Vehicle Control in Vehicle to Infrastructure (V2I) Environment

Abstract

The world is moving towards automation of everything, vehicles are also getting automated with driverless vehicles, and the infrastructure is being upgraded to facilitate them. Automation leads to less human time involved in a work and decrease the time taken by system to perform a task. To make the vehicles automated and have driverless features, the traffic monitoring system needs to have a very strong and well-built infrastructure to support the concept of Vehicle to Infrastructure (V2I) Technology. The objective is to improve the concept of traffic control system for vehicles. The traffic monitoring system should monitor each vehicle of a region and look for any traffic rule violation or any misbehavior that is being caused on the V2I environment. The traffic control should disable a vehicle automatically or charge fine remotely at that instant automatically if required, that violets traffic rules or misbehaves in the roadways. This paper has presented a concept of communication between automated vehicles and semi-automated vehicles and the infrastructure that could be implemented for smooth regulation of traffic, and also provides a few rules for governing such infrastructure.
References


Index Terms

Computer Science Information Systems

Keywords

Vehicle disable; vehicle to infrastructure; misbehavior; traffic light violation; V2X, V2I