ABSTRACT

Cow is a mammals which give many benefits for human body, for example it produces milk. Cow's milk can help growth and resilience of the human body. Remember the milk cow to be physically in the form of a liquid, so it is easily absorbed, digested, and utilized as a nutritious food. The high public interest of milk, urge the producers for doing an innovation to get more profit by lowered the quality of the milk. For example, adding additional ingredients of water so that the volumes and more. A general way to distinguish whether the quality of the milk is good or not is from its aroma and taste. On the other hand, this kind of way is not effective, because every people sense of taste is different.

In this era of technology, it is needed a kind of technology which can distinguish whether the milk is pure or not. Research done by identifying the quality of fresh cow's milk through digital image processing using Watershed method, where the extraction process characteristics using Local Binary Pattern and classified using Learning Vector Quantization.The system has been applied through the use of Matlab software by identifying and classifying on texture of cow's milk.

Data retrieval is done by taking a sample of pure cow's milk and cow's milk samples were mixed in the water as much as 25%, 50%, and 75%. The research of identification the quality freshness obtained accuracy of 92.5% and computational time 0.4791 seconds.

Keywords: Cow's milk, Watershed, Learning Vector Quantization

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