

عنوان مقاله:

Application of Artificial Intelligence Models to Estimate Discharge over Semicircular Weirs

محل انتشار:

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خلاصه مقاله:

Weirs are one of the widely used hydraulic structures for measuring discharge in open channels. This study applies two artificial intelligence models named artificial neural network (ANN) and genetic programming (GP) to predict discharge flowing over semicircular weirs with different openings including sharp and semicircular crests. The considered data base was selected from the literature. The results of AI models were compared with those of two empirical formulas, which have been developed based on the same data for this purpose. Four evaluation criteria were considered for comparing the estimated discharges. The results obviously indicate that GP outperforms others based on the considered criteria.

کلمات کلیدی:

Semicircular weirs, discharge artificial intelligence models, Artificial Neural Network, Genetic programming

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