Abstract

This paper presents a dragonfly optimization (DFO) based ANN model for predicting India’s primary fuel demand. It involves socio-economic indicators such as population and per capita GDP and uses two ANNs, which are trained through DFO algorithm. The method optimizes the connection weights of ANN models through effectively searching the problem space in finding the global best solution. Primary fuel demands during the years 1990-2012 forms the data for training and validating the model. The proposed model requires an input, the year of the forecast, and predicts the primary fuels' demand. The forecasts up to the year 2025 are compared with that of the RM with a view to illustrate the accuracy.

References

2. Energy Statistics available at www.mospi.gov.in

**Index Terms**

Computer Science  
Information Sciences

**Keywords**

artificial neural network, dragonfly optimization, regression model.