Abstract

Recognition and identification for groups are two aspects of object recognition. Class recognition aims at classifying an object into one of many predefined categories. The detection goal is to distinguish objects from the background. There are growing difficulties in identifying objects including background removal and object detection etc. In this paper, a new approach is proposed for object recognition using the CNN. For feature extraction of the input data CSLBP and LPQ were used and then concatenated. These features were then used to train the convolutional neural network. Fifteen categories from Caltech101 dataset that contains 101 categories of images are considered in this research. The results states that the model achieved higher accuracy of 99% for almost all the 15 categories of the images that were considered. Thus, it can be said that the proposed model shows the efficiency of network in recognizing the objects correctly.

References


https://www.vision.caltech.edu/Image_Datasets/Caltech101/#Description

Index Terms
Computer Science
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Keywords

CNN, Recognition, MATLAB, CSLBP, LPQ