AUDISANKARA INSTITUTE OF TECHNOLOGY

C.S.E(DATA SCIENCE)
B.Tech Final Year

Project Selection & Approval Form

1. **Student Details**

Roll Number	Student Name	Contact Number	Signature
21G21A3238	PALNATI KARTHIK REDDY	8374322954	
21G21A3251	SHAIK MOHAMMED	8106256652	
21G21A3249	SHAIK JAVEED	9848829359	
21G21A3244	RAMIREDDY MANOHAR	7989795682	

2. **Project Details**

- **Project Title**: AGE & GENDER DETECTION SYSTEM

- **Domain**: ARTIFICIAL INTELLIGENCE TOOLS

- **Problem Statement**: *(Briefly describe the problem your project aims to solve.)*

  ➢ This project aims to develop an automated Age & Gender Detection System that utilizes machine learning techniques to analyze facial images and accurately predict a person's age group and gender.
  ➢ By implementing this system, organizations can enhance customer experiences, improve security measures, and optimize personalized services with minimal human intervention.

- **Objective of the Project**:*(Mention the key goals and expected outcomes.)*

  ➢ The primary objective of this project is to develop an intelligent system that can accurately detect and classify a person's age and gender based on facial features.
  ➢ Develop a robust deep learning model capable of accurately predicting age and gender from facial images.
  ➢ Implement image preprocessing techniques to enhance detection accuracy.
  ➢ Train the model using a diverse dataset to improve generalization across different ethnicities, lighting conditions, and facial expressions.
  ➢ Optimize the system for real-time detection to enable its integration into applications like surveillance, marketing analytics, and access control.
  ➢ Ensure the system maintains high accuracy while being efficient and lightweight for deployment on various platforms, including mobile and web applications.

- **Technology Stack**:
  (List the programming languages, tools, and platforms you will use.)

  - Python
  - Tensorflow
  - OpenCv
  - MySQL
  - Mediapipe
  - HTML, CSS, JavaScript
  - Jupyter Notebook
  - Git

- **Proposed Methodology**: *(Mention the approach, such as Agile, Waterfall, etc.)*

  - The development of an Age & Gender Detection System requires a structured and iterative approach to ensure accuracy, efficiency, and robustness. Given the nature of the project, which involves machine learning (ML) and computer vision, an Agile methodology is the most suitable approach.
  - Agile allows for continuous testing, iterative improvements, and adaptability based on feedback, making it ideal for ML model training and refinement.
  - Agile methodology, particularly the Scrum framework, will be used for this project. The development will be divided into multiple sprints, each focusing on a specific aspect of the system.
  - This approach enables rapid prototyping, continuous feedback, and incremental improvements.
  - Each sprint will follow these phases:
    1. Planning – Define sprint goals, datasets, and evaluation metrics.
    2. Development – Implement models, preprocessing, and system components.
    3. Testing & Evaluation – Validate model accuracy, performance, and usability.
    4. Review & Iteration – Analyze results, gather feedback, and refine models.

3. **Team Members & Responsibilities**

Roll Number	Student Name	Role (Team Lead, Developer, Tester, etc.)
21G21A3238	PALNATI KARTHIK REDDY	Project Lead
21G21A3251	SHAIK MOHAMMED	Model Development & Training Lead
21G21A3249	SHAIK JAVEED	Data Collection & Preprocessing Lead
21G21A3244	RAMIREDDY MANOHAR	Deploy Lead

4. Faculty Guide Approval

- **Faculty Guide Name**: Mrs. G. Hari Priya
- **Designation**: M. Tech
- **Department**: Computer Science & Engineering
- **Comments/Suggestions**:

✓ **Approved**   ☐ **Not Approved**

📌 **Faculty Guide Signature**: _____ Date: _____

5. HOD Approval

✓ **Approved**   ☐ **Not Approved**

📌 **HOD Signature**: _____ Date: _____