MAR BASELIOS
COLLEGE OF ENGINEERING AND TECHNOLOGY
AUTONOMOUS

Thiruvananthapuram - 695015

In-house Internship Proposal Form

Proposal No. (*for office use only*):   Date of Submission: 12-04-2023

1.	Name, Designation and Dept. of Faculty Mentor1, Mentor2 (if, available)	Prathibha S. Nair, Asst. Professor, Dept. of CSE Vijitha Robinson, Asst. Professor, Dept. of CSE
2.	Title of the Proposal	Depth of Anesthesia Measurement using ANN
3.	Prospective Branch of the intern	Computer Science and Engineering/Electronics and Communication Engineering
3.	Brief Description of the Proposal (Not more than 250 words): Depth of general anesthesia can be monitored using EEG signals. EEG contains valuable information about the different physiological states of the brain, with a variety of linear and nonlinear features that can be used to investigate brain activity. The EEG is a surface recording of summed electrical potentials arising from the dendritic fields of the pyramidal neurons in the cerebral cortex. It requires specialized expertise to interpret the raw EEG and hence is not a practical tool for monitoring depth of anesthesia. Increasingly sophisticated, automated analysis of various EEG components has generated several potential quantitative descriptors of anesthetic depth. Monitoring the depth of anesthesia (DoA) with EEG is an ongoing challenge in anesthesia research. The present study aims to investigate an automated method to monitor the depth of anesthesia using Multiple EEG-based features and artificial neural networks.	
4.	Estimated hours of Student activity: (Minimum 10 to 15 hrs)	12 hrs
5.	Proposed activity for the students: Design and development of the ANN model for Depth of anesthesia measurement	
6.	Expected outcomes	
	i. Implementation of the ANN model	
	ii. Automated detection the state of patient (anesthesia levels)	
7.	Remarks, if any	

Name and Signature of Faculty Mentor(s): PRATHIBHA S N AIR *(signature)*

VIJITHA ROBINSON *(signature)*

Recommendations:

(signature) 13/4/2023 SREEJA·S·R .

Dept. Internship Coordinator
(Name and Signature)

(signature) 13/4/23

Head of the Department
(Signature)