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School of Computer Science Engineering and Information Systems

Winter Semester –2023-24

B.Tech IT – Capstone Project

0th Review

Register Number	20BIT0010
Student Name	Sahil Nandal
Project Domain (Capstone Project)	Generative AI
Project Title (Capstone Project)	Image Classification and Generation of Images, digital art etc using prompts with the help of Generative AI
Abstract (Mini-200 Words)	Generative Artificial Intelligence (AI) represents a paradigm shift in the creation of digital content, offering a transformative approach to image generation, logo design, and digital art. At its core, Generative AI leverages advanced deep learning models, such as Generative Adversarial Networks (GANs) and Transformers, to autonomously produce diverse and realistic visual outputs. The process begins with the formulation of prompts, textual instructions that guide the generative model in producing desired visual content. These prompts serve as input cues, initiating the intricate interplay within the neural network's architecture. GANs, comprising a generator and discriminator, engage in a dynamic adversarial training process. Image classification using Generative AI introduces a novel approach to the traditional task of categorizing images. Leveraging sophisticated models like Generative Adversarial Networks (GANs) or Variational Autoencoders (VAEs), this paradigm extends beyond conventional classification methods by incorporating a generative element into the process.

	This groundbreaking methodology enables rapid prototyping, customization, and innovation in the visual design domain. As Generative AI continues to evolve, its applications extend beyond mere imitation to the creation of novel, inspiring visual content, revolutionizing the landscape of digital creativity.
Keywords	Image classification, Generative AI, Generative Adversarial Networks (GANs), prompts, Network architecture, prototypes, customizing, visual content, deep learning.
Company Name & Address (For Off-campus students only)	
External Mentor details (For Off-campus students only)	
Approval Status (for Guide)	YES
Meeting date & Time	
Student-Guide Interaction	Points discussed during the meeting 1. Discussed about the architecture to be used 2. Data preprocessing methods 3. Criteria for selecting datasets
Guide Name	Dr.L.Agilandeeswari
Guide Signature	
Approval Date	12.01.2024