NOTICE OF UNIVERSITY ORAL

GEODESY AND GEOMATICS ENGINEERING

Master of Science in Engineering

Botshelo Sabone

Thursday, December 17, 2009 @ 2:00 pm

Head Hall – Room E-11

Board of Examiners: **Supervisor:** **Dr. David Coleman, GGE**

Examining Board: **Dr. Peter Dare, GGE**
Dr. Glen Jordan, Forestry and Environmental Management

Chair: **TBA**

Assessing Alternative Technologies for Use of Volunteered Geographic Information in Authoritative Databases

ABSTRACT

Volunteered Geographic Information (VGI) has been enabled by advances in positioning, Web mapping, cellular communications and wiki technologies. These technological advances have allowed ordinary citizens to become producers as well as users of geographic information. Predictions have been made that VGI could be used to fill gaps in existing spatial databases, for example, complementing Spatial Data Infrastructure (SDI) datasets. However there are critical issues surrounding its production and possible integration which need to be addressed before considering it for use in complementing SDI datasets.

This thesis presents research which investigated the extent to which VGI enabling technologies affect its accuracy and ensures accuracy compliant with Canadian Geospatial Data Infrastructure (CGDI) accuracy standards. The research examines the suitability of VGI as a resource for augmenting authoritative datasets, like CGDI datasets, by assessing its positional accuracy and other data quality factors. Factors influencing the accuracy hence quality VGI, e.g. Location Based Service (LBS) positioning techniques, are analyzed and a framework for integrating VGI into suitable authoritative/ CGDI datasets is developed. It is designed provide a platform for validation and integration of VGI into authoritative databases. The framework's limitations and strengths are also analyzed.

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