

KESS Scholarship - PhD in automated feature extraction from 3D point clouds (Ref: NU Maxi AU10009)

Aberystwyth University are seeking to recruit a 3-year PhD student to work on a project entitled:

“Computer-based extraction of forest structural attributes and volume/biomass from terrestrial laser scanning data”

Background

The successful candidate will work with academic staff at Aberystwyth University, in collaboration with the British Forestry Commission, to develop innovative techniques for the extraction of a wide range of forest structural attributes and timber volume/biomass from ground-based laser scanners and formulate generic algorithms applicable to a wide range of tree architectures. The research will also seek to establish the extent to which these same attributes might be retrieved from airborne LiDAR data, thereby facilitating estimation across the wider landscape. Ground and airborne laser scanner data already acquired for a wide range of forests, in the UK and overseas, will be utilised and there will be opportunities to acquire new datasets with the ground-based scanners owned by both Aberystwyth University and the Forestry Commission. The research is anticipated to benefit commercial forestry operations and the assessment of both carbon stocks in vegetation and biodiversity. The successful candidate will be based in Aberystwyth and supervised by academics in the Institute of Geography and Earth Sciences, the Department of Computing Science and Forest Research.

The prospective applicant should have a minimum of a 1st or good 2:1 in a relevant degree, with a background in computer science or with strong computer programming skills. The candidate should also be available to take up the studentship before the end of July 2010 at the latest (preferably sooner). The project is part-funded by the European Social Fund (ESF) through the European Union’s Convergence programme administered by the Welsh Assembly Government and is supported by the UK Forestry Commission. KESS PhD scholarships are collaborative awards with external partners. (Applicants need only apply, they do not need to search for partners)

To apply, you need to send **Prof Richard Lucas (address below)**, by the **30th of April 2010**, a completed KESS application form (put the reference number NU Maxi AU10011 in the top right hand box of the application form), a completed University application form, the names of two personal referees, an up to date CV and a covering letter, in which you expand on the relevant contents in your CV and wider experience, and why you consider yourself a good candidate. Further information and KESS/university application forms are available from the IGES website at <http://www.aber.ac.uk/en/iges/prospective/postgraduate/studentships/kess-fc-phd/> or from Philippa Bevan (pnk@aber.ac.uk).

Value of Award: A stipend of £13,290 for 2009/10 (rising in accordance with inflation for the remaining two years). Each scholarship has an additional budget for travel, equipment/consumables and training to support your research. KESS PhD Scholarship holders do not pay fees.

Length: Full-time for 3 years. (Theses must be submitted 6 months after the funded three year study period)

Training: The achievement of a Postgraduate Skills Development Award (PSDA) is compulsory for each KESS scholar (The PSDA is based on a 60 credit award, which is an additional award to the PhD).

Eligibility: To be eligible to apply for a KESS award, you must be resident, upon application, in the Convergence Area of Wales and you must be able to take paid employment in the Convergence area on completion of the scholarship.

The Convergence Area means the following counties of Wales:

Isle of Anglesey, Gwynedd, Conwy, Denbighshire, Ceredigion, Camarthenshire, Pembrokeshire, Swansea, Neath Port Talbot, Bridgend, Rhondda Cynon Taff, Caerphilly, Torfaen.

In the first instance, informal enquiries should be made to the Primary Advisor, Pete Bunting. However, please feel free to contact any of the AU-based project advisors (below) for specific details:

Dr Pete Bunting (Lead)	Prof. Richard Lucas	Dr Fred Labrosse
Institute of Geography & Earth Sciences, Llandinam Building, Aberystwyth University, Ceredigion. SY23 3DB	Institute of Geography & Earth Sciences, Llandinam Building, Aberystwyth University, Ceredigion. SY23 3DB	Department of Computer Science, Llandinam Building, Aberystwyth University, Ceredigion. SY23 3DB
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Closing date for applications 30th April 2010.

Post Reference NU Maxi AU10009