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Weapon Detection Using ML in Border Area

Kumdale Mamta, Alfiya Patel, Bhavika Boddalu, Anushka Sutar, Prof. A. V. Raipure
Department of Electronics andTelecommunication
Pimpri Chinchwad Polytechnic, Pune, India

Abstract: *One of the coveted uses of convolutional neural networks is real-time object detection to enhance surveillance techniques. This study looked at the detection of fire and pistols in locations under camera surveillance. A sizable populace worldwide mourns the violence caused by guns each year. In this work, handguns and rifles are identified using a computer-based fully automated approach. Significant advancements in the fields of object identification and recognition have been shown by implementation. Fire and gun image dataset is used to train the YOLOv3 object identification algorithm. A deep learning method based on the YOLOv3 has been used in the proposed work. This system can be used to avoid and reduce the violence which will be great benefit for the society and world.*

Security is always a main concern in every domain, due to a rise in crime rate in a crowded event or suspicious lonely areas. Abnormal detection and monitoring have major applications of computer vision to tackle various problems. Due to growing demand in the protection of safety, security and personal properties, needs and deployment of video surveillance systems can recognize and interpret the scene and anomaly events play a vital role in intelligence monitoring. This project implements automatic gun (or) knife detection using a yolo convolution neural network (CNN) based algorithm. The trained model will be able to detect gun or knife based on the pre-trained yolo file and alert via buzzer and sends an alert to preset authorized user or police station. Victim can also alert via voice whenever there is treat, victim should press the emergency button and say help this voice is recognized and immediately alert will be sent with captured scene...

Keywords: YOLO, X-Ray, GUN, Weapon, Security

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