Suspicious Object Detection Using Machine Learning

Puttu Bharath Kumar, Abdul Rehman, Munnam Prasanna Kumar, Dasari Jayanth

Students, Dept, of ECE, Dhanalakshmi Engineering College, Chennai, Tamil Nadu, India

Abstract: Identification of suspicious objects in real-time scenarios is crucial for security systems. Traditional surveillance systems, such as CCTV, are limited to passive monitoring and are unable to provide real-time early warning systems, making it difficult to anticipate security threats or violations of regulations. There is a growing need for a system that can identify suspicious objects using video surveillance systems, particularly in public areas. The integration of artificial intelligence, machine learning, image processing, and computer vision is the latest innovation in surveillance system development. The proposed system is an effective solution for real-time suspicious object detection using a web camera and machine learning algorithms.

This system can significantly improve security systems' accuracy and efficiency, thereby enhancing public safety. The use of machine learning algorithms can enhance the surveillance system's ability to detect suspicious objects, providing an efficient way to anticipate security threats or violations of regulations in real-time This system's deployment can be used in various security applications, such as airports, public places, and government buildings, where real-time detection of suspicious objects is critical. Additionally, the system's application can also be extended to other fields, such as healthcare and manufacturing, where real-time detection of abnormal or suspicious objects can improve quality control and ensure safety.

Keywords: CCTV, Object Detection, Alarm, Suspicious Object.

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