



**NOTICE OF
UNIVERSITY ORAL**
GEODESY AND GEOMATICS ENGINEERING

Master of Science in Engineering

Ben Wuest

**Monday, September 8, 2008
@ 3:30 pm**

Head Hall – E-11

Board of Examiners: Supervisor: Dr. Yun Zhang, Geodesy & Geomatics Eng

**Examining Board: Dr. David Coleman, Geodesy & Geomatics Eng
 Dr. Julian Meng, Electrical & Computer Eng**

Chair: Dr. Sue Nichols, Geodesy & Geomatics Eng

**Towards Improving Segmentation of Very High Resolution Satellite
Imagery**

ABSTRACT

High resolution satellite sensors, like QuickBird, have increased the dynamic grey-value variety and spatial detail in satellite imagery. New features can be distinguished that could not be discriminated in lower resolution imagery, such as that of Landsat TM. Object-oriented classification has shown significant promise as a method for the analysis and classification of objects in very high resolution imagery. This approach allows researchers to analyze pixel groups rather than individual pixels. Consequently, other features, such as texture and shape, can be applied to analysis. Object-oriented classification, however, is highly dependent upon successful image segmentation.

This research proposes to investigate segmentation methods -- through algorithmic approaches -- for the purpose of reducing operator dependency, fragmentation, parameter complexity and improving other segmentation problems and restrictions. This research is conducted over a variety of high resolution satellite image scenes. The focus of this research will be region-based, unsupervised segmentation methods on very high resolution satellite imagery.

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