



A REVIEW ON ROBO FOR VEHICLE PARKING

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ABSTRACT— The eventual fate of the brilliant leaving market is supposed to be fundamentally impacted by the appearance of computerized vehicles (AVs). A few urban communities all over the planet are now starting to preliminary self-leaving vehicles, particular AV parking areas, and mechanical leaving valets. For instance, in Boulder, Colorado, Park Plus is dealing with sending a completely computerized parking structure in the Western United States through Boulder's Pearl West blended use improvement. The organization's mechanized leaving framework utilizes lasers to filter vehicles and a mechanical valet to leave the vehicles. Vehicles are moved by a mechanical cart that lifts and moves them to capacity racks. Utilizing this framework, up to 4 fold the number of vehicles can be left in a similar measure of room as a customary carport (since there is no need for extra space in between cars). The automated system is expected to deliver vehicles within 3-5 minutes of a retrieval request. This ever growing traffic congestion and uncertainty in the parking availability and payment have thus enforced the need for a Smart Parking systems. A Smart parking technology that will help optimize parking space usage, improve the efficiency of the parking operations and help smoother traffic flow.

I. INTRODUCTION

Many people while parking their vehicles they are not place vehicle in appropriate place, hence it creates traffic jam, so many people waste their valuable time for solving way from traffic. Many times, on parkway because of street deterrent like falls of trees, mishap vehicle, under fix vehicle, additional time expected to voyaging. Some vehicle expected more space to turn itself and require more space to wanted leaving or movement. We plan such a robot to move vehicle/snag at fitting spot by controller. To turn vehicle in least space at 360 degree we will make hard core robot. We plan robot to move by controller. On account of weighty burden complete metal body and metal stuff engine we will use. For stacking and dumping we make consecutive mechanized electric jack framework.



The smart parking industry continues to evolve as an increasing number of cities struggle with traffic congestion and inadequate parking availability. While the deployment of sensor technologies continues to be core to the development of smart parking, a wide variety of other technology innovations are also enabling more adaptable systems—including cameras, wireless communications, data analytics, induction loops, smart parking meters, and advanced algorithms.

II. LITERATURE SURVEY

1) Paper on Traffic congestion on road accident

Traffic congestion and road accidents are two external costs of transport and the reduction of their impacts is often one of the primary objectives for transport policy makers. The relationship between traffic congestion and road accidents however is not apparent and less studied. It is speculated that there may be an inverse relationship between traffic congestion and road accidents, and as such this poses a potential dilemma for transport Traffic congestion and road accidents are two external costs of transport and the reduction of their impacts is often one of the primary objectives for transport policy makers. The relationship between traffic congestion and road accidents however is not apparent and less studied. It is speculated that there may be an inverse relationship between traffic congestion and road accidents, and as such this poses a potential dilemma for transport policy makers. This study aims to explore the impact of traffic congestion on the frequency of road accidents using a spatial analysis approach, while controlling for other relevant factors that may affect road accidents. The M25 London orbital motorway, divided into 70 segments, was chosen to conduct this study and relevant data on road accidents, traffic and road characteristics were collected. A robust technique has been developed to map M25 accidents onto its segments. Since existing studies have often used a proxy to measure the level of congestion, this study has employed a precise congestion measurement. A series of Poisson based non-spatial (such as Poisson-lognormal and Poisson-gamma) and spatial (Poisson-lognormal with conditional autoregressive priors) models have been used to account for the effects of both heterogeneity and spatial correlation. The results suggest that traffic congestion has little or no impact on the frequency of road accidents on the M25 motorway. All other relevant factors have provided results consistent with existing studies.

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www.ijres.org 5 | Page “A Case Study Traffic Problem and Road Accident of Surat City”
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III. WORKING

Rack & Pinion Mechanism:

A rack and pinion are a kind of direct actuator that contains a couple of cog wheels which convert rotational movement into straight movement. A roundabout stuff called "the pinion" draws in teeth on a straight "gear" bar called "the rack ". Rotational movement applied to the pinion makes the rack move comparative with the pinion, in this manner deciphering the rotational movement of the pinion into direct motion. One of the most widely recognized application is the Rackand-pinion guiding. It is the most normal sort of directing on vehicles, little trucks and SUVs. At the point when you turn the guiding wheel, the stuff turns, moving the rack. The tie pole at each finish of the rack interfaces with the directing arm on the axle.

Accuracy:

Tooth Quality is the accuracy of the manufactured tooth flanks. Tooth accuracy affects backlash, the positioning accuracy, as well as the noise level of the rack and pinion. Tooth Quality Pitch Deviation is the difference between the theoretical rack length and its actual length. Pitch Deviation 01 02 Backlash is the amount of clearance between the rack and pinion tooth flanks Backlash Pay Attention: These measurements are applicable for a simple design since no forces and load were considered during the calculations.

Block Diagram:

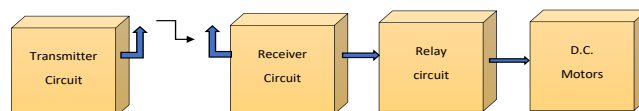


Fig.1 Block diagram robo for vehicle parking



IV. RESULT

With assistance of this vehicle leaving robo , we accomplish target implies with assistance of controller we make robo to go beneath vehicle and pull that vehicle in wanted place effectively to kept away from other vehicle obstruction. this robo likewise assisted in studio with moving a things one spot to other spot by just remote-controlled vehicle leaving robo.

V. CONCLUSION

1. Compared to ordinary parking structures, Automated Parking Systems are innately a lot more secure and safer in light of the fact that they eliminate driving and walkers from the stopping region.No driving means no car damage or zero possibility of stolen cars.
2. Up to 85% fewer CO2 emissions generated by driving.
3. Optimized parking.
4. Reduced traffic.

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