

LITERATURE SURVEY

Signs with Smart Connectivity for Better Road Safety

INTRODUCTION:

Safety is an essential component of transportation engineering. The safety of road transportation involves many factors including driver skills, roadway characteristics, vehicle conditions, and weather. In addition to crash causation, the identification of hazards that may increase severity in the event of a crash is important. Among all contributing elements, speed is considered to be one of the most critical. Statistics show that speed is a factor in one-third of all motor vehicle fatalities (NHTSA, 2002). One mechanism of addressing roadway safety is the implementation of road safety audits. This section provides the background information regarding this concept and strategies used or implementation for an existing roadway focusing on speed issues.

Abstract:

- Transportation plays a key role in the development of an area, but it happens only when the transportation is safe, rapid, comfortable and economy.
- A road is considered safe when only a few, or no accidents occur. Road and its surroundings, road users and vehicles are the elements contributing to road accidents.
- Pedestrians, bicyclists and two-wheeler motorized riders are the vulnerable road users. The loss of human life due to accident is to be avoided.
- Road safety audit (RSA) is a formal procedure for assessing accident potential and safety performance in the provision of new road schemes and schemes for the improvement and maintenance of existing roads.
- These Audit studies or analysis give scope for the reduction of accidents and helps us to provide safe, self-explaining and forgiving roads. By this we can save the precious human life as well as the nation's economy. The selected for this study is part of Hyderabad Outer and Inner Ring Roads, HMDA Roads. Knowledge of accidents that have occurred on roads helps us to improve the design of the roads or to influence the behavior of road users, so that similar accidents do not occur again. Literature review will be done for the safe movement of the Road safety audit and will check the merits and demerits of the techniques used previously.

LITERATURE REVIEWS:

❖ **The Austroads guide provides guidance about what a road safety audit is not. Specifically, a road safety audit is not the following (Austroads, 2002):**

- A way of assessing or rating a project, is not a means of ranking projects;
- A way of rating one option against another;
- A check of compliance with standards;
- A crash investigation;
- A redesign of project;
- Something to be applied only to high-cost projects or only projects involving safety problems.

Initially, road safety audit guidelines numbered five stages of audit: feasibility, preliminary design, detailed design, pre-opening and existing roads.

Road Accidents survey:

(NCRB - 2015) Traffic Accidents" were reported during the year 2015 was 4,64,674 throughout India. Maximum number of traffic accidents occurred in the month of May (45,215) and as per time wise analysis, maximum number of traffic accidents (80,113) were reported during 1500 hrs to 1800 hrs(day) of day. 29.3% victims of road accidents were riders of „Two Wheelers“. „Trucks/Lorries“, „Cars“ and „Buses“ have accounted for 19.4%, 12.4% and 8.3% of road accidental deaths respectively. Most of road accidents were due to over speeding accounting for 43.7% of total accidents which caused 60,969 deaths and 2,12,815 persons injured.

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- ✓ ZarulazamEusofe et al. Assessment of Road Safety Management at Institutional Level in Malaysia, IATSS Research.
- ✓ Francis John Gichaga, The Impact of Road Improvements on Road Safety and Related Characteristics. IATSS Research (2016), University of Nairobi, Kenya.
- ✓ Francis John Gichaga et al. Road Safety and Road Safety Audit in India: A Review. ISSN: 2347 – 4718.

- ✓ Arun S Bagietal. Road Safety Audit (IOSRJMCE) ISSN:2278 -1684.
- ✓ Xuchun S. Tu, Application of Risc For Road Safety Program Development. World Conference on Transport Research - WCTR 2016 Shanghai. 2016
- ✓ Athanasios Galanis et al. Pedestrian Road Safety in Relation to Urban Road Type and Traffic Flow. 3rd Conference on Sustainable Urban Mobility, 3rd CSUM 2016, May 2016, Volos, Greece.