Impact of Trend and Seasonality in Forecasting of 5 MW PV Plant Generation using Single Exponential Smoothing Method

Abstract

In 21st century forecasting of solar power generation is an important issue due to grid integration. In these days power shading and heavy load is a major problem in front of conventional power generation sources so grid integration is plays an important role to fill the gap in between demand and supply of power generation. So solar power and conventional power are basic sources of grid integration. Solar power is playing a key role in grid integration. In this work, Solar power generation forecasting is carried out based on the data collected from a 5MW Gujarat Power Cooperation limited solar photovoltaic power plant which is installed in Charanka, Gujarat. In this paper we discussed about the single exponential smoothing for solar power forecasting problem and impact of trend and seasonality on modelling of power generation forecasting.
2. Brown, r. g., Meyer, R. F. 1961, “The fundamental theory of exponential smoothing,

Index Terms

Computer Science
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Keywords

Solar Power, Forecasting, Single Exponential Smoothing