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Paper: **"Anomaly Detection in Portal System Networks: A Hybrid EMLOA-OCSVM Approach and Review of Challenges"**

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Peer review:

Reviewer 1: Shefqet Meda
Canadian Institute of Technology, Albania

Reviewer 2: Blinded

Reviewer A:
Recommendation: See Comments

The TITLE is clear and it is adequate to the content of the article.
The title is clear, unambiguous and readable. If the authors want to emphasize their proposed hybrid model (EMLOA-OCSVM), they could refine it: Anomaly Detection in Portal System Networks: A Hybrid EMLOA-OCSVM Approach and Review of Challenges.
The ABSTRACT clearly presents objects, methods, and results.
The abstract clearly outlines the motivation, proposed approach (EMLOA + OCSVM), datasets (UNSW-NB15, LASUED logs), and key results.
It highlights specific metrics (accuracy, latency) and innovative elements (threshold tuning, interpretability).

There are a few grammatical errors and spelling mistakes in this article.
Terminology is mostly appropriate and consistent. Some minor grammatical errors need to be fixed like Verb Agreement and Tense Consistency, Punctuation and Comma Misuse, Overuse of commas and missing commas are common, Capitalization Errors, Redundancy etc.
The study METHODS are explained clearly.
Yes. The integration of the Enhanced Modified Lion Optimization Algorithm (EMLOA) with One-Class SVM (OCSVM) is innovative. The use of a sigmoid-based Age Ratio function for dynamic threshold tuning is a notable contribution. The model achieves impressive metrics (99.9% accuracy, 98.8% TPR, 0.06 FPR) on the UNSW-NB15 and LASUED datasets. Clear Structure and Logical Flow.
The body of the paper is clear and does not contain errors.
Yes.
The CONCLUSION or summary is accurate and supported by the content.
Yes, it's accurate and supported by the content.
The list of REFERENCES is comprehensive and appropriate.
The list of references is appropriate.
Please rate the TITLE of this paper.
[Poor] **1-5** [Excellent]
4

Please rate the ABSTRACT of this paper.
[Poor] **1-5** [Excellent]
5

Please rate the LANGUAGE of this paper.
[Poor] **1-5** [Excellent]
4

Please rate the METHODS of this paper.

[Poor] **1-5** [Excellent]
4

Please rate the BODY of this paper.
[Poor] **1-5** [Excellent]
4

Please rate the CONCLUSION of this paper.
[Poor] **1-5** [Excellent]
4

Please rate the REFERENCES of this paper.
[Poor] **1-5** [Excellent]
5

Overall Recommendation!!!
Accepted, minor revision needed

Comments and Suggestions to the Author(s):
Lack of Visual Aids
Deficiency: The paper lacks figures such as:
Framework/architecture diagrams of the proposed EMLOA-OCSVM model. Flowcharts (beyond the generic EMLOA flowchart in Figure 1). Plots comparing performance metrics (e.g., ROC curves, precision-recall curves).
Overemphasis on Theory. Sections like 3.1 (Traditional Methods) and 3.2 (Machine Learning) are heavily theoretical, with limited practical insights or real-world validation.
Limited Discussion on Real-World Challenges. While computational overhead is mentioned, practical challenges (e.g., integration with existing systems, latency in real-time monitoring) are not deeply explored.
Repetitive Content.
Tables and text redundantly compare metrics (e.g., Table 3 vs. narrative in Section 4).
Generalizability Concerns
The model is tested only on UNSW-NB15 and LASUED logs, which may not represent diverse portal systems. Generalizability Concerns
The model is tested only on UNSW-NB15 and LASUED logs, which may not represent diverse portal systems.
Minor Technical Gaps
The pseudocode in Appendices is helpful but lacks annotations (e.g., explain variance thresholding's impact).
Future work (Section 4.3) could explicitly address interpretability (XAI) and lightweight deployment (e.g., edge computing).

Reviewer B:
Recommendation: Accept Submission

The TITLE is clear and it is adequate to the content of the article.
clear
The ABSTRACT clearly presents objects, methods, and results.
the study Covers a wide spectrum of traditional, ML-based, deep learning, and hybrid approaches. the abstract is clear
There are a few grammatical errors and spelling mistakes in this article.
Minor issues like inconsistent spacing, misuse of punctuation (e.g., "For instances," instead of “For instance,”), and table formatting gaps.
The study METHODS are explained clearly.
Methodology is explained in a good way the following points are integrated:
The step-by-step pseudocode in the appendices for preprocessing, feature selection, and optimization is exemplary.
The body of the paper is clear and does not contain errors.
the paper requires a minor revision on language and references, Some entries miss volume, issue, DOI, or page numbers (e.g., Bablu, 2025; Analysis & Vision, 2019).
The CONCLUSION or summary is accurate and supported by the content.
good
The list of REFERENCES is comprehensive and appropriate.
the references include Informal or Non-Academic Sources like wikipedia and so on
Please rate the TITLE of this paper.
[Poor] **1-5** [Excellent]
5

Please rate the ABSTRACT of this paper.
[Poor] **1-5** [Excellent]
5

Please rate the LANGUAGE of this paper.
[Poor] **1-5** [Excellent]
5

Please rate the METHODS of this paper.
[Poor] **1-5** [Excellent]
5

Please rate the BODY of this paper.
[Poor] **1-5** [Excellent]
4

Please rate the CONCLUSION of this paper.
[Poor] **1-5** [Excellent]
4

Please rate the REFERENCES of this paper.
[Poor] **1-5** [Excellent]
4

Overall Recommendation!!!
Accepted, minor revision needed

Comments and Suggestions to the Author(s):
Minor issues like inconsistent spacing, misuse of punctuation (e.g., "For instances," instead of “For instance,”), and table formatting gaps.
