

## 论文信息

论文编号:	JV6JAJYLOU
论文名称:	Application of LSTM-LightGBM Nonlinear Combined Model to Power Load Forecasting
摘要:	The accurate prediction of power system load is extremely important for the operation of the power market and the safe operation of the power grid. In order to improve the accuracy of short-term load forecasting of power systems, a combination model based on long short term memory network (LSTM) and light gradient boosting machine (LightGBM) is proposed. The experiment first decomposes historical load data by EMD, uses historical weather data and load data decomposed by EMD to establish LSTM prediction model and LightGBM prediction model respectively, and then these two predicted values are linearly combined to obtain the final predicted value. The electrical load data of the 2016 Electrician Mathematical Contest in Modeling is used as an example to verify. The experimental results show that the LSTM-LightGBM combined model has higher forecasting accuracy and application prospects for power load forecasting than traditional load forecasting methods and standard LSTM and LightGBM load forecasting methods.
关键词:	LSTM; LightGBM; Combination forecast; empirical mode decomposition(EMD)

## 评审意见

### 评审意见：返修

评审时间: 2022-02-22

1、Is this article relevant to the subject coverage of the conference?

YES  NO

2、Is the title appropriate?

YES  Suggestions in comment

3、Does the article include the following parts?

- Author information
- Abstract
- Introduction
- Methods and Materials
- Conclusions
- References

4、Does the abstract concisely state the following parts?

- Background
- Context
- Conclusions
- See comments below

5、Does the introduction concisely state the following parts?

- Background
- The objective of the work
- Why this objective is important
- See comments below

6、Is the conclusions part well written?

- Reemphasizes the main points
- States the significance of the work
- Offers a solution, or suggests a further study
- See comments below

7、Is the paper clearly presented and logically organized?

Yes  No  See comments below

8、Are the figures, tables and their captions clear and put in order?

Yes  No  See comments below

9、Are the references to related work adequate, and well cited?

Yes  No  See comments below

10、Were there any grammatical or spelling problems?

No  A few  Many

11、Recommendation (Please check appropriate box)

Publish as it is  Publish with minor revision noted in evaluation statement  Publish with major revision  
 Reject

12、Detailed comments to author: Please summarize the reasons for your recommendation and provide your constructive comments to the author(s) below for improving and revising their paper.

1、the extreme value points of the INF components as well as the excess zero points differ by at most one, 请将句首单词the修正为The。 2、which can improve the prediction accuracy..请删除句末多余的一个句号。 3、这篇文章建议录用，请作者再次仔细检查全文并排除文章的细节出错之处；并烦请作者两天内将修改后的文章返回此订单即可（无需再新建订单），否则将影响出版

\*Suggestion on language improvement: We suggest author(s) to improve the language writing and presentation of the manuscript, so that it may be better accepted and published flawless. And you may choose AIS editing service with trustworthy quality: <https://www.papercompilation.com>, please quote the code: AISOFF for better discount, and feel free to contact us for any queries.