

## **“An Operational Circulation and Ecology Forecast System for Jervis Bay, NSW” - Dr Hua Wang**

Candidates are sought for a joint UNSW/DSTO-funded PhD scholarship to begin early next year to build a predictive circulation and ecology system for Jervis Bay, NSW, Australia. The project will involve characterisation of the bay by oceanographic surveys of both static and dynamic water column and seabed properties. A database of relevant environmental and ecological parameters will be established encompassing the planned measurements and historical data in order to set up a hydrodynamics, sediment transport and ecology model. The hydrodynamics model will be used to forecast the effects of Coastal Trapped Waves and local winds on bay circulation, and to provide the realistic physical background and fields for the sediment transport and ecosystem modelling. The project will form part of effort to design an integrated marine observing system (IMOS). IMOS is an initiative of the Australian Government being conducted as part of the National Collaborative Research Infrastructure Strategy. The stipend and conditions for this scholarship is the same as UNSW University College Postgraduate Research Scholarships (AU\$20,431 per annum, no assistance with moving expenses, [http://www.unsw.adfa.edu.au/units/research/PG\\_student/scholar\\_ships.html](http://www.unsw.adfa.edu.au/units/research/PG_student/scholar_ships.html)), plus a possible top-up up to AU\$10,000 per annum from DSTO. Please note that the length of time for a PhD is normally 3 years and that is the expected duration of this scholarship.

**Qualifications:** a B.Sc. (first class or second class division 1 Hons) or MSc degree in mathematics/physics/computing science/oceanography/environmental science. The candidate must have excellent computer skills in high-level scientific programming and data analysis. Knowledge of MATLAB is also highly desirable.

**Application Procedure:** candidates are requested to apply by sending

- (1) a signed letter of application describing how their background and experience meet the academic requirements of the scholarship,
- (2) transcripts of university course work (official copies only),
- (3) resume, and
- (4) names and contact information of two references to: Dr Xiao Hua Wang, [Discipline Coordinator in Oceanography](#), School of Physical, Environmental and Mathematical Sciences, UNSW@ADFA, Canberra 2600, Australia ([hua.wang@adfa.edu.au](mailto:hua.wang@adfa.edu.au)). Review of applications for the scholarship begins immediately until filled.