

State-of-the-Art Review of Signalized Roundabouts: Evaluation, Analyses, and Gaps

Amani Abdallah Ali Assolie^{1*}, Nur Sabahiah Abdul Sukor² and Ibrahim Khlifat ³

¹ Department of Civil Engineering, Faculty of Engineering, Ajloun National University, P.O. Box 43, Ajloun, 26810, Jordan

² School of Civil Engineering, Universiti Sains Malaysia, 14300, Nibong Tebal, Penang, Malaysia

³ Department of Civil Engineering, Faculty of Engineering, AL-Balqa Applied University, Salt, Jordan

Abstract

One of the easiest and most economical methods to increase traffic flow across the metropolitan network and relieve congestion at junctions is to implement signalized roundabouts. In order to provide the most current findings, identify any remaining study gaps, and suggest potential paths for future studies in the area, this article reviews recent literature on signalized roundabouts, including various traffic signal types, published between 2010 and 2021. By finding the publications that made the short list on Google Scholar and Scopus, the most recent literature review was utilized. Both Google Scholar ($n = 55$) and Scopus ($n = 156$) have found a total of 156 linked publications. The most thorough micro-simulation program utilized for signalized roundabouts was therefore thoroughly examined in this paper. We conclude by making a few projections about the future direction of this study.