AI-ASSISTED 3D MOBILE TOUR NAVIGATION SYSTEM

A Thesis Presented to the Faculty of the

College of Communication and Information Technology

President Ramon Magsaysay State University

In Partial Fulfilment of the Requirements for the Degree

Bachelor of Science in Computer Science

By

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PRESIDENT RAMON MAGSAYSAY STATE UNIVERSITY
(Formerly Ramon Magsaysay Technological University)
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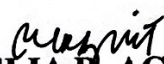**Castillejos, Zambales**

APPROVAL SHEET

The thesis project entitled **"AI-Assisted 3D Mobile Tour Navigation System"** was prepared and submitted by **Hannah D. Navarro, Jason G. Monsalve,** and **Lance Angelo L. Odulio** in partial fulfillment of the course requirements for the degree of **Bachelor of Science in Computer Science** has been examined and recommended for the oral examination.

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ABSTRACT

Artificial intelligence (AI) integration has become a revolutionary force in the constantly changing field of higher education. This thesis explores the field of intelligent campus information systems, primarily concentrating on creating and executing a 3D Mobile Tour Navigation System with AI support that is customized to meet the specific requirements of our university. Ensuring accessibility is critical because mobile applications are important communication tools and information repositories. This is especially true given the limitations of mobile devices, which include smaller screens and touch-based interfaces. This research uses a descriptive methodology, collecting data through surveys and content analysis in order to build the AI-assisted 3D Mobile Tour Navigation System. As the framework for development, the iterative incremental model helps with troubleshooting and improvement throughout the software lifecycle. Respondents' evaluations of the suggested 3D navigation system show a strong consensus regarding its effectiveness in providing pertinent, easily accessible, and real-time navigation instructions. The result of the survey shows that the proposed system was able to provide an immersive experience to the users by providing 3D models for navigation, AI voice commands, and text-to-speech functionalities for ease of use. The study concludes that the suggested 3D navigation system provides users with immersive environments and educational experiences, with favorable feedback for its functionality, dependability, usability, efficiency, portability, and performance. It is suggested that the system be utilized for virtual campus exploration, that improvements be implemented as necessary, that commercialization prospects be explored, and that more studies be done on 3D navigation systems as virtual tour guides for educational institutions.