TITLE OF THE PROJECT:

PNEUMONIA PREDICTION USING CHEST X-RAY IMAGES

**CATEGORY OF THE PROJECT :  Deep Learning Technology application**

**ALGORITHM USED FOR THE PROJECT : convolutional neural networks [ CNN]**

**THE SKILLS ASSOCIATED TO IMPLEMENT THIS PROJECT : Python , Python Web Frame Works ,CNN**

**Project Description:**

**Description :**

In general, a patient suffering from Pneumonia goes to the hospital to take an X-ray image waits for the doctor and then the doctor will check the X-ray then he decides whether the person has pneumonia or not. The results are not only concluded based on just seeing the X-ray images but furthermore, tests were conducted on the patient to verify the results of the doctor. The process is time-consuming and if the patient has severe pneumonia  or not he has to wait several days to get the test results. But in recent developments of the artificial intelligence and the computational powers of the computers have increased it helps in predicting pneumonia by just passing the X-ray image as an input to our model.

**Solution :**

The main objective of this project is to help the doctors to predict the pneumonia disease more accurately using a deep learning model. The objective is not only to help the doctors but also to the patients to verify whether they have pneumonia or not. By using this model we can precisely predict pneumonia. A convolutional neural network model is built from scratch to extract features from a given chest X-ray image and classify it to determine if a person is infected with pneumonia. a web is built where the user can upload the x - ray image and

Result is shown on the User Interface[UI].

**STEPS INVOLVED IN DESIGNING AND IMPLEMENTATION THE PROJECT:**