**Abstract:**

This project deals with the development of an application for automation of video surveillance in ATM machines and detect any type of potential criminal activities that might be arising with the system which would considerably decrease the inefficiency that are existing in the prevalent systems. An advanced Human detection system using Open Computer Vision technique and unsupervised Artificial Intelligence would be utilized which would create phenomenal results in the detection of the activities and their categorization. The proposed system makes efficient utilization of Open CV which has more than 2500 optimized algorithms. These algorithms can be used to detect and recognize faces, identify objects, classify human actions in videos, track camera movements, track moving objects finally ending up with the detection and identification of the necessary action for the prevention of such type of activities. The proposed system includes the specialized mechanisms for Camera Covering, collision of human, Emergency sound detection, long time tracking. The entire mechanism takes place in real time decreasing the time complexity to a great extent making the system an efficient mechanism to prevent such anti-social activities.