

Singapore Stanford Partnership Programme

MS Project MS08-24

Comparison of Forecasting Methods for Runoff from Overland Plane

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Forecasting of runoff from a catchment is a complex hydrological process. Many methods are available and they may be classified as physically-based, and black box model. Black box model such as the Artificial Neural Network (ANN) has gained popularity in recent years because it can carry out the modeling without the knowledge of the process. This project will use ANN to model runoff from an overland plane. The results from the ANN model will be compared with those from physically-based model such as the kinematic wave model. The relative merits of these methods will be assessed. This is a computer-based project, and no coding is required. The student is however expected to learn MATLAB (guidance will be provided).