

Annual Meeting 2018

Technology for an Ageing Society

October 8-10, 2018

BERLIN - GERMANY



PROGRAMME



Europe Chapter
Human Factors and Ergonomics Society

Organisation Committee 2018

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CRF

DICK DE WAARD

University of Groningen

Monday October 8th

08.30 - 09.15	REGISTRATION Welcome coffee	
09.15 - 09.30	OPENING	Rebecca Wiczorek, Dietrich Manzey TU Berlin
09.30 - 10.50	Session 1: HUMAN MACHINE INTERFACE - 1	<i>Chair:</i> Stefan Röttger German Naval Medical Institute
09.30 - 09.50	Designing for Automated Vehicle and Pedestrian Communication: Perspectives on eHMIs from Older and Younger Persons	Ina Othersen (André Dietrich) Volkswagen
09.50 - 10.10	The Possibility of Measuring Affects by Measuring Persons' Body Tilt	Friederice Schröder TU Berlin
10.10 - 10.30	Cooperation through communication – New light technologies for improved traffic climate	Susann Winkler TU Braunschweig
10.30 - 10.50	Improving cooperation in traffic – Novel HMI approaches to enhance driver-driver interactions	Adrian Haar Volkswagen
10.50 - 11.20	POSTER SETUP Coffee break	
11.20 - 12.40	Session 2: AVIATION, COMFORT and SAFETY	<i>Chair:</i> Linda Onnasch Humboldt Universität zu Berlin
11.20 - 11.40	The Safety - Productivity Balance and its Association with Human Factors and Safety Awareness and Communication	Nektarios Karanikas Amsterdam University of Applied Sciences
11.40 - 12.00	Wearable comfort and performance expectancy predict user acceptance of a sensor-based home lighting system	Kiran Maini Gerhardsson Lund University
12.00 - 12.20	Sequential Human Redundancy	Dietlind Helene Cymek (Dietrich Manzey) TU Berlin
12.20 - 12.40	Teams Coping with Unknown Failures in Aerospace and Operational Environments	Damien L'Haridon ONERA
12.40 - 13.40	Lunch	
13.40 - 15.00	Session 3: AUTOMATION - TRANSPORT - 1	<i>Chair:</i> Anja Naumann DLR
13.40 - 14.00	Should the urgency of visual-tactile takeover requests match the criticality of takeover situations?	Fabienne Roche TU Berlin
14.00 - 14.20	Prediction of Take-Over Performance in Conditionally Automated Driving. Results of a Naturalistic Driving Study	Christian Purucker WIVW GmbH
14.20 - 14.40	Drowsiness and fatigue in conditionally automated driving – Towards an integrative framework	Jonas Radlmayr (Frederik Naujoks) TU München
14.40 - 15.00	Should I stop or should I go? Evaluating Human Capabilities of Cooperative Manoeuvre Strategies on Automated Driving	Kristin Mühl Ulm University
15.00 - 15.30	Coffee break	
15.30 - 16.30	Session 4: SIMULATORS - SICKNESS	<i>Chair:</i> Dick de Waard University of Groningen
15.30 - 15.50	Simulator sickness – On the duration and intensity of occurring symptoms	Melanie Schliebener University of Duisburg-Essen
15.50 - 16.10	Occurrence of motion sickness during highway and inner city drives	Elisabeth Schmidt BMW Group
16.10 - 16.30	Autonomous cars can make you carsick: How to research carsickness (and not simulator sickness) a driving simulator	Ouren Kuiper VU University
16.30 - 17.00	TALKING POSTER Session All Poster Presenters have 20 seconds to promote their poster	Dick de Waard
17.00 - 18.30	POSTER Session Authors present at their poster	
18.00 - 19.00	Europe Chapter HFES Business Meeting Executive council, chapter members are welcome	

Tuesday October 9th

09.00 - 10.40	Session 5: AGEING and HEALTH	<i>Chair: Dietrich Manzey</i> TU Berlin
09.00 - 09.20	A cognitive aid to support emergency response teams during in-hospital cardiac arrest	Stephan Huber Julius-Maximilians-Universität Würzburg
09.20 - 09.40	Building a tremor compensating mouse driver	Matthias Wille RWTH Aachen
09.40 - 10.00	Considering older adults throughout the development process - The HCD+ approach	Torben Volkmann (Michael Sengpiel) University of Lübeck
10.00 - 10.20	Searching for ways to elicit 'soft' user requirements on assistive technology	Pamela Lindgren Chalmers University of Technology
10.20 - 10.40	Comparison of a thermo-tactile, vibro-tactile and auditory interface to improve hazard detection of older pedestrians	Rebecca Wiczorek TU Berlin
10.40 - 11.10	Coffee break	
11.10 - 12.30	Session 6: SURFACE TRANSPORTATION	<i>Chair: Antonella Toffetti</i> Centro Ricerche Fiat
11.10 - 11.30	Measures for Improving the Detection of Motorcycles in Student Drivers	Ioana Koglbauer Graz University
11.30 - 11.50	Short-term Effects of Unnecessary Collision Alarms on Driver Behaviour	Christina Kaß Opel
11.50 - 12.10	Towards an Error Tolerant HMI Approach for the compensation of Registration Errors in Augmented Reality Application	Vitalij Sadovitch Volkswagen
12.10 - 12.30	The influence of a passenger and meditation before driving on driving behaviour and emotions – a simulator study	Quentin Meteier School of Engineering and Architecture of Fribourg
12.30 - 13.30	Lunch	
13.30 - 14.50	Session 7: AUTOMATION	<i>Chair: Stephen Fairclough</i> Liverpool John Moores University
13.30 - 13.50	Contribution of Industry 4.0 to the emergence of a joint cognitive and physical production system	Philippe Rauffet Lab-STICC UMR CNRS
13.50 - 14.10	Effects of automation support on prospective monitoring, situation awareness, and operators' role definition in a complex supervisory control task	Linda Onnasch Humboldt-Universität zu Berlin
14.10 - 14.30	Social Metaphors in Human-Automation Interaction Design	Greg A. Jamieson University of Toronto
14.30 - 14.50	Supporting supervisory control of safety-critical systems by optimizing visualizations on monitoring displays for fast and accurate perception	Marie-Christin Harre OFFIS Institute for Information Technology
14.50 - 15.20	Coffee break	
15.20 - 16.40	Session 8: VULNERABLE ROAD USERS	<i>Chair: Rebecca Wiczorek</i> TU Berlin
15.20 - 15.40	Should I Stay or Should I Go? Evaluating external HMI Concepts in Virtual Reality	Andre Dietrich TU München
15.40 - 16.00	Evaluation of a Walking Frame Mounted Assistance System Designed to Increase Safety for Older Pedestrians in Road Crossing Tasks	Frederik Laubisch TU Berlin
16.00 - 16.20	Preferences of European cyclists towards active systems with audio-visual and with handlebar vibration warnings	Federico Frabroni University of Bologna
16.20 - 16.40	The influence of automated vehicles on pedestrian motor behaviour	Jean-Louis Honeine (Ebru Dogan) VEDECOM Institut
16.40 - 16.45	KEYNOTE Introduction	Dietrich Manzey TU Berlin
16.45 - 17.30	KEYNOTE Robots to Support Successful Ageing: Potential and Challenges	Prof. Wendy Rogers University of Illinois Urbana-Champaign
20.00	CONFERENCE DINNER	

Wednesday October 10th

09.30 - 10.50	Session 9: HUMAN MACHINE INTERFACE - 2	<i>Chair: Denis Coelho</i> Universidade da Beira Interior
09.30 - 09.50	The role of mental workload in determining the relation between website complexity and usability: an eye-tracking study	Giovanni Serra (Francesco di Nocera) Sapienza University of Rome
09.50 - 10.10	Effects of Traffic Situation on Secondary Task Performance and Workload	Anna Pätzold Opel
10.10 - 10.30	How to use AR-information to benefit the driver in a navigation task? Investigation of the acceptance and the effectiveness of AR-information in a navigation task compared to a classic Head-up Display	Kassandra Bauerfeind Volkswagen
10.30 - 10.50	Examining perceptual performance on a 3D instrument cluster	Andre Dettmann TU Chemnitz
10.50 - 11.15	Coffee break	
11.15 - 12.45	Session 10: AUTOMATION - TRANSPORT - 2	<i>Chair: Karel Brookhuis</i> University of Groningen
11.15 - 11.35	Design of a time-to-lane-crossing based haptic steering guidance	Sjors Oudshoorn (Bastiaan Petermeijer) Delft University of Technology
11.35 - 11.55	Perceived Safety: A necessary precondition for successful autonomous mobility services	Jan Gripenkoven DLR
11.55 - 12.15	Who is driving whom? Highly automated driving transitions from manual to automation in reality and the impact of situation, personality and the driving experience	Ronja Schott TU Berlin
12.15 - 12.35	The influence of drivers' mental models about automated vehicle guidance on transition behaviour in critical situations	Gloria Poehler Karlsruhe Institute of Technology
12.35 - 12.45	BEST POSTER AWARD 2018 EARLY CAREER BEST PAPER AWARD 2018 CONFERENCE CLOSING	Chair Best Poster Committee Dietrich Manzey
12.45 - 14.00	Lunch	

POSTERS	AUTHOR	AFFILIATION
Virtual realities, mental abilities and the effect of ageing	Magnus Liebherr	University of Duisburg-Essen
Impact of Task Complexity on Driving a Gaze-Controlled Telerobot for Social Interaction	Guangtao Zhang	Technical University of Denmark
Parametric evaluation of sustained light muscular activity in product use	Denis A. Coelho	Universidade da Beira Interior
A Tactile Interface for Identification of Hazardous Situations During Operational Movement	Nuphar Katzman	Ben-Gurion University of the Negev
Wheelchair Motion Control Using Smooth Pursuit Eye Movement	Hong Gao	TU Berlin
How to achieve applicable user responses? – The design of feedback dialogues in the context of usability engineering	Synnöve Hochstein (Anne Goy)	TU Chemnitz
To change or not to change - that is the question: Detecting lane change signals for anticipatory highly automated driving	Katharina Simon	TU Chemnitz
Positioning of side-view cameras on passenger vehicles to aid rearward perception	Christoph Bernhard	Johannes Gutenberg-Universität Mainz
Expectations of automatic vehicle guidance in cooperative situation: Modelling with Naturalistic Decision Making	Jonas Imbsweiler	Karlsruhe Institute of Technology
Motion sickness in cars: a holistic approach of a design pattern for constructing in-car motion sickness studies	Adrian Brietzke	Volkswagen
The effect of time budget and driver assistance on manual takeover performance in a highly automated vehicle	Elsa Yousfi	VEDECOM Institut
Driver-Initiated Take-Over Behaviour in Highly Automated Driving	Sandra Epple	TU Berlin
Safe and Seamless Transfer of Control Authority	Davide Maggi	ITS Leeds
Visual inspection of baggage X-ray images: How do expertise and automation influence detection performance?	Alain Chavaillaz	University of Fribourg
Problem Solving in the Human-Machine-Interaction: Rethinking the Role of Spatial Working Memory	Katrin Linstedt	Karlsruhe Institute of Technologie
Using a Teamwork Metaphor for Operator Interaction with Procedural Automation	Gyrd Skraaning (Greg Jamieson)	OECD Halden
The use of 3DSSPP for motor vehicle accidents	Manon Limousis-Gayda	National Biomechanics Institute
Analysis of drivers' visual behaviour in road curves with different geometry	Nicola Bongiorno	University of Messina
Assessment of Scanning Behaviour Characteristic at Unsignalised Intersections for Driving Aptitude Diagnosis of Elderly Drivers	Hiroshi Yoshitake	University of Tokyo
Anticipation of Social Interaction with a Virtual Agent based on Eye Contact Duration	Alexandros Rouchitsas	Lulea University of Technology
Evaluation of external autonomous vehicle-to-pedestrian communication solutions: A field research	Yuan Liu	TU Berlin
Measuring cognitive load with a low-budget Arduino device	Nikolai Pärsch	Porsche
Prediction of recidivism to understand and prevent aberrant driving behaviours	Cándida Castro	University of Granada
Influences of system response delay on elderly participants' performance in a virtual memory training	Maria Wirzberger	TU Chemnitz

POSTER	AUTHOR	AFFILIATION
Supporting Collaborative Fault Diagnosis: Complete Information Transfer or Strategic Hypothesis Testing?	Rica Bönsel	TU Dresden
From in- cabin driving to remote manual interventions: How task allocation changes with railway automation	Niels Brandenburger	DLR
Fidgeting as a sensory reinforcement strategy for overcoming boredom	Orlando Ricciardi	Sapienza University of Rome
Drive me natural: Design and evaluation of trajectories for highly automated driving maneuvers on rural roads	Patrick Roßner	TU Chemnitz
How to apply what we know about Human-Computer Trust to System Design: A Framework for Building Trustable Systems	Peter Moertl	Virtual Vehicle
Operator strategies in the food processing industry: Individual differences in handling machine faults	Christina Gögel	TU Dresden
Developing a Pictorial System Usability Scale	Jürgen Baumgartner	University of Fribourg
Supporting user interaction with the range of electric buses in local public transport	Markus Gödker	Universität zu Lübeck
A Methodology for Redesigning Flight Training Using Augmented Reality	Ioana Koglbauer	Graz University of Technology
Investigating driver preferences for automation usage in different driving scenarios	Franziska Babel	Ulm University
Inaccuracies in energy efficiency perception based on instantaneous consumption displays – Implications for interface design	Vivien Moll	University of Lübeck
Investigating the impact of adaptable alarm systems in younger and older adults on the example of a pedestrian assistance system	Anna Zirk	TU Berlin
Social stress in human-machines hybrid teams	Simon Thuillard	University of Fribourg
Human-Machine Interface to Support Speed Regulation	Frederik Schewe	TU Braunschweig
Evaluation of biologically effective light in the vehicle interior	Michael Weng	TU Berlin
Motorcycle helmet use – comparing self-reported and observational data	Felix Siebert	TU Berlin
Influencing driver’s route choice - how recalling traffic scenarios can shift decisions	Susanne Grüner	TU Braunschweig
The influence of new UX principles for inclusive UI design: How older people perceive Facebook compared to a senior-dedicated social media platform	Romain Collaud	EPFL+ECAL Lab
The use of telepresence robot to promote the social interaction of older adults: user needs and user experience	Ying Jiang	TU Berlin
Training for Smooth Pursuit Eye Movements based Text Speller	Zhe Zeng	TU Berlin
Eye-tracking as a field research tool during Helicopter Operations	Sashidharan Komandur	Norwegian University of Science & Technology
A regional UK project for implementation of the Human Factors courses for Surgical Specialities trainees	Samuel Stefan	Wessex Deanery
Expert evaluation of automated driving HMI – does a checklist-based method work?	Katharina Wiedemann	Würzburger Institut für Verkehrswissenschaften
Using Receiver Operating Characteristic (ROC) Analysis to Measure Human Performance in Detection, Localization and Classification of Sonar Images	Olinda Rodas	Space and Naval Warfare Systems Center Pacific
Developing an algorithm to incorporate Human Factors and Ergonomics (HFE) findings into public procurement of medical devices in Spain	Laura Herrero	EValTec, IDIVAL
Strategic support in Infusion Pumps’ implementation: Improving safety and self-efficacy with Human Factors-based training	Ignasi Maspons	EValTec, IDIVAL