REGISTRATION | ACCOMODATION

Registration
Registration is possible starting February 1st, 2014. Please, register online on www.molas-workshop.org.

Participation fees
- »Early Bird« registration until August 31 st, 2014: 200 EUR
- Participants: 250 EUR
- Students: 150 EUR (valid student card required)

Payment upon invoice (for further details see website).

Accommodation
We have reserved a limited amount of single rooms for the duration of the workshop.
- Intercity Hotel Freiburg | www.intercityhotel.com
  Rooms at 79 EUR per person per night (incl. breakfast)
- Hotel Stadt Freiburg | www.hotel-stadt-freiburg.de
  Rooms at 82 EUR per person per night (incl. breakfast)
- Hotel Victoria | www.hotel-victoria.de
  Rooms at 98 EUR per person per night (incl. breakfast)

Rooms are reserved for workshop participants from November 26 to 27, 2014. Please book your room directly with the hotel (keyword »MoLaS«).

CONTACT | DIRECTIONS

Venue
Fraunhofer Institute for Physical Measurement Techniques IPM
Heidenhofstraße 8, 79110 Freiburg, Germany

Chair
Dr. Heinrich Höfler, Fraunhofer IPM
PD Dr. Alexander Reiterer, Fraunhofer IPM

Organization
Luitgard Hügle
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Directions
www.ipm.fraunhofer.de/directions

Registration and further information
www.molas-workshop.org

MoLaS
Mobile Laser Scanning | Technology Workshop

Fraunhofer IPM

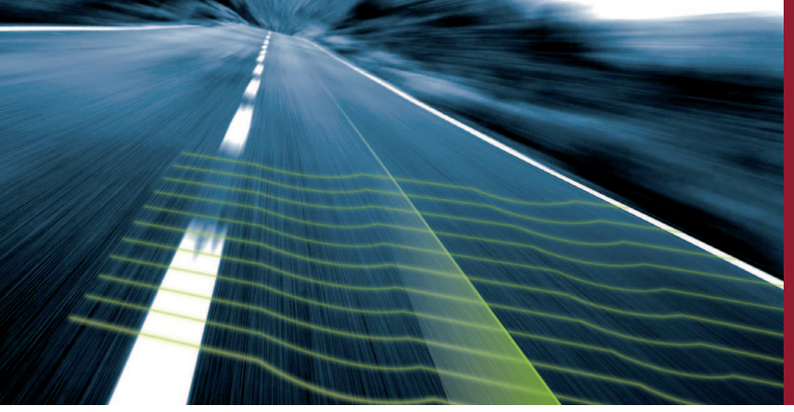
FRAUNHOFER INSTITUTE FOR
PHYSICAL MEASUREMENT TECHNIQUES IPM

NOVEMBER 26 – 27, 2014

MoLaS Technology Workshop 2014

Key Technology Drivers in Mobile Laser Scanning

Photo: Fraunhofer IPM



PROGRAM

MoLaS
Mobile Laser Scanning | Technology Workshop

Technological trends in mobile laser scanning

Mobile laser scanning has evolved into one of the key technologies for fast and reliable 3D mapping. Today, a growing number of service providers capture geo data in many different environments by means of mobile laser scanners. The scanners survey infrastructure such as roads, railroad, buildings and facilities from moving platforms. They provide valuable data for maintenance activities or construction planning.

MoLaS is the first workshop to focus primarily on the technological aspects of mobile laser scanning. Internationally renowned experts present the latest technological trends and key technology drivers in mobile laser scanning. The workshop is aimed at scientists, representatives from industry and users of mobile laser scanning technology.

- ▶ **Sensors**
- ▶ **Calibration**
- ▶ **Data Interpretation**
- ▶ **Application**

Wednesday, November 26

13:00 h	**Registration**	
14:00 h	Opening	
14:15 h	Laser Scanning - Open the Black Box *Harald Wölfelschneider, Department Object and Shape Detection, Fraunhofer IPM, Freiburg*	Session I: Sensors
14:45 h	Novel 3D Mapping Sensors and Concepts – A Technology Review *Prof. Uwe Stilla, Institute of Photogrammetry and Cartography, Technische Universität München*	Session I: Sensors
15:15 h	Trajectory Estimation via Direct and In-Direct Sensor Systems *Dr. Christian Briese, Department of Geodesy and Geoinformation, Vienna University of Technology*	Session I: Sensors
15:45 h	**Coffee Break / Poster Session**	
16:30 h	Calibration Tasks in the Scope of Laser Scanner Based Multi-Sensor Systems *Dr. Jens-André Paffenholz, Institute for Geodesy, Leibniz University Hannover*	Session II: Calibration
17:00 h	Quality Assurance for Kinematic Multi-Sensor Systems Using the Example of Mobile Mapping *Prof. Ingo Neumann, Institute for Geodesy, Leibniz University Hannover*	Session II: Calibration
17:30 h	Efficiently Measuring with Prescribed Quality in Huge LMMS Point Cloud Data *Dr. Roderik Lindenbergh, Department of Geoscience and Remote Sensing, Delft University of Technology*	Session II: Calibration
18:00 h	*Key Note Address* Techniques for 3D Mapping with Mobile Robots *Prof. Wolfram Burgard, Research Lab for Autonomous Intelligent Systems, University of Freiburg*	
19:00 h	**Get-together**	

Thursday, November 27

09:00 h	Knowledge-Based Processing of Point Clouds and Detection of Objects *Prof. Frank Boochs / Dr. Ashish Karmacharya, Institute for Spatial Information and Surveying Technology, University of Applied Sciences Mainz*	Session III: Data Processing
09:30 h	Feature Relevance Assessment for the Semantic Interpretation of 3D Point Cloud Data *Martin Weinmann, Institute of Photogrammetry and Remote Sensing, Karlsruhe Institute of Technology*	Session III: Data Processing
10:00 h	Algorithmic Solutions for Computing Precise Maximum Likelihood 3D Point Clouds from Mobile Laser Scanning Platforms *Prof. Andreas Nüchter, Institute for Robotics and Telematics, Julius-Maximilians-University Würzburg*	Session III: Data Processing
10:30 h	**Coffee Break / Poster Session**	
11:15 h	Precise 3D Measurement of the Road Surface as Basis for Simulation Models of Cars *Dr.-Ing. Dirk Ebersbach, LEHMANN + PARTNER / VECTRA Germany, Erfurt*	Session IV: Applications
11:45 h	Mobile Laser Scanning for Tunnel Inspection and As-Built Documentation *Gerhard Paar / Arnold Bauer, Institute for Information and Communication Technologies, Joanneum Research Graz*	Session IV: Applications
12:15 h	Technology and Applications of a Backpack Mobile Laser Scanning System *Prof. Juha Hyyppä / Antero Kukko, Department of Remote Sensing and Photogrammetry, Finnish Geodetic Institute*	Session IV: Applications
12:45 h	Concluding Remarks / Evaluation	
13:00 h	**Workshop End**	