



Fraunhofer

ICT

air
2010
bag



PROGRAM

10th International Symposium
and Exhibition on Sophisticated
Car Occupant Safety Systems

Karlsruhe, Germany
Congress Center

2010, December 6 - 8

Program Committee

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Takata Petri AG

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Karlsruhe, D



10th International Symposium and Exhibition on Sophisticated Car Occupant Safety Systems

Welcome

Sophisticated car occupant systems such as airbags and belt restraint systems represent the most rapidly increasing market for safety devices in recent times. Although the benefits are well known to experts there is clearly a need for close cooperation between all interested parties.

The 10th Airbag Symposium in 2010 will again be a meeting place for engineers, scientists, legislators, managers and marketing experts to exchange information, to make and improve contacts, to stimulate further progress and to promote advanced car passenger safety systems on an impartial platform.

The Fraunhofer Institute for Chemical Technology (ICT) is the leading independent research and development facility for airbag technology and testing. As a division of Fraunhofer, Europe's largest organization for applied and contract research, the Fraunhofer ICT offers a unique event for automobile industry suppliers and public authorities.

**Welcome again to Karlsruhe, Germany,
and the world of Airbag 2010.**

Jochen Neutz
Chairman of the Symposium

Registration

Please return the enclosed **registration form**.
You will then receive an **invoice**.

Registration fees (including proceedings, coffee breaks, lunch, evening receptions), depending on date of arrival of registration form at ICT

*** up to November 12, 2010**

EURO 950,-- (incl. 19% VAT)

*** up to November 26, 2010**

EURO 1.050,-- (incl. 19% VAT)

Participation cannot be guaranteed for registrations arriving after November 26, 2010.

A fee of EURO 500,-- will be charged for cancellations after November 26, 2010. No-shows will be charged the complete fee.

Accommodation

will be managed by **HORE Hotel Reservation**,
Weingartener Str. 70, D-76229 Karlsruhe,
Phone (07 21) 48 23 56, Fax (07 21) 48 26 14
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E-mail horehotelreservation@t-online.de

An application form is enclosed.

Online reservation:

www.hore-hotel-reservation.de/airbag2010.html

Conference Office

is located in the **foyer of the Stadthalle** and may be reached **from December 6 to December 8** by

Phone (07 21) 37 20 - 44 43

or (07 21) 37 20 - 44 41

Fax (07 21) 37 20 - 59 50

(International access: +49)

Check In / Welcome Reception

Please check in at the conference office on **Monday, December 6 between 13.00 and 20.00 h.**

All participants are cordially invited to the **Welcome Reception** in the foyer of the Stadthalle on **Monday, December 6, 18.00 - 21.00 h.**

Conference Languages English, German - **Simultaneous Interpretation**

Proceedings

One copy of the proceedings is **included** in the registration fee.

(Additional copies EURO 100,--)

Advanced Label Technologies B.V.	Utrecht, NL
apos GmbH & Co. KG	Hösbach, D
Autoliv Inc.	Stockholm, SE
Avery Dennison IAPD	Brunswick, Ohio, USA
Berstscheiben Schlesinger GmbH	Schalksmühle, D
BS&B Safety Systems B.V.	Den Haag, NL
Conntronic GmbH	Welden, D
Continental	Regensburg, D
CTAG Automotive Technologiezentrum Galicien	Düsseldorf, D
Daimler AG	Sindelfingen, D
Electrovac Curamik GmbH	Regensburg, D
ESI Group	Eschborn, D
FCI Motorized Vehicles	Paris, F
Fraunhofer-Institut für Chemische Technologie ICT	Pfinztal, D
Gabel – M.E.C.A. GmbH & Co. KG	Euskirchen, D
Hirtenberger Automotive Safety GmbH & Co KG	Hirtenberg, A
IGAPE Institut für Wirtschaftsförderung Galicien	Düsseldorf, D
Indet Safety Systems a.s.	Vsetin, CZ
Infineon Technologies AG	Munich, D
Invista Deutschland GmbH	Östringen, D
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Semcon Holding GmbH & Co. KG	München, D
Takata-Petri AG	Aschaffenburg, D
TASS (TNO Automotive Safety Solutions)	Delf, NL
TechnologieRegion Karlsruhe GbR	Karlsruhe, D
TRW Automotive GmbH	Alfdorf, D
Valient Automotive Market Research	New York, USA
Weil Engineering GmbH	Müllheim, D



Program

Monday, December 6, 2010

Tuesday, December 7, 2010

Monday, December 6, 2010

- 11.30 – 13.00 **Press Meeting (registered journalists only)**
- 13.30 – 18.00 **Workshop »Airbag – Retten ohne Risiko?« für Rettungskräfte mit »Airbag-Update«, Einsatzberichten und Erfahrungsaustausch (in GERMAN only)**
POC: Rolf-Dieter.Erbe@berliner-feuerwehr.de
- 14.30 – 18.00 **Workshop »Igniter Technique«**
(Participation on separate invitation)
- 14.30 – 18.00 **Workshop »Safety aspects of energy storage systems for automotive applications«**
(Participation on separate invitation)
- 18.00 – 21.00 **Welcome Reception**
for all participants
(Symposium, Workshops, Exhibition)

Tuesday, December 7, 2010

Opening Session

- 09.30 – 09.45 **Greeting and Opening**
J. Neutz
Chairman of »airbag 2010«
B. Hefer
Moderator of »airbag 2010«
Fraunhofer ICT, Pfinztal, D
- 09.45 – 10.00 **Welcome Speeches**
- 10.00 – 10.30 **V 1 Key Note**
MOBILITY OF THE FUTURE
T. Weber
Daimler AG, Stuttgart, D
- 10.30 – 11.00 **Coffee Break**

1st Session

SENSOR SYSTEMS AND ELECTRONICS

Session Coordinator: M. Strugala
Robert Bosch GmbH, Stuttgart, D

- 11.00 – 11.25 V 2 MULTIFUNCTIONAL LIDAR SENSORS
IMPROVE PASSENGER SAFETY AT LOW COST**
H. Spies
Ingeurbüro Spies, Hohenwarth, D
- 11.25 – 11.50 V 3 REDUCTION OF SLEEP RELATED ACCIDENTS BY
MONITORING DRIVER STEERING BEHAVIOR**
A. Haeussler
Robert Bosch GmbH, Stuttgart, D
- 11.50 – 12.15 V 4 AIRBAG CONTROL UNIT AB LIGHT FOR
EMERGING MARKETS**
Xiaojian Yang
Bosch Automotive Products (Suzhou) Co. Ltd., PRC

12.15 – 13.00 Poster Session
Session Coordinator: H. Spies, M. Bischoff,
U. Tschäschke

13.00 – 14.30 Lunch Break

2nd Session:

ACCIDENT RESEARCH

Session Coordinator: Alexander Heilig
TRW Automotive GmbH, Alfdorf, D

- 14.30 – 14.55 V 5 ACCIDENT RESEARCH IN THE PAST
AND FUTURE AIMS**
K. Langwieder
International Safety Consulting, München, D
- 14.55 – 15.20 V 6 ANALYSIS OF FAR-SIDE IMPACTS IN EUROPE
– OCCURRENCE, INJURY OUTCOME AND
COUNTERMEASURES**
U. Sander, O. Boström
Autoliv Research, Vårgårda, SE
- 15.20 – 15.45 V 7 DRIVER-ASSISTANCE SYSTEMS – CAUGHT
BETWEEN ACTIVE TECHNICAL ASSISTANCE
AND INDIVIDUAL RESPONSIBILITY**
K. Nehm
Deutsche Akademie für Verkehrswissenschaft,
Hamburg, D
- 15.45 – 16.15 Coffee Break**



Program

Tuesday, December 7, 2010

16.15 – 17.45

3rd Session:

Panel Discussion

ACTIVE SAFETY – QUO VADIS?

Participants:

K. Nehm (Deutsche Akademie für Verkehrswissenschaft)

H.-P. Krüger (Universität Würzburg)

P. Kropf (Bosch GmbH),

U. Widmann (Audi AG)

17.45

Awards

18.15

Evening Reception

Fax: +49 - (0) 7 21 / 4 6 40 - 1 20

**Fraunhofer-Institut für
Chemische Technologie • ICT
Manuela Wolff
P. O. Box 1240**

D - 76318 Pfinztal





Last name

First name

Title / Position

Registration fee must be paid upon receipt of the invoice

Signature

Company / Authority / Complete Address

Participation (please tick)

Welcome Reception

Monday, Dec. 6, 6.00 p. m.
(incl. in the registration fee)

It is agreed that pictures taken during this event may be published.

Accommodation

10th International Symposium and Exhibition on Sophisticated Car Occupant Safety Systems

December 6 - December 8, 2010 • Karlsruhe, Germany

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Arrival	Departure	Arrival time
Number of rooms	EZ/SGL (Einzelzimmer / single room)	DZ/DBL (Doppelzimmer / double room)
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I2 ****	Kübler Komfort	DZ/DBL 120,-- Euro
I3 **	Kübler Standard	DZ/DBL 119,-- Euro
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		DZ/DBL 89,-- Euro
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		DZ/DBL 119,-- Euro
		EZ/SGL 89,-- Euro
		DZ/DBL 118,-- Euro

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0,5 km
1,5 km
1,5 km
1,5 km
1,5 km
1,5 km
0,8 km
0,3 km
0,5 km
0,8 km

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Hotel Reservation
Weingartener Str. 70
D - 76229 Karlsruhe

Platz für Visitenkarte / Personal card

4th Session:

**TRENDS IN EMERGING AND ESTABLISHED
MARKETS**

Session Coordinator: P. Hutmann

BMW AG, München, D

- | | | |
|----------------------|-------------|--|
| 08.30 – 08.55 | V 8 | FUTURE VEHICLE SAFETY ASSESSMENT FOR
CUSTOMER INFORMATION
A. Seeck
Euro NCAP, Brussels, B |
| 08.55 – 09.20 | V 9 | TRENDS OF THE ACCIDENT SCENE IN EUROPE
AND THE WORLD – CONSEQUENCES FOR
VEHICLE DESIGN
R. Zobel
Volkswagen AG, Wolfsburg, D |
| 09.20 – 09.45 | V 10 | BENEFIT OF REVERSIBLE BELT PRE-
PRETENSIONING FOR DIFFERENT PRE-CRASH
SCENARIOS – REDUCTION OF OCCUPANT
DISPLACEMENT AND THE EFFECT ON INJURY
SEVERITY
M. Mages, M. Seyffert, U. Class
TRW Automotive, Alfdorf, D |
| 09.45 – 10.15 | | Coffee Break |

5th Session:

PREVIEWING SAFETY AND PEDESTRIAN PROTECTION

Session Coordinator: S. Brock

Autoliv, Dachau, D

- | | | |
|----------------------|-------------|---|
| 10.15 – 10.40 | V 11 | COOPERATIVE SYSTEMS FOR PREVENTIVE TRAFFIC SAFETY
S. Zecha
Continental Safety Engineering International,
Alzenau, D |
| 10.40 – 11.05 | V 12 | STEREO VISION SYSTEM FOR PEDESTRIAN PROTECTION BY BRAKING
S. Hadi
Autoliv Research, Vårgårda, SE |
| 11.05 – 11.30 | V 13 | PEDESTRIAN PROTECTION SYSTEM PPS-pSAT – INNOVATIVE SENSING PRINCIPLE BASED ON PRESSURE SATELLITES
B. Haupt, T. Tyroller, L. Pfau, T. Goetz
Continental Automotive, Regensburg, D
A. Hürland
Daimler AG, Stuttgart, D |
| 11.30 – 11.55 | V 14 | SITUATION ANALYSIS FOR VULNERABLE ROAD USER PROTECTION USING A PEDESTRIAN MOTION MODEL
N. Tiemann
Robert Bosch GmbH, Stuttgart, D |
| 11.55 – 13.25 | | Lunch Break |

6th Session:

DEVELOPMENT AND TESTING / SIMULATION

Session Coordinator: B. Adiprasito

Volkswagen AG, Wolfsburg, D

- | | | |
|----------------------|-------------|--|
| 13.25 – 13.50 | V 15 | PROSPECTS FOR FULFILMENT OF EJECTION MITIGATION (FMVSS226)
R. Heuschmid, D. Bello, J. Baumhauer,
T.-B. Vogel, G. Rasch, B. Heudorfer
Takata-Petri AG, Ulm, D |
| 13.50 – 14.15 | V 16 | NUMERICAL SIMULATION OF INJURY MECHANISMS AND POTENTIAL FOR SAFETY GAINS IN EJECTIONS
J. P. Borgmann
Volkswagen AG, Wolfsburg, D |
| 14.15 – 14.40 | V 17 | UPDATE CHARACTERIZATION AND EVALUATION OF FRONTAL CRASH PULSES
L. Kübler, S. Gargallo
TRW Automotive, Alfdorf, D |
| 14.40 – 15.05 | V 18 | THE IMPACT OF DYNAMIC DRIVING SITUATIONS ON THE SAFETY POTENTIAL OF OCCUPANT RESTRAINT SYSTEMS
R. Bachmann, M. Paurevic, M. Fehring
Daimler AG, Sindelfingen, D |
| 15.05 – 15.30 | V 19 | THE DUMMY OOP PENDULUM - AN ALTERNATIVE TO THE OOP TEST?
H. Hofman, F. Wollny, A. Heym
Takata-Petri AG, Berlin, D |
| 15.30 | | Closing Remarks |

Posters will be presented in the Foyer of the Conference Hall during the Symposium. A special POSTER SESSION will be held on Tuesday, December 7, 12.15-13.00 h.

- P 20** **SAFE DRIVING WITH MOTORCYCLE ABS**
A. Mueller, A. Georgi
Robert Bosch GmbH, Stuttgart, D
- P 21** **„FIT FOR FUNCTION“ SILICONES:
NEW COATINGS FOR AIRBAGS**
P. Defaux, B. Bordes
Bluestar Silicones, Lyon, F
- P 22** **FUNCTIONAL SAFETY FOR ICs IN AIRBAG
APPLICATIONS**
T. Dittfeld, D. Hammerschmidt
Infineon Technologies AG, München, D
- P 23** **TARGET: ZERO DEATHS**
A. F. Charles
ACE Consultancy, Winsford, GB
- P 24** **MOVEMENT IN THE PRE-CRASH SITUATION –
A SIMULATION RESEARCH WITH A REVERSIBLE
PRE-SAFE® PULSE SYSTEM**
M. Woldrich
Daimler AG, Sindelfingen, D
- P 25** **VIRTUAL PROTOTYPING OF CURTAIN AIR-
BAGS USING FPM: STATE OF THE ART AND
PERSPECTIVES**
E. Gai
Key Safety Systems, Jouy en Josas, F
A. Tramecon, C. Thibaud
ESI Group, Rungis, F
- P 26** **SIMULATION TOOLS FOR INTEGRATED
SAFETY DESIGN**
R. Bours
TASS, Rijswijk, NL
M. Tideman
TNO, Helmond, NL

P 27

**INVESTIGATION OF THERMITE MIXTURES
FOR AN OPTIMIZED IGNITION OF GAS
GENERATORS**

V. Weiser, S. Kelzenberg, A. Lity, A. Raab, E. Roth
Fraunhofer ICT, Pfinztal, D

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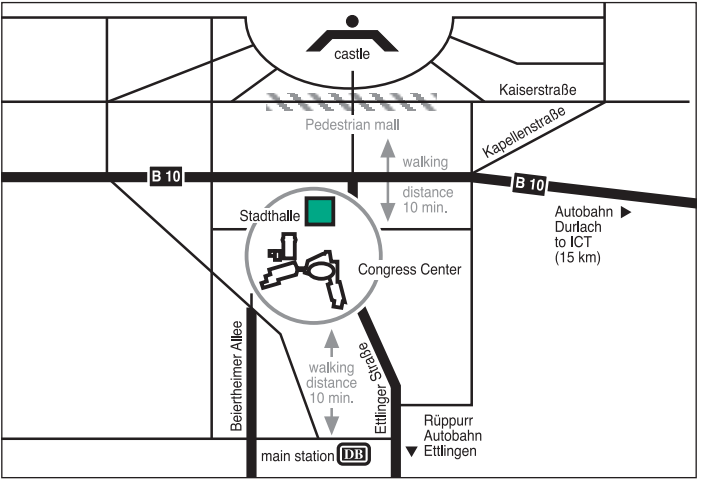
**THE NEXT GENERATION OF FRONTAL
AIRBAG INFLATORS**

J. Vetter
TRW Airbag Systems GmbH, Aschau, D

P 29

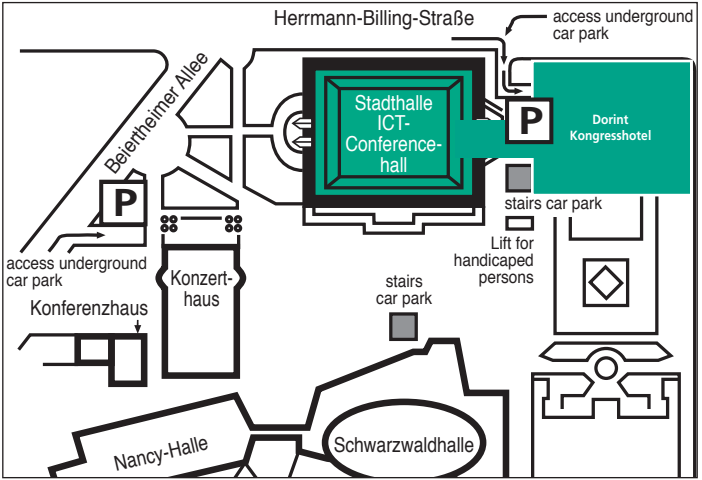
**THE GLOBAL AUTOMOTIVE AIRBAG MARKET
2010 – 2020 – A VIEW INTO EMERGING TECH-
NOLOGIES, FUTURE MARKET TRENDS &
CHANGING SUPPLY CHAIN DYNAMICS**

S. D. Upham
Valient Solutions, Rochester NY, USA



Karlsruhe is located approx. 120 km (80 miles) south of Frankfurt/Frankfurt International Airport just beside the Autobahn A5, and is also connected to Frankfurt via express train (IC or ICE).

Other convenient airports are:
 Strasbourg (F) (approx. 100 km) and Stuttgart (D) (approx. 90 km)



By tram:

from the

route

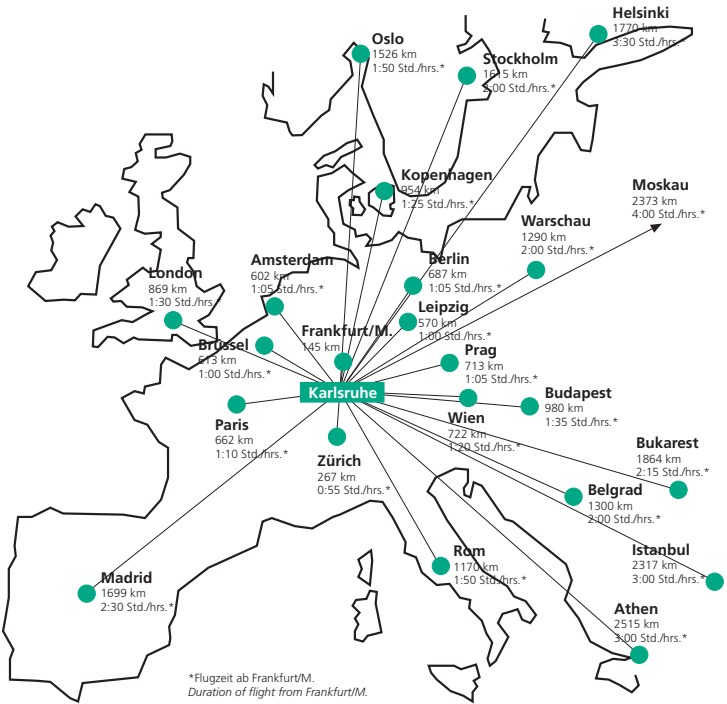
- Main station (Hauptbahnhof) S 1, S 4, S 11, 2
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- »Durlacher Tor« S 4, 2

By car:

Follow signs to the »Kongresszentrum«



Karlsruhe is located approximately 1 hour south of Frankfurt Airport via motorway/highway (Autobahn) or express train (IC or ICE).



Conference Management

Fraunhofer-Institut für
Chemische Technologie ICT
Attn. Manuela Wolff
P. O. Box 1240
D-76318 Pfinztal (Berghausen)
Federal Republic of Germany

Phone: +49 - (0)7 21- 46 40 - 1 21
or +49 - (0)7 21- 46 40 - 0
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Exhibition Management

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