# **Project Proposal**

# **Title of the Project - Telco Customer Churn Prediction**

### **Brief on the project:**

Churn is a one of the biggest problems in the telecom industry. Research has shown that the average monthly churn rate among the top 4 wireless carriers in the US is 1.9% - 2%.

The project is all about to predict churn as per the customer behavior or past data. From this project we are able to identify customer is churn or not. This project is helpful for a Company to retain their customers for its service.

#### **Objective:**

This analysis focuses on the behavior of telecom customers who are more likely to leave the platform. I intend to find out the most striking behavior of customers through EDA and later on use of machine learning model to determine the customers who are most likely to churn.

This model is helpful for the company to give offer to expected churn to retain in company service rather than to move on to other telecom service provider.

#### **Deliverables of the project:**

**Pre processing of Data – It includes dropping of** categorical variable, converting string value in records to numerical value, checking of null records and data information.

**EDA**-visualization of outliers, Handling of Outliers, scaling of data, Handling of imbalance data set, Handling of correlated features or Multicollinearity, visualization of distribution of data, Dimension Reduction,

**Model Building** -Model Building with different Machine Learning Algorithm, calculation of different model evaluation parameters like, accuracy score, precision score, F1 score, Recall, training accuracy, testing accuracy, classification Report, and confusion matrix and more than 97% of test accuracy and 99% or Recall.

#### Resources-

Data set source:- IOT Academy

Software: Python and its different library like NumPy, Pandas, Scikit-learn, Matplotlib, IDE used is Anaconda Jupiter Notebook.

# **Individual Details:**

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