



## **Grey Statistical Approach for Forecasting Electricity Demand in Sri Lanka**

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### **Abstract**

Electricity Generation and Forecasting is prerequisite to enhance industrialization, farming and residential requirement of one's nation. It has great impact on both nation's economy and standard of living that can be achieved through new forecasting techniques, enhanced electricity generation methodologies and better electricity conservation techniques. As a result, currently most of the countries are allocating significant amount for power generation and forecasting from nation's annual budgets. The purpose of this current study is to propose a Taylor Series approximation based Unbiased GM(1,1) Hybrid approach (HTS\_UGM(1,1)) for forecasting electricity demands in Sri Lanka. Performance of the proposed technique has been compared with existing Auto regressive moving average forecasting model.

**Keywords:** Taylor Series approximation, ARIMA, GM (1,1), Unbiased GM(1,1) and electricity demands

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