An Android Mobile-based Measurement Application - Object and Interior Room Measurement App

ABSTRACT

The conventional and most common way to measure the interior of a room is by using a measuring tape and other similar tools. However, it is not productive, and often more than one worker is required to assist the measurement process. The goal of this study is to discuss the acceptability and usability of an Android-based measurement mobile app designed for interior designers, civil engineer designers, and water pipe workers. The user can measure the traditional form of the interior room from the image captured and to give the result of the area of space from the measurement taken from the image. The developed mobile app includes a virtual screen ruler to measure the approximate length and width of the room. It can be achieved by having a reference scale from the user, and the camera lens must be focused on the study points. The result is then calculated from the video stream through the camera. The data obtained is then formulated in the area in order to obtain the result of the space area. The user will receive the results on the display screen as soon as the calculation is carried out. Later, the results revealed that, while not part of the original research goal, the applications can also be used to calculate the height and length of an object. Finally, an extensive review of the mobile app is provided, which shows its high applicability and user acceptability.