



Human Factors and
Ergonomics Society
EUROPE CHAPTER

Annual Meeting 2023

April 26-28, 2023

LIVER BUILDING

LIVERPOOL – UNITED KINGDOM



PROGRAMME



Human Factors and
Ergonomics Society
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Organization Committee 2023

Stephen FAIRCLOUGH

Liverpool John Moores University (UK)

Antonella TOFFETTI

STELLANTIS - CRF, Torino (IT)

Karel BROOKHUIS

University of Groningen (NL)

Dick DE WAARD

University of Groningen (NL)



**LIVERPOOL
JOHN MOORES
UNIVERSITY**



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Wednesday April 26 - MORNING

08.30 - 09.15	Registration Welcome coffee	
09.15 - 09.30	CONFERENCE OPENING	Stephen Fairclough Liverpool John Moores University Antonella Toffetti STELLANTIS - CRF
09.30 - 10.50	Session 1: AUTOMATION & UX	<i>Chair: TBD</i>
09.30 - 09.50	Predictive robot eyes improve task performance but don't affect trust	Linda Onnasch Technische Universität Berlin
09.50 - 10.10	Affect-enhancing speech features for different types of robots	Kim Klüber Humboldt-University of Berlin
10.10 - 10.30	The impact of anthropomorphic system design features for sense of agency in automation technologies	Tina Frenzel Chemnitz University of Technology
10.30 - 10.50	A descriptive model of responses in aided signal detection in a cyber security scenario	Joachim Meyer Tel Aviv University
10.50 - 11.20	Posters set up Coffee break	
11.20 - 12.40	Session 2: SURFACE TRANSPORTATION 1	<i>Chair: TBD</i>
11.20 - 11.40	Driving behaviour of automated vehicles as implicit communication signals for pedestrian road crossing estimation and behaviour	Kai Tian University of Leeds
11.40 - 12.00	Comparing participants' risk perception and sensed presence while driving in CARLA and a self-developed remote driving testbed	Son Le Quang Ben-Gurion University of the Negev
12.00 - 12.20	Towards user friendly autonomous on-demand mobility: Insights from a Wizard of Oz pretest	Fabian Schlichtherle University of Stuttgart
12.20 - 12.40	Artful journeys: improving the traveller's experience	Yvonne Barnard University of Leeds
12.40 - 13.40	Lunch	



Wednesday April 26 - AFTERNOON

13.40 - 15.00	Session 3: HEALTH	<i>Chair: TBD</i>
13.40 - 14.00	Effects of information relevance communication on novices' experience and performance with a cooperative ultrasound diagnosis system	Tim Schrills University of Lübeck
14.00 - 14.20	Wrist worn accelerometers to characterize upper limb use in health care workers	Micaela Porta University of Cagliari
14.20 - 14.40	Effects of performance transparency in symptom assessment applications on the detection of medical emergencies	Marvin Kopka TU Berlin
14.40 - 15.00	Comparing four explanation types for an AI-based smart healthcare system in explainability evaluation measures	Wookjae Lee Seoul National University
15.00 - 15.30	Coffee break	
15.30 - 16.30	Session 4: TELEOPERATION	<i>Chair: TBD</i>
15.30 - 15.50	Effects of simulated time delay on teleoperators' performance in inter-urban conditions	Assaf Botzer Ariel University
15.50 - 16.10	Remote Operation as a Key Enabler for Autonomous Driving: User-Centered Design and Expert Evaluation of a Prototypical Workplace for the Technical Supervisor	Andreas Schrank German Aerospace Center (DLR)
16.10 - 16.30	Effects of Camera Position on Teleoperators' Performance	Oren Musicant Ariel University
16.30 - 17.00	TALKING POSTER Session - All poster presenters have 20 seconds to promote their posters	Dick de Waard University of Groningen
17.00 - 18.15	POSTER Session, authors present at their posters	
18.00 - 19.00	Refreshment	
18.15 - 19.00	Europe Chapter HFES Business Meeting [Executive Council, Chapter Members are welcome]	



Thursday April 27 - MORNING

08.45 - 09.00	Welcome coffee	
09.00 - 10.40	Session 5: SURFACE TRANSPORTATION 2	<i>Chair:</i> TBD
09.00 - 09.20	Optimising train-track operations through early human factors analysis: A case study of strategic human factors interventions in a safety-critical railway innovation project	Richard Bye Network Rail
09.20 - 09.40	Effects of Video Quality on Perception and Reaction Time in Video-based Remote Train Control	Niels Brandenburger German Aerospace Center
09.40 - 10.00	Impact of human factors and ergonomics in head-on collisions	Mette Møller Technical University of Denmark
10.00 - 10.20	Promoting sustainable mobility by behaviour-based design	Giorgia Tempestini Sapienza University of Rome
10.20 - 10.40	Pedestrians make riskier road-crossing decisions for accelerating electric compared to internal combustion engine vehicles	Marlene Wessels Johannes Gutenberg-University Mainz
10.40 - 11.10	Coffee break	
11.10 - 12.30	Session 6: WORKLOAD	<i>Chair:</i> TBD
11.10 - 11.30	Effects of modified leg mechanics on cognitive performance and workload during dual-task walking	Norman Riedel Karlsruhe Institute of Technology
11.30 - 11.50	Dynamics of ECG and EEG Based Workload Measures Across Tasks	Felix Schroeder Liverpool John Moores University
11.50 - 12.10	EEG and behavioural correlates of attentional processing in naturalistic environments	Magnus Liebherr University Duisburg-Essen
12.10 - 12.30	Assessing physical demands using wearable smartwatches among precast concrete construction workers	Oscar Arias University of Wisconsin – Whitewater
12.30 - 13.30	Lunch	



Thursday April 27 - AFTERNOON

13.30 - 14.50	Session 7: MARITIME HUMAN FACTORS	<i>Chair: TBD</i>
13.30 - 13.50	Sharing Periscope Imagery and Analysis Tools in a Simulated Submarine Control Room	Shayne Loft The University of Western Australia
13.50 - 14.10	Augmented Reality for Situation Awareness in Ship Navigation	Floris van den Oever University of Bergen
14.10 - 14.30	Room to Manoeuvre - Exploring Seafarer's Expectancy-Value, Motivation and Preference for Automation in Route Planning	Mourad Zoubir University of Lübeck
14.30 - 14.50	A simulator-based investigation of workplace stressors on human performance: An fNIRS study	Steve Symes Liverpool John Moores University
14.50 - 15.20	Coffee break	
15.20 - 16.40	Session 8: HIGHLY AUTOMATED VEHICLES	<i>Chair: TBD</i>
15.20 - 15.40	Sound and Vision: Can auditory displays support a visual HMI in maintaining vehicle automation mode awareness?	Canmanie Teresa Ponnambalam SWOV Institute for Road Safety Research
15.40 - 16.00	Conceptualization and evaluation of adaptive driver tutoring for conditional driving automation	Nikolai Ebinger Virtual Vehicle Research GmbH
16.00 - 16.20	Comparing accepted gaps in traffic flow for initiating left-turn actions in different intersection scenarios – A driving simulator study	Ann-Christin Hensch Chemnitz University of Technology
16.20 - 16.40	Behavioural Communication on the Motorway Slip Road: A Driving Simulator Study	Sofie Ehrhardt Karlsruhe Institute of Technology
16.40 - 16.45	KEYNOTE INTRODUCTION	<i>Chair: TBA</i>
16.45 - 17.30	KEYNOTE Human Factors, Ergonomics and Human Systems Integration for biological and artificial intelligence	Prof. Frank Flemish RWTH Aachen University
20.00	Conference Dinner	



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Friday April 28

09.15 - 09.30	Welcome coffee	
09.30 - 10.50	Session 9: AVIATION	<i>Chair:</i> TBD
09.30 - 09.50	Training media allocation: Simulator vs actual flying	Dimitrios Ziakkas Purdue University
09.50 - 10.10	What would you expect? Insights from a customer journey analysis of passenger drone flights	Patricia B. Appel Technische Hochschule Ingolstadt (THI), Johannes Kepler Universität Linz
10.10 - 10.30	A new experimental method to investigate multitasking strategies in flight environments via the use of gamification	Sophie-Marie Stasch Universität der Bundeswehr München
10.30 - 10.50	Assessment Of A Hybrid Cursor Control Device (CCD) For Highly Dynamic Cockpit Environments	Engelbert Hartmann Airbus Defence and Space GmbH
10.50 - 11.15	Coffee break	
11.15 - 12.45	Session 10: AGEING, ATTENTION and THE DARKNET!	<i>Chair:</i> TBD
11.15 - 11.35	Improving Voice Interface Design for Older Adults	Robert M. Schumacher Bold Insight Ltd
11.35 - 11.55	VRalive: A virtual reality project in nursing homes with the purpose of improving activity, well-being and social communication for seniors	Yijun Li Technische Universität Braunschweig
11.55 - 12.15	Effects of attention manipulations on passive risks estimation and mitigation	Yoella Bereby- Meyer Ben Gurion University of the Negev
12.15 - 12.35	Disrupting the trade of illicit goods in the darknet: does information manipulation influence buyer decision making in darknet marketplaces?	Paul Salmon University of the Sunshine Coast
12.35 - 12.50	BEST POSTER AWARD	TBA
	EARLY CAREER BEST PAPER AWARD	TBA
	CONFERENCE CLOSING	TBA
12.50 - 14.00	Lunch	



Wednesday 26 - Friday 28 April

No	POSTERS	AUTHOR	AFFILIATION
1	Investigating trust attitude as a mediator and the moderating effect of risk in human-automation interaction	Steffen Hoesterey	Humboldt-Universität zu Berlin
2	Rethinking Public Transportation: Why do commuters intent to adapt?	Eva Groesswein	University of Duisburg-Essen
3	Does subjective knowledge predict acceptance of automated technologies?	Verena Staab	University of Duisburg-Essen
4	Developing Self-Standing Robot Systems for Safe Human-Robot Collaboration in Dynamic Environments: The SESTOSENSE Project	Federico Fraboni	University of Bologna
5	Driver Monitoring state: Procedure and methodologies to monitor the driver distraction in the driving simulator	Silvia Chiesa	RE:LAB s.r.l
6	How crowded is the train? Investigation of the optimal conditions for providing capacity information for public transport	Malte Petersen	DLR
7	Identifying requirements for a novel gig economy incident reporting tool with Cognitive Work Analysis	Gemma Read	University of the Sunshine Coast
8	Studying cyclist-vehicle interaction on a bicycle street: comparing results from a driving simulator and online study	Arjan Stuiver	University of Groningen
9	The autonomous family vehicle autoELF - Results from a usability study with parents and their minor children using a high-fidelity prototype	Vanessa Stange	TU Braunschweig
10	Aircraft design requirements against known security threats and detection capabilities in service	Kristoffer Birger Borgen	Purdue University
11	Assessing the physiological effect of non-driving-related task performance in conditionally automated driving systems: A systematic review and meta-analysis	Rory Coyne	University of Galway



No	POSTERS	AUTHOR	AFFILIATION
12	The Driving Style as Coping Skill: strategies to mitigate Electric Vehicle Range Anxiety	Giuseppe Rainieri	University of Brescia
13	I also care in manual driving - Influence of type, position and quantity of oncoming vehicles on manual driving behaviour on straights on rural roads	Patrick Rossner	Chemnitz University of Technology
14	Modelling human behaviours in urban driving scenarios: A computational rationality approach	Aravinda Ramakrishnan Srinivasan	University of Leeds
15	Effects of additional traffic in a deadlock-situation on drivers' cooperation behaviour at an equal narrow passage	Nadine-Rebecca Strelau	Karlsruhe Institute of Technology
16	Compliance monitoring effectiveness	Hans Cornelius Natakusuma	Purdue University
17	The role of Human Factors in Aviation Regulatory Framework	Abner Del Cid Flores	Purdue University
18	How meaningful is a drone? Public acceptance of civil drones in light of their purpose	Vaishnavi Upadrasta	HFC Human-Factors-Consult GmbH
19	Investigating the acceptance of AI-based psychotherapy Apps	Yasmina Giebeler	TU Berlin
20	BD Libertas™ Wearable Injector Human Factors development and testing	Rebecca Levin	BD Medical
21	HMI design for a stress and time critical pediatric emergency scenario: PediAppRREST	Maria Giulia Losi	RE:LAB s.r.l
22	Which is better, 8-hour work or 12-hour work? - A survey on work-related fatigue of forklift drivers	Tianbo Wang	University of Leeds
23	Hear About It: Case Study on Designing for Pixel Buds Pro Earbud Comfort	Laura Fulton	Google Wearables Design Research
24	The effect of cognitive load and the detection response task on steering behaviour during day and night-time driving	Ibrahim Ozturk	ITS Leeds
25	Improving and Extending Design Guidelines for Human-Robot Collaboration in the Workplace	Hannah Brendel	University of Bologna



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26	Crease height and width effects on perceived visibility and annoyance of foldable smartphone display crease	Kihyun Park	Seoul National University
27	Exploring HMI concepts for human-line interaction design: the ceramics case study	Margherita Peruzzini	University of Modena and Reggio
28	The Effect of Bottom-Up Resource Management on Resilience of Self-Synchronizing Troops: Results from a Constructive Simulator Study	Samuel Werner Huber	Forventis
29	Blended learning in human factors engineering education – a case study	Denis Coelho	Jonköping University
30	An AV-MV Negotiation Method Based on Synchronous Prompt Information on a Multi-Vehicle Bottleneck Road	Yang Li	Karlsruhe Institute of Technology
31	Measuring proneness to distraction and inattention in motorcyclists	Candida Castro	University of Granada
33	Information SECURITY: Developing a contextually rich procedural task for investigating action slips in the handling of sensitive data	Helen Hodgetts	Cardiff Metropolitan University
32	User requirements for advanced driver assistance systems in rail operations	Gina Schnücker	DLR
34	On the use of bicycle simulators	Bastiaan Sporrel	University of Groningen
35	Do I really have to know everything? – iHMI communication strategies in complex situations for a HAV	Michael Oehl	DLR
36	Conceptualising user comfort in automated driving: Findings from an expert group workshop	Chen Peng	University of Leeds
37	Does Social Loafing Occur in Human-Robot Teams?	Helene Cymek	TU Berlin
38	The role of anthropomorphic framing and failure comprehensibility for industrial human-robot trust dynamics	Eileen Roesler	TU Berlin
39	HADRIAN'S EYE: a video analysis tool to coding drivers' mannerisms and behaviours in simulated settings	Leandro L. Di Stasi	University of Granada
40	Comparing Driver's Expectation on Automated Vehicles with Manual Vehicles	Fei Yan	Ulm University
41	Assessing the vigilance of truck drivers during a normal working day using Electroencephalography	Arnd Meiser	University of Bremen, Faculty of Business



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42	Less is more: Does information removal in the rear-view mirror improve time-to-contact-estimation?	Elisabeth Wögerbauer	Johannes Gutenberg University
43	Understanding contextual cues in anticipating lane change behaviour – insights from a Naturalistic Driving Study	Felbel Konstantin	Chemnitz University of Technology
44	Blockchain: Do people really need to understand it in order to use it?	Josephine Halama	Chemnitz University of Technology
45	Do you plan virtually safe? Recommendations for a VR application that rates the perceived safety of bicycle infrastructure for urban planners	Marc Schwarzkopf	Chemnitz University of Technology, Chair for Ergonomics and Innovation
46	Do drivers have preconceived ideas about an automated vehicle's driving behaviour? Results from a coupled driving simulator study using a bottleneck scenario	Yang Li	University of Leeds
47	Evaluation of Crewmembers' User States in Armoured Vehicles	Thomas Witte	Fraunhofer Institute FKIE
48	Got it? Usability of robotic handovers with visually impaired and sighted users	Dorothea Langer	Chemnitz University of Technology
49	Humanizing AI	Olinda Rodas	Naval Information Warfare Center Pacific
50	Exploration of a Tangible XR Prototype for Agile Product Development – Results of an Expert Study with Product Designers	Michael Preutenborbeck	RWTH Aachen University
51	Using technology to avoid the police on the road: The missing link between enforcement and deterrence?	Oscar Oviedo-Trespalacios	Delft University of Technology



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