VIRTUAL GIS
WALKTHROUGH INNOVATION CENTER

By
MOHD SUFEAN BIN ABU SAMAH
97020485

BACHELOR of SCIENCE (Hons) in INFORMATION TECHNOLOGY
FACULTY OF INFORMATION TECHNOLOGY and QUANTITATIVE SCIENCE
MARA INSTITUTE of TECHNOLOGY
SHAH ALAM

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ABSTRACT

Nowadays advances in computer graphics hardware and algorithms, visualization and interactive techniques for analysis offer the components for a high integrated, efficient real-time 3d Virtual GIS. The purpose of this project is to develop a system that enables a user to engage in a virtual visit to Innovation Center in ITM Shah Alam. This is an application of the virtual GIS technology. A coloured virtual model of the building will be built by using architectural drawing and this system provides the means visualizing terrain models consisting all view of the environment. By applying the virtual GIS tools, the necessary objects would be rendered. Once built, a user be able to move freely through out the building interactively this is what is mean by walkthrough. A standard called VRML (Virtual Reality Modeling Language) and Caligari Truespace 3.0 has been developed to enable virtual reality application to be implemented on the web. Although there are limited development available in VRML, the non-internet version has advanced considerably to make this project viable. The project is still at the initial stage and need further enhancement especially to choose the right software before being shown to the public.

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CHAPTER 1

PROBLEM DESCRIPTION

1.1 BACKGROUND OF THE PROBLEM

MARA Institute of Technology, Shah Alam is a campus that completes with the infrastructure. ITM Shah Alam has a lot of the signboard that provide for the visitors and its shows that the location about the buildings residential, college, and others. Besides that visitors can also inquire the security guard to go or find out for the particular places.

Virtual GIS is the approach to help or to solve this problem. Many people have their own meaning about the Virtual GIS. The best definition of Virtual GIS is a way for human to visualize, manipulate and interact with computers and extremely complex data[1]. So visitors, lecturers and students to browse or to find for the location in ITM, Shah Alam may use that in virtual tour. In this virtual tour, the user would be able to move forward, backward, downward, and upward beside that it is still be able to see all of the objects with the varies angle.

Geographic Information System (GIS) were in 2D, map based-based system with decidedly non-interactive. Now with the 3D graphics and efficient new technologies for terrain visualization so we can organizing geographical information to make integrated GIS visualization systems. The topography of