

# Causes of Accident and Effective Measure to Improve Road Safety

Sudarshan Suryakant Mane<sup>1</sup>, Dipali Dattatray Kamble<sup>2</sup>, Aniket Keshav Kutwad<sup>3</sup>, Prof. N. S. Pote<sup>4</sup>  
Students, Department of Civil Engineering<sup>1,2,3</sup>  
Guide, Department of Civil Engineering<sup>4</sup>  
JSPMS Rajarshi Shahu College of Engineering, Tathawade, Pune, India

**Abstract:** Road accidents have a significant impact on the development of civilizations and economic growth, resulting in substantial economic losses and loss of life. Identifying the factors contributing to these accidents is crucial for implementing measures to reduce their occurrence and improve road safety. This study aims to identify the causes of road accidents in order to develop effective strategies for accident prevention. By conducting a thorough analysis, the root causes of accidents can be identified, leading to the implementation of appropriate remedial measures to enhance the performance of highways. Additionally, a "Benefit to Cost Ratio" (BCR) analysis will be conducted for each proposed infrastructure safety measure, enabling the prioritization of their implementation based on the potential number of lives that can be saved within the available budget. The Mumbai Pune Expressways 94.6 km long and 6-lane roadway, plays a vital role in reducing travel time between the two cities. With a speed limit of 80 km/h for most parts of the stretch, the expressway restricts the usage of two-wheelers and three-wheelers. Common vehicle types observed on the expressway include cars, trucks, and buses. Despite its significance, the expressway experiences a high number of traffic crashes, fatalities, and serious injuries, emphasizing the need for comprehensive measures to enhance safety.

**Keywords:** Road accidents

## REFERENCES

- [1] [https://en.wikipedia.org/wiki/Accident\\_blackspot](https://en.wikipedia.org/wiki/Accident_blackspot)
- [2] <https://nhai.gov.in/#/black-spots>
- [3] <https://morth.nic.in/>
- [4] IOSR Journal of Mechanical and Civil Engineering (IOSR-JMCE)
- [5] Road Safety - Engineering interventions & Black spot rectification Ravi Prasad Chief Engineer (Road Safety) Ministry of Road Transport & Highways, Government of India.
- [6] Rectification of Accident Black Spot - Preparation of proposal and sanction/approval memorandum of MORTH.
- [7] International Journal Of Creative Research Thought (IJCRT) 1 Shailendra Singh, Shivam Singh Patel M.Tech Student (Highway Engineering), Assistant Professor Department of Civil Engineering Maharishi University, Lucknow, India
- [8] Accident Analysis At The Black Spot: A Case Study November 2015 IOSR Journal of Mechanical and Civil Engineering 12(6):105-114 DOI:10.9790/1684-1262105114.
- [9] <https://www.irjet.net/archives/V10/i4/IRJET-V10I487.pdf>