

Enrich the Awareness of Road Rules in Sri Lanka for the Tourists Using a Game-Based Driving Learning System

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Tourism is one of the major economic sectors which affects the country's Gross Domestic Product (GDP) and Gross National Product (GNP). Traffic safety within the cities which are highly attracted by tourists is becoming an important problem in the country. Based on investigations it is identified that unawareness of rules and lack of practice to hazardous incidents are the main reason for that. Although most of the tourists have a valid driving license, they may be having very low knowledge about the road rules in Sri Lanka. So, when they are driving in the country, they need to have a proper understanding or an awareness about the road rules in the country. The primary objective of the system is to provide the tourist a platform to allow practicing to overcome the hazardous challenges and to have a self-evaluation about their knowledge about the road rules in the country through a point-based method defined upon the rules, road conditions and driving ethics established in the country. To provide a realistic environment that is similar to the country, virtual environments are modeled based on different criteria. Through the usage of Artificial Intelligence techniques like non-player characters and objects, the reality of the environment was enhanced. It can be concluded that training the learners in a virtual environment that similar to the real environment with a proper assessment of their awareness of the rules and road signs, and driving ethics will solve most of the problems we face today.

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