

THURSDAY 4 SEPTEMBER 2014

Béziers Amphithéâtre

Introduction

9.30 – O. Colmard – VP Alliance Engineering Tests et Services DIGITAL MOCK-UP CAE & PLM Renault, Guyancourt (France)

Virtual reality and Driving Simulation at the benefit of automotive engineering

Perception and Human Factors

10.00 - Erwin R. Boer - Entropy Control, Inc., San Diego (USA),
A. Hamish Jamson, Anthony J. Horrobin - Institute for Transport Studies, University of Leeds (England)
Sunjoo K. Advani - International Development of Technology, Breda (Netherlands)

Are We There Yet? An Objective Mechanism to Support the Assessment of Driving Simulator Utility

10.30 – Anca Stratulat, Stéphane Masfrand, Philippe Vars, Emmanuelle Diaz, Laurent Leblond, Guillaume Gruel, Vincent Honnet - PSA Peugeot-Citroën, Centre Technique Vélizy, Vélizy-Villacoublay (France)
Christophe Bourdin - Aix Marseille University, CNRS, Marseille (France)

Real vs virtual driving or how to improve the realism of a dynamic driving simulator

11.00 – Break

Simulation Architecture and Design – Connected Simulation

11.30 – Dominik Mühlbacher - Center for Traffic Sciences, University of Wuerzburg (Germany)
Lena Rittger - Adam Opel AG - Rüsselsheim (Germany)
Christian Maag - WIVW GmbH (Germany)

Real vs. simulated surrounding traffic – Does it matter?

12.00 - Jing Xu, Yingzi Lin – Intelligent Human-Machine Systems Lab – Department of Mechanical and Industrial Engineering Northeastern University, Boston (USA)
A networked multi-drivers simulation platform for interactive driving behavior study

Salle Rouge
12.30 – Lunch

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14.30 Perception and Human Factors

14.30 - Christophe Deniaud, Daniel Mestre - Aix-Marseille University, CNRS (France)
Vincent Honnet, Benoit Jeanne - PSA Peugeot Citroën, Vélizy (France)

Presence studied in a driving simulator

15.00 - Mattias Hjort, S. Kharrazi, M. Hjälm Dahl, J. Andersson Hultgren, O. Eriksson – VTI, Linköping (Sweden)

Validating on-the-limit properties of a driving simulator

15 :30 Vidal Quentin, Sylvain Michelin - University of La Rochelle, L3i (Laboratoire Informatique Image et Interaction), (France)
Baptiste Laborie - OKTAL, Meudon (France)
Andras Kemeny - Renault, VR & Immersive Simulation Center, Guyancourt (France)

Colour-Difference Assessment for Driving Headlight Simulation

16.00 – Break

16.00 - Paolo Pretto, Alessandro Nesti, Suzanne Nooij, Heinrich H. Bühlhoff - Max Planck Institute for Biological Cybernetics, Department of Human Perception, Cognition and Action, Tübingen (Germany)
Martin Losert - University of Tübingen, Department of Psychology (Germany)

Variable roll-rate perception in driving simulation

16 :30 Zhao Yang, Aykent Baris, Frédéric Merienne - Arts et Métiers ParisTech, CNRS 6306 Le2i Institut Image (France)
Andras Kemeny - Renault, VR & Immersive Simulation Center, Guyancourt (France)

Simulation sickness comparison between a limited field of view virtual reality head mounted display (Oculus) and a medium range field of view static ecological driving simulator (Eco2)

17.00 - Introduction to the evening demonstration

17.00 – Gilles Gallée – Optis, Toulon (France)

Real-time optically accurate image rendering

Town Hall Paris XIII
19.30 – Cocktail party

FRIDAY 5 SEPTEMBER 2014

Beziers amphithéâtre	Fournel Amphithéâtre
Perception and Human Factors	Motion Rendering
<p>9.30 - Mehdi Saffarian, John W. Senders - Department of Mechanical and Industrial Engineering, University of Toronto (Canada)</p> <p><i>How much visual attention does braking require? A study for the effect of memory of the scene on driver's braking behaviour</i></p> <p>10.00 - Zhou Fang, Florent Colombet, Jean-Christophe Collinet, Andras Kemeny - Renault, VR & Immersive Simulation Center, Guyancourt (France)</p> <p><i>Roll tilt thresholds for 8 DOF driving simulators</i></p> <p>10.30 - Florian Savona, Anca Stratulat, Emmanuelle Diaz, Vincent Honnet, Gilles Houze, Philippe Vars, Stéphane Masfrand, Vincent Roussarie - PSA Peugeot-Citroën, Centre Technique Vélizy (France) Christophe Bourdin - Aix Marseille Université – Marseille (France)</p> <p><i>The influence of lateral tilt/translation, roll and yaw scale factors on driving performances on an advanced dynamic simulator</i></p>	<p>9.30 - Ingrid Salisbury, D.J.N. Limebeer - University of Oxford, Department of Engineering Science (United Kingdom)</p> <p><i>An algorithm for false cue reduction and simultaneous repositioning</i></p> <p>10.00 - Gary Bertollini, Yi Glaser, Joseph Szczerba - General Motors Research and Development, Michigan (USA) Ronald C. Wagner - Dynamic Research, Inc., California (USA)</p> <p><i>The Effect of Motion Cueing on Simulator Comfort, Perceived Realism, and Driver Performance During Low Speed Turning</i></p> <p>10.30 - Mattia Bruschetta, Fabio Maran and Alessandro Beghi - Department of Information Engineering, University of Padova (Italy)</p> <p><i>An MPC approach to the design of motion cueing algorithms for a high performance 9 DOFs driving simulator</i></p>
11.00 – Break	
<p>11.00 - Julian Schindler, Tobias Hesse - German Aerospace Center, Braunschweig (Germany)</p> <p><i>Coping with complex driving scenarios: Exploratory Scenario Design</i></p> <p>11.30 - Mikael Ljung Aust - Volvo Cars Safety Centre - Volvo Car Corporation, Göteborg (Sweden)</p> <p><i>Effects of haptic vs visual modalities when combined with sound in forward collision warnings</i></p> <p>12.00 - Ronald W. Tarr & Eric Paul Totten - Institute for Simulation and Training University of Central Florida (USA)</p> <p><i>Driver Distraction among Commercial Vehicle Operators: A Study Using a Driving Simulator to Enhance Control</i></p>	<p>11.00 - Zhou Fang, Andras Kemeny - Renault, VR & Immersive Simulation Center, Guyancourt (France)</p> <p><i>Review and prospects of Renault's MPC motion cueing algorithm for driving simulator</i></p> <p>11.30 - Imad Al Qaisi, Daniel Zimmermann, Andreas Kohlstedt and Ansgar Trächtler - Heinz Nixdorf Institute, University of Paderborn (Germany)</p> <p><i>Subjective evaluation of different motion cueing algorithms implemented on ATMOS driving simulator</i></p>

Salle Rouge
12.30 – Lunch

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Simulation Design and Architecture

14.30 - Daniela Craciun, Jean-Emmanuel Deschaud and François Goulette - Ecole des Mines de Paris, Centre de Robotique, Paris (France)

The influence of lateral tilt/translation, roll and yaw scale factors on driving performances on an advanced dynamic simulator

15.00 - Michael Brogan, Catherine Deegan - Institute of Technology Blanchardstown, Dublin (Ireland)

David Kaneswaran, Sean Commins, Charles Markham - National University of Ireland Maynooth (Ireland)

Steerable video : generating video based environments for driving simulation

15.30 - Alexander Betz, Paul Wagner, Professor Hermann Winner Technische Universität Darmstadt Fachgebiet Fahrzeugtechnik (Germany)

Development and validation of a safety architecture of a wheeled mobile driving simulator

16.00 – S. Barale, Ph. Vars - PSA, Vélizy (France)

J. Guillet - ALTEN, Paris (France)

M. Alirand, J. Lagnier, P. Toulemont - LMS Imagine, Lyon (France)

Comfort analyses of the Hydractive suspension using a driving simulator

Espace expositions

Product Solution and Posters

14.30 – 18.00

Jonas Jansson, Bruno Augusto, Laban Källgren, Björn Blissling, Jesper Sandin - VTI (SWEDISH NATIONAL ROAD AND TRANSPORT RESEARCH INSTITUTE) (Sweden)

Martin Fischer - DLR (GERMAN AEROSPACE CENTER, Institute of Transportation Systems) (Sweden)

Design and performance of the VTI Sim IV

Martin Fischer, Andreas Richter, Julian Schindler, Jens Plättner, Gerald Temme, Johann Kelsch, Dirk Assmann, Frank Köster - German Aerospace Center (Germany)

Modular and scalable driving simulator hardware and software for the development of future driver assistance and automation systems

Zhitao Xiong - The Research Centre for Integrated Transport Innovation, University of New South Wales, Sydney (Australia)

OpenDriving : an open source driving simulation software

Philip van der Borch – Moog, Nieuw-Vennep (Netherlands)
Moroni, Allesandro - Dallara, Parma (Italy)

High fidelity driving simulators : entering the next level of virtual vehicle development

Eva Lahti - Volvo Car Corporation, Gothenburg (Sweden)

Anna Anund, Anders Genell - Swedish Road and Transport Research Institute, Linköping (Sweden)

Sleepnoise - A simulator based study of the effects of noise on driver sleepiness

Oleksandr Goloborodko, Georg-Peter Ostermeyer - Technical University of

Braunschweig (Germany)

Miniature traffic demonstrator with driving simulator

Jürgen Pitz, Minh-Tri Nguyen, Prof. Dr. Hans-Christian Reuss - University of Stuttgart, Stuttgart, (Germany)

Dr. Gerd Bauman - Research Institute of Automotive Engineering and Vehicle Engines, Stuttgart (Germany)

Combined motion of a hexapod with a xy-table system for lateral movements

Jérémy Plouzeau, Aykent Baris, Merienne Frederic - Arts et Metiers ParisTech, CNRS, LE2I, Institut Image, Chalon-sur-Saone (France)

Paillet Damien - Université de Bourgogne, CNRS, LE2I, Institut Image 2 Chalon-sur-Saone (France)

Effect of simulated rumble strips in a static driving simulator- a pre-study

Eduardo Pena Vina, Andrey Gizatullin, Michael Kleer, Klaus Dreßler

Fraunhofer Institute for Industrial Mathematics ITWM, Kaiserslautern (Germany)

Manuel Schiewe - Fraunhofer Institute for Open Communication Systems FOKUS, Kaiserin-Augusta, Berlin (Germany)

Robot based Driving and Operation Simulation with a spherical fixed Screen

Yoshiki Yasuno, Akira Kikuchi - Vehicle Test and Measurement Technology Development Department, NISSAN MOTOR (Japan)

Nissan's new High Performance Driving Simulator for vehicule dynamics performance & man-machine interface studies

Nguyen-Thong Dang, Fabrice Vienne, Roland Bremond LEPSIS, ISTAR (France)

Hdr simulation of intelligent led road studs

**Béziers Amphithéâtre
18.00 – Conclusion**