SAN DIEGO STATE UNIVERSITY
Leadership Starts Here

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

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MOUMITA CHATTERJEE

GIS Based Learning Tool for World's Largest Earthquakes and Its Cause

Abstract

The objective of this thesis is to increase awareness about earthquake among people especially young students by showing five largest and two most predictable earthquake locations in the world and their plate tectonic settings. This is a geographic based interactive tool which could be used for learning about the cause of great earthquakes in the past and the safest place on the earth in order to avoid direct effect of earthquakes. This approach provides an effective way of learning for the students as it is very user friendly and more aligned to the interests of the younger generation. In this tool user can click on the various points located on the world map which will open picture and link to the webpage for that point showing detailed information of the earthquake history of that place including magnitude of quake, year of past quakes and the plate tectonic settings; that made this place earthquake prone.

Apart from knowing the earthquake related information students will also be able to customize the tool to suit their needs or interests. Students will be able to add/remove layer, measure distance between any two points on the map, select any place on the map and know more information for that place, create layer from this set to do a detail analysis, run query, change display settings, etc. At the end of this tool user has to go through the earthquake safely guidelines in order to be safe during an earthquake.

Thesis Committee

Carl Eckberg, Thesis Chair, Department of Computer Science
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