DEPARTMENT OF CSE

APEX INSTITUTE OF TECHNOLOGY

**PROJECT PROPOSAL**

**1. Project Title:-**

**“AI-based Image Analysis for Early Disease Detection in Medical Imaging”**

**2. Project Scope:-**

* This research is to develop a machine learning system for early detection of diseases in medical images, enhancing the accuracy and speed of diagnosis through the analysis of X-rays, MRIs, or other medical imaging modalities.
* To design an AI models for analyzing multimodal data to improve diagnostic accuracy and reliability and Integration of multiple imaging modalities such as MRI, X-rays , and ultrasound to provide a comprehensive view for early disease detection
* We enhance the user interface of software and applications to respond appropriately to users' disease detection in Medical Imaging.
* We Develop of AI-based tools for longitudinal monitoring of disease progression and treatment response using sequential medical imaging data.
* Easy to use and cost effective.

**3. Requirements:-**

**Software requirements:**

* Microsoft Visual Studio is an integrated development environment from Microsoft. It is used to develop computer programs, as well as websites, web apps, web services and mobile app.
* Operating system (such as window 7, 8,10,11, XP, Linux etc.)

**Hardware Requirement:**

* Windows 10
* webcam
* Minimum RAM 2GB
* Intel core i5 processor

**Used Language/library:**

* Python
* OpenCV
* Deep learning
* CNN
* Keras
* Image processing

**STUDENTS DETAILS :-**

| **Name** |  |  |
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| **UMA SHANKAR SINGH** | **20BCS3789** |  |
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**APPROVAL AND AUTHORITY TO PROCEED**

We approve the project as described above, and authorize the team to proceed.

| **Name** | **Title** | **Signature**  **( Date:** |
| --- | --- | --- |
| **SAKSHI GILL** | Supervisor |  |
|  | **Evaluation Panelists** |  |