

The department of Landscape, Spatial and Infrastructure Sciences, institute for Surveying, Remote Sensing and Land Information is currently seeking for a

**Postgraduate Research Assistant  
(project employment)**  
(Reference code: 07)

Extent of employment: 40 Hours per Week  
Duration of employment: 01.04.2012 – 31.03.2014  
(the appointment would be for 2 years fixed term with possible extension subject to funding availability)

Classification under the collective agreement of the university: B1

Gross monthly salary (depending on previous experience) at least: € 2.532,-- (additionally we offer an attractive personnel development program and social benefits)

The Institute of Surveying, Remote Sensing and Land Information (IVFL) is currently seeking a postgraduate research assistant for full time research at the University of Natural Resources and Life Sciences, Vienna (BOKU).

**Position Summary**

Austrian Space Applications Programme (ASAP) recently funded a research project “Application of Earth observation technologies for rural water management”. The research aims to consolidate and advance methodologies to produce maps of crop water requirements at field, district and river-basin scale, by combining information from optical Earth observation satellites and ground agrometeorological data.

The driver for the research comes from the need of a more detailed knowledge about the amount of water required by crops at a given development stage and in specific climatic conditions. Current irrigation water management approaches based only on practical experience and non-quantitative estimation tend to supply water in excess with consequent problems related to misuse of water and mobilization of nitrates. Earth observation technologies can help to achieve a rational use of limited water resources, leading to cost savings (equipment runtime, maintenance cost and extending lifetime, energy required for pumping, optimization of fertilizer needed), and to guarantee the yield stability required to accomplish production contracts.

**The proposed position includes the following duties:**

- Apply remote sensing tools for the estimation of vegetation bio-physical variables using vegetation indices and radiative transfer models; consolidate real-time related processing issues
- Use spatial analysis techniques to improve the understanding of issues of scale that arise when using satellite observations at different spatial resolutions
- Conduct experimental and case study-based research for validation purposes
- Support the publication of project results through paper writing and conference presentation
- Liaise with end-users and other stakeholders within the study area

## Minimum of Qualification

- ❖ Academic background in one of the following areas: agricultural engineering (crop science, water/irrigation and agro-meteorology), environmental science, natural resources management or a related discipline
- ❖ Practical experience in spatial analysis and processing of remote sensing data at different spatial resolution (from 1-km to 30-m) – interest in pursuing algorithm and software development is an asset
- ❖ An interest in, and capacity for, working in an applied problem-oriented research environment; ability to work across the interface between research and end-users
- ❖ Ability and willingness to travel to the study area (Marchfeld, Austria) for field experimental activities, interaction and feedback with end-users (farmers and water managers)
- ❖ Very good written and oral communication skills for preparing and presenting project reports
- ❖ Strong interpersonal skills; highly motivated and enthusiastic

## Further Qualifications

- ❖ Language skills: English and German are mandatory

Date of publication: 25.01.2012

Closing date for applications: 15.02.2012

University of Natural Resources and Life Sciences Vienna intends to increase the proportion of its female personnel. Qualified women are therefore explicitly invited to submit applications. In the case of equal qualifications, women will be given preferential consideration for employment unless reasons specific to an individual male candidate tilt the balance in his favour.

Please send your job application to the department of human resources at the University of Natural Resources and Life Sciences, 1190 Vienna, Peter-Jordan-Straße 70; E-Mail: [kerstin.buchmueller@boku.ac.at](mailto:kerstin.buchmueller@boku.ac.at). (reference code: 07)

We don't refund travel costs to the job candidates.

**[www.boku.ac.at](http://www.boku.ac.at)**

**Vice rector of strategic development:**

Univ.Doz. DI Dr. Georg Haberhauer, MBA