**Credit Card Fraud Detection**

*Abstract*

Credit card frauds are easy and friendly targets. E-commerce and many other online sites have increased the online payment modes, increasing the risk for online frauds. Increase in fraud rates, researchers started using different machine learning methods to detect and analyse frauds in online transactions. The main aim of this project is to design and develop a novel fraud detection method for Streaming Transaction Data, with an objective, to analyse the past transaction details of the customers and extract the behavioural patterns. Where cardholders are clustered into different groups based on their transaction amount. Then using sliding window strategy, to aggregate the transaction made by the cardholders from different groups so that the behavioural pattern of the groups can be extracted respectively. Later different classifiers are trained over the groups separately. And then the classifier with better rating score can be chosen to be one of the best methods to predict frauds. Thus, followed by a feedback mechanism to solve the problem of concept drift . The application is developed in **Python, Django and SQL Lite** and can be run on any computer with Windows Operating System. The Agile methodology is adopted for the development of the entire project. Several Sprints usually up one to two weeks durations are fixed where a part of the project is delivered in working conditions. During each Sprints the output is tested manually for production of runnable and correct software. Finally system testing is to be conducted on the final product before deployment. The Project will provide new experience to all credit card holder through credit card fraud detection application.