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### DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

### B.Tech -VI Semester 2022-2023

### Mini Project – Guide Approval Form for Review - 2

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**Mini Project Details: Mini Project Group ID:**

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| **Project Title** | PRIVACY-PRESERVING MEDICAL ANALYSIS WITH FEDERATED LEARNING AND XAI. | | |
| **Guide Name** | Prof. Dr. Suresh Kumar N | **Project**  **Area / Domain** | **Data Science** |
| **Improvisation after Review 1**  **(Guide Remarks)** |  | | |

**Student Details:**

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**Signature of Guide**

**with date**

**PRIVACY-PRESERVING MEDICAL ANALYSIS WITH FEDERATED LEARNING AND XAI.**

**ABSTRACT**

The aim of this project is to develop a machine learning system that can analyze medical reports from multiple decentralized sources while also providing transparent and interpretable results. The proposed system will use Federated Learning to train the model on data from multiple hospitals or clinics without centralizing the data, thus ensuring the privacy and security of patient data. To ensure interpretability of the model, the project will incorporate XAI techniques such as LIME and SHAP, enabling the model to provide explanations for its decisions. The project will evaluate the proposed system on a dataset of medical reports and compare its performance to other state-of-the-art models. The results of the evaluation will demonstrate the feasibility and effectiveness of using Federated Learning with XAI for medical report analysis, providing a valuable tool for medical professionals. The system can be used for various tasks such as predicting patient outcomes, identifying risk factors, and improving the accuracy of diagnoses.

< 1. Student Name & USN Number >

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## Signature of Guide

## with date