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A Non-Linear Controller for Forecasting the Rising Demand for Electric Vehicles Applicable to Indian Road Conditions

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Abstract

These days load forecasting is much more required in order to reduce the wastage of energy. This paper is to implement & develop the idea of short term load forecasting by using Artificial Neural Network, the design of the neural network model, input data selection and Training & Testing by using short term load forecasting will be described in paper. For the EV load forecasting only 2 variables are being used as temperature and humidity to forecast the output as load. This type of designed ANN model will be mapped by using historical data of temperature and humidity (taken from meteorological sites), whereas it is being Trained & Tested by using historical data of loading of EV charging stations (Chetan maini ,Bangalore) of a particular area as Coimbatore to give the desired result. Training & Testing done by using large amount of historical data of weather conditions and loading data (kV). By the help of this model they can predict their daily loads (next day's load) by putting historical data in the acquired algorithm.

Keywords

Nonlinear controller ,Artificial Neural network, EV load forecasting, Training & Testing,

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