Postgraduate scholarship at the University of Melbourne

A postgraduate scholarship is available from early 2006 for a PhD candidate to work on the ARC funded project “Automatic fusion of geoinformation: The intelligent geo-mediator architecture (iGMA)“.

Project description

The efficient integration of geographic information from different sources (termed geoinformation fusion) is an essential task in many geographic applications, such as emergency response systems and environmental management. Today’s geoinformation fusion systems rely on manual assistance from human domain experts, making them labor-intensive, slow, and unreliable. This project will develop the foundations of automatic geoinformation fusion, using inductive inference (reasoning from specific cases to general rules). The research will lead to automated systems that enable non-expert users to fuse diverse geoinformation sources more rapidly and reliably.

Conditions

The project will be based at the Department of Geomatics, University of Melbourne, and will be primarily supervised by Dr Matt Duckham. The postgraduate scholar rate for 2005 was $24,388 per annum (tax free).

Focus

The research student will focus on the specification and development of robust and automated methods for fusion of different types of geoinformation. Depending on the background interests of the successful student, original contributions might include:

- mathematical modeling of inductive information fusion;
- development of robust, automated fusion techniques for uncertain geoinformation;
- design and development of distributed systems for automated geoinformation fusion (“geo-mediators”); or
- evaluation of geoinformation fusion techniques within key application domains, such as emergency response systems.

Candidates

This project is funded by the ARC. ARC rules require that the research student must be an Australian resident. Applicants must be eligible to enroll directly into a PhD program, or into a Masters leading to a PhD. The successful candidate will hold an undergraduate or higher degree in computer science, geomatics, GIScience, or a related discipline. Good or excellent programming skills and communication skills (written and verbal) would be highly advantageous. Knowledge of Java programming language and/or Oracle spatial database system would also be an advantage.

Enquiries

For further information and informal enquiries please contact:

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