

Review Form

International Journal of Intelligent Engineering and Systems (IJIES)

Paper ID	20211991
Paper Title	An Intrusion Detection System using Deep SDAE to Enhance Dimensional Reduction in Machine Learning

Recommendation for Publication

- | | |
|--|--|
| <input type="checkbox"/> (Evaluation A:) Accept | <input type="checkbox"/> (Evaluation B:) Accept after Minor Revision |
| <input type="checkbox"/> (Evaluation C:) Accept after Major Revision | <input type="checkbox"/> (Evaluation D:) Reject |

Comments from reviewers 1 & 2:

1. The SDAE is well-known. The combination of SDAE with other techniques, such as SDAE+Deep learning, have already been proposed by several researchers. You can find it so easily on the Internet. The novelty is not clear.
2. In abstract, the result of this work must be described briefly with data. The result of this work is not clear. The authors only described that “Moreover, the use of SDAE also improved traditional machine learning with modern deep learning such as Long Short-Term Memory (LSTM) and Convolutional Neural Network (CNN)”.
3. The presentation of figures is not professional. In figures, letters are too small. Enlarge or Redraw characters in figures. see Fig. 1, 2, 3, ...
4. In the Introduction part, the new features of the proposed method and the main advantages of the results over others should be clearly described.
5. In the Introduction part, strong points of this proposed method should be further stated and organization of this whole paper is supposed to be provided in the end.
6. The problem definition of this work is not clear. In Sect. 2, the drawbacks of each conventional technique should be described clearly. The authors should emphasize the difference with other methods to clarify the position of this work further.
7. To help readers’ understanding, please add equation numbers to all equations. e.g. see p. 5.
8. Please distinguish mathematical expression from programming code. e.g. Please don’t use “*” for multiplication in equations.
9. The explanation about the mathematical formulas is not enough. Furthermore, the meaning of variables is not clear. Readers will be confused. To help readers’ understanding, the authors should add a notation list.
10. This paper lacks in-depth discussions in Sect. 4. The impact is lost by a short discussion of the findings. Readers will fail to understand the scientific contribution of this research. Show the theoretical reason why the proposed technique is better than existing techniques, because there is no theoretical explanation about compared existing techniques in previous sections. These existing techniques appeared suddenly in comparison. Explain the detail of the existing technique in previous sections.

1. Overall, the authors have made a good attempt. However, the authors' proposed method does not adequately describe their data. The results are not supported by any theoretical/mathematical reasons. Readers will fail to understand the scientific contribution of this research. The authors should justify the effectiveness of the

Review Form

proposed technique theoretically.

2. The comparison is poor. For example, SDAE + SVM has already been proposed in past studies. The research survey is poor and comparison is thin. The authors must perform in-depth research survey and comparison.

From Editor:

Please make a space (one line) around equations and tables.

Please unify the font size of equations, figures, and tables. Equation -> 11pt. Figures & Table -> 10pt.

Please improve the reference format. This is very important for indexing service. If you did not follow the following format, your paper will be rejected automatically.

*Do not use "et al." in author names.

e.g.

[1] R. Ruskone, S. Airault, and O. Jamet, "Vehicle Detection on Aerial Images", International Journal of Intelligent Engineering and Systems, Vol.1, No.1, pp.123-456, 2009.

(In the case of Journal Papers)

[2] R. Ruskone, L. Guigues, S. Airault, and O. Jamet, "Vehicle Detection on Aerial Images", In: Proc. of International Conf. On Pattern Recognition, Vienna, Austria, pp.900-904, 1996.

(In the case of Conference Proceedings)

*Note: e.g. In the case of the author name:"John Doe", express as "J. Doe". ("John" is the first name and "Doe" is the family name.)

* * Please send your revised manuscript with the response letter for the 2nd review. (Please highlight modifications and additions inside the paper by red font.)

Please add "Conflicts of Interest" and "Author Contributions". (see the IJIES format.docx)

Conflicts of Interest (Mandatory)

Declare conflicts of interest or state "The authors declare no conflict of interest." Authors must identify and declare any personal circumstances or interest that may be perceived as inappropriately influencing the representation or interpretation of reported research results.

Author Contributions (Mandatory)

For research articles with several authors, a short paragraph specifying their individual contributions must be provided. The following statements should be used as follows: "conceptualization, XXX and YYY; methodology, XXX; software, XXX; validation, XXX, YYY, and ZZZ; formal analysis, XXX; investigation, XXX; resources, XXX; data curation, XXX; writing—original draft preparation, XXX; writing—review and editing, XXX; visualization, XXX; supervision, XXX; project administration, XXX; funding acquisition, YYY", etc. Authorship must be limited to those who have contributed substantially to the work reported.

Review Form

Evaluation of Paper		
Contents	Innovation	<input type="checkbox"/> Highly Innovate <input type="checkbox"/> Sufficiently Innovate <input type="checkbox"/> Slightly Innovate <input type="checkbox"/> Not Novel
	Integrity	<input type="checkbox"/> Poor <input type="checkbox"/> Fair <input type="checkbox"/> Good <input type="checkbox"/> Outstanding
	Presentation	<input type="checkbox"/> Totally Accessible <input type="checkbox"/> Mostly Accessible <input type="checkbox"/> Partially Accessible <input type="checkbox"/> Inaccessible
	Technical depth	<input type="checkbox"/> Superficial <input type="checkbox"/> Suitable for the non-specialist <input type="checkbox"/> Appropriate for the generally knowledgeable individual working in the field <input type="checkbox"/> Suitable only for an expert
Presentation & English	<input type="checkbox"/> Satisfactory <input type="checkbox"/> Needs improvement <input type="checkbox"/> Poor	
Overall organization	<input type="checkbox"/> Satisfactory <input type="checkbox"/> Could be improved <input type="checkbox"/> Poor	

DRAFT