

Preliminary Results of Long-Term and Short-Term Rainfall Forecasting

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Possibility of using statistical methods for long-term and short-term rainfall forecasting was investigated. Daily rainfall data from 8 meteorology stations namely, Colombo, Ratnapura, Kandy, Galle, Hambanthota, Batticaloa, Anuradhapura and Trincomalee were utilised in this study. A time series model was used for long-term forecasting and a Markov Chain model was used for short-term forecasting. The preliminary results show that the time series model with exponential smoothing fitted the data best and seasonal variations can be predicted with this model from weekly and monthly averages. The Markov chain model, applied by considering only two states, wet or dry, was successful to the level of 70% in predicting the status of a given day.