# Algorithm For the Loan Credibility Prediction System

**Abstract:**

Now a day’s people approach or select bank loans to fulfill their needs, which are very common. This practice has been increasing day by day especially for business, education, marriage, agriculture as well. But several people take advantage and misuse the facilities given by the bank. With technology developing at such a peak stage in these days, data mining plays a key role in computer science to solve such issues. Classification is the most suitable predictive modeling technique in data mining to predict the loan repayment capability of a customer in a banking industry. There are various methods to improve the accuracy of a classification algorithm. The accuracy of random forest classification algorithm can be improved using Ensemble methods, Optimization techniques and Feature selection. Various feature selection methods are available. In this research work a novel hybrid feature selection algorithm using wrapper model and fisher score is introduced. The main objective of this paper is to prove that new hybrid model produces better accuracy than the traditional random forest algorithm. This paper also compares the result obtained from other classification methods and feature selection methods to prove that proposed algorithm produces better classification accuracy. The experiments were being done using tools such as weka, R, and python programming. This research aims at introducing a new technique which can increase the progress of banking sector. The accuracy level of this new algorithm in finding the potential of the customer is much higher than the data mining classification algorithm and thus it proves to be very helpful for bank officers