

Identification of Hazardous Road Sections: Crash Data versus Composite Index Method

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Abstract: In current road safety practices, the identification of hazardous road sections are normally based on crash data. However, the information provided by crash data may not be adequate to explain the causal factors that lead to a crash. Therefore, a different kind of road safety indicator that can extensively describe the actual road environment problems of a road section is considered essential. This paper considered fourteen road environment indicators based on their abilities to portray current road environment conditions and their potential towards road crash incidence. These indicators were collected using naturalistic driving technique within the 80-km road length connecting Kuantan and Maran town in the state of Pahang, Malaysia in which the composite road environment risk index was finally developed. This composite road environment risk index is found to be a useful proactive method to identify the potential problematic road sections that require urgent road improvement works as compared to the reactive crash data analysis method.

Keywords: Hazardous road sections, crash data, road environment, composite index, proactive method.

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