

WAVELET-BASED FEATURE EXTRACTION TECHNIQUE FOR FRUIT SHAPE CLASSIFICATION

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ABSTRACT

For export, papaya fruit should be free of defects and damages. Abnormality in papaya fruit shape represents a defective fruit and is used as one of the main criteria to determine suitability of the fruit to be exported. This paper describes a wavelet-based technique used to perform feature extraction to extract unique features which are then used in the classification task to discriminate deformed papaya fruits from well formed fruits using image processing approach. The extracted features, when used in the classification task using linear discriminant analysis (LDA), afford accuracy of more than 98%.