

**SAFETY AT ROAD ACCIDENT BLACK SPOT (RABS) ON NON- URBAN AREAS:  
ENGINEERING DEFICIENCIES, PERMANENT & TEMPORARY MEASURES: ODISHA, INDIA**

**Rashmi Ranjan Samal<sup>1</sup>, Biswajit Mohanty<sup>2</sup>, Pradyumna Sagar Sahoo<sup>3</sup> and Sagarika Panda\*<sup>4</sup>**

<sup>1</sup>Student of Civil Engineering Department, Centurion University of Technology and Management, Odisha

<sup>2</sup>Mtech Transportation Engineering, Centurion University of Technology and Management, Odisha

<sup>3</sup>Mtech Transportation Engineering, Confiance Infratech Management Pvt. Ltd, Bhubaneswar, Odisha.

<sup>4</sup>\*Asst. Prof. of Civil Engineering Department, Centurion University of Technology and Management, Odisha

**ABSTRACT**

*Identification & Improvement of road safety at RABS (Road Accident Black Spots) through engineering measures is an important activity towards reduction of present high rate accidents/fatalities on NHs/ SHs/ MDRs. 90% of road accidents in the country are from Black Spot Account. So removing black spot & for safe road infrastructure is given priority by the Union Ministry of Road Transport and Highways (MORTH). For safe and smooth flow of traffic on non-urban highways, low cost alternative measures like signs, signals, road marking; slight geometric improvement can reduce the black spots. In this regard, it is important for all highway/safety engineers to acknowledge the key elements of safe road infrastructure design as per codal, safety measures & systematic approach. 3 nos of Black Spot have been considered in present scope of study on non-urban areas for perceiving the engineering deficiencies with permanent and temporary measures.*

**Key Words:** Black Spot, Safety, Accident, RABS, Road User

**1. INTRODUCTION**

Road safety is a method and measures to be used for prevent road users from accident. Road users includes pedestrians, cyclists, motorists, vehicle passengers, horse-riders and passengers of on public transport (mainly buses and trams). In India, more than half of all fatal road accidents are in rural areas, the lack of health facilities and safety measures their needs urgent attention.

To get desired safety improvement, detailed investigation on spots and bringing the solution for rectification is required. Close co-ordination should be between Safety Audit team & concerned road authorities to achieve safe section/stretch within prevailing constraints. The study objective has been formulated relating to the road safety assessment and study of black spots in the entire project stretch approximate length (30kms) of NH-20.



**Figure 2 Black Spot Sign As per IRC 67:2012**

- a) Road Safety Assessment of 3 Black Spots
- b) Development of action plan for removal of the road crash prone spots on the highway based on the crash data supplied by the respective police station and Executive Engineer, National highway Division, Cuttack, Odisha.