

Programme:

Start: March 9, 2010, 10 am

End: March 11, 2010, 12 noon

The conference will include about 15 sessions with oral presentations, a poster session and demonstrations as well as a welcome party and a social event.

Target Groups:

Researchers, academics, software developers, system and service providers as well as users.

Language:

The official language will be English. Manuscripts and presentations should be written and presented in English.

Organisation:

Scientific Committee (to be completed):

Prof. Dr. Hermann Auernhammer, TU München

Prof. Dr. Sven Behnke, University of Bonn

Prof. Dr. Alain Geiger, ION Switzerland

Prof. Dr. Hilmar Ingensand, IGP, ETH Zürich

Prof. Dr. Heiner Kuhlmann, University of Bonn

Prof. Dr. Hansjörg Kutterer, University of Hannover

Prof. Dr. Henning Meyer, TU Berlin

Prof. Dr. Arno Ruckelshausen, FH Osnabrück

Prof. Dr. Peter Schulze Lammers, University of Bonn

PD Dr. Volker Schwieger, University of Stuttgart

Dr. Werner Stempfhuber, IGP, ETH Zürich

Conference Directors:

Prof. Dr. Heiner Kuhlmann

Prof. Dr. Peter Schulze Lammers

Conference Administration:

Faculty of Agriculture, University of Bonn

Meckenheimer Allee 174, D-53115 Bonn

E-Mail: MCG@uni-bonn.de

www.mcg.uni-bonn.de

Tel.: 0049/228/73-2620



Sponsored by:



Operational sequence:

March 9:

10:00 Opening

12:00 Lunch

14:00 Sessions

18:00 Welcome Party

Opening

Prof. Dr. Behnke develops humanoid robots participating in RoboCup Soccer, acting as museum guides and for mobile manipulation.

Welcome Party

Watch household robots perform their tasks while enjoying refreshments and stimulating talks.

March 10:

09:00 Sessions

12:30 Lunch

14:00 Sessions

16:00 Poster presentation

18:00 Social Event

Social Event

Guided tour through the exhibition at the „Haus der Geschichte“, afterwards dinner and drinks. Since opening in June 1994, the „Haus der Geschichte“ displays contemporary German history from 1945 to the present day. You will find over 6,000 objects and documents ranging over 4,000 square meters of space across five exhibit levels.

March 11:

09:00 Sessions

12:00 End of Congress

2nd International Conference

on

Machine Control & Guidance

March 9 - 11, 2010

University of Bonn, Germany

Faculty of Agriculture



www.mcg.uni-bonn.de

Programme:

The importance of 3D-position sensors for the navigation of machinery on construction sites of roads, tunnels, railways, and airports has increased over the last years and the market is still growing. Also in the field of agriculture GPS-based applications such as machine guidance, parallel tracking and yield mapping are introduced.

After the 1st conference was successfully held at ETH Zürich in 2008, researchers, academics, users, system and service providers are now invited to participate in the 2nd International Conference on Machine Control & Guidance and thus to initiate a technical and scientific discussion, to interchange know-how, to bond synergies between the different applications and to boost research activities in this highly interesting field.

The following topics will be discussed:

Kinematic Measurement & Sensor Technology

- GNSS
- DGPS Services
- Tracking Total Stations
- Additional Sensors (Slope- and Orientation Sensors, INS, Gyro, ...)
- Calibration
- Sensor Fusion

Agriculture Applications (State of the Art, Trends)

- Precision Farming
- Yield Mapping
- Automatic Steering Systems
- Field Robotics

Standardisation

- Interface / Protocol / Communication 3D-Sensor-Machine
- Rideability

Data Processing /Data Flow

- Acquisition
- Handling
- Geo-Referencing
- Verification / As-Built
- Quality Management

Control Process and Algorithm

- Filtering
- Real-Time Control
- Latency-System Reaction
- Learning Control
- Control Architectures

3D-Construction Applications (State of the Art, Trends)

- Airports, Tunnels, Railways, Highways
- New Road and Maintenance Jobs
- Control and Guidance Systems for Graders, Dozers, Pavers, Profilers, Excavators, Rollers
- Network Jobsite

Field and Soil

- Field Traffic and Path Planning
- Mapping of Field and Crop Features
- Field and Greenhouse Robots
- Autonomous Systems
- Soil Sensing and Mapping of Soil Characteristics

Call for Papers and Posters:

This call for paper is for both peer review papers and non peer review papers. The submission of posters is also possible. For peer review papers the deadline for submission of full paper is October 5, 2009; for non peer review papers and posters the deadline of submission of a 300 words abstract is also October 5, 2009. The scientific committee will review all submitted abstracts and decide on the form of presentation (oral or poster).

Deadlines:

| | |
|---------------|---|
| Oct 5, 2009: | Deadline for Abstracts |
| Oct 5, 2009: | Deadline for Full Paper with Peer Review |
| Nov 1, 2009: | Notification of Authors with Abstracts |
| Dec 1, 2009: | Notification of Authors with Peer Review Papers |
| Jan 10, 2010: | Peer Review Papers and Non Peer Review Papers Ready for Print |

All accepted papers and posters will be published in printed Conference Proceedings.