World Academy of Science, Engineering and Technology
International Journal of Environmental and Ecological Engineering
Vol:11, No:05, 2017

Rainfall-Runoff Forecasting Utilizing Genetic Programming Technique

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Abstract : In this study, genetic programming (GP) technique has been investigated in prediction of set of rainfall-runoff data. To assess the effect of input parameters on the model, the sensitivity analysis was adopted. To evaluate the performance of the proposed model, three statistical indexes were used, namely; Correlation Coefficient (CC), Mean Square Error (MSE) and Correlation of Efficiency (CE). The principle aim of this study is to develop a computationally efficient and robust approach for predict of rainfall-runoff which could reduce the cost and labour for measuring these parameters. This research concentrates on the Johor River in Johor State, Malaysia.

Keywords : genetic programming, prediction, rainfall-runoff, Malaysia
Conference Title : ICW 2017 : International Conference on Water
Conference Location : Montreal, Canada
Conference Dates : May 11-12, 2017