systems
• Level crossings
• Trespass and vandalism
• Ergonomics standards and guidelines
• Human Factors integration

The book is the definitive guide for all those concerned with making railways safer, more reliable, of higher quality and more efficient. It will be essential reading for policy-makers, researchers and industry around the world.

Contents:

Foreword, Andrew McNaughton. Perspectives on Rail Human Factors: Rail human factors: past, present and future, John R. Wilson and Beverley J. Norris
The RSSB human factors programme, Ann Mills
The ergonomics programme at Network Rail, Theresa Clarke. Driving – Train Driver Behaviour: Driver performance modelling and its practical application to railway safety, W. Ian Hamilton, Theresa Clarke
Acting or reacting? a cognitive work analysis approach to the train driver task, Anders Jansson, Eva Olsson and Lena Kecklund
The role of the future train driver, Susannah Russell, Barbara Long and Katie Robinson
Investigating train driver behaviour: the use of lineside information (permanent speed restriction signs) when regulating speed, Trudi Farrington-Darby, John R. Wilson and Beverley Norris
Analyzing and modelling train driver performance, Ronald McCleod, Guy H. Walker, Neville Moray and Ann Mills
Driving – vision and visual strategies: a methodology to investigate train driver visual strategies, N. Brook-
Carter, A.M. Parkes and A. Mills
A structured framework for integrating human factors design principles into railway vehicle cab sightlines specification, Paul Traub and William Lukau

Driving – devices in the cab: assessing the human factors risks in extending the use of AWS, Ronald W.McLeod, Guy H. Walker and Ann Mills

Driver vigilance devices, Adam Whitlock, John Pethick and Ann Mills
Human factors issues raised by the proposed introduction of GSM radio telecommunications into the UK rail environment, Mark Young and James Jenkinson

Driving – signs, signals and SPADs: driver detection and recognition of lineside signals and signs at different approach speeds, Guangyan Li, W. Ian Hamilton, Ged Morrisroe and Theresa Clarke

Signal sighting – development of a framework for managing conflicting requirements, Nicola Stapley, Tidi Wisawayodhin and Ann Mills

Ergonomics relating to the migration of lineside signals to ETCS L2 cab signals, D.P. Rookmaaker, D.W. de Bruijn, C.E. Weeda, M.P.H.J. Koedijk, J.L. Zwartenkot

A human factors SPAD checklist, Emma Lowe and Claire Turner: A structured method for integrating human factors into SPAD risk assessment

Driving – fatigue: human friendly rosters: reducing the risk of fatigue, Rebecca Ashton and Abigail Fowler

The HSE revised fatigue index in the rail industry: from application to understanding, Rob Cotterill and Helen Jones

Signalling and control facilities: meeting human factors challenges during the design of the new Integrated Electronic Control Centre (IECC) in York, Mike Stearn, Martin Hazell, John Robinson and Steve McLeod

The application of ergonomics to standards development for VDU based signalling control systems, Anthony Slamen and Nick Coleman

Using visual layering methods to design rail network control room displays, Darren Van Laar, Ian Andrew and Matthew Cox

Baseline ergonomic assessment of signalling control facilities, Mike Stearn, Theresa Clarke and John Robinson

Photo biological lighting: an avenue for maintaining alertness, Martin Reid and Martin Barnes. Planning and Control: Analysis and support of planning in the Dutch Railroad Company, René Jorna, Wout van Wezel, Derk Jan Kiewiet and Thomas de Boer

Future train traffic control, control by re-planning, Arvid Kauppi, Johan Wikström, Peter Hellström, Bengt Sandblad and Arne W. Andersson. Workload in Signalling: Understanding of Mental Workload in the Railways, John Wilson, Laura Pickup, Beverley Norris, Sarah Nichols, Lucy Mitchell

A conceptual framework of mental workload and the development of a self reporting integrated workload scale for railway signallers, Laura Pickup, John Wilson, Sarah Nichols and Stuart Smith

Assessment of new workload tools for the rail industry, Lucy Mitchell, Laura Pickup, Shelley Thomas and David Watts

Application of industrial-strength workload assessment tools, Ged Morrisroe. Human reliability and safety culture: human error risk management methodology for safety audit of a large railway organization, PC Cacciabue

Competence management systems for rail engineering organizations, John Baker

The analysis of human communication errors during track maintenance, ED Megaw and E Lowe

Understanding safety culture and strategies for improvement in railway maintenance, Trudi Farrington-Darby, Laura Pickup, John Wilson, Lucy Adams


CIRAS – History and issues arising during development, Maurice Wilsdon and Helen Muir

Near miss versus accident causation in the UK railway industry, Linda B. Wright and Tjerk W. van der Schaaf.

Passengers and Staff: Managing violence, Claire Dickinson and Jeremy Bevan

The role of the manager in stress management, Emma Lowe

Getting passengers out – evacuation behaviours, Louis C. Boer

Rail passenger perceptions of risk and safety, and priorities for improvement, Lauren J. Thomas, Daniel J.A. Rhind and Katie J. Robinson


Human factors integration – a company case study, Sarah D Garner

Ergonomics standards in the UK rail industry, John Wood

Task Specification in designing for human factors in railway operations, Andrew Shepherd and Edward Marshall

Systems engineering tools for task modelling, Ged Morrisroe.
Ordering:

Order Online - http://www.researchandmarkets.com/reports/304674/

Order by Fax - using the form below

Order by Post - print the order form below and send to

Research and Markets,
Guinness Centre,
Taylors Lane,
Dublin 8,
Ireland.
Fax Order Form
To place an order via fax simply print this form, fill in the information below and fax the completed form to 646-607-1907 (from USA) or +353-1-481-1716 (from Rest of World). If you have any questions please visit
http://www.researchandmarkets.com/contact/

Order Information
Please verify that the product information is correct.

Product Name: Rail Human Factors
Web Address: http://www.researchandmarkets.com/reports/304674/
Office Code: SCAY6PEF

Product Format
Please select the product format and quantity you require:

<table>
<thead>
<tr>
<th>Quantity</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Hard Copy:</td>
<td>USD 149 + USD 28 Shipping/Handling</td>
</tr>
</tbody>
</table>

* Shipping/Handling is only charged once per order.

Contact Information
Please enter all the information below in BLOCK CAPITALS

Title: [ ] Mr [ ] Mrs [ ] Dr [ ] Miss [ ] Ms [ ] Prof
First Name: ____________________ Last Name: ____________________
Email Address: * ____________________
Job Title: ____________________
Organisation: ____________________
Address: ____________________
City: ____________________
Postal / Zip Code: ____________________
Country: ____________________
Phone Number: ____________________
Fax Number: ____________________

* Please refrain from using free email accounts when ordering (e.g. Yahoo, Hotmail, AOL)
Payment Information

Please indicate the payment method you would like to use by selecting the appropriate box.

☐ Pay by credit card: You will receive an email with a link to a secure webpage to enter your credit card details.

☐ Pay by check: Please post the check, accompanied by this form, to:
Research and Markets,
Guinness Center,
Taylors Lane,
Dublin 8,
Ireland.

☐ Pay by wire transfer: Please transfer funds to:
Account number 833 130 83
Sort code 98-53-30
Swift code ULSBIE2D
IBAN number IE78ULSB98533083313083
Bank Address Ulster Bank,
27-35 Main Street,
Blackrock,
Co. Dublin,
Ireland.

If you have a Marketing Code please enter it below:

Marketing Code: 

Please note that by ordering from Research and Markets you are agreeing to our Terms and Conditions at http://www.researchandmarkets.com/info/terms.asp