

Dear Dr. Mohammed Atiquzzaman,

I am please to submit an original research article entitled “Model Order Selection and Eigen Similarity based Framework for Detection and Identification of Network Attacks”, authored by Thiago P. B. Vieira, Danilo F. Tenório, João Paulo C. L. da Costa, Edison P. de Freitas, Giovanni Del Galdo and Rafael T. de Sousa Júnior, to be considered for publication as a research article in your prestigious journal – Journal of Network and Computer Applications.

The submitted paper proposes a signal processing framework for the blind detection and identification of network attacks using concepts of model order selection, eigenvalue analysis and similarity analysis. This article evaluates the computational complexity and the detection accuracy for port scanning and denial of service.

Our manuscript defines a novel approach for detailed network attack detection. The main contributions of the proposed framework are the capability to blindly detect time frames under network attack via MOS and eigen analysis, and the detailed and blind identification of the network attack via eigen similarity analysis.

We believe that this manuscript is appropriate for publication by The Journal of Network and Computer Applications. Our article proposes the application of signal processing techniques for network attack detection, showing the accuracy and computations complexity for blindly detection of port scanning and denial of service.

This manuscript is a significant evolution of our previous work entitled “Greatest Eigenvalue Time Vector Approach for Blind Detection of Malicious Traffic” [7], which received the best paper award at The 7th International Conference on Forensic Computer Science.

The manuscript is original, unpublished and not under review elsewhere. We declare that there are no conflicts of interest to disclose. All authors have seen and approved the manuscript and have contributed significantly for the paper.

Thank for your consideration!

Sincerely,

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