

MYMOSA Motorcycle and Motorcyclist Safety



1st MYMOSA Training Course on Powered Two-Wheeler Accident Research and Reconstruction Organised by DEKRA

4th DRAFT

Date: January 23-25, 2008
Venue: DEKRA Crash Test Center
Rungestraße 9
D-24537 Neumünster, Germany
Hotel: Best Western Hotel PRISMA
Max-Johannsen-Brücke 1
D-24537 Neumünster

PROGRAMME

Day 1, Wednesday, January 23

- 01:00 p.m. Welcome**
Introduction to DEKRA Group and DEKRA Automobil GmbH,
Goals and content of the course programme
Speaker: Alexander Berg, DEKRA
- 01:15 p.m. General Information and overview of real-world accidents involving Powered Two Wheelers (PTWs). Structure and variables described in official PTW accident statistics (Germany, Europe, USA). Structure and variables used for DEKRA accident databases and in-depth accident reports. Structure and some findings of the EU projects MAIDS, APROSYS (SP4), SIM and PISA**
Speaker: Jens König, DEKRA.
- 02:15 p.m. Coffee break and communication**
- 02:30 p.m. Basics of driving dynamics, driving characteristics and braking with description of the relevant technical components of PTWs**
Speaker: Patrick Seiniger, Technical University Darmstadt
- 03:30 p.m. Coffee break and communication**
- 03:45 p.m. The pre-crash-phase of PTW accidents - Typical driving dynamics and reaction behaviour of PTWs and riders during normal driving, in critical situations and prior to crashes**
Speaker: Thomas Mertens, DEKRA.
- 04:45 p.m. End of course programme for Day 1**
- 07:00 p.m. Course dinner and evening communication (at the Best Western Hotel PRISMA)**

Day 2, Thursday, January 24

- 09:00 a.m.** **The crash and post-crash phase of PTW accidents - Basics of kinematic analyses of post-crash PTW movement, impact dynamics and additional ancillary variables to reconstruct PTW crashes**
Speaker: Thomas Mertens, DEKRA
- 10:00 a.m.** **Coffee break and communication**
- 10:15 a.m.** **Hints to the documentation of real-world accident scenarios on the spot regarding the needs of accident reconstruction – taking pictures, measurements and sketches**
Speaker: Alexander Berg, DEKRA
- 10:45 a.m.** **Coffee break and communication**
- 11:00 a.m.** **Outdoor demonstration on a crash with a PTW impacting a roadside barrier to be made of concrete**
Moderation: DEKRA
- 11:30 p.m.** **Documentation of the PTW crash demonstration – taking pictures, measurements and sketches (outdoor group work)**
Moderation: DEKRA
- 12:30 p.m.** **Lunch break**
- 01.30 p.m.** **Kinematic analyses of the post-crash PTW movement, calculation of the PTW impact velocity at the barrier (indoor group work)**
Moderation: DEKRA
- 02:30 p.m.** **Coffee break and communication**
- 02:45 p.m.** **Possibilities of PTW accident reconstruction and visualisation using PC-Crash® – general information and inclusion of a PTW crash demonstration**
Speaker: Heinz Hoschopf, Technical University of Graz
- 03:45 p.m.** **General information on accident reconstruction and visualisation using MADYMO to analyse dynamics and biomechanics of PTW Crashes (with examples from research projects)**
Speaker: Marco Pierini, Università degli Studi di Firenze
- 04:45 p.m.** **End of course programme for Day 2**
Free evening (or spontaneous events)

Day 3, Friday, January 25

- 09:00 a.m.** **Roadside and other environmental influences relevant for PTW accidents**
Speaker: Thomas Mertens, DEKRA
- 10:00 a.m.** **ISO 13232 – *Motorcycles – Test and Analysis Procedures for Research Evaluation of Rider Crash Protective Devices Fitted to Motorcycle*. Introduction and overview of the Standard**
Speaker: Alexander Berg, DEKRA
- 10:30 a.m.** **Coffee break and communication**

- 10:45 a.m. Motorcycle Airbags - an option to improve PTW safety?
Historical basics, actual developments and tests**
Speaker: Alexander Berg, DEKRA
- 11:30 a.m. General information on accident reconstruction and visualisation
using HUMOS to analyse biomechanics of PTW Crashes**
Speaker: Steffen Peldschus, Ludwig-Maximilians-Universität München
- 12:30 a.m. Lunch break**
- 01:30 p.m. Feed back of all ESRs on the course regarding their role within the
MYMOSA Project and their expectations on their short-term stays
at DEKRA Accident Research**
Moderation: DEKRA
- 02:30 p.m. Organisation of follow-up short-term stays for the ESRs
at DEKRA Accident Research, Stuttgart**
**Assembly, upkeeping and use of a common sample of
PTW-In-Depth-Accident Descriptions within MYMOSA**
Speakers: Alexander Berg, Jens König
- 03:30 p.m. End of the course**