



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**

We thank our sponsors:





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 Křížák, 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 <i>Dr. Andreas Moser, Christian Hittinger, Julian Simader</i>
09:20	Reconstruction of a high-speed accident with three vehicles involved using data from EDR (Event Data Recorder) and GoPro cameras <i>Christian Hittinger, Dr. Andreas Moser</i>
09:40	Selected results of the project Modern methods of documentation and analysis of vehicle damage <i>Dr. Kateřina Bucsuházy, Dr. Martin Bilík, Dr. Roman Mikulec, Martin Rak, Pavlina Moravcová, Dr. Michal Belák, Michal Křížák, Dr. Marek Semela, Dr. Albert Bradáč, Jakub Motl, Robert Zůvala</i>
10:00	GPS systems in accident analysis - possibilities and limits <i>Michael Plank, Andreas Moser</i>
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 <i>Thomas Flynn, Cole Young, Matthew Ahrens, Gunter Siegmund</i>
11:10	The Airbag Control Unit: Master of Protection vs. Datarecorder <i>Andreas Forster, Reinhart Weber</i>
11:30	Correcting EDR data based on positional offset from vehicle main axes <i>Florian Pirkner, Matthias Schmidt</i>
11:50	Rolling shutter effect in a video recording of a lightboard <i>Wojciech Wach</i>
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 <i>Michael Salamon, Sven Kilian, Prof. Klaus Böhm</i>
13:40	Challenges in Technical Inspection of Automated Vehicles Environmental Sensors <i>Robin Langer, Dr. Tibor Kubjatko, Prof. Hans-Georg Schweiger</i>
14:00	Advancing Car Insurance Fraud Detection: An Automated Deep-Learning Approach <i>Davide Castellucci, Enrico Pittini, Filippo Begani, Simone Orlando</i>
14:20	In-Depth Investigation of E-Scooter Performance <i>Victoria Eyers, Iwan Parry, Mohammed Zaid</i>
14:40	Coffee break (30 min)
	Session 6: Biomechanics of impact
15:10	HBM application in the analysis of road traffic accidents <i>Prof. Robert Kunc, Dr. Jovan Trajkovski, Dr. Miha Ambrož</i>
15:30	Accident reconstruction via analysis and reproduction of head injury patterns <i>Dr. Ivan Colamartino, Dr. Pierangelo Adinolfi, Prof. Marco Anghileri</i>
16:00	General Assembly
18:00	Welcome reception at the Kufstein fortress <i>250m walk from the venue to the panoramic railway to the fortress. Path contains cobblestones.</i>
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 <i>Robert Taylor</i>
09:20	Basic data on the behavior of partially automated driving functions when cornering for accident reconstruction <i>Jessica Gut, Daniel Paula, Pavlos Triantafyllidis, Luigi Ancona</i>
09:40	Partially automated driving functions in accident reconstruction <i>Daniel Paula, Maximilian Bauder, Dr. Tibor Kubjatko, Prof. Hans-Georg Schweiger</i>
10:00	Simulation model for analysing the avoidability of turning accidents involving VRUs with the integration of available active safety systems <i>Stefanie Ritter, Andreas Baur, Frank Müller</i>

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 <i>Max Gäde, Ganesh Kubina</i>
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 <i>Daniel Wdowicz, Dariusz Bułka</i>
11:30	Development of an Accident Reconstruction Method Using Cooperative Awareness Message Data <i>Maximilian Bauder, Dr. Tibor Kubjatko, Prof. Hans-Georg Schweiger</i>
11:50	On the assessment of visual perceptibility using digital cameras <i>Wolfgang Hugemann, Prof. Henrik Zöller</i>
12:10	Clarification of an intersection accident with traffic lights using eCall data <i>Hannes Glaser</i>

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.