asc(s
Automotive Simulation Center | Stuttgart

2nd Symposium Driving Simulation

Experts discuss the technical progress of driving simulation on the way to autonomous driving

Stuttgart, August 30, 2016. More than 60 participants met in Berlin for the 2nd Symposium on Driving Simulation on June 29 - 30 to discuss the latest developments and trends in driving simulation. The main topics of this event taking place at the *Technische Universität* Berlin were driver assistance systems, autonomous driving and user-centered developments.

The guiding principle "Heading Towards Autonomous Driving – *Auf dem Weg zum Autonomen Fahren*" said it all during the 2nd Symposium on Driving Simulation on June 29 and 30, 2016 in Berlin. For the second time decision-makers and experts in the automotive industry and commercial vehicle production, the research field and IT discussed topics relating to driving simulation. The event was aimed at providing representatives from science and business with a better approach to the subject of driving simulation: "With the Symposium on Driving

Simulation we provide an exchange forum for specialists, who want to obtain more information independently of technologies and manufacturers. We are pleased that this offer has been met with such a sympathetic response", said Dr. Christoph Runde, managing director of the VDC Fellbach. The Symposium on Driving Simulation was hosted by the Automotive Simulation Center Stuttgart (asc(s), TU Berlin (Chair of Industrial Information Technology) and the Virtual Dimension Center (VDC) Fellbach together.

Contents for driving simulation applications took center stage at the OpenSCENARIO User Meeting, held on the first day of the symposium. OpenSCENARIO enables the creation of scenarios through a combination of static and dynamic contents. Alexander F. Walser, managing director of the asc(s, and Marius Dupuis, managing director of the VIRES Simulationstechnologie GmbH, provided an overview over the current state of the project and its technical implementation. User examples, tools and the embedding into the PEGASUS[1] project were also discussed. Afterwards the participants of the symposium met for a get-together and visited the Functional Drive Simulator of the TU Berlin, upon an invitation by Maik Auricht, deputy chief engineer at the *Institut für Werkzeugmaschinen und Fabrikbetrieb* of the TU Berlin.

The second day of the symposium began with the keynote speech by Dr. Jochen Schaffnit of the Adam Opel AG. In this speech he described the virtual validation from the perspective of an OEM thus laying the cornerstone for the following lectures and discussions. Further specialist lectures were given by representatives of IAV, rFactor Pro, VI-grade, Porsche, nVIZ, ESI Software, 3D Mapping Solutions, OPTIS and the Technische Universität Berlin. "The lectures have shown that simulation methods can contribute significantly to letting the vision of autonomous driving become reality. By shifting the enormous validation effort from the real into the virtual world engineers to promote innovative system technologies fast and cost efficiently," elucidated Walser.

Agenda:
- "Virtual Validation – the OEM's Perspective", Dr. Jochen Schaffnit, Adam Opel AG
- "Simulation as ingredient for validation during development process of highly automated driving functions", Dr. Klaus Krumbiegel, IAV GmbH
- "rFpro & The Future Of Virtual Environment Simulation, Matt Daley, rFactor Pro
- "Safer development of modern assistance systems using innovative driving simulators", Volkhard Schill, VI-grade
- "The newest Driving Simulator at Porsche", Ingo Krems, Dr.-Ing. h.c. F. Porsche AG

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[1] Project for establishing generally accepted quality criteria, tools and methods as well as scenarios and situations for the release of highly automated driving functions

- "Virtual Reality as an Efficient Tool in the Development Process of Advanced Driver Assistance Systems", Ingolf Rehfeld, nVIZ GmbH
- "From road into … validation by means of Simulation and Holistic Virtual Integration", Christian Medrow und Elke Ahmels, ESI GmbH
- "Precise OpenDrive Data as Basis for sophisticated Simulation Applications in Real-World Environments", Dr. Gunnar Gräfe, 3D Mapping Solutions GmbH
- "On the road to automated driving", Günther Hasna, OPTIS GmbH
- "Development of a traffic jam assistant with state of the art technologies", Simon Kontar, Technische Universität Berlin

More information about the symposium can be found here: https://simpulse.de/27/2nd-symposium-driving-simulation/

Profile asc(s – Automotive Simulation Center Stuttgart

The asc(s provides its members with the possibility to advance new simulation methods for the virtual vehicle development fast and efficiently – particularly if these place high demands on the computing power and data volume. The asc(s promotes, supports and realizes the method development in the field of automotive simulation. Being an interest group and multiplier it can offer its members a wide range of services and activities in this field. The main focus of its activities is the concentration of expertise from automotive and supply industry, software and hardware manufacturers, engineering service providers and research institutes. The asc(s brings various player in the field of virtual vehicle development together with the right project partners and gains new impulses for the development of their products and business strategy of its memebrs.

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Profile TU Berlin – Department of Industrial Information Technology

The Department of Industrial Information Technology is engaged in the advancement of digital solutions for the improvement and the enlargement of engineering operations in the entire cycle of virtual product creation, including the area of functional drive simulation with its own Digital Cube Test Center (DCTC).

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Profile VDC Fellbach

The Virtual Dimension Center (VDC) is Germany's leading network for Virtual Engineering and Virtual Reality. Since 2002 the VDC creates synergies between the network members and supports technology transfer. More than 100 members and partners - among them research institutions, technology suppliers, service providers, users and multipliers - are cooperating in the topics of simulation, visualisation, product lifecycle management (PLM), computer aided engineering (CAE) and virtual reality (VR) along the entire virtual engineering value chain. Hence the cluster members benefit from a higher innovation activity and productivity due to information and cost advantages compared to companies outside the network. These competitive advantages are a result of transparent competences, raised information flow and easier business contacts. The services of the VDC include information search and processing, marketing and dissemination, match making on national and international level, - technology transfer and funding management. The VDC organizes each year many workshops, match making events and congresses like the Virtual Efficiency Congress (VEC, www.virtual-efficiency.de).

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5

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