

STATE OF THE ART OF MOTORCYCLE TRAFFIC FLOW VERSUS ROAD TRAFFIC MOBILITY IN CITIES IN DEVELOPED AND DEVELOPING COUNTRIES

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ABSTRACT

The incidence of motorcycle traffic flow on road traffic mobility in cities, in developing countries, is currently a subject of discussion worldwide and a phenomenon that is affecting mobility conditions in many cities in developed countries. This research aims to propose a new methodology to simulate and mitigate the impact of motorcycles in the mobility of Avenida Pedro de Heredia city Cartagena de Indias (Colombia). The incidence of motorcycles flow conditions in different cities in Brazil, United Kingdom, China and Colombia among others was analyzed. Across the state of art and comparative analysis of the advantages of cellular automata models proposed refined in 2007 with the Nagel-Schreckenberg model, we aimed to assess the applicability of alternatives to help elucidate the characteristics of mixed traffic with motorcycles in the context of road conditions in the city of Cartagena. The results show that it is possible to establish a model that reflects virtually the incidence of motorcycles in mobility in the mixed traffic flow present in the city.