



# Notice of University Oral Examination

Geodesy and Geomatics Engineering  
Doctor of Philosophy

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**Friday, January 15, 2010**  
**Head Hall – ADI Studio @ 10:00 am**

Co-Supervisors: Dr. Sue Nichols, GGE  
Dr. Andrea Carneiro, HRA GGE

Examining Board: Dr. John McLaughlin, GGE  
Dr. David Coleman, GGE  
Dr. Ian Methven, Centre for Property Studies

External Examiner: Dr. Jürgen Philips, Fed. University of Santa Catarina, Brazil

Chair: Dr. Ed Biden, School of Graduate Studies

### **Design of A Conceptual Land Information Management Model for the Rural Cadastré in Brazil**

#### **ABSTRACT**

The rural cadastral reform established by *Law# 10,267/2001* is the most recent benchmark in the land administration history in Brazil. It is important not only because after this law rural properties must be georeferenced, but also because for the first time Brazilian law has called for a common multipurpose cadastral system, called the National Cadastre for Rural Properties – CNIR. CNIR will integrate legal (tenure information), fiscal (value information) and agrarian (land use and management policies) and environmental (protected areas) databases.

As in many countries which are in the process of a cadastral reform, Brazil faces serious political, legal, and technical challenges in developing a national rural cadastral system. However, through the harmonization of land information, it is hoped that land conflicts can be reduced, land can be more fairly redistributed and taxed, interests in traditional lands and protected areas can be preserved and, most importantly, that what is registered at the registry offices is the same as what is represented on the ground.

This research supports CNIR implementation by providing the design of a conceptual model based on user requirements of all collaborating agencies. The primary purpose of the model is to provide a framework for the integration of the current cadastral systems, under several land administration agencies, in order to obtain more accurate and concise land information to support and regularization and secure tenure in rural areas. More specifically, the model is designed to provide a well defined structured design for CNIR implementation based on user requirements and project management methodologies. The research includes problem definition, analysis of requirements, constraints and opportunities, and design of a model using soft systems methodologies. The results are definition of required CNIR functions, data flow, minimum content and implementation strategies. Working together with CNIR managers, the research has provided input for its development.

The research is based on the assumption that land information, well managed and legally formalized, can provide better security of tenure, and as a consequence it may become the proposed model to bring improvement in land reform programs and in public services in Brazil.

**Faculty Members and Graduate Students are invited to attend this presentation**