



**Europe Chapter**  
**Human Factors and Ergonomics Society**

## **Annual Meeting 2019**

# **Understanding Human Behaviour in Complex Systems**

October 2-4, 2019

NANTES - FRANCE



**PROGRAMME**



**Europe Chapter**  
**Human Factors and Ergonomics Society**

## **Organization Committee 2019**

**Franck MARS, Isabelle MILLEVILLE**

*CNRS*

**Emilie POIRSON, Jean-François PETIOT**

*Ecole Centrale de Nantes*

**Cédric DUMAS**

*IMT-Atlantique*

**KAREL BROOKHUIS**

*University of Groningen*

**ANTONELLA TOFFETTI**

*CRF*

**DICK DE WAARD**

*University of Groningen*

08.30 - 09.15	<b>REGISTRATION</b> Welcome coffee	
09.15 - 09.30	<b>OPENING</b>	<b>Franck Mars</b> LS2N
09.30 - 10.50	<b>Session 1: AUTOMATION</b>	<i>Chair:</i> <b>Dick de Waard</b> University of Groningen
09.30 - 09.50	Contradictions in cooperation with artificial intelligence: a sociotechnical systems perspective	<b>Denis A. Coelho</b> Jönköping University
09.50 - 10.10	An adaptive assistance system for subjective critical driving situations: Understanding the relationship between subjective and objective complexity	<b>Alexander Lotz</b> Daimler AG / Technische Universität Berlin
10.10 - 10.30	The role of social stress in human-machine interaction	<b>Jürgen Sauer</b> University of Fribourg
10.30 - 10.50	I don't care what the robot does! Trust in automation when working with a heavy-load robot	<b>Franziska Legler</b> Chemnitz University of Technology
10.50 - 11.20	<b>POSTER SETUP - Coffee break</b>	
11.20 - 12.40	<b>Session 2: SURFACE TRANSPORTATION - 1</b>	<i>Chair:</i> <b>Luca Pietrantoni</b> University of Bologna
11.20 - 11.40	Measuring pedestrian behaviour in real traffic: Evaluating video and self-report data	<b>Mirjam Lanzer</b> Ulm University
11.40 - 12.00	Training Wavedrivers online	<b>Antonio Lucas-Alba</b> University of Zaragoza
12.00 - 12.20	Studying the link between hazard perception ability and hard braking events by using a range of thresholds for hard braking	<b>Assaf Botzer</b> Ariel University
12.20 - 12.40	Hybrid Electric Vehicle Drivers' Interaction with Eco-Automation: The Perspective of User-energy Interaction	<b>Matthias G. Arend (Thomas Franke)</b> RWTH Aachen University
12.40 - 13.40	<b>Lunch</b>	
13.40 - 15.00	<b>Session 3: HUMAN-MACHINE INTERACTION / HUMAN-ROBOT INTERACTION</b>	<i>Chair:</i> <b>Linda Onnasch</b> Humboldt-Universität zu Berlin
13.40 - 14.00	The making of Museum' works as smart things	<b>Charles Tijus</b> Lab. Cognitions Humaine et Artificielle
14.00 - 14.20	Information needs regarding the purposeful activation of automated driving functions	<b>Simon Danner</b> Technical University Munich
14.20 - 14.40	Investigating hyperlink selection with gaze-driven user agents	<b>Daniel Vella</b> University of Malta
14.40 - 15.00	Social stress and performance in hybrid teams	<b>Simon Thuillard</b> Université de Fribourg
15.00 - 15.30	<b>Coffee break</b>	
15.30 - 16.30	<b>Session 4: HUMAN FACTORS IN HEALTHCARE</b>	<i>Chair:</i> <b>Cédric Dumas</b> IMT-Atlantique
15.30 - 15.50	Why is circular suturing so difficult?	<b>Chloe Topolski (Caroline Cao)</b> IMT Atlantique / Wright State University
15.50 - 16.10	Reviewing Usability Standards for Medical Devices: Some Gaps and Possible Risks	<b>Marwa Gadala</b> University of London
16.10 - 16.30	An extended version of the Dynamic Safety Model to analysis medical emergency team	<b>Thierry Morineau</b> University of Bretagne Sud
16.30 - 17.00	<b>TALKING POSTER Session</b> All Poster Presenters have 20 seconds to promote their poster	<b>Dick de Waard</b> University of Groningen
17.00 - 18.30	<b>POSTER Session</b> Authors present at their poster	
18.00 - 19.00	<b>Europe Chapter HFES Business Meeting</b> Executive Council, Chapter Members are welcome	

**THURSDAY OCTOBER 3<sup>rd</sup>**

<b>09.00 - 10.40</b>	<b>Session 5: HIGHLY AUTOMATED VEHICLES - 1</b>	<i>Chair: Franck Mars</i> LS2N
09.00 - 09.20	Driving with a L3- motorway chauffeur: How do drivers use their driving time?	<b>Johanna Wörle</b> Wuerzburg Institute for Traffic Sciences
09.20 - 09.40	The Renaissance of Wizard-of-Oz	<b>Klaus Bengler</b> Technical University of Munich
09.40 - 10.00	Does driving experience matter? Influence of trajectory behaviour on student and experienced driver's trust, acceptance and perceived safety in automated driving	<b>Patrick Rossner</b> Chemnitz University of Technology
10.00 - 10.20	Keeping drivers 'somewhat' in the perceptual-motor loop during conditionally automated driving	<b>Jeremy Dillmann</b> BMW Group / University of Groningen
10.20 - 10.40	Evaluation of Different Driving Styles During Conditionally Automated Highway Driving	<b>Stephanie Cramer (Tabea Blenk)</b> AUDI AG
<b>10.40 - 11.10</b>	<b>Coffee break</b>	
<b>11.10 - 12.30</b>	<b>Session 6: INDUSTRIAL HUMAN FACTORS</b>	<i>Chair: Jean-François Petiot</i> Ecole Centrale de Nantes
11.10 - 11.30	Identification of behaviour indicators for fault diagnosis strategies	<b>Katrin Linstedt</b> Karlsruhe Institute of Technology
11.30 - 11.50	Investigating the effect of passive exoskeletons on arms-elevated tasks	<b>Aurélie Moyon</b> Ecole Centrale de Nantes
11.50 - 12.10	A Model for the Development of Railway Trainers in Integrating Non-Technical Skills into Training and Assessment: An International Case Study of Train Driver Trainer Skills Development	<b>Andrew Russell</b> Rail Training International Ltd
12.10 - 12.30	Interpersonal trust to enhance cyber crises management	<b>Florent Bollon</b> ONERA
<b>12.30 - 13.30</b>	<b>Lunch</b>	
<b>13.30 - 14.50</b>	<b>Session 7: NEUROERGONOMICS</b>	<i>Chair: Isabelle Milleville</i> LS2N
13.30 - 13.50	Contributions of physiological markers to enhance Human-System Interaction in the aeronautical domain	<b>Raphaëlle N. Roy</b> ISAE-SUPAERO, Université de Toulouse
13.50 - 14.10	Fault detection and correction in the engine room of a ship: An fNIRS study	<b>Stephen Symes</b> Liverpool John Moores University
14.10 - 14.30	Ecological EEG evaluation of auditory alarm perception during flight simulation	<b>Bertille Somon</b> ISAE-SUPAERO, Université de Toulouse
14.30 - 14.50	Brain activity linked to visual cue processing in manual and autonomous driving while listening a broadcast: a fNIRS study	<b>Alexandra Fort</b> TS2/IFSTTAR/LESCOT
<b>14.50 - 15.20</b>	<b>Coffee break</b>	
<b>15.20 - 16.40</b>	<b>Session 8: SURFACE TRANSPORTATION - 2</b>	<i>Chair: Thomas Franke</i> University of Lübeck
15.20 - 15.40	On-board HMI design for highly automated driving: Examining user's information needs about an automated car's driving intentions in two user studies	<b>Janki Dodiya</b> DLR
15.40 - 16.00	Early Stages of Cooperative-Intelligent Transportation System acceptance : The SCOOP French FOT	<b>Laurette Guyonvarch (Cécile Barbier)</b> Renault PSA
16.00 - 16.20	Driver's Experience and Mode Awareness in between and during transitions of different levels of car automation	<b>Paula Lassmann</b> University of Stuttgart
16.20 - 16.40	Objective kinetosis detection in a real driving scenario	<b>Rebecca Pham Xuan</b> Volkswagen AG
<b>16.40 - 16.45</b>	<b>KEYNOTE Introduction</b>	<b>Franck Mars</b> LS2N
<b>16.45 - 17.30</b>	<b>KEYNOTE</b> Towards human-robot symbiosis	<b>Prof. David A. Abbink</b> Delft University of Technology
<b>20.00</b>	<b>CONFERENCE DINNER</b>	

**FRIDAY OCTOBER 4<sup>th</sup>**

<b>09.30 - 10.50</b>	<b>Session 9: AVIATION</b>	<i>Chair: Assaf Botzer</i> Ariel University
09.30 - 09.50	Visual anticipation in the real world: Does eye tracking data explain the aviation expert's skills?	<b>Jason Khoury</b> Centre de Recherche de l'Ecole de l'Air / Armée de l'air Française
09.50 - 10.10	Disentangling the Enigmatic Slowing Effect of Microgravity on Sensorimotor Performance	<b>Bernhard Weber</b> German Aerospace Center
10.10 - 10.30	Teamwork in the Cockpit: The Impact of a Reduced Crew on Pilot Behaviour	<b>Anja K. Faulhaber</b> TU Braunschweig
10.30 - 10.50	The influence of audiovisual cues on remote pilot manual flying performance	<b>Matthew Dunn</b> University of New South Wales
<b>10.50 - 11.15</b>	<b>Coffee break</b>	
<b>11.15 - 12.45</b>	<b>Session 10: HIGHLY AUTOMATED VEHICLES - 2</b>	<i>Chair: Antonella Toffetti</i> Centro Ricerche Fiat
11.15 - 11.35	Monitoring visual strategies to detect the out-of-the-loop phenomenon in automated driving	<b>Damien Schnebelen</b> LS2N, UMR 6004, CNRS
11.35 - 11.55	How will autonomous cars interact with cyclists: an analysis of cyclist behaviour	<b>Arjan Stuiver</b> University of Groningen / Japan Automobile Research Institute
11.55 - 12.15	Task load of professional drivers during level 2 and 3 automated driving	<b>Hans-Joachim Bieg</b> Robert Bosch GmbH, Corporate Research
12.15 - 12.35	Initial level of Trust and driver's behaviour during Automated Driving	<b>J. B. Manchon</b> VEDECOM Institute
<b>12.35 - 12.45</b>	<b>BEST POSTER AWARD 2019</b>  <b>EARLY CAREER BEST PAPER AWARD 2019</b>  <b>CONFERENCE CLOSING</b>	<b>Arjan Stuiver</b> University of Groningen  <b>Thomas Franke</b> University of Lübeck  <b>Franck Mars</b> LS2N <b>Antonella Toffetti</b> Centro Ricerche Fiat
<b>12.45 - 14.00</b>	<b>Lunch</b>	

**WEDNESDAY 2<sup>nd</sup> - FRIDAY 4<sup>th</sup> OCTOBER**

No	POSTERS	AUTHOR	AFFILIATION
1	External HMI of communication and autonomous vehicles: a pedestrian's study	<b>Natacha Métayer</b>	Institut VEDECOM
2	Steady, flashing, sweeping - An exploratory evaluation of light signals as an eHMI in automated driving	<b>Ann-Christin Hensch</b>	Chemnitz University of Technology
3	Context-aware HMIs in the field: Effects on usability and user experience	<b>Anna Pätzold</b>	Opel Automobile GmbH
4	Avoiding the overload: Design requirements for an interior HMI in mixed traffic	<b>Daniel Trommler</b>	Chemnitz University of Technology
5	Seat Belt Based Vibrotactile Warnings for Takeover Situations in Automated Driving	<b>Gert Weller</b>	Joyson Safety Systems
6	Rear Seat Belt Comfort: a DFSS experimental approach	<b>Gabriella Bisci</b>	FCA EMEA
7	Relationship between self-reported attentional errors and the ability to predict upcoming hazards on the road, with driving experience having a moderating role	<b>Candida Castro</b>	University of Granada
8	Risk perception at the driver seat in an autonomous vehicle	<b>Jeffery Petit</b>	LS2N
9	A gender-sensitive data acquisition framework for quantification of trust and acceptance of advanced driver assistance systems	<b>Norah Neuhuber</b>	VIRTUAL VEHICLE Research Center
10	Studying driving styles on a driving simulator: The case of overtaking on highways	<b>Emanuel Sousa</b>	Center for Computer Graphics
11	Unified modelling of detection of and recovery from steering automation failure	<b>J. Pekkanen</b>	University of Leeds
12	The effect of active steering control demand on gaze behaviour	<b>Callum Mole</b>	University of Leeds
13	Deciding when to correct: threshold vs accumulator models of steering action initiation	<b>C.M. Goodridge</b>	University of Leeds
14	<del>Head movement measures in a real driving situation for understanding motion sickness development</del>	<del><b>Adrian Brietzke</b></del>	<del>Volkswagen AG</del>
15	Combining gaze-tracking and physiological measurements to assess the driver's state in automated cars	<b>Paul Marti</b>	LS2N CNRS / IFSTTAR / Renault
16	The usefulness of physiological data as indicator for situation awareness in semi-autonomous driving	<b>Quentin Meteier</b>	Hes-So
17	Objective Workload Evaluation with Lane Keeping Assistance System using Physiological Signal and Driving Performance Metrics	<b>Yu-Jeng Kuo</b>	Kempton University of Applied Science
18	NeSitA - Neuroergonomical Assessment of Situation Awareness in a Continuous Multidimensional Approach	<b>Marius Klug</b>	Technische Universität Berlin
19	Evaluating a physiological sensor for cognitive workload assessment in two different military settings	<b>Thomas E. F. Witte</b>	Fraunhofer Institute for Communication, Information Processing and Ergonomics FKIE
20	Impact of Task Demands on Operators' Performance during Pilot-UAVs Interaction	<b>Gaganpreet Singh</b>	ISAE-SUPAERO, Université de Toulouse
21	The Exploration of Augmented Reality Principles and Future Cockpits in Basic Flight Training	<b>Salwa Hjej</b>	Ecole Royale Air
22	Study about student pilots activity for designing a flight simulator with total visual immersion	<b>Johan Rendy</b>	LS2N PACCE
23	Helicopter pilots' tasks and external visual cueing during shipboard landing	<b>Marco De Angelis</b>	University of Bologna
24	Detection thresholds for mid-air interaction. How sensitive are we during stressful tasks?	<b>Max Bernhagen</b>	Chemnitz University of Technology
25	Human behaviour modelling in tools for Air Traffic Management change impact assessment	<b>Gabriella Duca</b>	Institute for Sustainable Society and Innovation



No	POSTER	AUTHOR	AFFILIATION
26	Sharing Rides in Autonomous Mobility-on-Demand-Systems – Acceptability, Information Needs and Incentive Systems	Alexandra König	German Aerospace Center
27	Psychological factors associated with aviation accidents	Robert O. Walton	Embry-Riddle Aeronautical University
28	Human Factors in Unmanned Aerial Systems in the German Bundeswehr	Wiebke Melcher	German Aerospace Center
29	Design of Experiments for the evaluation of the interaction human - exoskeleton in the context of small data collections	Fabien Clanché	Université de Lorraine
30	Usability and Interfaces of Lower Limb Exoskeletons: a Framework for Assessment and Benchmark	Giuseppe Rainieri	University of Bologna
31	Conception of interfaces to represent functional relations in a packaging machine	Susanne Jaster	Technische Universität Dresden
32	Eliciting strategies for diagnosing faults of packaging machines: A scenario-based study with maintenance technicians	Lisa Mesletzky	Technische Universität Dresden
33	Experimentation of “empowerment” in an aeronautic industry: identification of the levers and obstacles to managerial innovations based on employees’ interviews	Alison Caillé	AIRBUS
34	Improving employees well-being by integrating human factors into work situations : the case of a digital service company	Manon Kervella	onepoint - Pessac
35	A virtual planning concept for the Human Robot Cooperation using software tools and virtual reality	Pengxiang Zhang	Volkswagen AG
36	Impact of Anthropomorphic Robot Design on Human Trust and Visual Attention in Cooperative Human-Robot Interaction	Linda Onnasch	Humboldt-Universität zu Berlin
37	Cardiac activity variations elicited by alarms during Human-Robot Interaction	Nicolas Drougard	ISAE-SUPAERO, Université de Toulouse
38	The effect of Cognitive Load when responding to Silent Failures	W. Sheppard	University of Leeds
39	Integration of Human Information Processing Models for Human Centred AI	Rene van Egmond	Industrial Design, TU Delft
40	This is not a gun: The influence of cue plausibility on performance in visual inspection of cabin baggage	Alain Chavaillaz	University of Fribourg
41	Do I look at what I'm saying?	Danny Rueffert (Alexander Kögel)	Chemnitz University of Technology
42	Affordance-based scenario modelling and lived experience evaluation in Virtual Reality	Katy Tcha-Tokey	University of Nantes
43	Changing the interface design of smartphones: effects on usage and well-being	Carli Ochs	University of Fribourg
44	Minimalism in User Interface Design; Prospects and Challenges for startup developers	Noble Ahiaklo-Kuz	Technische Universität Berlin
45	How the availability of privacy information influences users’ smartphone app selection behaviour	Sven Bock	Technical University Berlin
46	Interaction Strategies for Handing over Objects to Blind People	Peggy Walde (Franziska Legler)	Chemnitz University of Technology
47	Capturing quantitative user feedback using virtual questionnaires in virtual reality	Jonas Trezl (Patrick Roßner)	Technische Universität Chemnitz
48	Machine effectiveness made understandable: Integrated displays that inform operators about effectiveness components and possible interventions	Natalia Koshman	Technische Universität Dresden
49	The Storm in your Head: Bringing Neurofeedback in VR	Thomas Huraux	Scalian
50	Interaction strategies on three-dimensional user interfaces with pointer devices	Andre Dettmann	Chemnitz University of Technology
51	Hazard perception abilities among surf and swimming-pool professional lifeguards and bathers	Anat Meir	Holon Institute of Technology (HIT)
52	Natural interactions on virtual reality: evaluation on the cognitive load	Thomas Galais	onepoint- Pessac
53	Practice-oriented development of a user-centred assistance and safety system for supporting people with dementia	Anne Goy	Chemnitz University of Technology
54	E-Health Interface: Evaluate the impact of health data visualization on physiological and emotional responses	Chloé Lourdais	Laboratoire des Sciences du Numérique de Nantes