Abstract

Depending on the type of the date fruit, dates have many features that should help in recognizing and classifying a date. The main features of the date fruit are the color, texture and the shape of date fruit. This article thus analyzes image based date fruit classification and recognition. In this regards, this paper has two contributions, firstly, as there is no standard dataset available, a dataset of 9 date’s classes is constructed. This dataset presents an interesting challenge for computer vision algorithms. Secondly, Gabor features and Color Layout features are used. These features are then fused to increase the classification performance. The proposed Color Layout and Gabor approach achieves an acceptable performance of more than 88% correct detections.

References


Index Terms

Computer Science  Image Processing

Keywords

Date fruit recognition, Dates classification, Gabor filtering, Color layout features