

Conference Program



Medizinische Hochschule
Hannover

8th *International Conference* **ESAR** *“Expert Symposium on Accident Research”*



Medizinische Hochschule Hannover

Hannover, Germany

April 19 - 20, 2018

Conference Program



Foreword

ESAR is a scientific colloquium and can be seen as a platform to exchange information on accident research approaches and results. Representatives from authorities as well as from medical and technical institutions are invited to discuss new research methods and results as well as to exchange experiences on accident prevention and methodologies of accident reconstruction. ESAR's goal is to give the opportunity to all kind of studies on Accident Investigation Methodologies, Accident Analysis, Active and Passive Safety, Injury mechanisms and Injury Prevention to an audience of experts from government, industry and other researchers.

There are presentations about accident data collection methods, accident reconstruction, observational studies and different types of analyses of accident data.

ESAR is filling a gap with its specific information on accident data and statistical issues based on in-depth-investigation methods and is positioned as a new trend-setting international conference.

ESAR brings together researchers from all parts of the world!

Dr.-Ing. Heiko Johannsen

Your Host and Conference Manager

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Conference Program

Scientific Review Advisory Board

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Pete Thomas (Loughborough University), UK

Martin Winkelbauer (Kuratorium für Verkehrssicherheit), Austria



Medizinische Hochschule Hannover

Conference Program

Day One – Thursday 19th April 2018

09:00 - 09:45

Opening Ceremony

Chaired by the conference manager

09:00

Welcome Introduction

Dr.-Ing. Heiko Johannsen

Prof. Dr. med. Christian Krettek

09:15

Keynote Lecture

SAFE ROADS in India and China

J. Feese

Daimler AG, Germany

09:45 - 10:05

break

Conference Program

Day One – Thursday 19th April 2018

10:05 – 11:45

Session 1: Future Data Collection Methods

Chair: H. Johannsen

10:05

1 Use of electronic data and EDR in accident research

D. Hamelow

VUFO, Germany

10:25

**2 Using event data recorders and data matching to understand crashes:
A pilot study**

S. Doecke

The University of Adelaide, Australia

10:45

**3 Linking Event Data Recorder with electronic health records – An option
towards Vision Zero?**

T. Deserno

TU Braunschweig, Germany

11:05

**4 Methods and tool towards accurate accident measurements taken
from aerial images**

J. Dias

IDMEC, Portugal

11:25

**5 Accident investigation in 3 - dimensional format, a prospective view of
future trends in accident investigation and analysis**

U. Uhlenhof

VUFO, Germany

11:45 – 12:45

lunch

Conference Program

Day One – Thursday 19th April 2018

12:45 – 14:05

Session 2: Accident Causation

Chair: H. Johannsen

12:45

- 1 Young driver crashes in Austria: Analysis of causes and contributing factors based on in-depth and police-reported crash data**

M. Winkelbauer

Kuratorium für Verkehrssicherheit, Austria

13:05

- 2 The relationship between the severity of injury after vehicle accidents and the sight of effect by sunlight**

L.-H. Chen

Taipei Medical University, Taiwan

13:25

- 3 Motorcycle accidents**

M. Jänsch

Medizinische Hochschule Hannover, Germany

13:45

- 4 Traffic accidents in road work zones**

P. Temmerman

Vias Institute, Belgium

14:05 – 14:25

break

Conference Program

Day One – Thursday 19th April 2018

14:25 – 15:45

Session 3: Accident Reconstruction and Observational Studies

Chair: Christian Erbsmehl

14:25

- 1 Combining data mining techniques to investigate crash severity in urban motorways**

A. Theofilatos

National Technical University of Athens, Greece

14:45

- 2 Development of a methodology for computation and interpolation of EES values for several deformation patterns by using standardised crashtest data**

T. Unger

ADAC Unfallforschung, Germany

15:05

- 3 Powered two wheelers road accidents: Identification of risk factors and development of computational models for scientific reconstruction**

K. Santos

IDMEC, Portugal

15:25

- 4 Driver movements, behaviours and reactions examination in real pre-crash conditions by on-vehicle video-camera recordings**

F. Zuppichini

ArsForensica s.a.g.l.,

15:45

- 5 Crash rate estimation by aerial image analysis**

N. Kornfeld

DLR, Germany

End of first day 16:05

Conference Program

Day One – Thursday 19th April 2018

17:30

Bus departure for evening event

There will be buses taking the conference participants to the evening event at Marienburg castle which leave the conference location at 5:30 pm on Thursday.

The buses will then also stop at the following Hotels:

- Ibis / Mercure Hotel
- Wyndham Hannover Atrium

Bus departure time at Ibis / Mercure Hotel: 5:35 pm.

Bus departure time at Wyndham Hannover Atrium: 5:40 pm.

At approx. 6:30 pm the buses will arrive at the evening event at Marienburg castle.

The departure time for returning back to Hannover and the Hotels is planned for 11:30 pm.

18:30

ESAR - Dinner

Schloss Marienburg

(for further information see Page 15)

Please use casual clothes

Conference Program

Day Two – Friday 20st April 2018

08:30 - 10:30

Session 1: Underreporting and International Experience

Chair: C. Müller

08:30

1 Underreporting of VRU Injuries

M. Winkelbauer

Kuratorium für Verkehrssicherheit, Austria

08:50

2 Comparison of the injury severity between In-depth data and national statistics

H. Liers

VUFO, Germany

09:10

3 Underreported accidents on Indian highways

J. Mönnich

Robert Bosch GmbH, Germany

09:30

4 Underreporting of bicycle accidents

H. Johannsen

Medizinische Hochschule Hannover, Germany

09:50

5 Challenges for emerging countries to join iGLAD - International Harmonized In-Depth Accident Data

A. Longton

IDIADA, Spain

10:10

6 Characteristics and injury severity of road traffic crash in the Gambia

C. Sulayman

Taipei Medical University, Taiwan

10:30 - 10:50

break

Conference Program

Day Two – Friday 20st April 2018

10:50 - 12:10

Session 2: Crash Avoidance

Chair: H. Liers

10:50

1 Accident scenarios and use cases of car-to-car intersection accidents in Europe

M. Müller

BAST, Germany

11:10

2 Limitations and challenges of avoiding HGV-VRU accidents through advanced driver assistance systems

H. Hoschopf

TU Graz, Austria

11:30

3 Active safety effectiveness assessment by combination of traffic flow simulation and crash-simulation

H. Kolk

TU Graz, Austria

11:50

4 Creation of Pre-Crash time series database for evaluation of active safety systems using RASSI data

J. Shaikh

Autoliv India, India

12:10 - 13:10

lunch

Conference Program

Day Two – Friday 20st April 2018

13:10 - 15:10

Session 3: Benefit Assessment

Chair: M. Winkelbauer

13:10

- 1 Comparison of expected benefits of vehicle primary safety systems on road casualties**

N. Bertholon

PSA Renault, France

13:30

- 2 Retrospective and prospective analysis of the effectiveness of driver assistance systems with increasing degree of automation**

J. Gwehenberger

Allianz Zentrum für Technik, Germany

13:50

- 3 Harmonized scenarios for the evaluation of active safety systems based on in-depth-accident data**

H. Feifel

Continental, Germany

14:10

- 4 KAUSAL - a virtual tool chain to estimate the impact of automated driving on occupant restraint systems**

D. Schmidt

Robert Bosch GmbH, Germany

14:30

- 5 Effectiveness assessment of a generic collision mitigation systems for motorcycles at junctions**

M. Gruber

TU Graz, Austria

14:50

- 6 Assessing the injury risk of car occupants on rearward facing seats - an analysis of GIDAS cases**

H. Zellmer

Autoliv B.V. & Co. KG, Germany

Conference Program

Day Two – Friday 20st April 2018

15:10 – 15:30

break

15:30 – 16:30

Session 4: Injuries

Chair: Michael Jänsch

15:30

- 1 **Seat belt usage in Germany - what are the real numbers and how do they translate into injury severity**

C.W. Müller

Medizinische Hochschule Hannover, Germany

15:50

- 2 **Correlation between initial GCS in the ER and the severity of the traumatic brain injury and factors affecting the severity of the traumatic brain injury in motor vehicle occupant accidents**

H. Youk

Wonju College of Medicine, Yonsei University, Korea

16:10

- 3 **Safety Cube results on injuries**

H. Johannsen

Medizinische Hochschule Hannover, Germany

16:30

Closing Remarks

H. Johannsen

Conference Chairman

End of conference 16:35

Congress Office

Scientific Organisation Secretariat

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WIFI

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Password: mh-hannover

Congress opening hours/registration desk

Thursday 19th April 8:00 am – 04:15 pm

Friday 20th April 8:00 am – 04:45 pm

Speakers Desk

There is a Speakers' desk next to the registration desk. All Speakers are asked to provide their presentations. Please follow the signs.

Language

The official language of the Congress is English. Simultaneous translation is not provided.

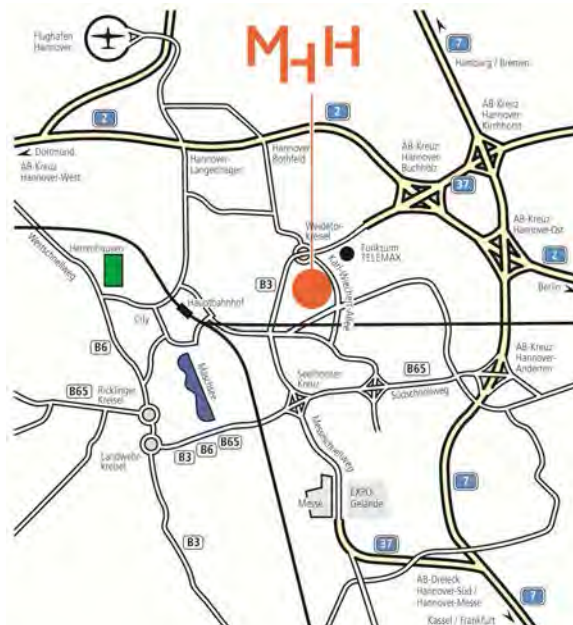
Proceedings

All papers are published as on-line proceedings as report of the Federal Highway Research Institute BAST Journal M with ISBN, published after the conference. We express our acknowledgement of this service!

Medizinische Hochschule Hannover (MHH)



Travelling by car



Arriving from Kassel or Hamburg leave the highway A7 at "Autobahnkreuz Hannover/Kirchhorst" and follow the highway A37 direction "Hannover". Using highway A2 leave at "Autobahnkreuz Hannover-Buchholz" and follow highway A37 direction Hannover. Leave at second exit "MHH" and follow description "Medizinische Hochschule". To find the conference hall and registration desk please look at the plan on next side.



Building J1
2nd Floor
Lecture Hall F

Traveling by train

Arrival at Central Station "Hannover Hauptbahnhof".
Use Underground line 1 direction "Sarstedt" and leave the tram at station "Aegidientorplatz" (second station after entering). Use then line 4 direction "Roderbruch" from the same platform opposite side. Leave the tram at station "Medizinische Hochschule". To find the conference hall and registration desk please look at the plan at the top of this sheet.

Traveling by aeroplane

Arrival at Airport Hannover-Langenhagen. Use S-Bahn to Central Station Hannover and follow description "travelling by train" or take a taxi (approx. € 30, 20 min).



The evening event is at “Schloss Marienburg”.

After a bus ride from Hannover there will be a reception at Marienburg castle with light refreshments and snacks. Subsequently the conference participants are invited to join a guided tour of the location. After the tour dinner will be served in the castle. The planned departure time of the buses back to Hannover is approximately 11:30 pm.

The Organisation Committee and the Organiser gratefully acknowledge the following institutions for their various contributions in this ESAR conference:

DAIMLER

britax
römer

e+s rück

biomed-tec



DEGENER 
Kompetenz
für Fahrschulen! VERLAG

