**Original Article Title: “** Collective Intelligence: Malware Detection for Android IoT devices with Deep Learning and Blockchain”

**To:** Remote Sensing

Dear editor,

We would like to submit our manuscript entitled ‘Collective Intelligence: Decentralized Learning for Android Malware Detection in IoT with Blockchain ' for publication in Applied Intelligence. This paper proposes a novel method for Android Malware detection based on blockchain and federated learning model in order to provide more security for Android IoT devices. we propose a framework which continuously aggregates multiple user trained models on non-overlapping data into single model. Specifically for malware detection task, (i) we propose a novel user (local) neural network (LNN) which trains on local distribution and (ii) then to assure the model authenticity and quality, we propose a novel smart contract which enable aggregation process over blokchain platform. The LNN model analyzes various static and dynamic features of both malware and benign whereas the smart contract verifies the malicious applications both for uploading and downloading processes in the network using stored aggregated features of local models.

We think this paper will be interest of the readers of Applied Intelligence. There is some recent papers published in this journal focusing on Privacy and Federated learning*.*” and “Anomaly Detection and Anticipation in High Performance Computing Systems*."* Applied Intelligence”. The scope of this journal comprises all of Spinger fields of interest, emphasizing applications-oriented and interdisciplinary articles.

We believe that this manuscript is appropriate for publication by Applied Intelligence*,* because it has specific link to the aims & scope of the of the journal. Our manuscript creates a paradigm for future studies of the evolution of Android Devices

This manuscript has not been published and is not under consideration for publication elsewhere. We have no conflicts of interest to disclose. We are certain that the manuscript is appropriate for your journal, and we request you that please accept our manuscript for your kind considerations.

Yours sincerely

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