

## ABSTRACT

Panoramic image is an image formed from the combination of two or more images with the same object but captured with a different angle. This research aims to develop an algorithm that allows the formation of a panoramic image from multiple images taken with the camera Android devices.

Application can handle image capture, processing, computing on Android devices, merging images. Applications are made using the method of Scale Invariant Feature Transform (SIFT) to perform the function of the original image feature extraction, whereas for the detection of characteristic correspondence between the original image used method of Random Sample Consensus (RANSAC). From the results of the two methods is the original image can be coupled to the part that overlaps into a frame called a panorama image.

Testing of application conducted to determine whether the application is used or not feasible. Therefore carried out some measurements of the measurement is based on Human Visual System (HVS), based on the correlation and the measurement of processing time. Some of the test parameters used to measure the HVS and the correlation is normalized absolute error, content structure, normalized cross correlation.

This study succeeded in assembling a panoramic image formation algorithms and analysis of test data obtained for the original image processing using two types of Samsung Android devices Galaxy Wonder yielded an average absolute error normalized value of 0.2266, 0.9141 content structure, normalized cross correlation 0.9452, the average processing time average is 29 937 ms.

Keywords: *panoramic, SIFT, RANSAC, Android Application*