

Proceedings

The conference documentation in English will be handed out to the participants upon registration.

Attendance Fee

The attendance fee includes participation in the conference, admission to the exhibition, the conference literature, refreshment and lunch breaks as well as participation in evening reception at simtec. The attendance fee will not be refunded for registrations cancelled after 3 September 2007. A substitute person may, however, be named. The attendance fee is inclusive of value-added tax.

Registration for the Symposium

Please complete the form on the front and return it either by fax or mail to the Organiser's Office:

FAX reply: +49 (0)531 35406-74

Mr. Andreas Redeker Phone: +49 (0)531 35406-73

Gesamtzentrum für Verkehr Braunschweig e.V.

Hermann-Blenk-Str. 17, D-38108 Braunschweig, Germany

Further Information

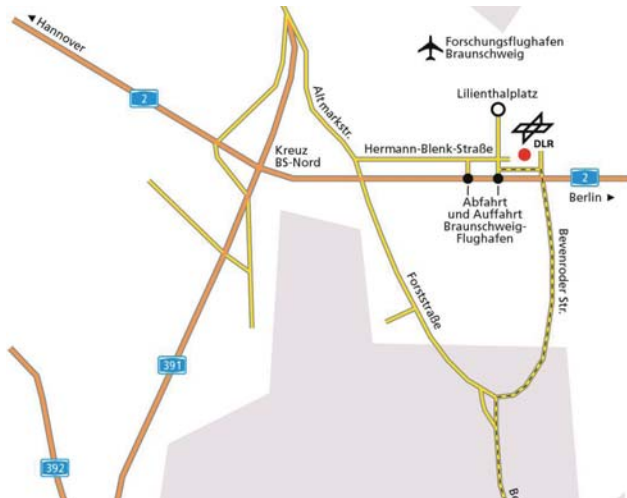
You will find further information about the symposium at www.gzvb.de.

Accompanying Exhibition

The accompanying exhibition will give manufacturers, developers, suppliers and users the opportunity to display the latest systems, equipment, components, software and services they can offer in the field of simulation systems and enable them to deepen their contacts with participants and students.

Conference language

The conference language of the symposium is English. There will be no simultaneous translation.



2nd Motion Simulator Conference 2007 Registration

Fax-Reply: +49 (0)531 35406-74

I hereby wish to register for the conference as:

- | | | |
|---|---|-----------------------|
| m | Delegates | 395,- Euro |
| m | Univerity/Public Authority | 320,- Euro |
| m | Members of GZVB | 300,- Euro |
| m | Members of ZVB | 250,- Euro |
| m | Students
(limited contingent, no proceedings) | free of charge |
| m | I'm attending the evening reception on
19 September 2007 | |
| m | Please send me information concerning the
technical exhibition | |

Last Name _____

First Name _____

Title _____

Company _____

Adress _____

Phone _____

Fax _____

E-Mail _____

Location, Date _____

Signature _____

Program

2nd Motion Simulator Conference 2007

19 and 20 September 2007



Deutsches Zentrum für Luft
und Raumfahrt e.V.
Institut für Verkehrsführung und
Fahrzeugsteuerung
Lilienthalplatz 7
D-38108 Braunschweig, Germany



Preface

Simulation is an increasingly important tool for the development and evaluation of vehicle systems. Driving simulators offer the benefit of reducing development risks, time and costs for many applications.

These applications range from driver training to development and testing of power trains, suspensions, steering and driver assistant systems. The need for realism varies with different applications. The critical demands for the development of driver assistant systems pushes the limits of driving simulation technology.

Driving simulators with high performance motion and visual systems are defining the state of the art today. In contrast to flight simulators, which are based on common and well established concepts throughout the world, driving simulators are designed based on different concepts especially concerning motion and visual cueing. It is not very well understood yet which concept is best suited for which task. It may even be necessary to adapt motion and visual cueing within one simulator to specific driving tasks. The standardisation of manoeuvres and traffic scenarios e.g. for driver assistant system development will also be a future goal.

The demands on simulators for driver training may be significantly lower concerning motion and visual cues. Here the main challenge is to provide cost-efficient solutions.

The opportunity to exchange and discuss experiences and ideas between experts is the major focus of this conference. A technical exhibition and an evening reception will accompany the conference.

Wednesday, 19 September 2007

- 14:00 Registration
- 15:00 Welcome and Introduction
[B. Kaufmann / simtec]

Keynote-Session [B. Kaufmann / simtec]

- 15:30 **Motion simulation as well as simulation in motion**
[M. Lienkamp / Volkswagen AG]
- 16:00 **The vehicle function culture of driving in the early development phase**
[L. Dragon / DaimlerChrysler AG]
- 16:30 Coffee Break

Image Generation [A. Huesmann / BMW]

- 17:00 **Photorealistic Rendering In Car Simulation**
[T. Calapoglu / VIRE Simulationstechnologie GmbH]
- 17:30 **NVSG - NVIDIA Scene Graph SDK**
[H. Kunz / NVIDIA GmbH]
- 18:00 - 21:30 Evening reception at simtec

Thursday, 20 September 2007

- 08:30 Registration

Applications [E. Zeeb / DaimlerChrysler]

- 09:00 **Applications to Driving Simulation and their Requirements to the Tool**
[A. Huesmann / BMW Group]
- 09:30 **Software solutions for driving simulators requiring accurate vehicle dynamics models**
[T. Gillespie / mechanical simulation corp.]
- 10:00 Coffee Break

- 10:30 **A Survey of State-of-the-art Motion Platform Technology and Motion Cueing Algorithms**
[M. Fischer / DLR]
- 11:00 **Driving simulation for testing soft-/hardware in the loop - the Copilot from SPARC**
[A. Kaußner / WIVW GmbH]
- 11:30 **Driving Me Round the Bend - Behavioural Studies Using the New University of Leeds Driving Simulator**
[H. Jamson / University of Leeds - Institute for Transportation Studies]
- 12:00 Lunch

Special Motion Systems [M. Kiss / Volkswagen]

- 13:00 **The MPI Motion Simulator: A new approach to motion simulation with an anthropomorphic robot arm**
[H. Bühlhoff / Max-Planck-Institut für biologische Kybernetik]
- 13:30 **Present status of the Desdemona moving base simulator**
[M. Bles, M. Wentink / TNO Human Factors]
- 14:00 **Realtime pathplanning for an interactive controlled and industrial robot based motion simulator**
[T. Bellmann / DLR]
- 14:30 Coffee Break
- 15:00 **Panel discussion: Truck Simulator – A useful contribution for driver instruction?**
[moderated by B. Kaufmann / simtec, K. Lemmer / DLR]
- 15:45 **Summary and Closure**
[K. Lemmer / DLR]
- 16:00 End