Practical experiences with an adaptive neural network short-term load forecasting system

8 Author(s)

Mohammed, O. ; Florida Int. Univ., Miami, FL, USA ; Park, D. ; Merchant, R. ; Dinh, T.
more authors

An adaptive neural network based short-term electric load forecasting system is presented. The system is developed and implemented for Florida Power and Light Company (FPL). Practical experiences with the system are discussed. The system accounts for seasonal and daily characteristics, as well as abnormal conditions such as cold fronts, heat waves, holidays and other conditions. It is capable of forecasting load with a lead time of one hour to seven days. The adaptive mechanism is used to train the neural networks when on-line. The results indicate that the load forecasting system presented gives robust and more accurate forecasts and allows greater adaptability to sudden climatic changes compared with statistical methods. The system is portable and can be modified to suit the requirements of other utility companies

Published in:
Power Systems, IEEE Transactions on (Volume:10 , Issue: 1)

Date of Publication:
Feb 1995

Page(s):
254 - 265

ISSN :
0885-8950

INSPEC Accession Number:
4908257

Digital Object Identifier :
10.1109/59.373948

Date of Current Version :
06 August 2002

Issue Date :
Feb 1995

Sponsored by :
IEEE Power & Energy Society

Publisher:
IEEE