ABSTRACT

The increasing demand for beef is often used by meat sellers in the market to mix beef with pork. This occurs due to the cheap price of pork and the buyers' lack of knowledge in differentiating beef and pork. One way to identify beef and pork in the field of informatics is to use image processing. In this study, an image processing system will be made to distinguish beef and pork using the Pseudo K-NN and K-NN methods, which are quite reliable classification techniques due to their ability to predict or recognize an image. The Pseudo K-NN and K-NN method is a classification method where the system works with the shortest distance calculation which will produce classes in the form of cattle and pig classes. Meanwhile, to obtain the parameter value of the meat image using the RGB (Red, Green, and Blue) color average extraction feature and the glcm texture extraction feature in four angular directions, namely 0 °, 45 °, 90 °, and 135 °. This application uses the distance calculation Euclidean Distance, Manhatan Distance and Consine Distance with neighbors 1,3,5,7,11 and 11. The highest level of accuracy generated by the system in the Pseudo K-NN algorithm is 91.7% and K-NN is equal to 91.2% for data obtained from real meat images which were photographed by themselves.

Keywords: Classification, Pseudo K-NN, Meat Image.