A PhD position is available at UNSW Canberra in the area of Integration of Environment Sensing and Image Processing with Unmanned Rotorcraft. Rotary wing (helicopter) Unmanned Aerial Vehicles (RUAVs) allow much greater portability and ability to fly slow and low, which provide a low cost alternative to airborne and spaceborne remote sensing platforms. Currently, the analysis of the video captured from UAVs is performed offline with the associated delays in response time. The lack of real-time image interpretation via on-board image processing is an urgent problem that needs to be addressed. The objective of this project is to take up the challenge and fill this gap. This project will address the limited data storage space on RUAVs and the short time frame allowed in the methodology development for the on-board image registration and classification. Onboard fast processing will expand the capability of the RUAV to wider applications, such as object recognition for search and rescue and change detection for disaster management and bush fire hazard assessment.

The candidate will be expected to have a strong engineering and image processing background. The applicant will be expected to have the equivalent of a first-class honours degree from UNSW.

The successful applicant, subject to satisfying the admission requirements, will be awarded a UNSW Canberra Research Training Scholarship with an annual tax-free stipend of $26,592. This scholarship is for a period of 3 years, subject to satisfactory progress reviews. The successful applicant would be expected to be available to commence their studies no later than Session 2, 2014 and must be on campus and enrolled at UNSW Canberra in the relevant PhD program by 31 August 2014. Applications will be accepted until a suitable candidate is found.

The Canberra campus of the University of New South Wales is located at the Australian Defence Force Academy (ADFA). ADFA is located in an Australian bushland setting less than five kilometres from the city centre and the Canberra airport.

The UNSW Canberra campus has a large and comprehensive library, state-of-the-art computing facilities, well-equipped and modern laboratories.

Canberra is a modern city chosen as Australia’s national capital in 1908. Its name comes from the local Aboriginal word “Kamberra” meaning “meeting place”. As Australia’s capital city, Canberra is the focal point for activities and events that affect and influence the nation. It is the home of Federal Government and the public service, a focus for business and industry, home to the international diplomatic community, a place of study or just a great place to live.

Information on how to apply for admission, fees, scholarships and living in Canberra can be found at: http://www.unsw.adfa.edu.au/student/future/research.html

For further information, please contact:
Dr. Xiuping Jia
Email: x.jia@adfa.edu.au
Phone: +61 2 6268 8202
School of Engineering and Information Technology
The University of New South Wales at Canberra
ACT 2600 Australia