Identification of Precise Object among Various Objects using Sparse Coding

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Abstract

In order to identify the exact coconut object form the image, the following methodology is proposed. The input image is preprocessed. Its quality is enhanced using histogram equalization to produce a better result for region-based feature extraction. The edges are then detected in the image segmentation process, as this information is most essential for the classifier algorithm. After detecting the edges the CHT algorithm is applied to identify the coconut. The performance measures viz. Recognition rate, Precision, Recall and simulation time are computed. To enhance the performance, the proposed algorithm is applied and the performance parameters are tabulated. A comparative study is made between the CHT and proposed algorithm to validate the superiority of the proposed algorithm. Sparse Representation-Based Classification (SRC) is face recognition innovation in current years, which has effectively addressed the recognition problem. It recognizes an object based on the training images made available in the gallery. In this paper, SRC has been intended for coconut object identification.
References


Index Terms

Computer Science

Information Sciences

Keywords

Coconut Identification, Sparse Representation-Based Classification (SRC), Recognition Rate.