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# Palmprint Identification and Verification System Based on Euclidean Distance and 2D Locality Preserving Projection Method

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# **Abstract**

Biometrics authentication system using palmprint is played nowadays as a good research work on selected modalities, palm print has more features compare to fingerprint and it is hard to be copied and easy to acquire. The piece of work is primarily addressing the

mechanism of preprocessing, feature extraction and matching of palmprint data. The Region of Interest (ROI) extracted by using *Euclidean distance*. The appearance–based approach like *Two-Dimension locality preserving projection (2DLPP)* is used for feature extraction technique. The matching conducting in two cases Identification and Verification with help of distance measure. The experiments conducted over CASIA Multi-spectral database v1.0 and the results shown the identification was giving the result 97.33% with error rate 5.33%, while the verification result is 94.67% with error rate 2.67% of the palmprint system.

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