# Object Recognition System Operating from Different Type Vehicles Using Raspberry and OpenCV

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**Abstract :** In our days, it is possible to put the camera on different vehicles like quadcopter, train, airplane and etc. The camera also can be the input sensor in many different systems. That means the object recognition like non separate part of monitoring control can be key part of the most intelligent systems. The aim of this paper is to focus of the object recognition process during vehicles movement. During the vehicle's movement the camera takes pictures from the environment without storage in Data Base. In case the camera detects a special object (for example human or animal), the system saves the picture and sends it to the work station in real time. This functionality will be very useful in emergency or security situations where is necessary to find a specific object. In another application, the camera can be mounted on crossroad where do not have many people and if one or more persons come on the road, the traffic lights became the green and they can cross the road. In this papers is presented the system has solved the aforementioned problems. It is presented architecture of the object recognition system includes the camera, Raspberry platform, GPS system, neural network, software and Data Base. The camera in the system takes the pictures. The object recognition is done in real time using the OpenCV library and Raspberry microcontroller. An additional feature of this library is the ability to display the GPS coordinates of the captured objects position. The results from this processes will be sent to remote station. So, in this case, we can know the location of the specific object. By neural network, we can learn the module to solve the problems using incoming data and to be part in bigger intelligent system. The present paper focuses on the design and integration of the image recognition like a part of smart systems.