ABSTRACT

Indonesia is rich in diverse cultures. One of the cultures of Indonesia's best-known is the art of shadow puppets. Shadow puppets is a traditional art that flourished in Indonesia. Shadow puppets show performed by a dalang who is also the narrator of puppet characters dialogue, accompanied by gamelan, music played by nayaga and the song by the pesinden. There are many characters in wayang kulit. But in this era of globalization, many people don't know the names and origins of shadow puppets.

Therefore, in this final task, the author would implement an application of shadow puppets detection on android platform. With the segmentation method using OTSU, analysis of texture using Gray-Level Cooccurrance Matrix and identification process using the k-Nearest Neighbor algorithm.

The system generates a degree of accuracy of 73,01%, and the average computing time is 1053,75 ms. With the value of the k parameter in the k-Nearest Neighbor classification is 1, degree 45° and adjacency distance 1 on the extraction characteristics Cooccurrance Gray-Level Matrix.

Keywords: Shadow Puppet, Texture Analysis, Gray-Level Cooccurance Matrix, k-Nearest Neighbor, OTSU