

Cultural Heritage Documentation

Earth Observations with Satellite Position Techniques

Photogrammetric and Geodetic Technologies Applied to Other Fields of Research

September 15–18, 2008
Otaniemi, Finland

The Helsinki University of Technology (TKK), Department of Surveying, has the pleasure of inviting you to attend a four day graduate school course in September 2008 in Espoo, Finland. The main themes of the course are the application of geodetic, photogrammetric and laser scanning methods to the documentation of material cultural heritage and earth observations with satellite position techniques. The course is aimed at graduate students in the field of Geomatics, but we welcome students of other fields as well. The lectures on Sep 15, 16 and 18 are open to all interested parties, but the Sep 17 (demonstrations & exercises) is limited to max 30 participants. All lectures and demonstrations are given in English.

The lecturers

Dr. Jean Angelo Beraldin, National Research Council of Canada

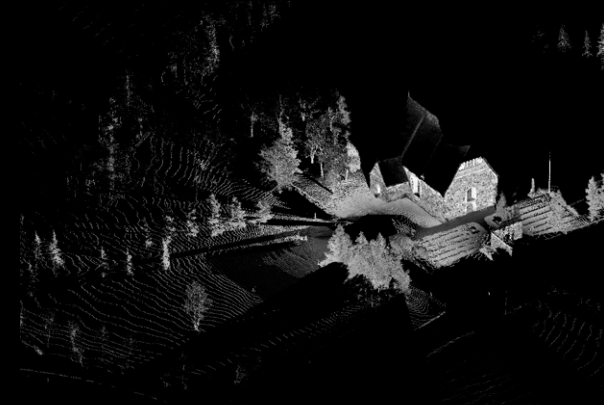
- Laser scanning systems and applications

Dr. Fabio Remondino, Institute of Geodesy and Photogrammetry, ETH Zurich, Switzerland; FBK-irst Trento, Italy

- 3D Modeling of architectural heritage
- Photogrammetric reconstruction of historical sites

Dr. Hans van der Marel, Delft University of Technology, The Netherlands

- Precise geodetic GPS
- GPS meteorology
- Space based GPS applications



Credits

Students are given 1 credit of attending three of the four days of lectures/exercises. There is also a possibility to get extra credits by giving a seminar presentation before Dec 31, 2008 and writing a publication. Please check the compatibility with your own institute.

Costs

The course is free of charge, but the attendants must pay for their travel and accommodation expenses.

Registration

More details and instructions for the registration can be found at our website <http://www.foto.hut.fi/graduateschool>

The registration to the lectures is open until Sep 14, 2008. However, the registration to the exercises & demonstrations part was closed Aug 15, 2008.

Contact

graduateschool@foto.hut.fi



Program for the graduate school course 2008

Monday Sep 15, Lecture hall M1	
Day 1: Laser scanning in cultural heritage documentation	
9:00–10:45	Laser scanning systems and applications Dr. Jean-Angelo Beraldin
10:45–11:00	Coffee break
11:00–12:30	Laser scanning systems and applications Dr. Jean-Angelo Beraldin
12:30–13:30	Lunch
13:30–15:00	Laser scanning systems and applications Dr. Jean-Angelo Beraldin
15:00–15:15	Coffee break
15:15–17:00	Laser scanning systems and applications Dr. Jean-Angelo Beraldin
Tuesday Sep 16, Lecture hall M1	
Day 2: Photogrammetry in cultural heritage documentation	
9:00–10:45	Photogrammetry as 3D Modeling and Documentation Technique Dr. Fabio Remondino
10:45–11:00	Coffee break
11:00–12:30	Photogrammetric reconstruction of historical sites Dr. Fabio Remondino
12:30–13:30	Lunch
13:30–15:00	Photogrammetric 3D Modeling of Architectural Heritage Dr. Fabio Remondino
15:00–15:15	Coffee break
15:15–17:00	3D Modeling by integrating techniques Dr. Fabio Remondino
Wednesday Sep 17, Lecture hall M4	
Day 3: Demonstrations and exercises (max 30 participants)	
9:00–17:00	Laser scanning data capture and manipulation will be demonstrated using a Leica HDS 6000 and Konica-Minolta 900i scanners. The basics of photogrammetric 3D modelling will be practiced together in a group work starting from the capture of the images and camera calibration to modeling of the data with PhotoModeler, Australis and iWitness softwares. Dr. Jean-Angelo Beraldin Dr. Fabio Remondino
Thursday Sep 18, Lecture hall M1	
Day 4: Earth observations with satellite position techniques	
9:00–10:45	Present and future Global Navigation Satellite Systems Dr. Hans van der Marel
10:45–11:00	Coffee break
11:00–12:30	The art of millimeter GPS Dr. Hans van der Marel
12:30–13:30	Lunch
13:30–15:00	GPS Meteorology – a case of give and take Dr. Hans van der Marel
15:00–15:15	Coffee break
15:15–17:00	Space based applications of GPS and GNSS Dr. Hans van der Marel

