

RAINFALL RUNOFF MODELLING STUDIES USING ARTIFICIAL NEURAL NETWORK

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Abstract

Rainfall- runoff is an integral part of a hydrologic model. Since, the early 1960s, hydrologists have concentrated their efforts on the development and application of models of the rainfall-runoff process. Artificial Neural Network (ANN) modelling is a data-driven technique that has gained significant attention in recent years. This paper reviews the development of rainfall runoff modelling over the past with reference to neural networks models. One of the major criticisms of ANNs as being black box models, which do not consider the underlying physics of the problem mainly stems from the fact that no satisfactory explanation of their internal behaviour has been offered yet. It is possible to shed some light on the hydrological processes inherent in an ANN if its architectural features are explored further.

Keywords : Rainfall Runoff Modeling, Artificial Neural Network,