Abstract

Autonomous vehicles, surveillance systems, face detection systems lead to the development of accurate object detection system [1]. These systems recognize, classify and localize every object in an image by drawing bounding boxes around the object [2]. These systems use existing classification models as backbone for Object Detection purpose. Object detection is the process of finding instances of real-world objects such as human faces, animals and vehicles etc., in pictures, images or in videos. An Object detection algorithm uses extracted features and learning techniques to recognize the objects in an image. In this paper, various Object Detection techniques have been studied and some of them are implemented. As a part of this paper, three algorithms for object detection in an image were implemented and their results were compared. The algorithms are “Object Detection using Deep Learning Framework by OpenCV”, “Object Detection using Tensorflow” and “Object Detection using Keras models”.

References


**Index Terms**

Computer Science Information Sciences

**Keywords**

Tensorflow, Keras, Opencv, bounding boxes.