



# A Survey Paper on Moving Object Detection Using Deep Learning

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**Abstract:** Moving object detection in Python using deep learning is a powerful technique for accurately identifying and localizing moving objects in images or videos. By leveraging pre-trained models like YOLO or SSD, developers can implement this task efficiently. The Python implementation allows for customization and extension to handle real-time video streams and complex scenarios. This approach is valuable for researchers, practitioners, and enthusiasts interested in moving object detection using deep learning. Deep Convolution Neural Networks are leveraged to detect more precise coordinates and identify the category of objects. This survey paper provides study of various methodologies for object detection. This paper provides systematic analysis of various existing object detection techniques with precise and arranged representation.

**Keywords:** Object Detection, Deep Learning, YOLO, SSD

## REFERENCES

- [1]. VM-MODNet: Vehicle Motion aware Moving Object Detection for Autonomous Driving. Hazem Rashed, Ahmad El Sallab, Luqman Ali, Wasif Khan and Nakhon Poovarodom., July 2021.
- [2]. MODETR: Moving Object Detection with Transformers, Eslam Mohamed, Ahmad A. Al Sallab, June 2021.
- [3]. Moving Objects Detection with Freely Moving Camera via Background Motion Subtraction Yuanyuan Wu, Xiaohai He, Truong Q. Nguyen, IEEE. 2015.
- [4]. Unsupervised Moving Object Detection via Contextual Information Separation Yanchao Yang, Antonio Loquercio, Davide Scaramuzza, Stefano Soatto, IEEE. April 2019.
- [5]. Moving Object Detection for Event-based Vision using k-means Clustering. Anindya Mondal, Mayukhmal Das. 2020.
- [6]. A Survey on Moving Object Detection and Tracking Based On Background Subtraction. Rahul Dutt Sharma, Subham Kumar Gupta, 2018.
- [7]. A survey paper on object detection methods in image processing, manishavashisht; brijeshkumar, july 2020.