# *Abstract*

*Recognition of Vehicles is a vigorous task for numerous applications. The license plates of vehicles are common means of identification around the globe. In Pakistan's current scenario, an authority namely Punjab Safe Cities Authority (PSCA) [1] was established for digitized monitoring of cities and to ensure security, surveillance, and communication. PSCA has an E-challan system based on the Read Light Monitoring System (RLMS) and Automatic Number Plate Recognition (ANPR). The ANPR system is a weak detection system, which fails when the number plate is tempered, forged, ambiguous, or missing. To cater this gap extraction of features of vehicles like make, model, color, generation and location progressed as a subject of study as it is vital for various fields i.e. traffic analysis, surveillance, security and intelligent transportation systems. In this research work, we proposed a system in parallel to the existing ANPR system, which is Vehicle Make, Model and Color Recognition (VMMCR) system, that will be more effective and efficient. VMMCR will be able to identify the vehicle based on their visual features in the case the number plate is missing or unidentifiable. A real-time and more accurate VMMCR system can play a vital role in reduction of utilization of resources and budget required. The proposed solution VMMCR addresses the problem by identifying discriminative regions of the vehicle where the most variations of appearance occurs.*