



**SDSU**  
presents  
a thesis defense for  
Master of Science  
degree in  
Computer Science

Wednesday,  
May 8, 2013  
  
1:00pm  
GMCS 405

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*Colonial History of Mexico – A Bilingual GIS Application*

## Abstract

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In today's world, rapidly growing technological inventions have exposed students of all ages to the use of smart phones, notebooks, tablets, laptops etc.; hence there is an ever increasing demand for modernizing the school environment with new e-learning processes. This thesis project is a small effort to provide an interactive platform in GIS (Geographic Information Systems) to augment texts and lectures for Colonial Mexican history. It is intended for self-study and self-assessment.

This tool is an interactive, scalable and bilingual software application that depicts the 300 hundred years of Spanish rule in Mexico during the years 1521 to 1822. This application covers all the areas of the historical events that took place from the fall of the Aztec Empire (the empire that was dominant during the 14th to 16th centuries in the Pre-Colonial Era) in August 1521 till Mexico adopted its own Constitution and declared itself as a Republic.

As the subject involves Spain and Mexico, this tool is designed to offer all the information in English and Spanish languages. All the cultural and historical events are shown using GIS maps. This tool provides a timeline option that offers a fast track way to scroll through all the events from the beginning of the Colonial rule to the end. This provides an easy way for the user to observe the events chronologically and also to track a particular events time and place. This tool also provides quizzes and games section which tests the students understanding of the subject.

## Thesis Committee

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Carl Eckberg, Thesis Chair, Department of Computer Science  
Joseph Lewis, Department of Computer Science  
Robert Grone, Department of Mathematics & Statistics