MAR BASELIOS
COLLEGE OF ENGINEERING AND TECHNOLOGY
AUTONOMOUS

Thiruvananthapuram - 695015

In-house Internship Proposal Form

Proposal No. (*for office use only*): Date of Submission: 25-04-2023

1.	Name, Designation and Dept. of Faculty Mentor1, Mentor2 (if, available)	Sreeja S R Assistant Professor Department of Computer Science and Engineering
2.	Title of the Proposal	**Prediction of Hyperkinetic and Hypokinetic disorders from Voice Signals Using Machine Learning**
3.	Prospective Branch of the intern	Computer Science and Engineering
3.	Brief Description of the Proposal (Not more than 250 words): Human brain is a highly complex organ. There are different neurological conditions that affects the motor learning in brain. The proposed study addresses the different hyper kinetic and hypo kinetic disorders associated with the brain. Hyperkinetic disorders are a heterogeneous group of diseases characterized by the presence of excessive involuntary movements. Prominent examples for diseases in which these occur include Huntington's chorea Parkinson's Disease (PD) is a neurological disorder related to the Central Nervous System, that influence the motion of an individual. Normally, the patients suffering from Parkinson's Disease have low voice volume with monotone quality. By applying the machine-learning algorithms to large datasets such as those available in Huntington's Disease and Parkinson's Disease it is possible to offer the opportunity to discover hidden patterns, often not discernible to clinical observation. The idea of the proposed work is to develop a model that could differentiate PD and HD from voice signals. The model will be trained to recognize hyperkinetic and hypokinetic disorders effectively from the raw voice signals. The proposed model will be helpful, especially when the early-stage prediction may get the benefit of the treatment.	
4.	Estimated hours of Student activity: (Minimum 10 to 15 hrs)	15 hrs
5.	Proposed activity for the students: Implementation of Machine Learning Model for the prediction of Parkinson's Disease and Huntington's Disease from voice signals.	
6.	Expected outcomes	A model that can predict the movement disorders like Parkinson's Disease and Huntington's Disease from voice signals

7.	Remarks, if any	

Name and Signature of Faculty Mentor(s): SREEJA S R

Recommendations:

SREEJA S R

Dept. Internship Coordinator
(Name and Signature)

25/4/23

Head of the Department
(Signature)