NARASARAOPETA ENGINEERING COLLEGE

(AUTONOMOUS)

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

2023-2024

BATCH NUMBER	BG5
TEAM MEMBERS	G.Nagalakshmi (20471A0584) K.princy (20471A0588) R.Anusha (20471A05A8)
GUIDE	Y.Chandana
TITLE	Yolo Object Detection
DOMAIN/TECHNOLOGY	DEEP LEARNING
BASE PAPER LINK	https://link.springer.com/article/10.1007/s11554-023-01276-w
DATASET LINK	https://www.kaggle.com/code/rahulkumarpatro/yolo-object-detection
SOFTWARE REQUIREMENTS	**Deep Learning Framework**:Tensor Flow to Implement YOLO **Object Detection Algorithm**:YOLOV3(you look only once) **Video Processing Libraries**: OpenCV(cv2,cv,lib) ,vid gear
HARDWARE REQUIREMENTS	**Processor:** Intel®Core(TM)i3-10110U CPU @ 2.10GHz **Hard Disk:** 1TB minimum **RAM:** 8GB

ABSTRACT	In the area of computer vision, object detection is a complex and dynamic task that includes localizing a single object or detecting multiple objects in the scene images. It is very difficult to find the location of the object in a given picture and mark the object with the appropriate category. In this paper, a method has been developed for object recognition using the pre-trained deep learning model. The objective is, to detect objects by capturing images from a webcam and subsequently detecting objects in a video stream and displaying the count of specific objects, which is specifically designed to be efficient for visualization applications. This process is repeated for every frame of the video stream, enabling real-time object detection for the entire video. The set of YOLO algorithms is known for its accuracy and speed in computer vision tasks. This proposed system provides accurate counting, real-time monitoring, automation, efficiency, and flexibility. The developed method in real-time object detection using the YOLO model using COCO dataset offers a promising solution for efficient and I accurate object detection in various applications. This method detects the objects in real-time with much more accuracy compared with existing methods