

Smart Traffic Management and Accident Response System

Aaditya Bhardwaj¹, Ankit Gupta², Manoj³, Prof. Manoj Yadav⁴

Students, Computer Science and Engineering^{1,2,3}

Faculty, Computer Science and Engineering⁴

Dronacharya Group of Institution, Greater Noida, UP, India

Abstract: *The population of the world is increasing so is the number of vehicles on the road. with a large number of vehicles on the road, there will be issues with traffic management and law enforcement. Also, the need to prevent accidents and fast & timely response in the case of accidents will rise. This put a huge toll on already insufficient manpower. All these issues can be very well tackled through the use of technologies like Artificial Intelligence, Machine Learning, RFID Systems, etc. Through these technologies, we can manage large traffic. Law enforcement issues like over speeding, not wearing helmets, and moving on the wrong side of the lane can be identified through Machine Learning algorithms. A pre-existing system that is presently used for toll tax collection can be used in vehicle identification as well as in imposing fines in case of breaking the law. Whenever there are unfortunate events like road accidents then timely medical and other assistance can be provided by identification of the event and its location through sensors and a well-organized network. The use of modern technologies will save lots of money, time, and men power with higher efficiency.*

Keywords: AI (Artificial Intelligence), ML (Machine Learning), RFID (Radio Frequency Identification), GSM (Global System for Mobile Communication).

REFERENCES

- [1]. W.H.O. (World Health Organization) report on accidents around the world.
- [2]. Department of Statistics, Government of India.
- [3]. International Journal of Computer Application.
- [4]. T. e. a. Osman, "Intelligent traffic management system for a cross-section of roads using computer vision," in Computing and Communication Workshop and Conference (CCWC), 2017 IEEE 7th Annual, 2017.
- [5]. Ministry of Transportation, Government of India.
- [6]. Ministry of Health.
- [7]. T. C. N. K. Kartikeya Jain, "Smart vehicle identification system using OCR," in 3rd International Conference on Computational Intelligence & Communication Technology (IEEE-CICT 2017), Ghaziabad, India, 2017.