



Berlin, Germany - April 29-30 2010

European Conference

on Human Centred Design
for Intelligent Transport Systems

Programme

Scientific conference

Human-centred integration and product maturity

Modelling of driver's behaviour for ITS design

Effects of ITS on driver behaviour

Green ITS

FOT and Naturalistic Driving Studies

ITS and traffic management

Generic user interfaces for assistance systems

Tools and methodologies for safety and usability

Drivers' needs and acceptance of assistance functions

Diversity and specificity of road user groups



Conference Timetable

29th of April

9.00	Welcome reception	
9.15	Opening session	
10.00	Session 1 A Effects of ITS on driver behaviour and interaction with the systems	Session 1 B Modelling of drivers' behaviour for ITS design
11.40	Lunch	
13.00	Session 2 A Effects of ITS on driver behaviour and interaction with the systems	Session 2 B Modelling of drivers' behaviour for ITS design
14.40	Coffee break	
15.00	Session 3 A Effects of ITS on driver behaviour and interaction with the systems	Session 3 B ITS and traffic management
16.20	Poster session	
17.00	19.30 Dinner	

30th of April

9.00	Session 4 A Tools and methodologies for safety and usability assessment & Distraction	Session 4 B Fields Operational Tests and Naturalistic Driving Studies
10.40	Coffee break	
11.00	Session 5 A Tools and methodologies for safety and usability assessment	Session 5 B Fields Operational Tests and Naturalistic Driving Studies - Green ITS
12.20	Lunch	
14.00	Session 6 Drivers needs and acceptance of assistance functions	
15.20	Closing session	
16.00		

Opening session

Day 1, 9.15

Opening of the conference

Josef Krems (*Chemnitz University of Technology, Germany*)

How much assistance does an assistance system need?

Hans-Peter Krüger (*Universität Würzburg*)

Effects of ITS on drivers' behaviour and interaction with the systems

Session chaired by Ralf Risser (*FACTUM, AU*)

Session 1 A

Day 1, 10.00

Theoretical framework for analysis and evaluation of human overtrust in over-reliance on advanced driver assistance systems

Toshiyuki Inagaki and Makoto Itoh (*Department of Risk Engineering, University of Tsukuba*)

Do slow computersystems impair driving safety?

Fabian Utesch, Mark Vollrath (*Department of Engineering and Traffic Psychology, Technische Universität Braunschweig*)

Scenario critically determines the effect of working memory load on brake response time

Johan Engström (*Volvo Technology Corporation/SAFER, Chalmers University*)

Familiarisation with critical situations when driving with a Forward Collision Warning: effects on driver-system interactions

A. Koustanaï, V. Cavallo, P. Delhomme, (*Laboratory of Driver Psychology, INRETS*)

Effective patterns of sleep warnings based on the physiologic and behavioural reaction of users

Helios De Rosario, Andrés Soler (*Instituto de Biomecánica de Valencia, Universidad Politécnica de Valencia*), Jordi Tenas, Marc Dominguis (*FICOSA International S.A.*), Mikel Echeverría (*CEIT*)

Modelling of drivers' behaviour for ITS design

Session chaired by tbc

Session 1 B

Day 1, 10.00

Artificial selective attention for in-vehicle information systems

Nuno Gil Fonseca (*Centro de Informática e Sistemas da Universidade de Coimbra, Escola Superior de Tecnologia e Gestão de Oliveira do Hospital*), Luís Rente and Carlos Bento (*Centro de Informática e Sistemas da Universidade de Coimbra*)

An integrative model for the prediction of over-speeding

Stefan Brandenburg, Uwe Drewitz (*Berlin Institute of Technology*)

An iterative approach to develop a cognitive model of the driver for human centred design for ITS

Benoît Mathern (*INRETS, LESCOT, Université de Lyon CNRS*), Thierry Bellet (*INRETS, LESCOT*), Alain Mille (*Université Lyon 1, LIRIS*)

A human oriented approach for the design of a real-time tyre information system

Jingqiu Guo, Min Qiu (*University of Western Australia*)

Modelling control behaviour for the cognitive driver model

Marina Plavšić, Marina Guzmán, Klaus Bengler, Heiner Bubb (*Lehrstuhl für Ergonomie, Technische Universität München*)

Effects of ITS on drivers' behaviour and interaction with the systems

Session chaired by Alan Stevens (TRL, UK)

Session 2 A

Day 1, 13.00

Semi-autonomous advanced parking assists: do they really have to be learned if steering is automated?

Ingo Totzke, Susanne Jessberger, Dominik Mühlbacher, Hans-Peter Krüger (Center for Traffic Sciences (IZVW), University of Wuerzburg)

Do navigation systems facilitate driving?

Caroline Schiebl, Martin Baumann, Ingmar Ehrenpfordt (German Aerospace Center, Institute of Transportation

Effects of assistance of anticipatory driving on drivers' behavior during deceleration phases

Darya Popiv, Rommerskirchen, Klaus Bengler (Institute of Ergonomics, Technische Universität München), Markus Duschl (Fachgebiet Augmented Reality, Technische Universität München), Mariana Rakic, (BMW Group Forschung und Technik)

VIDE? Theoretically guided development of a behavioural adapted display

A. Kullack, A. Goralzik, F. Eggert (TU Braunschweig, Institute of Psychology, Department of Research Methods and Biopsychology)

Traffic safety work - a bottomless pit? The sociological frame work of a PhD thesis carried out in the frame of the NoE HUMANIST

Christine Turetschek (FACTUM OHG)

Modelling of drivers' behaviour for ITS design

Session chaired by

Session 2 B

Day 1, 13.00

Advantages of a driver model use in the design of a driving assistance system to prevent collisions between deliver trucks and vulnerable road users

Hélène Tattegrain, Arnaud Bonnard (INRETS, LESCOT)

An assisted driver model; towards developing new ADAS by allocating support dependent on traffic situations and driving experience

Arie Paul van den Beukel, Mascha C. van der Voort (University of Twente. Laboratory Design, Production and Management)

Does driving experience matter in driving situations of varying complexity? A comparison of gaze and driving behavior of experienced and inexperienced drivers

Claudia Wege, Franziska Bühler, Diana Rösler and Josef F. Krems (Chemnitz University of Technology)

Where did the car come from? Attention allocation at intersections

Julia Werneke, Mark Vollrath (Technische Universität Braunschweig, Germany)

Effects of ITS on drivers' behaviour and interaction with the systems

Session chaired by Michael Regan (INRETS, FR)

Session 3 A

Day 1, 15.00

Socio-economic viability of safespot cooperative safety systems

Roland Schindhelm, Andreas Luedecke (Bundesanstalt für Strassenwesen (BASt)), Torsten Geissler, Ulrich Westerkamp (Institute for Transport Economics at the University of Cologne (IfV)), Philippus Feenstra, Martijn de Kievit (TNO)

Evaluation of different modalities for the intelligent cooperative interaction safety system (IRIS) and speed limit system

Ellen S. Wilschut, Philippus J. Feenstra (TNO Human Factors, Traffic Behaviour)

Do drivers steer towards or away from lateral directional vibrations at the steering wheel?

Frank Beruscha (Human-Machine Interaction - Robert Bosch GmbH, Automotive Engineering - Ilmenau University of Technology), Lei Wang (Human-Machine Interaction - Robert Bosch GmbH, Engineering Psychology, Humboldt University Berlin), Klaus Augsburg (Automotive Engineering, Ilmenau University of Technology), Hartmut Wandke (Engineering Psychology, Humboldt University Berlin)

Collision detection and proximity warning systems for mobile mining equipment: a human factors exploration

Tim Horberry and Tristan Cooke (Minerals Industry Safety and Health Centre - University of Queensland)

ITS and traffic management

Session chaired by José Manuel Menendza (UPM, ES)

Session 3 B

Day 1, 15.00

Rail traffic control dispatcher's task demands during a major railroad construction work

Marja-Leena Haavisto, Kaarin Ruuhilehto and Pia Oedewald (Technical Research Centre of Finland (VTT))

Travel time measurement system using vehicle-to-infrastructure communication

Quoc Chuyen Doan, Tahar Berradia, Joseph Mouzna (ESIGELEC)

Detecting and correcting partial detector failure in stratified zone metering

Shubhendra Singh, Quoc Chuyen Doan, Tahar Berradia (IRSEEM Lab, ESIGELEC)

Mobility information services and its consequences for travel behaviour considering different user types

Stefan Trommer, Wencke Krause, Barbara Lenz (DLR – Institute of Transport Research)

Tools and methodologies for safety and usability assesment & Distraction

Session chaired by Corinne Brusque (INRETS, FR)

Session 4 A

Day 2, 9.00

Do drivers compensate for distraction when driving in real traffic?

Martin Baumann, Sascha Knake-Langhorst (German Aerospace Center, Institute of Transportation Systems DLR), Susanne Briest (Forschungs- und Innovationszentrum Mensch-Technik-Sicherheit)

Distraction while driving: the case of older drivers

Julia Fofanova, Mark Vollrath (Technische Universität Braunschweig, Institut für Psychologie, Abteilung für Kognitions- und Ingenieurpsychologie)

A robust method to detect driver distraction

Gert Weller, Bernhard Schlag (Traffic & Transportation Psychology, Technische Universität Dresden)

Workload management while driving: do subjects judgements reflect driving safety?

Dominik Mühlbacher, Ingo Totzke, Nadja Schömig, Hans-Peter Krüger (Center for Traffic Sciences (IZVW), University of Wuerzburg), Siegfried Rothe (Daimler AG, Böblingen)

Improving mobility and self-esteem of seniors

Christine Chaloupka-Risser, Ralf Risser, Daniel Bell (FACTUM OHG)

Fields Operational Tests and Naturalistic Driving Studies

Session chaired by Mark Vollrath (Braunschweig TU, DE)

Session 4 B

Day 2, 9.00

Investigating the impact of a lane departure warning system in real driving conditions - a subjective field operational test

Gianfranco Burzio (Centro Ricerche FIAT), Leandro Guidotti (Università di Modena e Reggio Emilia, Engineering Sciences and Methods Department), Guido Perboli (Politecnico di Torino, Department of Control and Computer Engineering), Michele Settanni (Università di Torino, Department of Psychology), Roberto Tadei (Politecnico di Torino, Department of Control and Computer Engineering), Francesco Tesauri (Università di Modena e Reggio Emilia, Engineering Sciences and Methods Department)

Field Operational Tests: challenges and methods

Yvonne Barnard, Oliver Carsten (Institute for Transport Studies, University of Leeds)

Identification of the areas of interest of potential users of naturalistic driving observations studies

Nicole van Nes, Rob Eenink (SWOV Institute for Road Safety Research), Agathe Backer-Grøndahl (TØI Transportøkonomisk Institutt)

Collecting subjective data experiences from a small-scale Field Operational Test

I.C.M Karlsson, P. Engelbrektsson (SAFER - Vehicle and Traffic Safety Center and Division Design & Human Factors, Department of Product and Production Development Chalmers University of Technology)

Planning of a field operational test on navigating systems: implementation and evaluation of pre-studies providing background information for the data analysis

Barbara Metz, Stefanie Schoch (Center for Traffic Sciences (IZVW), University of Wuerzburg), Mariana Rakic (BMW Group Forschung und Technik), Friedeman Kuhn (Daimler AG)

Tools and methodologies for safety and usability assesement

Session chaired by

Session 5 A

Day 2, 11.00

A human-centred approach to the design of in-vehicle information systems: process overview and case study

Eve Mitsopoulos-Rubens, Margaret Trotter, Michael Lenné (Monash University Accident Research Centre)

ALCT - A methodical approach towards evaluating the influence of secondary task during autonomous driving

Wolfgang Spiessl, Marion Mangold (BMW Group Research and Technology, Human Machine Interaction)

A focus group approach towards an understanding of drivers? Interaction with in-vehicle technologies

M. Pereira, A. Simões (ISEC), V. Lancelle, M.P. Bruyas (INRETS), V. Britschgi (VTT), J.L. Diez, E.M. Garcia-Quinteiro (CTAG), C. Turetschek, C. Kaufmann (FACTUM OHG)

Utility of the lane change test in exploring the effects on driving performance of engaging in additional in-vehicle tasks while driving

Eve Mitsopoulos-Rubens, Kristie L. Young, Michael G. Lenné (Monash University Accident Research Centre)

Field Operational Tests and Naturalistic Driving Studies - Green ITS

Session chaired by

Session 5 B

Day 2, 11.00

A comprehensive research approach to investigate the patterns of use of in-vehicle technologies

Corinne Brusque, Arnaud Bonnard (INRETS), Marta Pereira, Anabela Simões (ISEC), Virpi Britschgi, Pirrko Rama (VTT), Nicole van Nes, Michiel Christoph (SWOV), Clemens Kaufmann, Ralf Risser (FACTUM)

A software tool for the visualization and annotations of naturalistic driving data stored in relational databases

Holger Lietz, Matthias J. Henning, Tibor Petzoldt, Josef F. Krems, Gerd Wanielik (Chemnitz University of Technology)

The Human reliability approach in road traffic safety

Wolfgang Fastenmeier and Herbert Gstalter (mensch-verkehr-umwelt, Institut für Angewandte Psychologie)

Electric vehicles as a solution for green driving in the future, A field study examining the user acceptance of electric vehicles

Isabel Neumann, Peter Cocron, Thomas Franke and Joseph F. Krems (Chemnitz University of Technology)

Drivers' needs and acceptance of assistance functions

Session chaired by Anabela Simoes (ISEC, PT)

Session 6

Day 2, 14.00

Methodology for safety and usability assesement of ITS for riders

Annie Pauzié (INRETS), Christhard Gelau (BAST)

Measuring the impact of usability on driving safety

Thomas Vöhringer-Kuhnt (Technische Universität Berlin)

Acceptance of driver support systems - work on definition and model

Emeli Adell (Lund University)

Exploring end-user experiences: self perceived notions on interactions with advanced driver assistance systems

Niklas Strand (SAFER Vehicle and Traffic Safety Centre, VTI Swedish National Road and Transport Research Institute), Josef Nilsson (SAFER Vehicle and Traffic Safety Centre, SP Technical Research Institute of Sweden), I.C.MariAnne Karlsson (SAFER Vehicle and Traffic Safety Centre, Division Design & Human Factors, Chalmers University of Technology) and Lena Nilsson (SAFER Vehicle and Traffic Safety Centre, VTI Swedish National Road and Transport Research Institute)

Closing session

Day 2, 15.20

Closing of the conference

Jean-Pierre Médevielle (President of HUMANIST VCE, INRETS)

Posters

Day 1, 16.20

Effects of controls vertical location, design and use on driver's visual behaviour

Tuomo Kujala (Agora Human Technology Center, University of Jyväskylä), Hannu Karvonen (Technical Research Centre of Finland (VTT))

Music and driving behaviour: the effects of music tempo and volume on simulated driving

Lorenzo Bruschetti (Università degli Studi di Torino)

The effects of in-vehicle warning systems on speed compliance in work zones

James D. Whitmire II, Justin F. Morgan, J. Peter Kincaid, P.A. Hancock (University of Central Florida) and Tal Oron-Gilad (Ben-Gurion University of the Negev)

Factors related to drivers' perception of interference from in-vehicle activities

William J. Horrey, Mary F. Lesch (Liberty Mutual Research Institute for Safety)

Straight into curves: reflektas in different contextual conditions

Anke Kullack, Frank Eggert (Technische Universität Braunschweig, Institute of Psychology, Department of Research Methods and Biopsychology)

Do not drive and touch: effects of a manual destination entry task in a navigator on performance driving

Pedro M. Valero Mora, Ignacio Pareja Montoro, Mar Sánchez García, Maria Luisa Ballestar Tarín, Jaime Sanmatín Arce (INTRAS-Universitat de València)

A similarity metric for quantifying system performance at pedestrian detection

Kip Smith, Askar Wubulikasimu (Department of Information and Computer Systems, Linköping University)

Low speed maneuvering systems interface design

Patrick Bonhoure (VALEO Driving Assistance Research Team)

Driver behaviour in car-following: a driving simulator study

Francesco Bella (Roma TRE University - Department of Sciences of Civil Engineering)

Issues in reclaiming control from advanced driver assistance systems

Annika Larsson (Lund University)

Work domain centered design

Paul Alvarado Mendoza (Department of Computer Science and Engineering, Chalmers University of Technology), Staffan Davidsson (Volvo Cars / Luleå University of Technology)

Attentional competition between tasks: drivers' difficulties and needs of aids

Justine Hoel, Magali Jaffard, Pierre Van Elslande (INRETS, MA)

Assessing the impact of V2V / V2I communication systems on traffic congestion and emissions

Margarida C. Coelho (University of Aveiro), Nagui Rouphail (Institute for Transportation Research and Education)

The reality on in-vehicle technology european market and its impact on research investigations

Arnaud Bonnard, Nicolas Karmann, Valérie Lancelle, Corinne Brusque (INRETS)

Control methods of tasks demands while approaching intersections

Toshihisa Sato, Motoyuki Akamatsu (AIST), Yoji Miyazaki and Nobutatsu Nakamura (NEC Corporation), Kenji Hiramatsu, Shin'ichi Fukuzumi (NEC Corporation)

Data collection and distribution systems in ITS information architecture: privacy and security management methodologies

María José Martínez Gil, José Manuel Menéndez (UPM)

IT-ecosystems: sounds new and it is!

Klaus Reinprecht, Mark Vollrath (Technische Universität Braunschweig, Department of Engineering and Traffic Psychology)



Organised by:



Humanist

For information:

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<http://conference2010.humanist-vce.eu>

Venue:

Berlin-Brandenburg Academy of
Sciences and Humanities
Conference and Event Center
Jägerstraße 22/23 D-10117 Berlin
**Please use the entrance from the
Gendarmenmarkt**

Registration:

Registration fees for participants have
been set:

- at 250 € for registration before March
12th, 2010
- at 350 € for registration after March
12th, 2010
- at 150 € for students

It includes:

- Participation in the conference
- Conference proceedings
- Refreshments
- Lunches and dinner

Special issue publication

IET Intelligent Transport Systems, a peer-reviewed academic journal from the Institution of Engineering and Technology (IET) is delighted to announce its collaboration with the European Conference on Human Centred Design for Intelligent Transport System to produce a Special Issue of suitably expanded papers from this event.

Authors of conference papers that are considered suitable for expansion for consideration in the 2010 (Human Centred Design) Special Issue will receive a formal invitation to submit.

Scientific committee

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