



UNIVERSITY OF HELSINKI

PhD student positions in Airborne Imaging Spectroscopy Application and Research on Earth Sciences (AISARES)

The Department of Geosciences and Geography of the University of Helsinki hosts two 4-year PhD student positions in airborne hyperspectral imaging spectroscopy in 2010-2014. The successful applicant should have an MSc degree or equivalent with knowledge and experience in quantitative remote sensing, which can be evidenced by an MSc thesis in the field and academic courses carried out. Earlier knowledge of software like MATLAB, ENVI IDL, ArcGIS, Erdas Imagine is needed.

The department has a staff of more than 100 people out of which 10 belong to the GeoInformatics Research Group (GIRG) led by Prof. Petri Pellikka. GIRG is carrying out research on biophysical parameters of Earth surface, landscape, land use and land cover mapping and change detection in Europe, Africa and Americas. For more information, refer to <http://www.helsinki.fi/geography/geoinformatics>.

The students will work with AISA airborne imaging spectroscopy data, which will be made available by the collaboration partners, which are SPECIM Spectral Imaging Ltd, Pöyry Environment Oy, Finnish Geodetic Institute, Geological Survey of Finland and Finnish Environment Institute, and Department of Physics and Department of Forest Sciences of the University of Helsinki. The students will be supervised by Prof. Petri Pellikka and co-supervisors from the cooperation partners.

AISA sensors provided by SPECIM include airborne imaging spectrometers in visual and near - infrared (AisaEAGLE), short-wave infrared (AisaHAWK) and long-wave infrared (AisaOWL) wavelength area. SPECIM is a leading imaging spectrometer manufacturer in the world. For more information, please refer to www.specim.fi.

The positions are targeted to the following fields: 1) calibration, validation and processing of hyperspectral remote sensing data including e.g. BRDF and atmospheric corrections, 2) applications in remote sensing of vegetation, 3) applications in remote sensing of cryosphere and/or hydrosphere, 4) applications in geology, and 5) atmospheric applications.

In Finland, postgraduate studies include the doctoral dissertation, which is typically consisting of 4-6 peer reviewed papers in international journals and a synopsis, and studies of an amount of 60 credit units (ECTS). It takes typically 4 years to finish the PhD studies.

The candidate should submit 1) CV including the list of publications, 2) a recommendation from the MSc thesis supervisor, 3) an excerpt of studies, 4) a copy of the MSc degree or equivalent, 5) a description of the potential fields of application of hyperspectral remote sensing data and 6) description of candidate's interest in hyperspectral remote sensing.

The start level salary is about 1800 Euros per month. SPECIM will participate in the students travel and field work costs. The deadline for the proposals is October 16 and the positions will start before 2010.

More information: Prof. Petri Pellikka, petri.pellikka@helsinki.fi, +358-9-19151068. The applications should be sent by e-mail to tino.johansson@helsinki.fi, and or by mail to Dr. Tino Johansson, Department of Geography, University of Helsinki, P.O. Box 64, 00014 Helsinki, Finland by October 16, 2009.