

A Novel Approach of Credit Card Fraud Detection using Random Forest Classifier

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Abstract – Nowadays, as internet speed has increased and the prices of mobile have decreased very much in past few years. Also the data prices too are very much affordable to most of the people. This has resulted into the digitization of most of the institutes as it is easy and convenient for the people and also for the authority to maintain the records. So, it resulted in most of the banks and other institutes receiving and transferring money through credit cards. But with the hackers and other cyber criminals around there is always chances of the frauds in the transactions. The possibility of the fraud transaction is very less but it is not negligible and even having one fraud transaction is unacceptable because it is crime and we can't neglect it even if it is very less as it harms both the customer and credibility of the institute. This paper presents an implementation of automatic credit card fraud detection system using random forest classifier on Kaggle dataset. The selection of proper attributes for reducing the training overhead and claiming higher accuracy for the fraud detection using soft computing. Performance evaluation is achieved using confusion matrix plot with accuracy, sensitivity and precision values.

Keywords – Artificial Intelligence, Data Mining, KDD, Machine Learning, Random Forest Classifier.