8th Conference on

# **Optical 3-D Measurement Techniques**

# July 9-12, 2007 - ETH Zurich, Switzerland

http://www.photogrammetry.ethz.ch/optical3d

Applications in industrial inspection, manufacturing, quality control, robotics, navigation, mobile mapping, medical imaging, cultural heritage, VR animation

# Organized by



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#### **Conference Goals**

Recent advances in geodetic and photogrammetric measurement systems and the rapid progress in the areas of laser scanners, machine, computer and robot vision have opened the way to new applications for optical static and kinematic 3-D measurement techniques. Step-motor-driven and servo-controlled electronic theodolites and total stations, high resolution, low cost and smart digital cameras, capabilities for very fast or even real-time processing, 3D model generation, visualization, animation and VR techniques are some developments leading to new procedures in photogrammetry and surveying. The increased use of integrated sensor technology and common problems in processing and analyzing digital vision data requires a stronger alliance of photogrammetry and surveying and the establishment of closer contacts to neighbouring sciences. Therefore the conference intends to bring together scientists, experts and users from the fields of photogrammetry, geodesy, surveying, machine, computer and robot vision, Spatial Information Systems from universities, industry, governmental organizations and engineering companies in order to discuss recent scientific and technical advancements and to study and promote new applications.

This is the 8th conference in a row. The first seven conferences were held alternately in Vienna and Zurich in the years 1989, 1993, 1995, 1997, 2001, 2003 and 2005. The success of these past conferences makes us confident that the issues to be discussed within this meeting are relevant and of interest to a great number of scientists and users in the related fields.

The 8th conference on Optical 3-D Measurement Techniques intends to review the latest developments in different technologies, algorithms, processing techniques, systems, hard- and software, to identify the major problem areas and to discuss the direction of future research and development in order to further advance the technology. It will also feature a Special Session on "Photogrammetry in Russia".

## Important Dates

If you want to present a paper at the conference, please send an extended abstract (ca 1000 words with images) together with name(s), address, affiliation, e-mail, fax and telephone of the author(s), by e-mail, to the conference secretary (<u>stein@geod.ethz.ch</u>).

Abstract deadline: Notification of acceptance: Full paper deadline: February 15, 2007 March 15, 2007 May 1, 2007

#### Scientific Committee

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#### Conference Site

The conference will be held at ETH Hönggerberg, a campus of the Swiss Federal Institute of Technology (ETH) Zurich, which is conveniently located close to downtown Zurich in a restful and delightful natural environment.

Zurich is a captivating city of many contrasts, a world-famous banking and stock-exchange centre and at the same time an idyllic place with all the charm of a small city. It is a bastion of the arts and sciences, a friendly and hospitable city, a paradise for shoppers, a host of entertainment and leisure activities.

Zurich is situated on a celebrated lake and river, between gentle hills, with the snow-capped peaks of the Alps on the skyline. Aircraft from most countries of every continent land at Zurich's airport and a day excursion is enough to reach any part of Switzerland.

Further information may be obtained from the web page of the Zurich Tourist Board: <u>http://www.zurichtourism.ch</u>

#### Registration

Registration of all participants (including accompanying persons) should be made with our on-line registration form:  $\frac{http://www.photogrammetry.ethz.ch/optical3d/}{http://www.photogrammetry.ethz.ch/optical3d/}$ 

Registration Fees:	before	e May 1	after May 1
Active Participants	EUR	350	EUR 390
Social Event/Conference Dinner	EUR	60	

## Preliminary List of Sessions

The technical programme will consist of oral and poster presentations organized according to the following topics:

- New measurement techniques and calibration devices
- Theodolite-based measurement systems
- Laser Scanning
- Range-Imaging
- Close-range imaging and metrology
- Systems for industrial measurements
- Mobile mapping systems
- Image Analysis
- Target recognition and tracking
- Image sequence analysis
- Human body and motion modeling
- 3D city modeling
- Cultural heritage applications
- Visualization, animations and VR techniques
- Photogrammetry in Russia

The official language of the conference is English.