DEPARTMENT OF APEX INSTITUTE OF TECHNOLOGY

PROJECTPROPOSAL

1. Project Title: -

Enhancing Image using Generative Adversarial Network (GANs)

2. Project Scope: -

The proposed project aims to utilize Generative Adversarial Networks (GANs) to greatly improve the resolution and clarity of low-quality images. The goal is to create an advanced model that can convert blurry, pixelated images into sharp, detailed ones, advancing the limits of current image processing technology.

Enhanced image resolution and clarity using GANs are crucial for various applications. In medical imaging, improved image quality can aid in more accurate diagnoses. In security and surveillance, clearer images can help in better identifying individuals and objects. In the entertainment industry, GANs can upscale old or low-resolution videos and images to modern standards. Additionally, in e-commerce, sharper product images can enhance customer experience and increase sales. Overall, GANs push the boundaries of image processing, making high-quality visuals accessible across multiple sectors.

3. Requirements: -

Hardware Requirements

1. GPU: NVIDIA GPU with CUDA support for efficient training.
2. CPU: Multi-core processor (Intel i7).
3. Memory: Minimum 16 GB RAM (32 GB recommended).
4. Storage: SSD with at least 500 GB of free space for storing datasets.

Software Requirements

1. Operating System: Windows 10.
2. Programming Language: Python 3.8 or later.
3. Frameworks and Libraries: TensorFlow or PyTorch
4. NumPy and Pandas (for data handling and preprocessing).
5. Jupyter Notebook: For development and experimentation

STUDENTS DETAILS

Name	UID	Signature
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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 (With Date)
Dr. Priyanka Kaushik	HOD AIT-CSE AIML	