ABSTRACT

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MULTIPLE CHOICE ANSWER SHEET IDENTIFICATION BASED ON ANDROID
(xiv + 64 pages: 41 pictures; 7 tables; 3 attachments)

Multiple choice answer sheet is one of several media that often used in tests. Some of these multiple choice answer sheets are designed specially to be recognized by Optical Mark Recognition Scanners. OMR scanners are relatively expensive which may cause limited access to that device. Based on that case, an Android application was created as an accessible and relatively cheap solution to identify and evaluate multiple choice answer sheet images captured by cell phone’s camera.

There are 4 main stages to identify multiple choice answer sheet, input taking stage, early processing stage, identifying stage, and evaluating stage. These stages are adjusted with a predesigned answer sheet. After those stages are implemented, tests are conducted to evaluate the accuracy in identifying answers and to find the best distance and angle in taking the answer sheet’s image.

The success rate in identifying multiple choice answer sheet is based on the distance and angle while taking the image. The best distance and angle with 95 percent of success rate is between 20 to 50 centimeter with 45 to 90 degree angle. When the application successfully identify the answer sheet’s image, it can identify every answer correctly without any mistake.