Neurora:- EEG based Depression Diagnosis System

Problem Statement:- Depression is considered by WHO as the main contributor to global disability and it poses dangerous threats to approximately all aspects of human life. Among more than 300 million people suffering from some depressive disorder, just twenty percent of them are receiving professional help.
Current clinical practices do not use in their diagnostic process any of the physiological or biochemical tests to confirm, for example, the presence of certain biomarkers in a person's body, before prescription of the medication. The diagnosis is still relying on a conversation only.
This is a well-established and non-invasive method that is considered to be the oldest neuroimaging technique. Many researchers prefer this approach due to its accessibility to a big number of patients and cost-effectiveness.

Proposed Solution:- Electroencephalography (EEG) is an electrophysiological monitoring method to record electrical activity on the scalp that has been shown to represent the macroscopic activity of the surface layer of the brain underneath. It is typically non-invasive, with the electrodes placed along the scalp.
EEG Signals can be used to help identify MDD or Major Depressive Disorder. However, the complex, nonlinear and non-stationary electroencephalogram (EEG) signals are very tedious to interpret visually and highly difficult to extract the significant features from them.
In this project, our main objective is the diagnosis of major depressive disorder by analyzing the EEG signals.

Description:- In this Project, Doctor can create an account and can add patients he is currently viewing. He can update EEG signal recordings of the patient and can use the software to get their analysis. This website will not only allow Medical professionals to analyze the signals but also allows them to store the information of their patients. Patients can also log in and view their Report with remarks of the Doctor available with it.