

Designing A 360-Degree E-Panorama Virtual Tour for the Introduction of Campus Using Theasys

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ABSTRACT

This study aims to design a 360-degree e-panorama virtual tour for campus introduction using Theasys. The virtual tour serves as an interactive platform to provide prospective students, visitors, and stakeholders with an immersive campus experience. The development process includes capturing high-quality 360-degree images, integrating them into Theasys, and enhancing user interaction through hotspots, navigation elements, and multimedia integration. The research evaluates the effectiveness of the virtual tour in improving users' understanding and engagement with campus facilities. The results indicate that the designed e-panorama virtual tour significantly enhances the campus introduction experience by providing an accessible and visually engaging platform.

Keyword : 360-degree virtual tour, e-panorama, campus introduction, Theasys, immersive experience



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1. INTRODUCTION

The development of information technology has now played an important role for the community, access to information searches has become easier. Multimedia is an example of packaging information technology so that it is easily understood and accepted by the community so that it can continue to follow its development. This is because from day to day technology continues to develop rapidly so that new ideas emerge to develop technology. Virtual Tour is one example of new innovations that are starting to be introduced so that they are easy to find. Virtual Tour conveys information related to the location of the place. An important component in making Virtual Tour is photos or panoramic images. Images are taken through the process of taking photos first which are then combined or better known as stitching into panoramic images while displaying them with a 360-degree perspective.

Panorama in Virtual Tour has several types, namely spherical panorama and cylindrical panorama. Virtual Tour is an interactive media because it has waypoints as directions that are useful to show other image objects in the main panoramic image with mouse direction. Web-based Virtual Tour applications have been widely used by hotels, resorts, universities and tourism sites around the world as part of an important promotional tool. However, not many universities use Virtual Tour as a medium to promote or introduce the campus. Campuses usually choose a webpage in the form of text and images that become one of the campus promotion media to prospective new students. Currently, the concept of E-Panorama has developed, which is a virtual tour or can also be called a website-based panoramic image that connects one image with another image so as to produce information for its users. To facilitate the introduction of the Faculty of Technology and Information Sciences, University of Muhammadiyah Sumatera Utara to the wider community or prospective students, the introduction will be made in the form of a Smartphone-based e-panorama virtual tour, which is intended to show and introduce to the public and prospective students about the entire environment and several lecture rooms on campus.

2. RESEARCH METHOD/MATERIAL AND METHOD/LETERATURE REVIEW

A. Theasys

Theasys is a web-based platform that allows users to easily create and share virtual tours and 360-degree panoramic experiences. With Theasys, users can upload their panoramic photos and create interactive tours that allow viewers to digitally explore the environment using a mouse or touch device.



Fig 1. Theasys

The platform provides various editing and customization features to enhance the quality and uniqueness of virtual tours, such as the addition of hotspots, additional information, and integration with external platforms. Theasys provides an effective solution for individuals or companies looking to create engaging and immersive visual experiences for their audience.

B. Research Procedures

Research on the design of 360-degree e-panorama virtual tour based on android for campus introduction using theasys includes several stages of implementation which will be shown in the flow chart below.

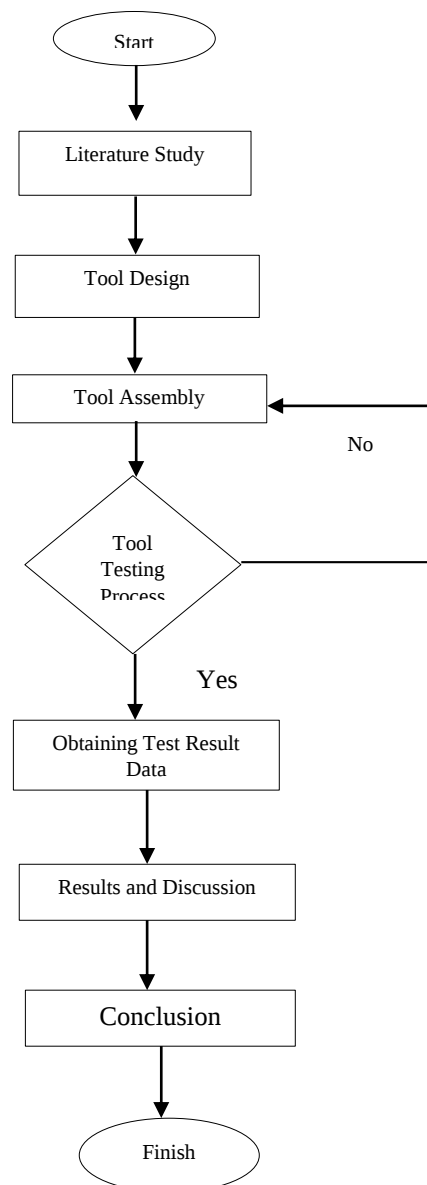


Fig 2. Flowchart of Research Procedure

3. RESULTS AND DISCUSSION

At the Material Collecting stage, we have succeeded in collecting approximately 400 photos which are then sorted and selected first to get good results in the Adobe Photoshop application with various adjustments such as color, lighting and others.

A. Assembly

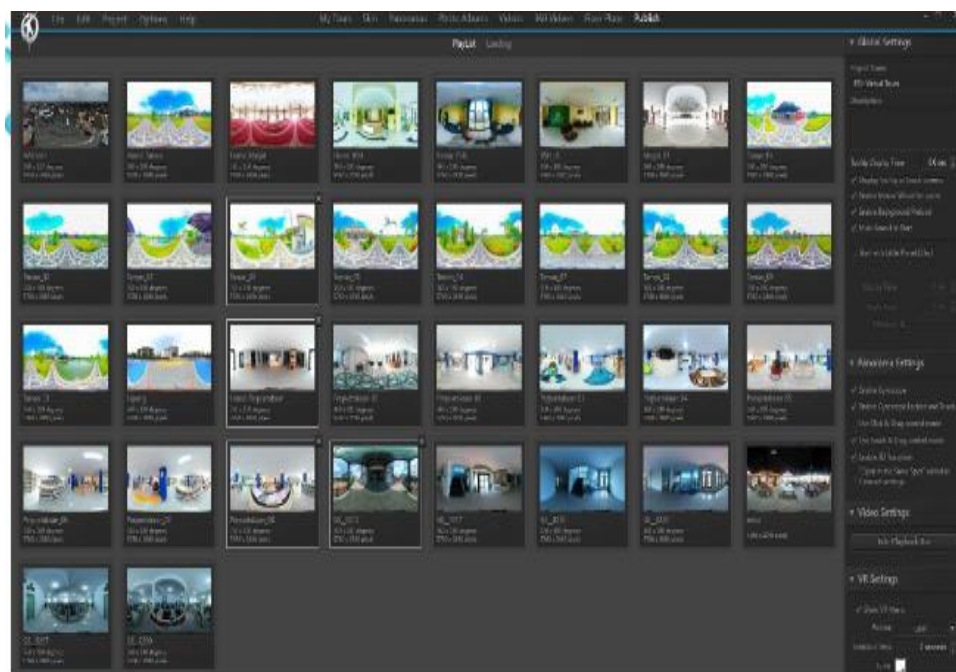


Fig 3. Assembly

At the Assembly Stage or design is carried out in the 3D Vista application for adjusting hotspots or points on 360 photos that allow users to explore the campus.

B. Testing

System testing used on this campus Virtual Tour website is the blackbox method. Black box testing is testing that is done by only observing the results of execution through test data and checking the functionality of the software.

C. Material Collecting

At the Material Collecting stage, we have succeeded in collecting approximately 400 photos which are then sorted and selected first to get good results in the Adobe Photoshop application with various adjustments such as color, lighting and others.

4. CONCLUSION

Campus virtual tour as an application-based information media that utilizes 360-degree panoramic images from this research, can help students and prospective new students to get to know the environment on campus, this virtual tour can also be used as advertising or promotional material to increase the attractiveness of prospective students to study on campus.

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