

Fraunhofer Conference

Program

# FUTURE SECURITY

4<sup>th</sup> Security Research Conference Karlsruhe



September 29<sup>th</sup> – October 1<sup>st</sup> 2009  
Congress Center Karlsruhe, Germany



**Fraunhofer**

VVS

# FUTURE SECURITY

Fraunhofer Conference

4<sup>th</sup> Security Research Conference Karlsruhe



*Stand-off detection  
as a means of pre-  
venting attacks*

## Conference Scope and Aims

The objective of this research conference is to exchange information and stimulate cooperation in security research and development. An equally important aim is the identification of industrial needs for the commercial implementation of RTD results.

Methods and technologies to ensure and increase the security of citizens from threats such as crime, acts of terrorism, natural disasters and industrial accidents, while respecting fundamental human rights, are the specific focus of our conference.

Participants in research and development projects on a European or national level in the field of security will give lectures and present posters at the conference. Our conference is under the patronage of the Federal Ministry of Education and Research (BMBF).

The conference presents the position of key organisations and demonstrates the potential of security technologies and preventative research on an international level.



Bundesministerium  
für Bildung  
und Forschung

# PROGRAM COMMITTEE

- Prof. Dr. Oliver Ambacher, Fraunhofer IAF
- Prof. Dr. Achim Bachem, Forschungszentrum Jülich GmbH
- Bernd Bechtold, b.i.g. bechtold Ingenieurgesellschaft mbH
- Prof. Dr. Bernd Becker, Fakultät für Angewandte Wissenschaften, Albert Ludwigs Universität Freiburg
- Prof. Dr.-Ing. Jürgen Beyerer, Fraunhofer IITB
- Dr. Peter Boßdorf, Report Verlag GmbH
- Dr. Adam Stewart Cumming, DSTL
- OTL i.G. Armin Dirks, Bundesministerium der Verteidigung BMVg
- Jürgen Ebner, Bundeskriminalamt BKA
- Prof. Dr. Claudia Eckert, Fraunhofer SIT
- Prof. Dr.-Ing. Peter Elsner, Fraunhofer ICT
- Prof. Dr. Joachim Ender, FGAN FHR
- Dr. Jürgen Geisler, Fraunhofer IITB
- Dr. Herve Graindorge, SNPE Materiaux Energetiques/CRB
- Dr. Ehrentraud Graw, Wirtschaftsministerium Baden-Württemberg
- Prof. Dr. Jürgen Grosche, FGAN FKIE
- Dr.-Ing. Albert Heuberger, Fraunhofer IIS
- Brigadier General Klemens Hofmeister, Federal Ministry of Defence Division Science, Research and Development
- Paul Korting, TNO Defence
- MinRat Rainer Krug, Bundesministerium der Verteidigung BMVg
- Monika Lieberam, Bundesanstalt Technisches Hilfswerk (THW)
- Dr. Stefan Mengel, Bundesministerium für Bildung und Forschung BMBF
- Christa Menke-Südbeck, Deutsche Bank AG
- Dr. Markku Mesilaakso, Defense Command, Finland
- Prof. Dr. Bernd Michel, Fraunhofer IZM
- Kay Nehm, Generalbundesanwalt i.R.
- Dr. Henric Östmark, FOI Swedish Defence Research Agency
- Franz-Josef Schneiders, Bundesministerium für Verkehr, Bau und Stadtentwicklung
- Dr. Joachim Schulze, Fraunhofer INT
- Dr. Alois J. Sieber, European Commission, Joint Research Centre
- Françoise Simonet, CEA Commissariat à l'énergie atomique
- Prof. Dr. Jürgen Stock, Bundeskriminalamt BKA
- Christoph Stroschein, GESA German European Security Association e.V.
- Prof. Dr. Maurus Tacke, Forschungsinstitut für Optronik
- Prof. Dr. Klaus Thoma, Fraunhofer EMI
- Dr.-Ing. Stefan Tröster, Fraunhofer ICT
- Markus Ullmann, Bundesamt für Sicherheit in der Informationstechnik (BSI)
- Dr. Albert van der Steen, TNO Defence
- Dr. Karin Wey, VDI Technologiezentrum GmbH, PT und NKS Sicherheitsforschung
- Dr. Uwe Wiemken, Fraunhofer INT

# GENERAL INFORMATION

## Registration

Please return the enclosed registration form or register online:  
[www.future-security.eu](http://www.future-security.eu)

Conference fee: 895 euros, (incl. 19 % VAT). This fee includes conference proceedings, coffee breaks and lunch buffets, and a get-together on the evening of September 30<sup>th</sup>, 2009.

Payment: On receipt of the invoice, either by credit card or by bank transfer to the given account.

## Cancellation Policy

Cancellations after September 11<sup>th</sup>, 2009 will be charged a cancellation fee. If the registrant fails to attend and no cancellation is received the full conference fee will be payable.

## Venue

Congress Center Karlsruhe (KMK), Stadthalle, Am Festplatz, 76137 Karlsruhe, Germany

## Conference Office/Check In

Located in the foyer of the Stadthalle; open from Tuesday September 29<sup>th</sup>, 16:00 until Thursday October 1<sup>st</sup>, 2009, 17:00.

Phone +49 721 3720-5780  
or +49 721 3720-5781  
Fax +49 721 3720-5950

## Preliminary Check In

In the Conference Office on September 29<sup>th</sup> between 16:00 and 20:00.

## Conference Language

English

## Proceedings

One copy is included in the registration fee.

## Room Reservation

HORE Hotel Reservation,  
Weingartener Str. 70,  
76229 Karlsruhe, Germany  
Phone +49 (0)721 48 23 56  
Fax +49 (0)721 48 26 14  
HoreHotelReservation@t-online.de

**Online reservations can be made at:**

[www.hore-hotel-reservation.de/Future\\_Security.html](http://www.hore-hotel-reservation.de/Future_Security.html)

## Exhibition

Small stands or presentation areas will be available in the foyer of the Stadthalle, allowing research institutions to exhibit during the convention.

## Evening Event

September 30<sup>th</sup>, 19:00: get-together in the Concert Hall (included in the conference fee).

# CONFERENCE HOSTS

## Fraunhofer Defense and Security Alliance

### **Fraunhofer-Verbund Verteidigungs- und Sicherheitsforschung**

with the following Institutes:

Fraunhofer Institute for  
High-Speed Dynamics,  
Ernst-Mach-Institut EMI  
Fraunhofer-Institut für  
Kurzzeitdynamik EMI,  
Freiburg

Fraunhofer Institute for  
Technological Trend Analysis INT  
Fraunhofer-Institut für  
Naturwissenschaftlich-  
Technische Trendanalysen INT,  
Euskirchen

Fraunhofer Institute for  
Applied Solid-State Physics IAF  
Fraunhofer-Institut für  
Angewandte Festkörper-  
physik IAF,  
Freiburg

Fraunhofer Institute for  
Integrated Circuits IIS  
Fraunhofer-Institut für  
Integrierte Schaltungen IIS,  
Erlangen

Fraunhofer Institute for  
Chemical Technology ICT  
Fraunhofer-Institut für  
Chemische Technologie ICT,  
Pfinztal

Fraunhofer Institute for  
Information and Data  
Processing IITB  
Fraunhofer-Institut für  
Informations- und Daten-  
verarbeitung IITB,  
Karlsruhe

# ORGANISATION AND CONTACT ADDRESS

Fraunhofer Institute for  
Chemical Technology ICT

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## **Conference Management**

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# PROGRAM

TUESDAY

29<sup>TH</sup> SEPTEMBER 2009

16:00 – 20:00

**Preliminary Check-In**

WEDNESDAY

30<sup>TH</sup> SEPTEMBER 2009

8:00 – 8:45

**Press Conference** (in German)

The press conference is restricted to registered members of the press.

Participants: W. D. Lukas, R. Krug, K. Thoma, J. Beyerer, O. Ambacher, M. Tacke, H. Krause

9:00

**Welcome and Opening of the FuSec2009**

P. Elsner, Chairman of the Conference, Fraunhofer ICT, Pfinztal, D

9:10

**Security Research in Germany**

W. D. Lukas, Director General, Federal Ministry for Education and Research BMBF, D;

9:20

R. Krug, Head of Division Rü IV 2, Federal Ministry of Defence, D

SESSION 1 (PART 1)

**Security of Infrastructures and Utilities**

M. Tacke, FGAN-FOM, Ettlingen, D

9:30

L1

**Optimising Rescue Operations in Subways: the OrGaMIR Project**

R. Koch, M. Plaß, Universität Paderborn, D

9:50

L2

**Evaluating the Impact of Security Measures on Processes of Airports**

N. Henrique, T. Hecker, H. Pansch, ECAD GmbH, Darmstadt, D



10:10

**L3**

**Improving the Security of Passengers on Ferries and New Methods for Safety and Security Training – Research Project VESPER**

K. Benedict, C. Felsenstein, Hochschule Wismar (HSW), University of Technology, Business and Design Department of Maritime Studies Warnemünde, Rostock, D;  
F. Motz, FGAN-FKIE, Wachtberg, D;  
M. Baldauf, World Maritime University Malmö, Malmö, SE

10:30 – 11:10

**Coffee Break**

**Demonstration: Safety and Security Trainer (SST) – Development of Simulator by RDE and HSW**

C. Felsenstein, Hochschule Wismar (HSW), University of Technology, Business and Design Department of Maritime Studies Warnemünde in co-operation with Rheinmetall Defence Electronics (RDE), D

**SESSION 1 (PART 2)**

**Security of Infrastructures and Utilities**

C. Schlick, FGAN-FKIE, Wachtberg, D

11:10

**L4**

**Protection of European Road Transport Networks**

G. Mayer, PTV AG, Stuttgart, D;  
I. Kaundinya, BAST, Bergisch Gladbach, D

11:30

**L5**

**Explosion Resistance of Key Elements in Transport Infrastructure**

W. Riedel, A. Stolz, K. Fischer, C. Mayrhofer, Fraunhofer EMI, Freiburg, D

11:50

**L6**

**Awareness of Multiple Threats and the Burden of Departmental Thinking**

N. Gebbeken, M. Teich, Universität der Bundeswehr München, Neubiberg, D

## PROGRAM

### WEDNESDAY

30<sup>TH</sup> SEPTEMBER 2009

12:10

**L7**

#### **Behaviour Software Supported Solutions for Airport and Border Security**

S. Goldner, P. Rech, EADS Deutschland GmbH, Friedrichshafen, D

12:30

**L8**

#### **Soft Structures for High Performance Blast Protection**

M. Wagner, Ibdm GmbH, München, D

12:50 – 14:10

#### **Lunch**

### SESSION 2

#### **Security and Protection of Citizens**

J. Ender, FGAN-FHR, Wachtberg, D

14:10

**L9**

#### **Terror Event Database and Analysis Software**

U. Siebold, J. Ziehm, I. Häring, Fraunhofer EMI, Freiburg, D

14:30

**L10**

#### **Security and Privacy Challenges in Modern Surveillance Systems**

H. Vagts, J. Beyerer, Fraunhofer IITB, Karlsruhe, D; Institut für Technische Informatik, Karlsruhe, D

14:50

**L11**

#### **Advanced Millimeter-Wave Radar Modules for Helicopter Landing Aid**

M. Schlechtweg, A. Leuther, A. Tessmann, A. Huelsmann, O. Ambacher, Fraunhofer IAF, Freiburg, D; M. Haegelen, G. Briese, H. Essen, FGAN-FHR, Wachtberg, D

15:10

**L12**

**Assessing Risks and Reducing Vulnerabilities of Hazardous Materials**

G. P.Collyer, Centre for the Protection of the National Infrastructure (CPNI), London, UK

15:30 – 17:00

**Poster Session**

**Coffee Break**

**SESSION 3**

**Security of International Trading and Supply Chains**

J. Beyerer, Fraunhofer IITB, Karlsruhe, D

17:00

**L13**

**Supply Chain Safety Management: An Integrated Approach for Risk and Security in Logistics Networks**

M. Eßig, E.-M. Kern, S. Tandler, Universität der Bundeswehr München, Neubiberg, D

17:20

**L14**

**Enhancing Security and Predictability in Intermodal Container Supply Chains**

F. Arendt, N. Meyer-Larsen, ISL Institute of Shipping Economics and Logistics, Bremerhaven, D

17:40

**L15**

**French Atomic Energy Commission (CEA): A Scientific and Technological Institute engaged in Security Research**

F. Simonet, L. Olmedo, CEA, Arpajon, F; D. Serafin, Centre d'Etudes de Gramat, F

19:00

**Get-together**

Concert Hall

## PROGRAM

THURSDAY

1<sup>ST</sup> OCTOBER 2009

### SESSION 4 (PART 1)

#### **Sensor Systems for Threats of CBRNE**

O. Ambacher, Fraunhofer IAF, Freiburg, D

8:30

**L16**

#### **Optical Stand-off Detection of Explosives and Improvised Explosive Devices – OFDEX**

F. Schnürer, H. Krause,  
Fraunhofer ICT, Pfinztal, D;  
F. Fuchs, J. Wagner,  
Fraunhofer IAF, Freiburg, D;  
P. Jander, R. Noll,  
Fraunhofer ILT, Aachen, D;  
J. Hildenbrand, A. Lambrecht,  
Fraunhofer IPM, Freiburg, D

8:50

**L17**

#### **Stand-off Detection of Explosives by Using Mid-Infrared Quantum Cascade Lasers**

F. Fuchs, J. Kaster, B. Hinkov, Q. K. Yang,  
W. Bronner, K. Köhler, J. Wagner,  
Fraunhofer IAF, Freiburg, D

9:10

**L18**

#### **Remote Detection of Liquid Surface Contamination by Imaging Infrared Spectroscopy**

R. Harig, TU Hamburg-Harburg, D

9:30

**L19**

#### **Covert Search and Detection of Illicit Nuclear as well as Radioactive Material**

W. Rosenstock, W. Berky, S. Chmel,  
H. Friedrich, T. Köble, M. Risse,  
Fraunhofer INT, Euskirchen, D

- 9:50  
**L20**
- EXAKT – Joint BMBF Research Project:  
Near Real-Time Trace Analysis of  
Airborne Chemical Warfare Agents  
and Explosives**
- G. Bunte, J. Hürttlen,  
Fraunhofer ICT, Pfinztal, D;  
J. Ringer, F. Rietz,  
Wehrwissenschaftliches Institut für Schutztech-  
nologien, ABC-Schutz, Münster, D;  
P. Boeker, Universität Bonn, IfL-Abt.Sensorik, D;  
T. Etterer,  
SECURETEC Detektionssysteme, Brunenthal, D;  
G. Horner, five technologies, München, D
- 10:10 – 10:40
- Coffee Break**
- SESSION 4 (PART 2)**  
**Sensor Systems for Threats of CBRNE**  
H. Krause, Fraunhofer ICT, Pfinztal, D
- 10:40  
**L21**
- Detection of Explosives and Identifying  
the Needs of Security Persons**
- R. Schulte-Ladbeck, BKA Wiesbaden, D
- 11:00  
**L22**
- CBRNE Counterterrorism System-  
of-Systems Approach**
- M.S. Nieuwenhuizen, TNO, NL
- 11:20  
**L23**
- Real-Time Detection of Explosives Issue  
in Mass Transit: The Solution Proposed  
by NATO/STANDEX Program**
- P. Charrue, CEA, Monts, F;  
F. Carvalho-Rodrigues, NATO HQ, Science  
for Peace and Security, Brussels, B;  
A. Rimski-Korsakov, Khlopin Radium  
Institute, St. Petersburg, RUS
- 11:40  
**L24**
- Stand-off Explosives and Weapons  
Detection Techniques**
- M.C. Kemp, Iconal Technology Ltd.,  
Cambridge, UK

## PROGRAM

### THURSDAY

1<sup>ST</sup> OCTOBER 2009

- 12:00  
**L25** **Rapid Detection of Haemorrhagic Viruses in Immunofiltration Columns**  
P. Miethe, M. Pietraszczyk,  
Forschungszentrum für Medizintechnik und  
Biotechnologie mbH, Bad Langensalza, D;  
S. Becker, V. Krähling, Institute of Virology  
Philipps University, Marburg, D
- 12:20 – 13:30 **Lunch**
- SESSION 5**  
**Introduction to the Panel Discussion**  
U. Wiemken, Fraunhofer INT, Euskirchen, D
- 13:30  
**L26** **Process-Based Identification and Pricing of Risks – Methodological Foundations and Applications to Infrastructure Security Planning and Management**  
E. Petzel, Institut für Risiko- und Prozessmanagement GmbH, Baiersdorf, D;  
G. Geiger, Technische Universität München, München, D
- 13:50  
**L27** **Experimental Security for Critical Infrastructure Protection – Planning a European Reference Network**  
M. Masera, J.-P. Nordvik, Institute for Protection and Security of the Citizen, Ispra, I
- 14:10  
**L28** **Scenarios as an Instrument to Detect Evolving Technological Security Threats. A Conceptual Report on First Results of the EU-funded Project “FESTOS”**  
R. Peperhove, Center for Technology and Society (CTS), Technical University of Berlin, D

14:30

**L29**

**Disruptive Technology, Information Exchange and Assessment through Gaming**

M. Rademaker, The Hague Centre for Strategic Studies, The Hague, NL

14:50 – 15:20

**Coffee Break**

15:20

**L30**

**Future Planning of EU Security Research – a Contribution to the Discussion**

H.-M. Pastuszka, M. Missoweit, Fraunhofer INT, Euskirchen, D

15:40 – 16:40

**Panel Discussion: Science-Society Dialogue on Security**

K. Thoma, Fraunhofer VVS, Freiburg, D;. European Research Organisations on Defense

16:40

**Closing Remarks**

# POSTERS

Posters will be presented in the foyer. A special poster session will take place on Wednesday, September 30<sup>th</sup>, 15:30 – 17:00.

- P31**                      **Defense Against Bioterrorism with Antimicrobial Surfaces**  
H. Schmid, Fraunhofer ICT, Pfinztal, D
- P32**                      **Scenario and Damage Analysis for Terroristic Attacks on a German Airport**  
J. Ziehm, C. Mayrhofer, I. Häring,  
Fraunhofer EMI, Efringen-Kirchen, D
- P33**                      **Application of Active Radar Sensorics for Security Screening**  
S. Bertl, C. Hornsteiner, J. Detlefsen,  
Technische Universität München, D
- P34**                      **High Energy X-Ray CT of Freight Containers**  
F. Sukowski, P.-M. Keßling, T. Fuchs,  
Fraunhofer EZRT, Fürth, D
- P35**                      **Secure Text Messaging in Tactical Environments**  
J. Tölle, P. Steinmetz, T. Ginzler,  
FGAN, Wachtberg, D
- P36**                      **Direct Bio (Living Being) Sensors-to-Processing Unit Interface**  
R. Sklyar, Independent Researcher, Lviv, UKR
- P37**                      **Assessment of Potentially Disruptive Technologies for Defense and Security**  
U. Neupert, S. Römer, U. Wiemken, S. Römer,  
Fraunhofer INT, Euskirchen, D;  
J. G. M. Rademaker, TNO/The Hague Centre  
for Strategic Studies, NL



- P38**                                **The NATO Common Shield – DAT#7 Experiment – Defence Against Terrorism – Results of a Radiometric Imager Used for Personnel Inspection**  
M. Peichl, S. Dill, M. Jirousek, H. Süß,  
DLR, Wessling, D
- P39**                                **Decision Support to Facilitate Cost-Optimal Response in Time- and Safety-Critical Situations**  
A. Bauer, J. Hild, Fraunhofer IITB,  
Karlsruhe, D; J. Ott, Institut für Stochastik,  
Universität Karlsruhe, D
- P40**                                **Object Oriented World Model for Surveillance Systems**  
A. Bauer, T. Emter, H. Vagts, J. Beyerer,  
Fraunhofer IITB, Karlsruhe, D; Institut für  
Technische Informatik, Karlsruhe, D
- P41**                                **Early Warning Systems Based on Geospatial Standards**  
G. Bonn, D. Hilbring, Fraunhofer IITB,  
Karlsruhe, D
- P42**                                **Co-operating Miniature UAVs for Surveillance and Reconnaissance**  
A. Bürkle, S. Leuchter, Fraunhofer IITB,  
Karlsruhe, D
- P43**                                **On-line Monitoring of Drinking Water Based on a Biological Broad-Spectrum Sensor with Automatic Image Evaluation (“AquaBioTox”)**  
F. Sedehizade,  
Berliner Wasserbetriebe, Berlin, D;  
I. Trick, Fraunhofer IGB, Stuttgart, D;  
H.-B. Kuntze, Fraunhofer IITB, Karlsruhe, D;  
C. Moldaenke, bbe Moldaenke, Kiel, D

P44

**Privacy Enforcement in Surveillance Systems**

H. Vagts, T. Emter, A. Bauer, J. Beyerer, Fraunhofer IITB, Karlsruhe, D; Institut für Technische Informatik, Karlsruhe, D

P45

**Testing of Semiconductor Sensor Ozone Analyzer During Expedition on Mobile Railway Observatory "TROICA-12"**

I. B. Belikov, R.A. Shumsky, N.F. Elansky, Obukhov Institute of Atmospheric Physics RAS, Moscow, RUS; K.V. Zhernikov, L.A. Obvintseva, Karpov Institute of Physical Chemistry, Moscow, RUS

P46

**Model-Driven Development of Secure and Safe Supply-Chains**

A. D. Brucker, A. Schaad, C. Wolter, SAP Research, Karlsruhe, D

P47

**High Power Microwave Susceptibility of IT Network Components**

C. Adami, C. Braun, P. Clemens, H.-U. Schmidt, M. Suhrke, H.-J. Taenzer, U. Weber, Fraunhofer INT, Euskirchen, D

P48

**Bidirectional See-Through Displays for Enhanced Interaction in Surveillance Systems**

A. Laubenheimer, S. Voth, Fraunhofer IITB, Karlsruhe, D;  
P. Schreiber, Fraunhofer IOF, Jena, D;  
M. Zöllner, Fraunhofer IGD, Stuttgart, D;  
U. Vogel, Fraunhofer IPMS, Dresden, D

P49

**Defence Technologies Forecast**

M. Grüne, J. Kohlhoff, Fraunhofer INT,  
Euskirchen, D

P50

**Advanced Hand-Held Detection System  
for On-Site Localization and Identification  
of Nuclear and Radioactive Material**

W. Berky, S. Chmel, J. Engelen-Peter,  
H. Friedrich, T. Köble, M. Risse, W. Rosen-  
stock, U. Weber, Fraunhofer INT, Euskirchen, D

P51

**Concept for an Entry Control Facility  
(ECF) Featuring Hazardous Substances  
Detection Capabilities as an Element for  
Military Camp Protection**

P. Kaul, C. Becher, S. Maurer, J. Warmer,  
University of Applied Sciences, Bonn-Rhein-  
Sieg, D; F. P. Lorenz, K. Safenreiter,  
M. Wieneke, FGAN-FKIE, Wachtberg, D

P52

**Visualisation of Radioactive Materials  
and Backscatter Radiography with a  
Novel Collimation Based Camera System**

K. Osterloh, U. Zscherpel, U. Ewert,  
BAM, Berlin, D

P53

**The Floating Code, a New Era in  
E-Security**

G. Matias Clavero, M. Delgado Solis,  
Y. Tkach, S. Garcia Ramos, V. K. Fraile,  
EDAS SC, Madrid, E

P54

**Optically Powered Video Surveillance  
Networks**

C. Klamouris, M. Dreschmann, M. Röger,  
G. Böttger, M. Hübner, K. Karagkiozoglou,  
J. Becker, W. Freude, J. Leuthold,  
Universität Karlsruhe, D;  
A.W. Bett, Fraunhofer ISE, Freiburg, D

## POSTERS

P55

### **Holographic Microwave System for Homeland Security and Personal Safety**

R. Pinchuk, a. Bevetskiy, A. Bulavinov,  
C. Sklarczyk, Fraunhofer IZFP, Saarbrücken, D

P56

### **Technical and Political Challenges to Soft-Kill Application in Urban Theaters**

E.-C. Koch, NATO MSIAC, Bruxelles, B

P57

### **Gallium Nitride MMICs for Future Reconnaissance and Imaging Applications**

R. Quay, M. Mikulla, M. Schlechtweg,  
O. Ambacher, Fraunhofer IAF, Freiburg, D

P58

### **Development of Spectral Flares to Protect Transport Vehicles from Terrorist Missile Attack**

V. Weiser, E. Roth, A. Blanc, L. Deimling,  
Fraunhofer ICT, Pfinztal, D

P59

### **Selective Adsorbents in Protective Applications – Prospective Protective Clothing**

T. Täffner, B. Niemeyer,  
Helmut-Schmidt-University, Hamburg, D

P60

### **Joint Project: Semipermeable Protection Overgarments for Emergency Forces (SAFE)**

T. Täffner, J. Kubasch, B. Niemeyer,  
Helmut-Schmidt-University, Hamburg, D

P61

### **Determining the Likely Balance of Fragment Velocity and Blast Impulse from Explosions**

M. Hutchinson, AWE Aldermaston, UK

P62

**Detection of Biological Threats with Robust Lab-on-a-Chip Systems**

D. Mark, M. Focke, G. Roth, R. Zengerle, F. von Stetten, HSG-IMIT, Villingen-Schwenningen, D; IMTEC, Freiburg, D

P63

**Recognition and Identification of Chemical Threats: What do we need?**

N. Wrobel, K. Osterloh, U. Zscherpel, U. Ewert, BAM, Berlin, D

P64

**The BIGRUDI Project: Development of Rapid and Mobile BT Diagnostics**

H. Ellerbrok, Robert-Koch-Institut, Berlin, D

P65

**Development of an Integrated and Comprehensive Security Management Concept for Airports**

N. Henrique, T. Hecker, H. Pansch, ECAD GmbH, Darmstadt, D

P66

**NATO CNAD PoW Defence Against Terrorism: Experimental Results and Lessons Learned from COMMON SHIELD 08**

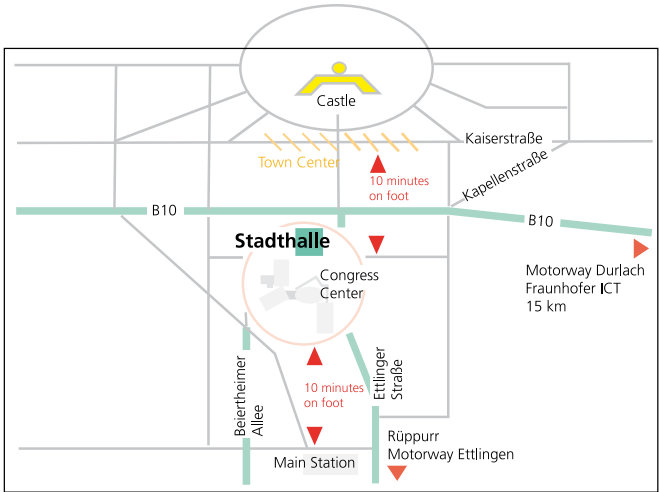
F. P. Lorenz, K. Safenreiter, M. Varela, M. Wieneke, FGAN-FKIE e.V., Wachtberg, D; P. Kaul, S. Maurer, J. Warmer, Hochschule Bonn-Rhein-Sieg, D

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**The Simulation of THz Standoff Identification in a Real Environment**

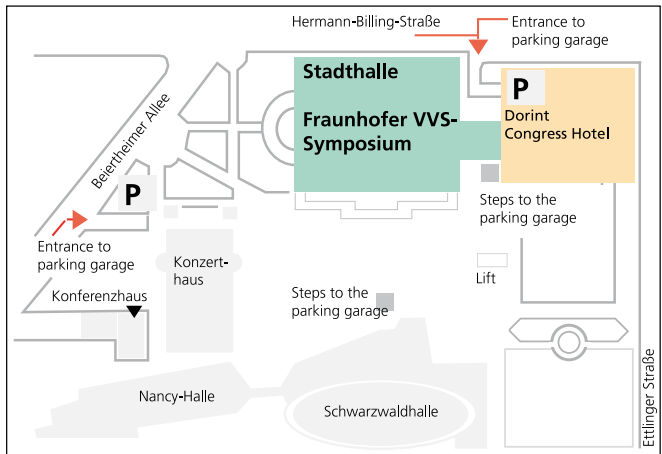
M. Herrmann, S. Wohnsiedler, C. Wiegand, J. Jonuscheit, R. Beigang, Fraunhofer IPM, Kaiserslautern, D

# LOCATION



Karlsruhe is situated 120 km south of Frankfurt am Main airport and can be reached directly via the A5 motorway. You can also travel to Karlsruhe by train on the Intercity Express (ICE). The following airports are also in the region:

- Baden Airport Karlsruhe (approx. 40 km)
- Stuttgart Airport (approx. 80 km)
- Straßburg Airport / France (approx. 100 km)



**Within Karlsruhe:**

**By tram**

- |                               |                |
|-------------------------------|----------------|
| - Main Station (Hauptbahnhof) | S1, S4, S11, 2 |
| - Town Center                 | S1, S4, S11, 2 |
| - Durlacher Tor               | S4, 2          |

**By car**

Follow signs to the »Kongresszentrum« (Congress Center).

**HORE Hotel Reservation  
Weingartener Str. 70**

**76229 Karlsruhe, Germany**

# Accommodation

## Future Security September 29<sup>th</sup> – October 1<sup>st</sup>, 2009, Karlsruhe 4<sup>th</sup> Security Research Conference

.....  
Title/Last name .....

.....  
First name .....

.....  
Company .....

.....  
Street .....

.....  
Town/City .....

.....  
Zip code .....

.....  
Country .....

.....  
Phone .....

.....  
E-mail .....

Arrival ..... Departure ..... Arrival time .....

Number of rooms ..... SGL (single room) ..... DBL (double room) .....

Preferred hotel ..... SGL ..... DBL ..... Distance

A****	Novotel	SGL 144,00 EUR	DBL 187,00 EUR	0,0 km
B****	Renaissance	SGL 148,00 EUR	DBL 166,00 EUR	0,5 km
C****	Schlosshotel	SGL 116,00 EUR	DBL 161,00 EUR	1,0 km
D1****	Kübler Villa a. Park	SGL 86,00 EUR	DBL 105,00 EUR	1,0 km
D2****	Kübler Standard	SGL 76,00 EUR	DBL 95,00 EUR	1,0 km
E****	Avisa	SGL 91,00 EUR	DBL 129,00 EUR	1,0 km
F****	Royal	SGL 80,00 EUR	DBL 100,00 EUR	0,5 km
G****	Ambassador	SGL 79,00 EUR	DBL 99,00 EUR	1,0 km

All rooms have a bath / shower / WC. Breakfast is included.

Credit card

Valid until

If accommodation is not available in the desired category, please reserve category: .....

**Online reservation:**

**[www.hore-hotel-reservation.de/future\\_security.html](http://www.hore-hotel-reservation.de/future_security.html)**

.....  
Date

.....  
Signature



# Registration Form

Fax +49 721-4640-120

**Future Security**  
**4<sup>th</sup> Security Research Conference**

**September 29<sup>th</sup> – October 1<sup>st</sup>, 2009,**  
**Karlsruhe**

\_\_\_\_\_  
Last name

\_\_\_\_\_  
First name

\_\_\_\_\_  
Position

I will pay the registration fee upon receipt of  
the invoice

by remittance  
by sending a cheque

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Company / Authority / Postal Address

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E-mail

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Phone no.

\_\_\_\_\_  
Fax

**Participation (please tick)**

**Get-together**

September 30<sup>th</sup>, 2009

**Online registration:**  
[www.future-security.eu](http://www.future-security.eu)

**Fraunhofer-Institut für  
Chemische Technologie ICT  
Manuela Wolff  
Joseph-von-Fraunhofer-Str. 7**

**76327 Pfinztal, Germany**

# PARTNERSHIP AND SPONSORING



From 30<sup>th</sup> September to 2<sup>nd</sup> October 2009, the 2<sup>nd</sup> SafeKon, the specialist trade fair for access control, building security and information safety, is to take place at Congress Center Karlsruhe.

This specialist trade fair provides exhibitors with the opportunity to present their solutions to trade visitors on an individual basis. Visitors will be able to look out for best-practice examples and enter into direct contact with exhibitors.

Point of contact:

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Phone +49 (0) 7 21 /37 20-5129

[www.messe-karlsruhe.de](http://www.messe-karlsruhe.de)

**DIEHL**  
BGT Defence

