

Travel Time Estimation for Mixed Traffic Systems Dominated by Motorcycles

N. T. Nam¹ and G. Reinelt²

Abstract: Mixed traffic systems dominated by motorcycles (MTSDM) are characteristic for some developing countries like Taiwan, Vietnam, The Philippines, Thailand, China or India. In this paper we propose a new approach for estimating the travel time on a link in such a traffic environment. We review some popular proposed travel time functions and discuss their advantages as well as disadvantages when applied for MTSDM. Suitable parameters for applying the Bureau of Public Road (BPR) function to an MTSDM are investigated after introducing a method to estimate the capacity of a link based on a certain saturation flow. The paper concludes with computational results verifying the quality of the new travel time function.

^{1,2} Institute of Computer Science, University of Heidelberg
Im Neuenheimer Feld 368, 69120 Heidelberg, Germany
nam.nguyen@informatik.uni-heidelberg.de, gerhard.reinelt@informatik.uni-heidelberg.de