# **INNOVATION DESCRIPTION**

The AI-Powered Spam Classifier is an innovative solution designed to revolutionize email communication by effectively filtering out unwanted spam emails using advanced artificial intelligence (AI) algorithms. This intelligent system is developed to enhance email productivity, reduce security risks, and provide users with a cleaner inbox.

The AI-Powered Spam Classifier offers a proactive approach to email management, significantly reducing the time and effort required to maintain a clean inbox while enhancing security and user experience. This innovation represents a significant leap in the fight against spam and email-related security threats, ultimately improving the overall efficiency of digital communication.

The algorithms that we will use in this project are Support Vector Machine,K Neighbour Classifier,Multinomial Naive Bayes,Decision Tree Classifier ,Logistic Regression and Random Forest Classifier.

**Unique features of our project includes:**

* These algorithm provides accuracy above 90% for different AI algorithms.
* We will properly calculate the ratio of testing and training data.
* Features of datasets will be accurately extracted.

**METHODOLGY**

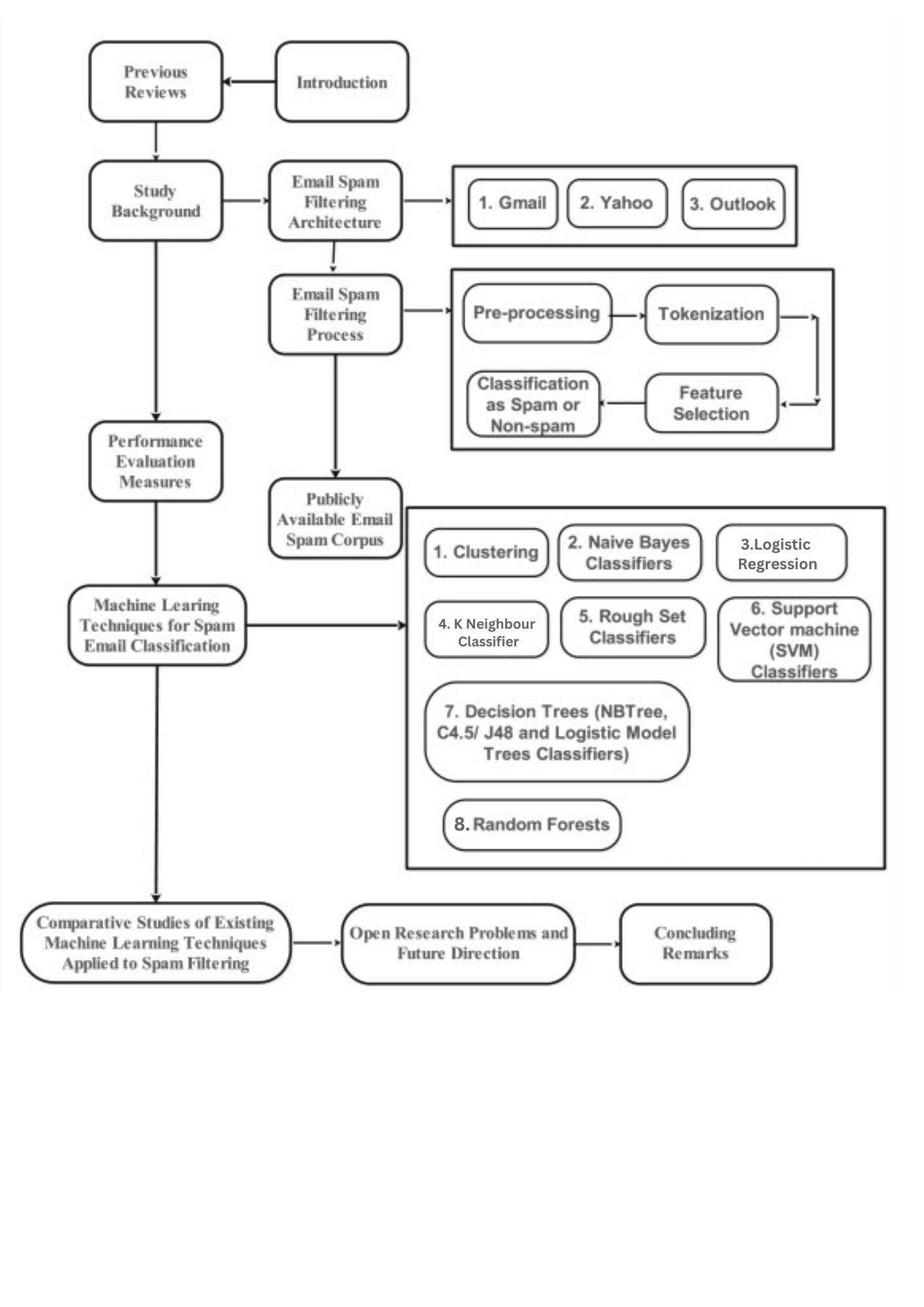
We will be using pandas module to view the dataset and if necessary to perform any kind of data cleaning this module can be utilized.

In next process to obtain the words in spam mails we will be using Natural Language Toolkit module to classify whether the message delivered is spam or not spam.

Then after classifying the messages we will be using Scikit Learn module to extract features from the processed datas.

Finally we will use Seaborn module to represent the prediction results in confusion matrix for better understanding.

**E-R DIAGRAM**

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