

Artificial Neural Networks for Water Quality Prediction in a Reservoir

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Abstract

The main purpose of this paper is to establish a monthly water quality predicting model of Feitsui Reservoir in northern Taiwan. This model is based on data from nutrient loads to simulate the dynamic nutrient concentration in reservoir. The proposed model employed artificial neural networks (ANNs) with the back-propagation algorithm which can obtain a highly nonlinear relationship to predict the total phosphorous (TP) concentration in reservoir.

Keyword : water quality predicting model; artificial neural networks (ANNs); back-propagation algorithm; total phosphorous (TP)