SMART SIGN CONNECTIVITY FOR ROAD SAFETY

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LITERATURE SURVEY

TITLE	AUTHOR	METHODOLOGY	MERITS	DEMERITS	YEAR
IOT BASED SMART TRAFFIC MANAGEMENT SYSTEM (IJERT)	Rachana K P, Aravind R, Ranjitha M, Spoorthi Jwanita , Soumya	❖ IOT ❖ Digital Image Processing ❖ MATLAB	❖ IOT based traffic management easily penalize traffic violators and help officials to identify unauthorized drivers. ❖ Reroute the ambulance to low congestion roads to get help medical care at the earliest	❖ Additional security measures are required ❖ Require High Tech network infrastructure	2021

TITLE	AUTHOR	METHODOLOGY	MERITS	DEMERITS	YEAR
Digitalization of highways for vulnerable road safety development with intelligent IoT sensors and machine learning (IEEE)	• Rajesh Singh • Rohit Sharma • Shaik Vaseem Akram • Anita Gehlot • Dharam Buddhi • Praveen Kumar Malik • Rajeev Arya	❖ IOT ❖ AI	❖ Embedding the deep learning techniques in the vision node at the traffic junction and the highway lighting controller is able to deliver an intelligent system that provides sustained experience and management of the highways.	❖ Smart reflectors, adoption of renewable energy, developing vehicle-to-vehicle communication in vehicles, and smart lamp posts are a few recommendations for the implementation of digitalizing highways	2021

TITLE	AUTHOR	METHODOLOGY	MERITS	DEMERITS	YEAR
RELIABLE SMART ROAD SIGNS (IEEE)	Muhammed O. Saying, Chung-Wei Lin, Eunsuk Kang, Shinichi Shiraishi, and Tamer Basar	❖ Machine Learning to recognize the surroundings and can use its strategic decisions on the information learnt ❖ Dedicated short range communication (DSRC) radios. ❖ Game theoretical Approaches	❖ Road – sign classification in adversarial environments ❖ The detection mechanism involves multiple performance metrics	❖ Need state of the art vision based road sign recognition algorithms for better reliability ❖ Relaxation to attacker's algorithm under Stackelberg Equilibrium leads to trigger of false alarm	2019

TITLE	AUTHOR	METHODOLOGY	MERITS	DEMERITS	YEAR
Incomplete Road Information Imputation Using Parallel Interpolation to Enhance the Safety of Autonomous Driving. (IEEE)	• KAIFENG GAO • BOWEN WANG • LEI XIAO • GANG MEI	❖ IOT ❖ AI	The proposed method is capable of efficiently and effectively imputating the incomplete road point cloud data that are induced by obstacle vehicles, and outperforms other interpolation algorithms and machine learning algorithms.	By scanning road information, LiDAR sensors can obtain high-precision road point cloud information map. However, LiDAR scanning is sensitive to weather conditions. In rainy, foggy, or snowy weather, the performance of LiDAR is not ideal. In addition, LiDAR cannot detect small obstacles, such as traffic signs that are 60 meters away. Because they occupy a lower scanning angle than the resolution of the LiDAR, the LiDAR cannot detect such obstacles.	2021