Automatic Video Surveillance System for Pedestrian Crossing Using Machine Learning

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Abstract: *Nowadays accidents became very common in this world and the majority of accidents are from the crosswalks. The accidents are caused due to the absence of traffic lights to lead the traffic structure and people. Even though the traffic flow is huge by the traditional traffic accessories has a very particular warning capabilities which is incapable of to satisfy the safety requirements. Like a driver is unable to divine there will be pedestrian crossing the pathway forward, and pedestrians lack of traffic security alertness, which may easily cause of accidents. So, to overcome this issue the video surveillance helps the crippled persons to cross the pedestrians in a riskless way and it helps for independent vehicles. The work recommended an emerging technology to accommodate the crippled persons to cross the pathway just about the traffic signal and it also supports to someone who walks at a leisurely pace with the help of video surveillance. Here the image processing analysis algorithm takes a very crucial role to trace the motion of the object in the certain pedestrian crossing which can accommodate or serve the crippled persons or any senior citizens. They are numerous morphological filtering operations will improve the distinction of the motion of the person in the video. The proposed work improves more accuracy than the previous accuracy methods and also in addition of this we are implementing the crowd detection feature on the pedestrian, whenever the crowd was more in pedestrians.*

Keywords: Image Processing, Video Surveillance, Morphological Operations, Pedestrian Crossing

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