INDUSTRIAL TRAINING REPORT AT
HOSPITAL RAJA PEREMPUAN ZAINAB II KOTA BHARU
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ABSTRACT

The objectives of this study were to identify the pattern of time series data for the totalinpatient admissions, to find the appropriate forecasting model and to forecast the number of monthly inpatient admissions. A data set on monthly inpatient was collected from the Hospital Raja Perempuan Zainab II (HRPZ II), consisting of 108 monthly observations from January 2003 to December 2011. The analyses were conducted by using Univariate Modeling Technique. The six statistical forecasting methods used are naïve forecast, single exponential smoothing, double exponential smoothing, holt's method, adaptive response rate exponential smoothing (ARRES) and holt's winters as implemented in the software Minitab and Microsoft Excel. Results showed that the holt's-winters trend and seasonality forecasting model is the best to use for future forecast for monthly inpatient. Time series analysis is shown to provide a useful, readily available tool for predicting the number of inpatient. The approach and lessons from this experience may assist other hospitals and to conduct their own analysis to aid decision planning.

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