

## **SDSU**

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

Thursday, December 4, 2014

> 1:00pm GMCS 308

## SHIVAM DIXIT

Comprehensive Web Application for CITER (Center of Industrial Training and Engineering Research)

## Abstract

The emphasis of this thesis is to build an intuitive and robust Web Application for CITER (Center of Industrial Training and Engineering Research) Department of San Diego State University.

The web application provides an overview of the departments research work also include the key members involved in the research that supports the CITER structure and enhances collaboration between industrial partners and SDSU's Engineering departments, faculty members, undergraduate and graduate students with engineers and staff scientist of local industry. Through industry funded projects and scholarships, the students get first-hand training in an industry environment and are ready to join the workforce upon completion of their studies.

The web application is developed using HTML5, PHP to make a connection to SUN OS via Shell Scripts to execute to MATLAB scripts hosted over the SUN OS Platform and to generate the images from binary data files for the horizontal and vertical velocity field near a temporally evolving boundary layer under surface the solitary wave.

The user interface, as well as the language was intentionally kept simple and easy to use, to broaden the potential audience. To keep the user engaged in using the web application, key aspects are provided in web application and eliminate the need of using a standalone MATLAB environment to generate the output image plots using HTML pages.

## Thesis Committee

Carl Eckberg, Thesis Chair, Department of Computer Science Mary Thomas, Department of Computer Science Gustaf Jacobs, Department of Aerospace Engineering