

KEY WORD : FORECASTING/SERIAL CORRELATION

THAVEESAK BOONTRIGRUTN : DEVELOPMENT OF MONTHLY RAINFALL FORECASTING
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The study aim to develop model of monthly rainfall forecasting in the consecutive year from available data of Bangkok area. Four of rainfall station in Bangkok (Meteorological, Don Muang, Min Buri and Nong Khaem rainfall station) are selected to study , which there are available data from 1956 to 1990. These data are used for analyse by regression analysis

As a result, average annual rainfall seen to be constant except Don Mueng station trend to decrease. Autocorrelation of average annual rainfall there are significance more than one year. But average annual rainfall of meteorological, Don Mueng, Min Buri and Nong Khaem station there are 3,2 ,9 and 4 years respectively. Trend of monthly rainfall of meteorological station there is not significance and other station there are significance in some series of data. That significances there are relation about 1 month. But in annual of monthly rainfall are not constant for significant of autocorrelation.

Then model of monthly rainfall forecasting of each station there are correlation as :-

$$X_{i,j} = \bar{X} + a_1 X_{i-1,j-1} + b_k X_{i-k}$$

The correlation coefficient of these study about 0.80 and more, which the result of forecasting have confidence.