

## **Lab Assignment**

### **Machine Learning (CSBB 311)**

#### **Assignment 1: To Perform Exploratory Data Analysis**

- 1) Download 'titanic\_train.csv' dataset and perform following operations on given dataset.
  - a) Use seaborn to create a simple heatmap to see where we are missing data.
  - b) Plot a graph showing survived people based on known/unknown cabin information.
  - c) Plot bar chart for the question (b) adding gender information.
  - d) Plot bar chart for the question (b) adding passenger class information.
  - e) Plot histogram showing Age and their count considering bin size 40.
  - f) Plot bar chart showing count of sibling spouse information.
  - g) Plot bar chart showing fare and no. of people travelling in that range considering bin size 40.
  - h) Plot box plot showing mean age of people travelling in all classes.
  - i) Fill the missing value by the mean age.
  - j) Drop the column having mostly missing values
  - k) Drop the other columns that are not necessary for training (Sex, Embarked, Name, Ticket)
  - l) Split the dataset into train test and train logistic regression model.