Scopus

Document details

Back to results | 1 of 1

Export Download Print E-mail Save to PDF Add to List More...

Planning Malaysia
Volume 12, 2014, Pages 111-126

Evaluating the effects of road geometrical design towards spot speed distribution on arterial road (Article)

Maksid, N.H.M.[ab], Hamsa, A.A.K.[ab]

[a]Kulliyyah of Architecture and Environmental Design, International Islamic University Malaysia, Malaysia
[b]Department of Urban and Regional Planning, KAED, IIUM, Malaysia

Abstract

View references (20)

Drivers travel at speeds they judge to be comfortably achievable in relation to the prevailing conditions and road geometrical design. The relationship between road geometrical design and speed of vehicles traveling in is very prominent. Speeds vary according to the perception of constraint imparted to the drivers by the road geometrical design. In a broader sense, these two factors are often interrelated with speed limits and road safety. The purpose of this study is to investigate how road geometrical design could influence the speed of vehicles on arterial road. Two roads with different geometric design were compared: arterial road with straight stretch and arterial road with curved stretch. The study was carried out by analyzing the speed characteristics between these two road stretches and it was discovered that vehicles traveling on straight road stretch tend to travel at higher speed than curved road stretch. The difference in the mean speed of the straight road and the curved road was tested for statistical significance by using t-test. The results show that there exists difference in the mean speed of the vehicles traveling at straight and curved road stretches. It was also found that the existing speed limit of the selected road stretches is lower than the 85th percentile speed. The 85th percentile speed is a commonly used measure to decide speed limit on a road. The vehicles were traveling at higher speed along straight stretch of road than curved road stretch. Few recommendations on strengthening the enforcement and improving speed reduction measures are drawn to discourage drivers driving at high speed to make roads free from accidents. © 2014 by MIP.

Author keywords

Curve road Road geometrical design Road safety Speed Straight road

ISSN: 16756215
Source Type: Journal
Original language: English
Document Type: Article
Publisher: Malaysian Institute Of Planners

References (20)

View in search results format

All Export Print E-mail Save to PDF Create bibliography

1 Ashley, C.
(1994) *Traffic and Highway Engineering for Developments*. Cited 5 times.
1st Edition, Oxford, UK: Blackwell Scientific Publications, Bartlett School of Planning

Metrics

0 Citations in Scopus

0 Field-Weighted Citation Impact

PlumX Metrics

Usage, Captures, Mentions, Social Media and Citations beyond Scopus.

Cited by 0 documents

Inform me when this document is cited in Scopus:

Set citation alert Set citation feed

Related documents

Measuring and analyzing vehicle position and speed data at work zones using global positioning systems

Jiang, Y. , Li, S.
(2002) ITE Journal (Institute of Transportation Engineers)

Study of signal control based on conflicts between right-turn vehicles and straight-going bicycles

Pan, T. , Cheng, L.
(2011) ICCTP 2011: Towards Sustainable Transportation Systems - Proceedings of the 11th International Conference of Chinese Transportation Professionals

A critique on the highway vertical curve design specifications in China

Wang, Z. , Liu, C.
(2010) ICCTP 2010: Integrated Transportation Systems: Green, Intelligent, Reliable - Proceedings