

Feature extraction from oil palm in vitro shoot images

ABSTRACT

The feature extraction techniques are discussed in this article. The algorithms and methods developed are robust and advanced enough to be used in combination with a machine vision algorithm and automation system. The subject under study is oil palm in vitro shoot images. The potential features extracted from the images could be used as a vision sensor to replace human expertise via an automation system. Two main categories of the in vitro shoots could be visually identified, namely the normal and abnormal groups. Image interpretation can categorize the in vitro shoot automatically in its group. The techniques proposed are not influenced by the shape or orientation of the in vitro shoot. The feature vector is plotted to prove the separability of both normal and abnormal in vitro shoots.

Keyword: Oil palm in vitro shoots; Machine vision; Tresholding; Image processing; Feature extraction