

**SIKSHA ‘O’ ANUSANDHAN**

(Deemed to be University)

Faculty of Engineering & Technology (ITER)

**Department of Computer Science and Engineering**

**Project Proposal Form**

**SENIOR DESIGN PROJECT-2024**

**SECTION: F GROUP NO: IF16**

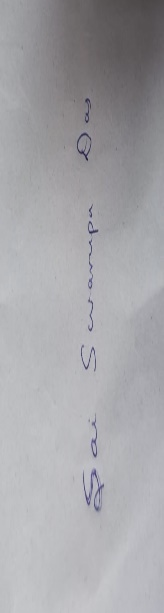
**PROJECT TITLE: Development of a Deep Learning Model for Early Prediction of Cardiovascular Diseases using Electronic Health Record (EHR)**

**PROJECT ABSTRACT:**

(Precise summary containing Aim/Objectives, Problem to be addressed, Functionalities/Technicalities, and Benefits/Social Contribution etc. within 250 to 300 words only. Please use Arial Narrow Font with 12 Font Size and justify the text from both sides)

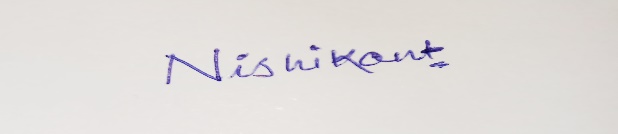
According to the World Heart Report of 2023, cardiovascular or heart diseases are considered as the world's number one killer. Cardiovascular diseases usually affect the heart or the blood vessels of the human beings and they are caused by a combination of metabolic, behavioural and environmental risk factors. It has been found that males usually have a high ratio in having deaths by heart diseases as compared to females. The percentage of death due to cardiovascular diseases have risen globally from 12.1 million in 1990 to 20.5 million in 2021 which shows a 60 percent of surge of deaths by heart diseases. This has led to a severe concerning situation which is prevailing globally. It has become important to predict the heart diseases beforehand. As, the heart disease diagnosis is a tough task, it is quite important to perform this task precisely , efficiently and by using predictive system that effort will get reduced. Considering the fact that their is a rise in the overall population since the last decade, the risks of people suffering from cardio-vascular threats have also risen. This research paper mainly aims to predict which patients are more prone to heart diseases based on various factors such as age, gender, BMI and many more medical factors. We will be developing a heart disease prediction system that would be used to predict whether a patient is likely to be diagnosed with a heart disease or not. The persons who would be using this system will particularly be Patients. This system would leverage the power of Machine learning or Deep learning algorithms which would be trained on the medical history (Electronic Health Record) of the patient. Therefore, in this way we can predict the heart disease with lesser efforts and it will prove to be a boon to the society.

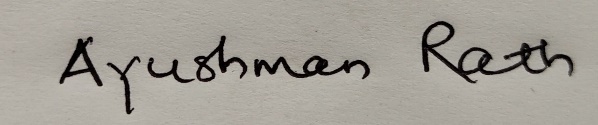
1. **SOFTWARE, HARDWARE OR METHODS/ALGORITHMS SPECIFICATIONS:**

 Machine Learning (ML) and Deep Learning (DL) algorithms

1. **NAME, REG. NO AND SIGNATURE OF GROUP MEMBERS:**

1) SAI SWARUPA DAS (2041004023)

2) NISHIKANT (2041014087)



3) AYUSHMAN RATH (2041018071)

4) ASHUTOSH RANJAN (2041018054)

1. **APPROVAL STATUS (To be filled in by the Section Coordinator of SDP):**

……………………………… ……………………………… …………………………

**Project Supervisor Section Coordinator, SDP SDP Coordinator**