SAN DIEGO STATE UNIVERSITY
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SDSU
presents
a thesis defense for
Master of Science
degree in
Computer Science

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2:00pm
GMCS 418

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Android Augmented Reality Application:
SDSU University Campus Self-Guided Tour

Abstract

This project aims at developing an android augmented reality application that would have the capability to show university campus related information such as library, faculty and courses offered from a particular department. All this information is available by getting sensor data from your android device camera and overlaying images in real-time.

Augmented Reality (AR) is a generic term for an interactive 3D environment that blends with our physical reality, usually through a webcam, or in this case, an android device camera. AR by definition is a live, direct or indirect, view of a physical, real world environment whose elements are augmented by computer-generated sensory input such as sound, video graphics or GPS data.

The “SDSU University Campus Guide” mobile application is built on by taking pictures and videos of a particular building within a university campus and creating a sensible presentation (by stitching all pictures). Where a user focuses his/her android device camera on to a particular image of a live building, the information related to that particular department will be displayed, after “recognizing” that building from the archived pictures.

This application helps University students to get information about events, faculty, department or particular department related courses by just one click on this app.

This AR app uses Vuforia as a software platform and JAVA as a programming language which provides superior vision based image recognition and offers the widest set of features and capabilities to improve the University campus tour guide for the students to get to know their University better and easier. The application has been prototyped of a subset of campus buildings.

Thesis Committee

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