

Title of Article : Medium Term Load Forecasting of Covenant University using the Regression Analysis Method

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.Abstract : Electric Load Forecasting is the operation of predicting, with the help of previous load data, what the future consumption of the electrical load. This research is to carry out a medium-term load forecast of Covenant University using the regression analysis methods. Regression Analysis is a method of load forecasting that shows the relationship between two or more quantitative variables by finding the equation that represents between the variables. It is observed that there is a drastic decrease in the load in the month of December which due to students on vacation and many staff residence on campus had travelled Christmas and the New Year break. This drop accounts for the huge deviation in the forecast values for the three regression models. Medium term forecast helps with the scheduling of fuel supply and maintenance operation hence the forecast reveals that fuel requirement for the month of December will be reduced and it's the best period to carry out the maintenance operation. Considering the performance and accuracy using the MAPE and RMSE values of all the methods show that the linear model is the best model among the three models used.