Abstract

Road accidents are increasing at an alarming rate. Every year more than 1.17 million people die in road crashes around the world. The majority of these deaths, about 70 percent occur in developing countries. As a developing country, Bangladesh is not out of this situation. The road safety situation in Bangladesh has been deteriorating with rapid growth in population, motorisation, urbanisation and lack of investment in road safety. The combination of rapid urbanization and motorization has made the problem even severe. For our paper at first we collect data to analysis the severity of accident in Bangladesh. We collect the data of accidents & rearrange these with respect to weather, collision type, day of week etc. For this arrangement we collect the data of accident for the last five years. Our main concern were the intersections of Dhaka city. We then select twenty five intersections and collect data of road width and number of approaches. Then we develop a model of accident prediction with the collected data. The major findings of our project is we found that accidents increase in good weather, it may be because in good weather drivers may be more relax and less conscious as they think that everything is seen clearly. Another finding is as Dhaka is a populated city, number of accident with pedestrian is much higher than other type (with vehicle, other objects etc.) of accidents. Again number of accident increase with increase in number of approaches in a intersection and decrease with increase in road width. From this prediction model we can get the approximate number of accident that can happen per year and we can take proper steps and precautions such as speed breakers, road dividers, proper signs, marking, speed
Development of an Accident Prediction Model for Intersections of Dhaka City, Bangladesh

limit , proper signal design to avoid such accidents.

References

- Jinn-Tsai WONG, Yi-Shih CHUNG, Ph. D. Candidate, 2007, "Accident analysis and prevention from the chain perspective and revision report"; Journal of the Eastern Asia Society for Transportation Studies.
- K. M. MANIRUZZAMAN and Raktim MITRA, 2005, "Road accident in Bangladesh"; IATSS RESEARCH.
- Sheikh, Mohammad. 2009, "A Statistical Analysis of Road Traffic Accidents and Casualties in Bangladesh".
- Ms. Farida Khanom, "Occupational Accident Statistics in Bangladesh: Reality, problems and challenges."; Bangladesh Occupational Safety, Health and Environment Foundation (OSHE)
- The Status paper on Road safety problems in Bangladesh; Bangladesh country Paper.
- Sumon, "Road Accidents - Stand Up Against The Alarming Threat"; UNESCO
- ARC Updates (2003), "Accident Research Centre"; Bangladesh University of Engineering & Technology, BUET, Dhaka, Bangladesh

Index Terms

Computer Science

Artificial Intelligence
Keywords
Accident data Collection Analysis Prediction Model Utilization