



PC – 05

Development of a complementary data base and an interactive map for pedestrian related road accidents

G. N. Samarasekara¹, D. B. S. De Silva¹, G. M. C. Srimal¹, A. A. Gunwardhane¹
and C. Kariyawasam²

¹*Department of Civil and Environmental Engineering, University of Ruhuna, Galle, Sri Lanka.*

²*Department of Electrical and Information Engineering, University of Ruhuna, Galle, Sri Lanka.*

18% of the traffic accidents in Sri Lanka involve pedestrians while pedestrians account for 31% of the total casualties. The condition of the physical environment, especially the pedestrian infrastructure can impose a high influence on the pedestrian accident risk. Any improvements to this situation should begin with a proper analysis of the accident data against condition of the pedestrian infrastructure. This research attempted to develop an accident data base which combines the accident data with the data of the physical environment to be used as a tool for such analysis. The database created using “Xampp” includes accident data in terms of Date, Time, Highest Severity, Urban or Rural, Work day/ Week Day, Day of Week, Weather, Light condition; Locational coordinates along with the pedestrian infrastructure type at the accident location. The data base so created was connected to the Google map to get an accident distribution map. The database and the map can be utilized to identify accident hot spots, analyze the influence pedestrian infrastructure on accident risk, and identify the areas which are needs improvements to pedestrian infrastructure. The outcomes can be utilized by the road designers, traffic police and resident groups in their efforts to minimize pedestrian accidents.