EVU

EUROPEAN ASSOCIATION FOR
ACCIDENT RESEARCH
AND ANALYSIS

32nd Annual
EVU Congress 2024

PRELIMINARY PROGRAM

- **September 12th – 14th, 2024**
  Kufstein - Austria

- Venue: Stadtsaal Kufstein

Main Topics:
- **Open Forum**
- **ADAS**
- **Accidents with single-track vehicles**
- **Accidents involving electric vehicles**

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THURSDAY 12.09.2024

12:30	Opening Ceremony

Session 1: From real-roads to virtual roads

13:10	Road2Sim - Transformation of Road Sections into a Virtual Environment Based on GroundTruth Measurement *Prof. Peter Pfeffer, Prof. Markus Krug, Prof. Bernhard Schick, Krishnakumar Mayannavar, Daniel Schneider*
13:30	3D accident reconstruction for traffic incident documentation using advanced Deep Learning approaches *Enrico Pittini, Davide Castellucci, Filippo Begani, Salvatore Pisciotta*
13:50	Comparative study of data collection techniques at road accident sites using photogrammetry: Drone, Leica BLK 3D, RedCatch (GNSS), Ground photogrammetry *Philippe Somja, Yves Page*
14:10	Video analysis and photogrammetry in accident analysis – uncommon case studies *Michal Křižák, Dr. Albert Bradáč, Dr. Marek Semela, Dr. Pavel Maxera, Dr. Martin Bilík, Prof. Robert Kledus*
14:30	Accuracy evaluation of 3D photogrammetry methods *Dr. Klaus-Dieter Brösdorf, Dr. Andreas Moser*

14:50	Coffee break (30 min)

Session 2: Reconstruction

15:20	Kinematics measurements on light single-track vehicles during acceleration and braking *Dr. Miha Ambrož, Prof. Robert Kunc, Jernej Korinšek, Dr. Jovan Trajkovski*
15:40	Investigating Yaw Marks on Grass Surfaces for Vehicle Speed Reconstruction *Jeroen Peters, Sander de Goede*
16:00	Pole/Tree Impact Analysis *Mark Paquette, Nicholas Young, Greg Prentice, Mark Fabbroni*
16:20	The relationship between automobile impact speed and pedestrians and cyclists projection distance in crash tests *Dr. Nenad Milutinovic, Dr. Nikola Radivojevic*
16:40	Estimation of function vehicle velocity through a driving experiment for moving camera *Dr. Paweł Grzegorz Dąbkowski*

17:00	Vehicle Safety Award

19:00	Tyrolean evening (Hotel Andreas Hofer)

FRIDAY 13.09.2024

Session 3: EDRs, Sensors and Data (Part 1)

09:00	**Recording vehicle dynamics during driving maneuvers using modern smartphones and GoPro cameras and evaluation in PC-Crash** *Dr. Andreas Moser, Christian Hittinger, Julian Simader*
09:20	**Reconstruction of a high-speed accident with three vehicles involved using data from EDR (Event Data Recorder) and GoPro cameras** *Christian Hittinger, Dr. Andreas Moser*
09:40	**Selected results of the project Modern methods of documentation and analysis of vehicle damage** *Dr. Kateřina Bucsuházy, Dr. Martin Bilík, Dr. Roman Mikulec, Martin Rak, Pavlina Moravcová, Dr. Michal Belák, Michal Křižák, Dr. Marek Semela, Dr. Albert Bradáč, Jakub Motl, Robert Zůvala*
10:00	**GPS systems in accident analysis - possibilities and limits** *Michael Plank, Andreas Moser*

10:20	Coffee break (30 min)

Session 4: EDRs, Sensors and Data (Part 2)

10:50	**Accuracy and Bias of Estimated Brake Onset from Onboard Video During Emergency Brake Events** *Thomas Flynn, Cole Young, Matthew Ahrens, Gunter Siegmund*
11:10	**The Airbag Control Unit: Master of Protection vs. Datarecorder** *Andreas Forster, Reinhart Weber*
11:30	**Correcting EDR data based on positional offset from vehicle main axes** *Florian Pirkner, Matthias Schmidt*
11:50	**Rolling shutter effect in a video recording of a lightboard** *Wojciech Wach*

12:10	Lunch (1h 10 min)

Session 5: Open Forum

13:20	**A novel test method for rapid evaluation of the mechanical integrity of battery modules** *Michael Salamon, Sven Kilian, Prof. Klaus Böhm*
13:40	**Challenges in Technical Inspection of Automated Vehicles Environmental Sensors** *Robin Langer, Dr. Tibor Kubjatko, Prof. Hans-Georg Schweiger*
14:00	**Advancing Car Insurance Fraud Detection: An Automated Deep-Learning Approach** *Davide Castellucci, Enrico Pittini, Filippo Begani, Simone Orlando*
14:20	**In-Depth Investigation of E-Scooter Performance** *Victoria Eyers, Iwan Parry, Mohammed Zaid*

14:40	Coffee break (30 min)

Session 6: Biomechanics of impact

15:10	**HBM application in the analysis of road traffic accidents** *Prof. Robert Kunc, Dr. Jovan Trajkovski, Dr. Miha Ambrož*
15:30	**Accident reconstruction via analysis and reproduction of head injury patterns** *Dr. Ivan Colamartino, Dr. Pierangelo Adinolfi, Prof. Marco Anghileri*

16:00	General Assembly

18:00	**Welcome reception at the Kufstein fortress** *250m walk from the venue to the panoramic railway to the fortress. Path contains cobblestones.*
19:00	Gala dinner at the Kufstein fortress

SATURDAY 14.09.2024

	Session 7: ADAS and safety systems
09:00	Brake Response Times of Autonomous Emergency Braking Systems *Robert Taylor*
09:20	Basic data on the behavior of partially automated driving functions when cornering for accident reconstruction *Jessica Gut, Daniel Paula, Pavlos Triantafyllidis, Luigi Ancona*
09:40	Partially automated driving functions in accident reconstruction *Daniel Paula, Maximilian Bauder, Dr. Tibor Kubjatko, Prof. Hans-Georg Schweiger*
10:00	Simulation model for analysing the avoidability of turning accidents involving VRUs with the integration of available active safety systems *Stefanie Ritter, Andreas Baur, Frank Müller*
10:20	Coffee break (30 min)
	Session 8: EDRs, Sensors and Data (Part 3)
10:50	Navigating Pitfalls in Camera Calibration for Accident Reconstruction: A Focus on Luminance Measurement *Max Gäde, Ganesh Kubina*
11:10	Influence of pre-crash and in-crash joint motion of a pedestrian on results of numerical simulation using V-SIM 6.0. pedestrian model *Daniel Wdowicz, Dariusz Bułka*
11:30	Development of an Accident Reconstruction Method Using Cooperative Awareness Message Data *Maximilian Bauder, Dr. Tibor Kubjatko, Prof. Hans-Georg Schweiger*
11:50	On the assessment of visual perceptibility using digital cameras *Wolfgang Hugemann, Prof. Henrik Zöller*
12:10	Clarification of an intersection accident with traffic lights using eCall data *Hannes Glaser*
12:30	Award winning & closing ceremony
13:00	Lunch
	Subsequent additional program (free of charge)
	Virtual Vehicle excursion to the neighboring town of Wörgl, where the company uses self-driving vehicles in city traffic · Shuttle Transport to Wörgl · Opportunity to watch or ride as a passenger in the self-driving vehicle · Shuttle service back to Kufstein. Arrival around 5:00 p.m.