

GENTING THEME PARK: FEEL THE FUN

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<i>GRADE:</i>	A
	A-
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UNIVERSITI TEKNIKAL MALAYSIA MELAKA	

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GENTING THEME PARK: FEEL THE FUN

ROSLAN BIN RAHMAT

This report is submitted in partial fulfillment of the requirements for the
Bachelor of Computer Science (Interactive Media)

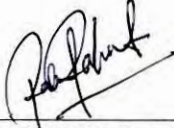
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2011

DECLARATION

I hereby declare that this project report entitled
GENTING THEME PARK: FEEL THE FUN

is written by me and is my own effort and that no part has been plagiarized
without citations.

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DEDICATION

For all who had a miserable life...

ACKNOWLEDGEMENTS

I would like to thank Miss Sarni Suhaila for giving assistant to complete this project successfully. I would also like to thank my beloved parents and friends who have been giving me support and motivation throughout my project.

ABSTRACT

This virtual walkthrough project was developed to promote Genting Theme Park for the public and allow the user to experience an architectural model by simulating a walkthrough a model. User can explore every angle of the virtual world and able to feel like visiting the real place by using keyboard and mouse to interact and navigate with the world. The main idea of this project is to create a virtual walkthrough of Genting Theme Park as it is hard for others to witness or imagine the theme park that has not going yet. Genting Theme Park is one of the largest and famous theme parks in Malaysia plus it is uniquely located in the highlands. This project can be a help in promoting one of the tourism destinations for some people to visit there. The important part in this project is a model of 3D theme park and it's name is Genting Theme Park: Feel The Fun. This park include the 3D models of some of the rides such as the Corkscrew, Ferris Wheel and Space Shot.

ABSTRAK

Projek panduan maya dibangunkan untuk mempromosikan Genting Theme Park kepada masyarakat dan membolehkan pengguna untuk merasai pengalaman model architectural dengan mensimulasikan model. Pengguna juga boleh menerokai setiap sudut dunia maya dan dapat merasai seperti melawat tempat sebenar dengan hanya menggunakan papan kekunci dan tetikus untuk berinteraksi dan mengemudi dengan dunia maya. Idea utama projek ini adalah untuk mewujudkan walkthrough maya Genting Theme Park kerana adalah sukar untuk sesetengah orang yang masih belum pernah sampai untuk menyaksikan atau membayangkan taman tema ini. Genting Theme Park adalah salah satu taman tema yang terbesar dan terkenal di Malaysia serta ia adalah unik dengan kedudukannya yang terletak di tanah tinggi. Projek ini boleh membantu dalam mempromosikan salah satu destinasi pelancongan yang terkenal di Malaysia. Paling penting sekali dalam projek ini adalah bahagian model 3D taman tema ini dan diberi nama Genting Theme Park: Feel The Fun. Di dalam taman tema ini terdapat tiga model permainan 3D seperti Corkscrew, Ferris Wheel dan Space Shot.

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CHAPTER I

INTRODUCTION

1.1 Project Background

The main purpose of this project is to develop a walkthrough application in a virtual reality environment to show the excitement and thrill of Genting Theme Park. Genting Theme Park has been chosen because of its unique location and also one of the most visited places. Through this application, the people who never come and visit the theme park will have a brief knowledge or an advance experience concerning the joyful and cheerful while playing in the theme park. The idea of this project is to create a Genting Theme Park using walkthrough application using virtual environment as it is hard for others to witness or imagine the theme park that has not going yet. Genting Theme Park is one of the largest and famous theme parks in Malaysia. This project may help in promoting one of the tourism destinations for some people who wishes to visit there. There are many other available conventional methods that take the purpose of promoting a tourism place such as in the television, radio, website, newspaper, magazine and etcetera. This project is

developed to try and use another way that is different from the typical approaches and test its effectiveness in promoting and attracting people to go to the place.

1.2 Problem Statement

Problem statement is about clear and concise statements that describe the symptoms of the problem to be addressed. Problem statement is important for guidelines in improving a project and that will determine its solution. The ability to state key problems is an important source of power.

The purpose of developing this project is to give the public the sense of being there at the Genting Theme Park by using walkthrough application of virtual environment. Many kinds of procedure to introduce this theme park for example a sign board, a television advertising, web site, brochure and magazine. It is one more way to introduce this theme park to the public by using the virtual environment. Through virtual environment, 3D model will be built same as the real object and interactive function will be provided so that public is able to explore the virtual theme park. Since technology virtual reality is still new in Malaysia, many societies are still unexposed with this technology. By doing this kind of approach the public will be expose to the new style or concept of virtual reality. It is a good idea as this method to make public have a little expose and the feeling being in the Genting Theme Park and it is also can help in promoting the Genting Theme Park to the public and tourist.

1.3 Objective

The objectives of this project are:

- i. To develop a virtual simulation of the theme park, Genting Theme Park.
- ii. To create a semi-immersive virtual reality application of the Genting Theme Park that use basic devices.
- iii. To find virtual reality approach is the best method in conveying the information compared to video approach.

1.4 Scope

The scope of this project is that the virtual reality that will be developed will only be focusing on not all part of Genting Theme Park but only in some of Outdoor Park includes Space Shot, Corkscrew and Ferris Wheel. Outdoor Park has a lot of interesting rides that can be simulated unlike Indoor Park.

The target user that can use this application is in the year range of 20 to 35 years old and perhaps other users outside the year range that have the adequate knowledge of using the computer.

1.5 Project Significance

The significance in developing any project is so important so it is not to be wasted by doing it for nothing. Thus the reason of developing a project as it has its significance either for project's developer or user or both parties gain the advantages. This project will be benefit for the public user which not yet experiences the rides at the Genting Theme Park. It is also helping people expose with the concept of virtual environment which this application is still new in Malaysia. The project can be used by Genting Theme Park and also Tourism Malaysia in promoting the theme park.

1.6 Conclusion

In a nutshell, it is hoped that the development of this virtual reality can give the public the experiences of having fun at the Genting Theme Park in the interactive way. A project is succeeding once the objectives and scopes achieved. The expected result will be a three rides at Genting Theme Park and its surrounding areas simulated in virtual environment that could be interactive. By using this method, it will provide the clear image of the Genting Theme Park and its surroundings area.

Chapter I explains about the project background, project's problem statement, objective, scope, project significance and expected output of this project." Genting Theme Park: Feel The Fun " is a project that needs a lot of research and guidance from existing project or at least which involve virtual reality environment. Derived from the problems that have been identified, this project is developed to overcome all the problems that being stated in the

problem statement. In the next chapter, the contents are mostly on the literature review of the project, which will support the concept of the development of the project with words and statements on previous or existing project. The methodology, project requirement and the schedule and milestones of the project also will be described in Chapter II.

CHAPTER II

LITERATURE REVIEW & PROJECT METHODOLOGY

2.1 Introduction

Chapter two will highlight the literature review and the methodology used in developing the project. A literature review discusses published information in a particular subject area, and sometimes information in a particular subject area within a certain time period. It can be just a simple summary of the sources, but it usually has an organizational pattern and combines both summary and synthesis. A summary is an evaluation of the important information of the source, but a synthesis is a re-organization or a reshuffling of that information. It might give a new rationalization of old material or combine new with old interpretations. It might trace the intellectual progression of the field, including major debates. The literature review may evaluate the sources and advise the reader on the most important or relevant.

In this project, among the discussed topics are the domain of virtual reality(VR), the existing system VR, comparison of existing VR applications, the used of walkthrough application in VR. This project also emphasizes on the justifications for the chosen project methodology and the project requirement.

2.2 Domain

Virtual reality (VR) has no one common definition, but common characteristics like trying to mimic real world beyond the flat monitor. It is also immerse in 3-D visual world today to make it more interesting and realistic. Myron Krueger (1991) said: *'The promise of artificial realities isn't that of reproducing conventional reality or modifying the real world. It's the opportunity to create synthetic realities without real precedents.'*

In other word VR means computer based simulation of environments with 3D images requiring the use of peripheric equipment such as data gloves and head mounted displays to allow the user interaction. The users navigate through the virtual reality environments as if they did it in the real world, walking inside buildings and interacting with objects in real-time.

There are many example of using VR application in various domain such as medical, surgery, architecture and design, scientific data visualization, aeronautics military applications, and education games.

This project uses a non-immersive simulation which is considered as the least immersive implementation of Virtual Reality techniques. Using the desktop system, 3D virtual environment(VE) graphically displayed on a desktop computer monitor sometimes called Window on World (WoW) systems. Uses a conventional monitor to display the image (generally monoscopic) of the world and no other sensory output is supported. Keyboard, mice and trackballs is a medium to have an interaction with the virtual environment or may be enhanced by using 3D interaction devices such as a SpaceBall; or DataGlove. The advantages of using these non-

immersive simulations they do not require the highest performance graphics, no special hardware and can be implemented on a PC clone of high specification.

2.3 Existing System

There are a number of applications for virtual reality that are currently being used and numerous others that are being explored. Virtual reality is being used not only for games and entertainment purposes, but for training and educational uses as well. One of the advantages of virtual reality, it can give users the opportunity to experience things that may not be possible in real life. For example, one of the benefits of flight simulators can give pilots the opportunity an experience to trying control a crashing plane.

i. Virtual Reality Walkthrough of the USM Stadium

The University of Southern Mississippi (USM) has developed an architectural walkthrough application. This application is made by Justin Nossier. The Virtual Reality walkthrough provides and chance to learn more about the design of the stadium at USM. User can walk through the virtual reality environment and walk into the different areas such as the concession areas, restrooms, ticket office area, athletic building area, and the seating areas. Figure 2.1 shows the snap shot of the Virtual Reality Walkthrough of the USM Stadium.[1]

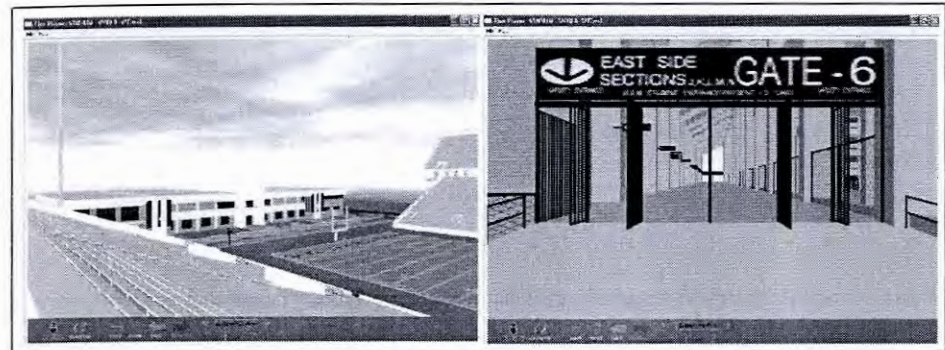


Figure 2.1: Snap Shots of the Virtual Reality stadium

ii. Second Life

Another virtual reality application is called Second Life that is a virtual world developed by Linden Lab and it is accessible on the Internet. Figure 2.2 shows the interface of second life. A free client program called the Viewer enables its users, called Residents, to interact with each other through avatars. Residents can explore, meet other residents, socialize, participate in individual and group activities, and create and trade virtual property and services with one another, or travel throughout the world (which residents refer to as "the grid"). Second Life is intended for people aged 16 and over, and as of 2011 has more than 20 million registered user accounts.