

ABSTRACT

Name : Mentari Pangestu
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Judul : **IDENTIFICATION PATTERN RUGAE PALATINE FOR GENDER CLASSIFICATION WITH DIGITAL IMAGE PROCESSING USING GABOR WAVELET AND FUZZY K-NN**

Frequent occurrence of disasters caused by humans or caused by natural, cause casualties. The victim will be identified in order to determine their identity. The process of identifying occasionally having some problem, a lack of human resources, limited tools, and also limitations on the victim. The researchers found that the palatine rugae can identify a person's identity such as fingerprints seen from palatine rugae pattern. The identification process palatine rugae have still manually and not be able to distinguish the gender of the human palatine rugae pattern. So the authors propose a system to identify the palatine rugae pattern using digital image with Gabor wavelet and Fuzzy K-NN method.

In this thesis using Gabor wavelet feature extraction methods and Fuzzy K- NN as classification. The steps being taken are pre-processing, feature extraction and then, and the last stage is classification.

Testing and data collection was done by the sample data of the upper jaw mold along the palatine rugae totaling 44 samples From the results of research testing this Final accuracy obtained with 50x50 pixels when K=1 54.545% , when K=3 45.45% , and when K=5 36.364% , with a 100x100 pixel when K=1 54.545% , when K=3 42 857% , and when K=5 54.545 % , and with a 256x256 pixel when K=1 63.636% , when K=3 45.455% , and when K=5 45.455%.

Keyword: Rugae Palatine, Gabor Wavelet, Fuzzy K-NN