

ABSTRACT

A METHOD FOR OIL PALM FRESH FRUIT BUNCH CLASSIFICATION

5 The present invention discloses a method (100) for classifying properties of an oil palm
fresh fruit bunch comprising the steps of acquiring, via an image acquisition module, a
plurality of images (101) with different wavelength bands of the oil palm fresh fruit
bunch; processing, via a plurality of feature extraction module, the acquired images
(103) to extract features from different categories in a parallel operation, wherein each
10 of the feature extraction module applies a bidirectional feature extraction algorithm to
extract a respective category of the features; merging, via a category awareness feature
module, the extracted features (104) to generate a feature map for each of the categories;
and classifying, via a categorical classification module, the properties of the oil palm
fresh fruit bunch based on the generated feature maps (105). The parallel operation of
15 the feature extraction modules allows simultaneous processing of the acquired images
to extract the features from different categories, thereby reducing processing time and
improving accuracy of the classification of properties obtained from the method (100).

(The most illustrative figure: Fig. 1)