

The departments of Earth Systems Analysis (ESA) and Earth Observation Science (EOS) of the Faculty of Geo-Information Science and Earth Observation (ITC)/ University of Twente in Enschede, the Netherlands invite qualified persons to apply for the full-time position of

PHD RESEARCHER (PROMOVENDUS) M/F

to work on a project entitled

SYNERGISTIC BUILDING DAMAGE ASSESSMENT WITH AIR- AND SPACEBORNE REMOTE SENSING DATA

The project forms part of a research project funded through the 7th Framework of the European Commission, entitled "Reconstruction and Recovery Planning: Rapid and Continuously Updated Construction Damage, and Related Needs Assessment (RECONASS)." The project has 9 participating organisations from 6 European countries, and centers on the assessment of structural integrity of selected high-value buildings following a natural disaster or terrorist attack. The research of most project partners will focus on indoor monitoring of buildings equipped with wireless sensor networks coupled with finite element analysis to make predictions about the state of the structure following a blast or fire. The role of ITC will be to provide an outside perspective based on air- and spaceborne remote sensing image analysis, and specifically addresses the following research problems:

- Development of an automatic methodology to determine structural damage at a per-building level using multi-view oblique airborne imagery obtained with an unmanned aerial vehicle (UAV), and with focus on photogrammetric processing and object-oriented image analysis (OOA/OBIA techniques; see www.itc.nl/ooa-group);
- Development of a methodology to integrate information based on satellite- and airborne data for synoptic, multi-scale damage assessment;
- Multi-sensor synoptic damage assessment for different event types (e.g. fire, explosion);
- Collaboration with the other project partners to ensure suitable integration of the external, image-based information in the post-crisis needs assessment tools being developed by other partners.

The candidate must hold an MSc degree, obtained no more than 5 years ago, related to geoinformatics (remote sensing/GIS). Applicants with expertise in photogrammetry and programming will be preferred.

The project is shared between the ESA and EOS departments, and requires occasional work in the field (at a site in Sweden, where a test building will be constructed), and attendance of international workshops/conferences and project meetings. Contribution to project deliverables (reports, etc.) is also necessary.

We offer an inspiring and challenging international and academic environment. The successful candidate will be employed as an ITC staff member for a period of 4 years, working 38 hours a week. Pending final budget approval by the European Commission, the project will likely begin in November 2012. Salary and conditions will be in accordance with the Collective Labour Agreement (CAO) of the Dutch Universities. Gross monthly salary depends on experience and qualifications, and ranges from € 2042 to € 2612 exclusive of allowances, in accordance with the job profile Promovendus, under the University System for Job Classification (UJC).

Please submit your application through the form on <http://www.utwente.nl/vacatures/en/> before 1 October 2012.

For more information please contact:

Dr. Norman Kerle (ESA)
Tel: +31 53 4874476
kerle@itc.nl

Dr. Markus Gerke (EOS)
Tel: +31 53 4874522
gerke@itc.nl