

The Congress

Focal point: Integrated Vehicle Safety and Safety Validation

The 2011 EU White Paper on the Single European Transport Area lists "close to zero fatalities in road transport" as its traffic safety goal for 2050. In this context, driver assistance systems and automated driving are under discussion as offering great potential. It will take a long time, however, until such systems achieve comprehensive market coverage. Passive safety will therefore remain a mainstay of traffic safety, but the target will not be reached only by measures involving vehicles. **crash.tech 2016** will look at the three priority fields of action of road traffic safety: vehicle, human and infrastructure. Only an integral approach to systems for accident avoidance and crashworthiness will help achieve the desired goals.

Against this background, **crash.tech 2016** will address the latest topics relating to vehicle safety. In particular, this includes protection of vulnerable road users, test and simulation methods, the future development of dummies and the application of active human body models.

The progress in the development of assisted and automated driving makes it particularly clear how passive and active safety work together. Therefore main topics of the conference are methods of validation of new vehicle safety technology. What will be the impact of partial and high automated driving on accidents and passive safety? This question will be examined in a high-level expert panel discussion.

Don't miss out the **13**th **crash.tech** conference of 2016 and make the event even more special with your presence!

Committee

Dierk Arp, MESSRING Systembau GmbH Kurt Fograscher, Autoliv B.V. & Co. KG Dr. Joachim Franz, Continental Safety Engineering International

Franz-Michael Hagemann, AUDI AG

Dr. Lars Hannawald, Verkehrsunfallforschung an der TU Dresden GmbH

Prof. Dr. Klaus Langwieder, International Safety Consulting Bernd Lorenz, Federal Highway Research Institute BASt Thomas Papenheim, IAV GmbH

Dr. Swen Schaub, ZF TRW

Prof. Dr. Rodolfo Schöneburg, Daimler AG **Florian Schueler,** Institut für Rechtsmedizin,

Universität Freiburg

Dominik Schuster, BMW AG **Wolfgang Siebenpfeiffer,** ATZ/MTZ **Dr. Jiri Socha,** TÜV SÜD Czech s.r.o.

Chairman

Dr. Lothar Wech, TÜV SÜD Auto Service GmbH

CONFERENCE FEE AND VENUE

€ 960,- plus current VAT (if applicable)

The registration fee includes conference documentation, lunch and beverages during breaks as well as the evening event.

TÜV SÜD · Vortragssaal Chiemsee

Westendstraße 199 · 80686 Munich, Germany You will receive travel and hotel information with the confirmation of your registration.

Agenda on April 19, 2016

09:30 Welcome and introduction

Klemens Schmiederer, TÜV SÜD AG, Board of Management

09:35 Welcoming address

Ilse Aigner (inquired), Bavarian State Minister for Commerce and Media, Energy and Technology (DE)

09:50 Advancing vehicle safety at the Insurance Institute for Highway Safety in 2016 (and beyond)

Adrian Lund, President, Insurance Institute for Highway Safety (USA)

10:20 Midterm review of the German road traffic safety program: The priority fields of action

Andre Seeck, Direktor und Professor, Federal Highway Research Institute BASt (DE)

10:50 SAFE ROADS India: A safety initiative of Mercedes-Benz Jochen Feese, Daimler AG (DE)

11:10 Coffee break

Traffic analysis and accident research

Chair: Prof. Dr. Klaus Langwieder, International Safety Consulting (DE)

11:45 Side impact accidents with cars

Dr. Matthias Kühn, Jenö Bende, UDV – German Insurers Accident Research (DE)

12:10 A method for the development and assessment of integrated vehicle safety using in-depth accident data

Michael Wagner, Prof. Dr. Lars Hannawald, Henrik Liers, VUFO GmbH – Traffic Accident Research Institute of TU Dresden GmbH (DE) 12:35 Residual problem: An analysis of accidents remaining in Germany after introducing new vehicle safety technology Guillaume Lechevallier, Nils Lubbe, Toyota Motor Europe (BE)

13:00 Lunch

Future of vehicle safety and methods of validation

Chair: Dominik Schuster, BMW Group (DE)

14:00 Fields of operation and effectiveness evaluation of driver assistance systems exemplarily for pedestrian protection in the UR:BAN project

Dr. Sandra Niesen, Marcus Wisch, Federal Highway Research Institute BASt (DE); Jan Dobberstein, Dr. Markus Enzweiler, Daimler AG, Volker Labenski, Audi AG; Dr. Stefan Schoenawa, Volkswagen AG (DE)

14:20 Improvement of driver assistance systems based on analysis of drivers and pedestrians behaviour within the pre crash phase of video documented accidents
Thomas Schlender, Thomas Lich, Robert Bosch GmbH (DE)

14:45 The P.E.A.R.S. initiative: A harmonized method for assessing the effectiveness of advances driver assistance systems

Ulrich Sander, Autoliv Development AB (SE)

15:05 Assessment of a preventive pedestrian protection system using prospective effectiveness simulation Dr. Thomas Helmer, Dr. Lei Wang, Prof. Klaus Kompaß, BMW Group; Dr. Ronald Kates, REK Consulting (DE)

15:25 Validation of assisted and automated driving systems (Project PEGASUS)

Arne Bartels, Volkswagen AG; Jens Plättner, Deutsches Zentrum für Luft- und Raumfahrt; Mark Schiementz, BMW Group; Hans-Peter Schöner, Daimler AG; Udo Steininger, TÜV SÜD (DE)

15:45 Coffee break

16:15 Panel discussion

Impact of partial and high automated driving functions on passive safety

Participants:

- Andre Seeck, Direktor und Professor, Federal Highway Research Institute BASt (DE)
- Prof. Klaus Kompaß, BMW Group (DE)
- Dr. Gunnar Jürgens, Continental Safety Engineering (DE)
- Bernd Ostmann, auto motor und sport (DE)
- Dr. Matthias Kühn, UDV German Insurers Accident Research (DE)

Chairman: Dr. Lothar Wech, TÜV SÜD Auto Service GmbH

17:30 End of first conference day

Evening Event



Agenda on April 20, 2016

08:30 SENIORS: Safety-ENhancing innovations for older road users (Horizon 2020 project)

Marcus Wisch, Federal Highway Research Institute BASt (DE)

Protection of vulnerable road users

Chair: Bernd Lorenz, Federal Highway Research Institute BASt (DE)

08:50 Injury probability models for pedestrians and cyclists based on real world accident data

Henrik Liers, Florian Spitzhüttl, Verkehrsunfallforschung an der TU Dresden (VUFO) GmbH (DE)

09:15 The certification procedures for the new pedestrian protection legform impactor Flex PLI

Dirk-Uwe Gehring, BGS Böhme & Gehring GmbH; Dr. Thomas Kinsky, Adam Opel AG (DE)

09:35 Future application of the new aPLI with SUBP

Dr. Thomas Kinsky, Benjamin Bünger, Adam Opel AG; Franz Roth, Audi AG; Olaf Insel, Volkswagen AG (DE)

09:55 Coffee break

10:15 Pedestrian safety research in CARISSMA

Igor Doric, Prof. Dr. Thomas Brandmeier, Technische Hochschule Ingolstadt / CARISSMA (DE)

10:40 Bicycle accidents – risks and potential for drive assistance systems

Raphael Murri, Sandro Caviezel, Bernhard Gerster, Dynamic Test Center AG (CH)

Dummies and human body models

Chair: Kurt Fograscher, Autoliv B.V. & Co. KG (DE)

11:05 Investigation of repeatability and reproducibility of the dummy THOR-M in sled and component tests

Dr. Andre Eggers, Federal Highway Research Institute BASt (DE); Michael Putzer, pdb — Partnership for Dummy Technology and Biomechanics; Simon Kramer; ZF TRW (DE)

11:30 Coffee break

11:45 Reliable validation and application of a FE human body model in different crash codes

Therese Fuchs, Ludwig-Maximilians-Universität (LMU) München, Dr. Andre Berger, ESI GmbH, Dr. Dirk Fressmann, DYNAmore GmbH; Prof. Steffen Peldschus, Ludwig-Maximilians-Universität (LMU) & Hochschule Furtwangen University (DE)

12:10 Active human body model for integrated safety applications

Bengt Pipkorn, Autoliv Research (SE)

12:35 An integrated safety frontal AEB application employing efficient active human modelling

Martin Tijssens, Kajetan Kietlinski, TASS International (NL)

13:00 Lunch

Test and simulation methods

Chair: Prof. Dr. Lars Hannawald, VUFO GmbH – Traffic Accident Research Institute of TU Dresden GmbH (DE)

14:00 Small overlap corner instrumentation and analysis

Xavier Da Silva, Núria Parera, Applus IDIADA Group (ES)

14:25 Evaluation of forward excursions in sled and crash testing

Dr. Hakan Ipek, Daimler AG (DE)

14:50 Intelligent motorcycle protective systems in passive safety – airbag clothing systems

Dr. Martin Sotola, TÜV SÜD Czech s.r.o. (CZ); Robert Matawa, TÜV SÜD Auto Service GmbH (DE); Franco Gatto, Dr. Enrico Silani, Dainese S.p.A. (IT)

15:15 Coffee break

15:30 Electrical integrity during full vehicle crash tests – Deformation behaviour of 12V batteries

Dr. René Henn, Olaf Allgeyer, Michael Weil, Adam Opel AG; Lutz Berger, Michael Funcke, Forschungsgesellschaft Kraftfahrwesen Aachen mbH; Sebastian Schäfer, Institut für Kraftfahrzeuge RWTH Aachen (DE)

Closing lecture

15:55 Democratising car safety

David Ward, Secretary General, Global NCAP

16:20 Outlook and farewell

Dr. Lothar Wech, TÜV SÜD Auto Service GmbH (DE)

TARGET AUDIENCE AND CONFERENCE LANGUAGES

The conference is addressed to

the automotive industry, to system providers and supplier industries, engineering service providers, universities and research institutes.

The conference languages

are German and English. There will be simultaneous English interpretation of German presentations.



Registration at any time at

www.tuev-sued.de/crash.tech congress@tuev-sued.de

The congress is sponsored by:

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Registration and information

TÜV SÜD Akademie GmbH International Conferences Ute Alius Westendstraße 160 80339 Munich, Germany Phone +49 89 5791-1647 Fax +49 89 5155-2468 congress@tuev-sued.de