

## Forecasting Model for Rainfall in Thailand: Case Study Nakhon Ratchasima Province

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**Abstract :** In this paper, we study of rainfall time series of weather stations in Nakhon Ratchasima province in Thailand using various statistical methods enabled to analyse the behaviour of rainfall in the study areas. Time-series analysis is an important tool in modelling and forecasting rainfall. ARIMA and Holt-Winter models based on exponential smoothing were built. All the models proved to be adequate. Therefore, could give information that can help decision makers establish strategies for proper planning of agriculture, drainage system and other water resource applications in Nakhon Ratchasima province. We found the best perform for forecasting is ARIMA(1,0,1)(1,0,1)<sub>12</sub>.

**Keywords :** ARIMA Models, exponential smoothing, Holt-Winter model

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