VARDHAMAN COLLEGE OF ENGINEERING

(AUTONOMOUS)

Affiliated to JNTUH, Approved by AICTE, Accredited by NAAC with A++ Grade, ISO 9001:2015 Certified
Kacharam, Shamshabad, Hyderabad – 501218, Telangana, India

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

DOMAIN: COMMUNICATIONS

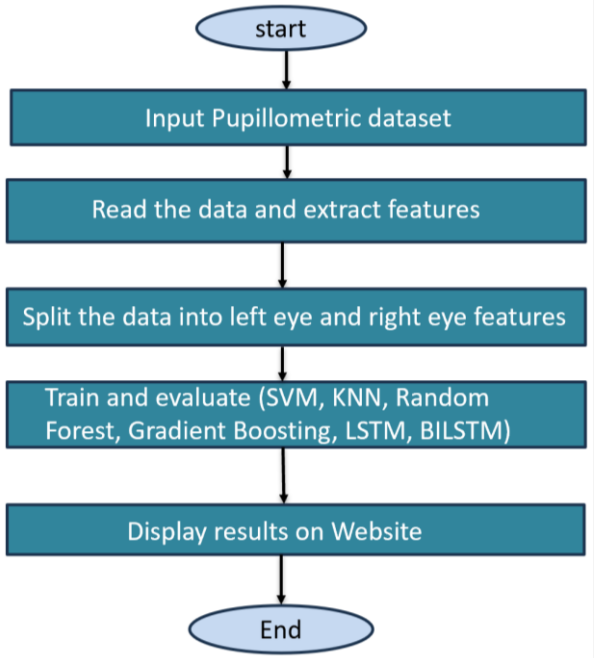
TITLE OF THE PROJECT: MULTI-ALGORITHMIC RETINAL GENETIC DISEASE DETECTION USING PUPILLOMETRY

BATCH NO: 2020040103

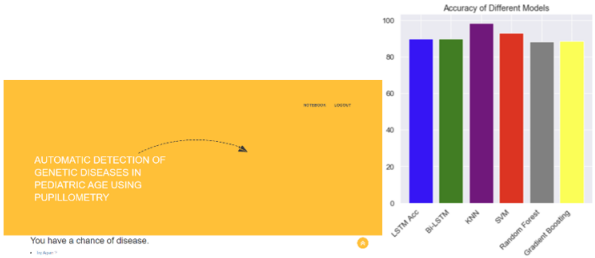
AIM of the Project

Develop a non-invasive Clinical Decision Support System (CDSS) utilizing pupillometry and machine learning algorithms to enhance early diagnosis of Inherited Retinal Diseases (IRDs) in pediatric patients.

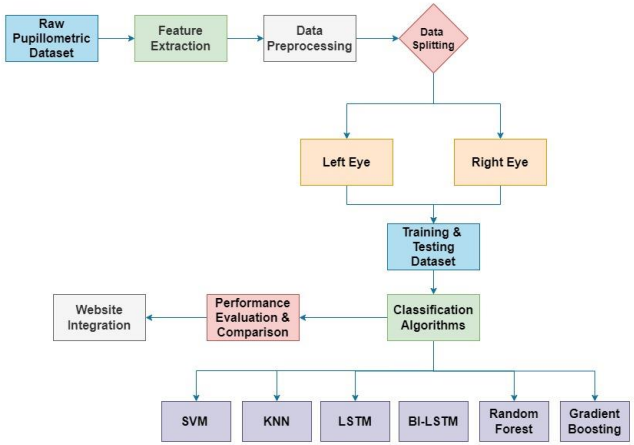
Flow of Execution



Results and Discussion



Block Diagram



Outcome

1. Achieved high accuracy using multiple algorithms: SVM, KNN, Random Forest, Gradient Boosting, LSTM, and Bi-LSTM.
2. Developed a website for easy input of pupillometry data and disease detection output.

Names of the Student:
Shruti, Koushik, Akhil

Name of the Project Supervisor & Designation: Dr. A. Jaya Lakshmi (Assistant Professor)