HOLY CROSS OF DAVAO COLLEGE

SnapDis: A Mobile Medical Diagnosis Application Using Nail Color Analysis

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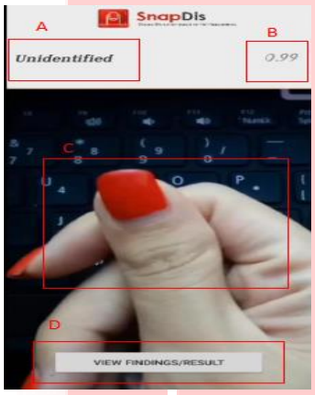
ABSTRACT

SnapDis: A Mobile Medical Diagnosis Application Using Nail Color Analysis is a project to examine diseases without putting individuals in danger. It uses a quantitative method to evaluate how these conditions affect people's use of or interaction with the Android mobile application. The most frequent issues encountered were bugs and updates, particularly while building an image model for the application's image-processing capability.

INTRODUCTION

The COVID-19 pandemic has caused a decrease in access to hospitals and healthcare systems, leading to the use of telemedicine to diagnose and treat patients remotely. This project aims to provide easy access to people by scanning fingernails through the use of mobile smartphones, providing accurate diagnosis of diseases scanned through the fingernail. Image processing is a technique that involves converting an image into digital form and applying various operations to extract useful information. The analyzation of the nail image involves digital image processing (DIP) which involves capturing the original image, converting it to a High Contrast Image, converting it to a Binary Image, and extracting it through Segmentation. Color detection is also used to identify the type of disease.

METHODS



This experiment suggests using nail color to forecast disorders, a digital-based solution to the old method of disease detection. The application will process an image of a nail and extract its features to identify diseases.

RESULT & DISCUSSION

Overall Mean

Item	Weighted Mean (Alpha Test)
Performance Expectancy	3.9
Effort Expectancy	4.25
Social Influence	3.98
Facilitating Condition	3.98
Self – Efficacy	3.98
Anxiety	3.3
General Mean	3.89

The general mean of the application SnapDis is 3.89, whereas the descriptive rating is high. Indicating that the performance expectancy is always manifested. Among the the items, the sixth item, which is the Anxiety got the lowest rating of 3.1.

To ensure that the program works flawlessly and unaffected, we as researchers did a beta test with 20 different people, trying out the features we had in it. The researchers tested it at random locations both here in **Davao City** and in **New Zealand**.

CONCLUSION AND RECOMMENDATION

Researchers conducted a quantitative study to observe how conditions or situations impact people's use of an android mobile application. Participants were students enrolled in Holy Cross of Davao College BSIT course, and the application was deemed acceptable and ready for implementation. An AI model was created to identify diseases using nail detection with less-than-perfect accuracy.

RECOMMENDATIONS

Future researchers may include a few guidelines to this project to improve its accuracy and usability. Based on the findings and conclusion of the study, here are several recommendations to be considered:

1.The application should always be compatible for every android version.

2. For the software to function, each mobile device must have at least 100 MB of storage available.

3. The application needs a camera with a minimum resolution of 2 megapixels in order to capture and read the results.

4. The users should always update their Snapdis application to make sure it runs smoothly.