

Accident Factors and Its Preventative Measures in Johor

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ABSTRACT

The research was conducted to study three main causes of road traffic accidents in Johor, namely the time of occurrence, type of road and type of vehicle. Analysis was made to determine during which hours and what types of roads and vehicles contribute the most and the least to the numbers of fatalities, seriously injured drivers and road users suffering minor injuries from the year 2008 to 2013. With regards to time of occurrence, it was found that accidents occur the most during 4-10 pm and the least during 2-6 am. With regards to type of road, vehicles are most likely to be involved in road accidents on straight roads and least likely on roundabout, elevated and staggered junctions. With regards to type of vehicle, cars have the highest possibilities of being involved in accidents on roads, followed by motorcycles. Other types of vehicle only account for insignificant reported cases of accidents within those six years. Comparison among the three factors was also made and the time of occurrence and type of vehicle are found to be contributing to the most and the least numbers of fatalities and motorists suffering both serious and minor injuries respectively. The HoltWinters time series function in the R software was used to forecast total numbers of road users killed, seriously injured and suffering minor injuries until the year 2020 based on the existing statistics. With the aim to reduce the predicted values, countermeasures as discussed in chapter 2 regarding the literature review were proposed with regards to respective causes of accident.