**Response to Reviewer’s Comments**

**Title: Supervised Learning model for Identifying illegal activities in Bitcoin.**

**Manuscript reference number: APIN-D-20-01709R1**

The authors would like to take this opportunity to thank the Editor-in-Chief and reviewers for the effort and expertise that they contribute to reviewing, without which it would be impossible to maintain the high standards of research. We have attached the necessary corrections in the revised work. Additionally, we have highlighted all the changes in **RED** in the response.

**Comments to the Author**

Editor: important note for next revision:  
The article still has criticism by the reviewers, therefore you have to response point-by-point and revise the paper accordingly, The article must demonstrate novelty and technical contribution, with recent studies comparisons. .  Examine carefully,  each reviewer point and answer separately one by one,  label all change you would make on the revised revision, by colored fonts or underline so that each reviewer can trace carefully validate the change you may make.   You also have to make sufficient checking for the paper organization and language by asking technical experts in English, like those in Springer. You have to provide certificate that you have done such language checking, to avoid another cycle of revision. 

**English checking has been done and certificate is attached**  
  
Reviewer #2: Dear author. Thanks for this new version.  
All my comments were made and the paper's quality increased. Still I require English Checking.

**English checking has been done and certificate is attached**  
  
Reviewer #3: The whole structure and the description of this work are reasonable and clearer. However, the results of the experiment are not complete and there are some of the following problems to be solved. I personally think this version of the work is currently unacceptable and should be minor revised.  
  
(1) I personally think that the authors would compare the proposed algorithm with XGBOOST in the experiments.

**As per suggestion, using XGBClassifier library in Python experiment has been performed on the current dataset. Precision, recall, f-score has been computed for the proposed method with respect to four other classifiers and inserted in the new version. Additionally, learning curves, scalability and performance curves is now depicted for experimental work.**