A STUDY OF RAINFALL FREQUENCY ANALYSIS ON SELECTED BASINS

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ABSTRACT

This study reviews the probability distribution functions suitable for extreme rainfall in Kuala Lumpur, Pahang and Perak. The daily rainfall data of interest were collected from the Department of Irrigation and Drainage. The proposed probability distribution functions are Normal, Log Normal 3 parameter, Extreme value I, Extreme value II, Extreme value III, Gamma 3 parameter and LogPearson Type III. The rainfall data obtained ranges from 27 to 65 years of records. The Kolmogorov-Smirnov and Chi-Square goodness of fit tests were used to test for the best fit probability distribution function. Results show that the annual maximum daily rainfall datasets of Kuala Lumpur, Pahang and Perak agree with Gamma, LogNormal and Extreme value II distribution to fit their probability distribution respectively.

Keywords: Frequency Analysis, Goodness-of-fit tests, Peak Rainfall, Probability distribution functions

BENG (HONS) IN CIVIL ENGINEERING