Development of a Hybrid Prediction Mechanism using SMA and EXS Methods for GSM Logical Channel Load Variables

Abstract

The GSM logical channel load are stochastic (random), distinct in time (Erlang) distribution data; and as such it requires robust means of its prediction. The method employed in this work for the predictions is a hybrid of Simple Moving Average (SMA) and Exponential Smoothing (ExS), which can fit in to predict logical channel load variables with its peculiarities. A three (3) month Data were used in determining the number of observations for the prediction (n) for SMA and smoothing constant (?) for ExS. The determinant values obtained are n = 28, and ? = 0.077. These values are used to predict the logical control and traffic channels load variables that characterizes its utilization.

References

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Index Terms
Computer Science Wireless

Keywords
GSM SMA ExS and Logical channel.