# STATISTICAL ANALYSIS IN ESTIMATING MISSING RAINFALL DATA

By

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Report is submitted as the requirement for the degree of **Bachelor Engineering (Hons) (Civil)** 

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### **DECLARATION BY CANDIDATE**

I Norlaila Bt Hamzah, UiTM no 2002611769 confirm that the work is my own and that appropriate credit has been given where reference has been made to the work of others.

Juntial

(May 15, 2006)

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#### ABSTRACT

Rainfall data play an important part in hydrological activities nowadays. Any missing from the data will cause a failure to continuous hydrological activities. The aim of this study is to estimate the missing rainfall data from secondary data in Pulau Pinang. There are many sources in contribute missing rainfall data such as an individual may fail to record the data or miss a visit to site in a certain time due to flood, heavy rain or problem of transportation to arrive at site. The purpose of this study is to obtain missing monthly rainfall data using statistical analysis of linear regression.

The analysis has been conducted for several rainfalls station in Pulau Pinang such as Rumah Pam Pinang Tunggal, Permatang Bendahari, Kolam Air Cherok To' Kun, Permatang Rawa, Sek. Keb. Sg. Bakap, Bkt. Panchor, Kolam Takungan Air Itam and Kolam Bersih and the results were presented in tables and graph.

The complete monthly rainfall data can be used to study precipitation patterns for investigations of climate variability and change, input into hydrologic models and for validation of climate model output and used as input data in numerical simulation models.

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