

Title: MOBILE SIGNATURE RECOGNITION APPLICATION USING DISCRETE COSINE TRANSFORM FEATURE EXTRACTION AND DYNAMIC TIME WARPING ALGORITHM

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ABSTRACT

The researchers present a mobile application that utilized two algorithms to recognize signature images aiming to apply an algorithm for speech recognition and test whether it can work on vector features extracted from signature images. The researchers used a feature extractor algorithm to make an easier implementation on the recognition phase. The application was tested using the confusion matrix to compute its accuracy. The results show that the algorithm can recognize and find matching results but with only a 67% accuracy. The researchers recommend a more accurate signature recognition algorithm that can recognize unstable signatures and can even detect forgery. It is better to save 50-100 signature specimens into the storage in order to have better referencing and extract more significant features across all samples. The researchers further recommend testing algorithms to handle real time captured images of when a person actually signs. This is to consider pen pressure and angle, the stroke and the time duration when a signature was written and other parameters to discriminate forged signatures

Keywords: Discrete Cosine Transform, Dynamic Time Warping