عنوان مقاله:

Estimation of hydraulic jump energy dissipation in sloping basins with step using SVM

محل انتشار:

پنجمین کنگره بین المللی عمران ، معماری و توسعه شهری (سال: 1396)

تعداد صفحات اصل مقاله: 6

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خلاصه مقاله:

Hydraulic jump is a useful means of dissipating excess energy and prevent scour below overflow spillways, chutes and sluices. When the downstream depth is larger than the sequent depth for a normal jump, a step in the basin floor may be used to ensure a hydraulic jump. This paper investigated the use of Support Vector Machine (SVM) as data driven approach in the energy dissipation estimation in sloping channels with step. Statistical error criteria were used for evaluating the accuracy of the model. The obtained results showed that the slope channel increasing caused an increment in model efficiency. It was found that the channel with slope of 0.0125 yielded better results. Also the results showed that the SVM model could be used as a suitable and effective method to predict the energy dissipation in sloping channels with step

کلمات کلیدی:
Energy dissipating, Hydraulic jump, Slope, Step, SVM

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