Massey University
Massey Geoinformatics Collaboratory and
Institute of Natural and Mathematical Sciences

2 PhD Scholarships in Geoinformatics
Auckland, New Zealand

We have two exciting PhD opportunities within the Massey Geoinformatics Collaboratory at Massey University, in Auckland, New Zealand, working with Dr Kristin Stock on projects funded by Ordnance Survey, UK and Landcare Research, NZ.

The Massey Geoinformatics Collaboratory is a network of researchers and postgraduate students across three different campuses and several different departments of the University, each conducting research in different aspects of geoinformatics/GIS/geospatial science. Prominent application areas include agriculture, ecology, geomorphology and disaster management; with research themes focussing on semantics; uncertainty; spatial ecology and UAVs.

The scholarships will provide a stipend of NZ$25,000 per annum, and cover tuition fees for the student (whether national or international).

Project One: Ordnance Survey

Project One is sponsored by Ordnance Survey, the national mapping agency of Great Britain. The student will be based in Auckland, New Zealand, and will have the opportunity to visit and work at Ordnance Survey in Southampton, UK for a period of 3 months during his or her candidature.

The project will develop methods for effective interpretation of natural language descriptions of geographic location, giving particular attention to the effect of context on interpretation. For example, a user may be interested in finding 'private property beside the River Welland'. The project will analyse the role of context in human interpretation of natural language location descriptions, and develop a contextual model to interpret those descriptions, with the goal of improving the accuracy of automated interpretation of natural language location descriptions.

Project Two: Landcare Research

Project Two is sponsored by Landcare Research, Crown Research Institute with the core purpose to drive innovation in New Zealand's management of terrestrial biodiversity and land resources, to protect and enhance the environment and grow New Zealand's prosperity. The student will be based in Auckland, New Zealand, and will travel to on occasion to Landcare Research offices in other parts of New Zealand.

Landcare Research holds a number of specimen collections (e.g. flora, fungi, insects) that have been collected over the last 200 years. The specimens are annotated with a textual description of the location at which they were taken (e.g. on the west bank of the Waikato River), but in many cases, coordinate locations are not known. The objective of the project is to develop methods to automatically interpret textual descriptions and geocode (identify geographic coordinates) for them.

These projects are multidisciplinary, including aspects of geospatial science, computer science, linguistics and cognitive science, and we are looking for students who are willing and able to develop skills and knowledge in new areas.

Applicants will have the following essential attributes:
- an excellent academic record;
- eligibility to enter the Massey University PhD programme (see here for details);
- an interest in geoinformatics/geospatial science;
- programming skills;
- ability and willingness to self-manage;
- ability and willingness to work in a team environment;
- excellent organisational and communication skills.

The following attributes are desirable:
- a background in geospatial science, geoinformatics, semantics, qualitatative spatial reasoning, computational linguistics, logic, ontologies or NLP;
- evidence of ability to conduct research and
- background/knowledge/experience relevant to the project area.

Please follow this link to complete the application form and attach:
1. your CV;
2. academic transcripts for your tertiary study and
3. a letter providing evidence of your ability to meet the attributes listed above

Applications are due by **20 November 2016**.