

عنوان مقاله:

(Smart Lane Shifting: A Practical Approach to Driving Traffic Jam Using a Flexible, Mountable Guardrail (FMG

محل انتشار:

هشتمین کنفرانس بین المللی تحقیقات بین رشته ای در عمران، معماری و مدیریت شهری قرن ۲۱ (سال: 1401)

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خلاصه مقاله:

The focus of this research, or the approach we will use, is on improving the capacity of highways and roads by changing the number of lanes. The presented conceptual model is based on the dynamics of the number of lanes of highways and roads; and the use of the capacity of the opposite lane during peak hours and bottlenecks. Rigid guardrails, which are used to separate the opposite lanes of highways, do not provide the possibility of changing the capacity. By using the flexible and mountable guardrail designed in this research, the number of lanes in each band can be changed and the capacity of roads and highways can be improved. The guardrail designed and presented in this article can be moved quickly and can take advantage of the unused space on the opposite lane to improve the range of the opposite lane. Field research conducted on highways and data collected over a wide period of time on all days of the week and all hours of the day have shown that the difference in the capacity of the lanes is quite significant and by increasing and decreasing the number of lanes, it is possible to improve the extent between ۳۵% to ۸۰%. Increasing the capacity of highways increase the relative speed along the route and leads to saving fuel consumption and reducing the devaluation of vehicles.

کلمات کلیدی:

.Traffic engineering, Guardrail, FMG, Transport management, Highway capacity

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