Abstract

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Object Detecting CCTV: An Artificial Intelligence System using Centroid Tracking Algorithm

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Abstract

The essential facet of a country's self-provision is security. Security in academic institutions, residences, and commercial establishments are implemented in different means. With the increasing number of vehicles per annum, and as a vehicle enters a premise of the community, security personnel cannot properly handle the number of license plates they inspect and do the manual recording in their borderline. There are many academic institutions belongs to the examples of a congregated establishment in which vehicle plate recording is still being done manually. Without a university label to the car, the security personnel manually encode the license plate of all vehicles that are coming regularly and only gives the parking or visitor's pass to the driver. As anticipated, this research was developed through image processing and deep learning methods. In this research, license plate detection and Optical Character Recognition models were directed using the Darknet framework. Because of these methods, the researcher was able to develop an Object Detecting CCTV Using Artificial Intelligence System. The system records vehicular license plates entering the vicinity while providing real-time video streaming from a CCTV Camera. The video stream from the camera is stored in the main server's hard drive while the recorded license plate data are available in a database wherein information such as the license plate number, vehicle owner, registration status, and time of entry are stored. This database can be viewed in the application user interface, along with the previous recordings taken and processed by the system. The device also has an alert system to check and identify the status of the vehicle, if it is registered or not

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Biography

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