

عنوان مقاله:

Urban drainage channel design based on sedimentation considerations

محل انتشار:

دومین کنفرانس بین المللی عمران ، معماری و مدیریت توسعه شهری در ایران (سال: 1398)

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نویسنده:

Mir Jafar Sadegh Safari - Assistant Professor, Department of Civil Engineering, Yaşar University, Izmir, Turkey

خلاصه مقاله:

Sedimentation causes numerous adverse effect in performance of urban drainage channels. Sediment transport models available in the literature were mostly developed for specific channel cross-section shapes. It is reported that channel cross-section shape significantly affect on sediment transport in open channel flow. In order to generalize the model applicable for variety of cross-section shape channels, therefore, a model is recommended in this study for wider applicability. Sediment transport experimental data collected from different cross-section shape channels are used for model development. A cross-section shape factor considering channel geometry parameters is used and incorporated in the model to enhance the model robustness. The general model is compared with its counterparts valid for specific cross-section shape channels. The results illustrate high accuracy of the model developed model in this study in terms of statistical performance indices. A practical and simple equation is developed and can be used as .practical tool for urban channel design

کلمات کلیدی:

Cross-section shape, Open channel, Sediment transport, Urban drainage

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