NOTICE OF UNIVERSITY ORAL

GEODESY AND GEOMATICS ENGINEERING

Master of Science in Engineering

Marta Padilla Ruiz

Friday, April 13, 2018 @ 10:00 am

Head Hall – Room E-11

Board of Examiners:	**Co-Supervisors:**	**Ian Church, Geodesy & Geomatics Eng.**
		Emmanuel Stefanakis, Geodesy & Geomatics Eng.
	Examining Board:	**Susan Haigh, Geodesy & Geomatics Eng.**
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User-Centered Design for Web-Mapping Applications: A Case Study with Ocean Mapping Data for Ocean Modellers

ABSTRACT

Technological innovations in the last few years offer a new digital medium for map making, opening a wide range of possible interactions between the user and the map interface. Nowadays, web-mapping applications are a common way to deliver geographic data through the internet; and within the ocean mapping community, there is a demand for visualizing and downloading data online for navigation, engineering, natural resources, ocean modelling or habitat mapping purposes. However, the existing web-mapping applications are simple data repositories for data download, and the user point of view and context of use is not usually considered. In this research, a User-Centered Design (UCD) approach is applied for the development of a web-mapping application, considering only one kind of ocean mapping users, ocean modellers. A work domain analysis was conducted as the first stage of the methodology to determine the required application functionalities and content, followed by the development of a web mapping application prototype. The application was then evaluated by users, closing the loop of the UCD methodology. The results of the evaluation shows a useful tool, high user satisfaction, and states a wide range of recommendations and a need for new functionalities. This research will enlighten the ocean mapping community with the data and the spatial functionalities that ocean modellers demand, putting together these two related fields. Moreover, it will serve as the foundations for future development and improvement of the web mapping application within the Ocean Mapping Group (OMG) at the University of New Brunswick (UNB).

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