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

Wednesday,
June 27, 2012

10:00am
GMCS 405

SAN DIEGO STATE
UNIVERSITY
Leadership Starts Here

Fnu Sourabh

*Visualization of the Deformation of Planet Due to
Tidal Forces Using XNA Programming Framework*

Abstract

Tidal forces on a body are governed by various forces that act on it. The result of these net forces is the formation of tides. Tidal studies are an important part of the curriculum of high school students and beyond, according to the California State Department of Education (CSDE), which sets the standards for all schools in the State of California. Tidal forces are also an important branch of study in astrophysics and mathematics. Thus, it is very important that such important concepts are presented for students in a clear and concise manner for complete understanding of the topic conceptually.

This thesis aims in helping high school students to understand the basic concepts of tidal forces in a visual manner in an interactive environment.

XNA game programming framework was used to create the tidal simulation. This framework helps in the successful incorporation of 2D and 3D designs in a simple manner, and helps the game be more interactive and interesting.

Thesis Committee

Kris Stewart, Thesis Chair, Department of Computer Science
Joseph Lewis, Department of Computer Science
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