

**Singapore Stanford Partnership Programme**

**MS Project MS08-14**

**Runoff Prediction for a Small Catchment using Artificial Neural Networks**

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Artificial Neural Networks (ANN) can be used to predict runoff and in recent years this method has gained popularity because it has excellent capabilities of modeling non-linear processes. This project involves the use of the ANN to predict runoff from a catchment located in the north-western part of Singapore. The study will focus on sensitivity tests on the network to gauge the network's capability to provide accurate predictions. The objective of this work is to compare the ANN predicted runoff against a previously calibrated deterministic model results and to discuss the relative merits of these two approaches.