

A Hybrid Method of Feature Extraction for Signature Verification Using Deep Learning

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Abstract: *The offline signature verification system's feature extraction stage is regarded as crucial and has a significant impact on how well these systems perform because the quantity and calibration of the features that are extracted determine how well these systems can distinguish between authentic and fake signatures. In this study, we introduced a method for extracting features from signature images, wherein a Convolutional Neural Network (CNN) is used, followed by the feature selection algorithm (Decision Trees) to identify the key features. Three classifiers were employed to evaluate the efficacy of the hybrid method (long short-term memory, support vector machine, and K-nearest Neighbour). These are deemed to be of high significance, particularly given that here they checked skilled forged signatures that are more difficult to recognize the other forms of forged signatures like (simple or opposite).*

Keywords: Convolutional Neural Network