

The Implementation of an Improved Adaptable Fingerprint Minutiae Extraction Algorithm Based on Machine Learning Perspective

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Abstract. *The key component of the fingerprint recognition is the extraction of minutiae; consequently it is subject to further developments in biometrics and digital image processing. In this study, we have elaborated the approach of an improved version regarding an adaptive machine learning algorithm with the purpose of reflecting the results of the improvement, taking into account the quality of the fingerprint image being recognized. The research was developed on the Matlab platform and 12 fingerprint images were tested for 234 in total and consequently the obtained results consisted in the quality improvement of the minutiae extraction process at 23.6%.*

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