

DEVELOPING AN INTEGRATED, SMART FORECASTING SYSTEM BASED ON ARTIFICIAL INTELLIGENCE (AI) ALGORITHM BY LEVERAGING DATA MINING AND STATISTICAL ANALYSIS TOOLS AND TECHNIQUES

Diksha Choudhary

*Indraprastha College for Women
Civil Lines, New Delhi*

ABSTRACT

For the study of the predicting techniques for artificial intelligence, information mining and accurate analysis are two fundamental advancements. The centre and embodiment of the innovation is to break down and process information and select suitable models and boundaries to settle functional issues. In this paper, the information aspect of time series is taken as the review object. Given the two angles of univariate and multivariable time series, the investigation and examination of artificial intelligence forecast strategy incorporating information mining and factual analysis are done. The outcomes show that as far as a single variable accurate model of computerized reasoning boundary review process, the forecast precision isn't incredibly improved, and the deviation between the assessed esteem and the precise value is correspondingly tremendous.

While at the degree of the multivariate factual model of counterfeit knowledge boundary assessment technique, it cannot just completely further, develop the forecast accuracy, yet in addition, be like the assessed respect and the actual value.

INTRODUCTION

For the combination of information mining and measurable examination, using suitable, accurate prediction techniques to divide and refine the interior data is a critical innovation to figuring out the internal law of data [1]. The calculative analysis is transparent and connected with measurements and factual boundaries, essential to the precision and believability of canny prediction results [2]. Regarding information mining, its significant objective is to find data satisfying with a standard value from random group information using colossal information examination. Grouping examination, linear regression, and association rules are the fundamental and traditional information mining algorithms [3]. The artificial intelligence forecast uses information mining and measurable investigation to construct an information examination and expectation model to finish the projections of future patterns through the inborn laws of verifiable information.

OBSERVATIONAL CONSEQUENCE OF WISE FORECAST BOUNDARY ASSESSMENT GIVEN INFORMATION INVESTIGATION

To check the proposed factual model of canny forecast boundary assessment in light of information mining and measurable examination, this study completes observational investigation in light of 12 gatherings of exploratory information on meteorological-related factors. The 12 gatherings of Meteorological-related characteristics incorporate absolute overcast cover, overcast cover, precipitation, spray, high temperature, low temperature, 24-hour average temperature, daytime normal temperature, relative dampness, warming degree, cooling degree and wind speed. The trial information is made out of preparing set and test set, and 12 gatherings of meteorological elements are utilized as info factors to do the keen forecast of the exploratory information. The examination between the anticipated worth and the genuine value of the inclined forecast model is displayed in Fig.1.

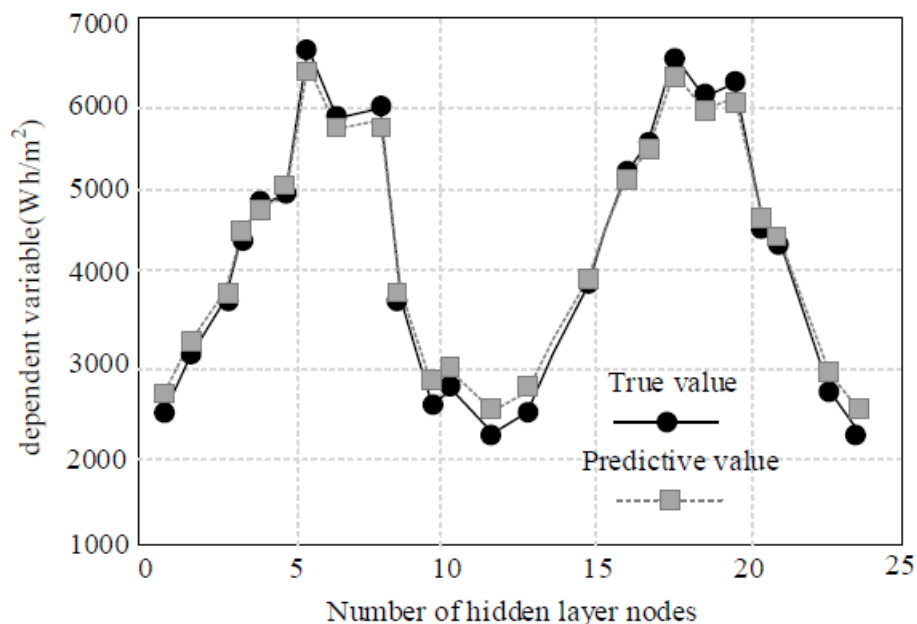


Fig.1 Comparison between predicted value and real value of intelligent prediction model

As displayed in Fig.1, the anticipated worth of the intelligent forecast model is moderately near the genuine esteem. This shows that the expectation model coordinating information mining and factual examination has high fitting accuracy.

Simultaneously, the expectation model built into this study cannot just work on the model by choosing the ideal number of stowed away layer hubs, yet additionally has great expectation precision. In the meantime, this concentration likewise thinks about furthermore, examines the anticipated qualities and genuine upsides of a few outspread premise capability brain network models, as displayed in Fig.2.

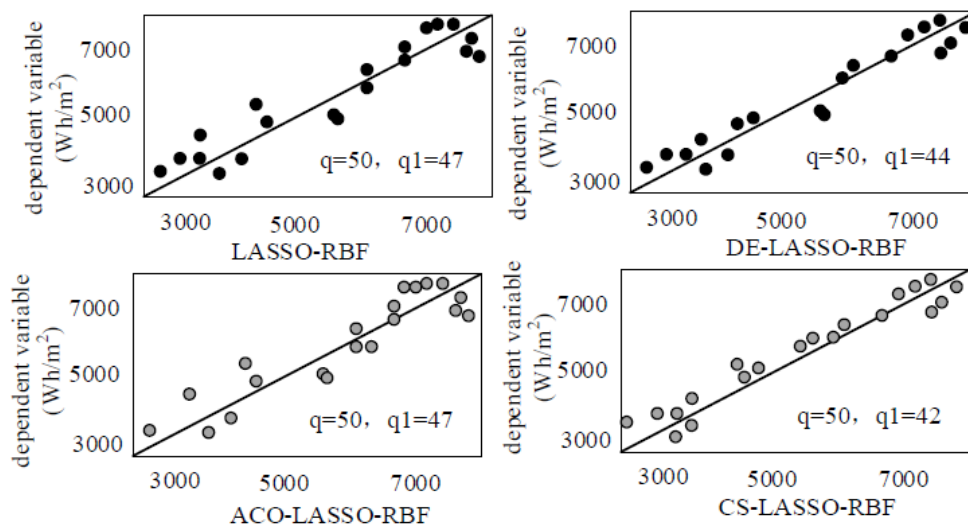


Fig. 2 Comparison of predicted values and real values of several radial basis function neural network models

As displayed in Fig.2, looking at and examining the anticipated values and genuine upsides of a few RBF brain network models, it tends to be tracked down that when the quantity of secret layer hubs expands, the forecast exactness of the four RBF brain network models additionally increments. In specifically, the forecast impacts of the other three streamlined outspread premise brain network models have been worked on contrasted and the customary RBF brain network model and the ordinary Tether RBF model.

CONCLUSION

Information mining and factual examination are two fundamental advances of clever forecast science. The centre and substance of information mining and measurable investigation are to tackle commonsense issues through information investigation and handling and to choose fitting models and boundaries. This study requires some investment series input information as the exploration object. Given two parts of univariate and multivariate time series, the artificial intelligence measuring technique, merging information mining and measurable investigation is examined and explored. That's what the outcomes show: the forecast model, given a combination of information mining and accurate analysis, has high fitting precision and forecast accuracy, and the model is improved by choosing the ideal number of stowed-away layer hubs.

REFERENCES

- [1] Park J. Can artificial Intelligence Prediction Algorithms Exceed Statistical Predictions?[J]. Korean Circulation Journal, 2019, 49(7):e74.
- [2] Muliono R , Muhathir, Khairina N, et al. Analysis of Frequent Itemsets Mining Algorithm Against Models of Different Datasets[J]. Journal of Physics: Conference Series, 2019, 1361(1):012036 (8pp).

[3] Ranjan, Ravi and Sharma, Aditi, Evaluation of Frequent Itemset Mining Platforms Using Apriori and FP-Growth Algorithm (April 29, 2019). International Journal of Information Systems & Management Science, Vol. 2, No. 2, 2019, Available at SSRN: <https://ssrn.com/abstract=3379610>