Department of Computer Science and Engineering
Walchand College of Engineering, Sangli

Mini Project

A Touring App: Prototyping 3D Mobile Augmented Reality Systems for Exploring the College campus using Android app.

T.Y in Computer Science and Engineering

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Project Guide

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Abstract

Our College premises are rapidly developing with so many departments and so many laboratories with multi-disciplinary environment. For any student, teachers and staff members it will be great if all the related information regarding any infrastructure in the college is being shown on their smartphones. So our project is the same Android application which will show every single information related to the scene that being recorded by the users smartphone i.e. Names of every buildings, labs, departments, offices, open spaces, etc.

We describe a project work that combines together the overlaid 3D graphics of augmented reality with the untethered freedom of mobile computing. The goal is to explore how these two technologies might together make possible portable android application that can support users in their everyday interactions with the world. We introduce an application that presents information about our college's campus, using a mobile phone installed with our android application. We provide an illustrated explanation of how our project is used, and describe our rationale behind designing its software infrastructure.

Feasibility

The project covers wide range of technologies such as java, android, augmented reality libraries and augmented reality. Android comes with enhanced libraries of Augmented Reality such as DroidAR, AndAR, Vuforia, Wikitude, etc. which makes development efforts smother and also increases the feasibility of the related projects.

This project will be a small initiation towards the greater possibilities with this kind of apps which will on further can be extended for real world infrastructure. So the basic idea of and inspiration behind this app is such that wherever you will go in the world this app will help you detect any new place in the world with its smart ability to guide you with new locations around you.

INTRODUCTION

We describe a project work that combines together the overlaid 3D graphics of augmented reality with the untethered freedom of mobile computing. The goal is to explore how these two technologies might together make possible portable android application that can support users in their everyday interactions with the world. We introduce an application that presents information about our college's campus, using a mobile phone installed with our android application. We provide an illustrated explanation of how our project is used, and describe our rationale behind designing its software infrastructure.

1.1 Problem definition

Think of a situation where we are moving in any new premises of any college and you need to know every single information about that place. So in the conventional method of current scenario we will google the information about the place not so sure we will either can also go to google maps but the problem is the real time scene and infrastructure you are experiencing is way much different than the conventional maps will show you. So this is how you come to a situation where you can use this kind of app which will show you the real time buildings with names and details on your mobile screen.

Objectives

To develop an interactive mobile app for ease of navigation and collection of information about the surroundings at the time whenever we require to get that information about any kind of infrastructure around the campus.

Methodology

Learning in detail the concepts of android and augmented reality.

Collecting the collaborative data of real world scenarios that needs to be embedded into the application.

Finally completing the work with progressive development of the project.

Software & Hardware requirements/Facilities required for proposed work:-

Android enabled mobile phone/Android simulator

Augmented Reality libraries.

Bibliography

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