

ABSTRACT

The computer answer sheet (LJK) is an innovation to speed up the process of examining existing exam results, by utilizing OMR (Optical Mark Reader) technology we can make corrections quickly, only by using a computer and a scanner. In general, the OMR (Optical Mark Reader) currently still uses scanners and computers as a tool to make corrections to the LJK (Computer Answer Sheet).

This Final Project entitled "Computer Application Answer Sheet Correction Using OpenCV" aims to create an application that can replace the functions of scanners and computers in correcting answers, using image processing techniques integrated with OpenCV (Open Source Computer Vision Library) as a program. The main act as the brain to process the results of LJK (Computer Answer Sheet), using Android Studio software to develop Android applications. By utilizing the Smartphone camera as a medium for scanning the LJK (Computer Answer Sheet), the camera will take pictures of the LJK (Computer Answer Sheet) and OpenCV will detect each answer item selected in the answer options. And then the results of the total correct answers will be displayed on the Android application display.

Processing images on this application system reads the answer options using the method of calculating the number of black pixels. The accuracy of the system in converting answers blacked out using type 2B pencil has a 100% success detection presentation, while verification of approval with the lowest success rate, namely using 3H type pencil, with an average acquisition rate of 4%. The system in the application can work optimally with a light intensity of 50 Lux, with an optimal distance of objects and a camera of 17 cm.

Keywords: *Android, Image Processing, OpenCV, Computer Answer Sheet.*