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Sub.: - Artificial Intelligence Lab

Class: SE

**Assignment 05:** Assignment and practice of AI Image Generator

**Theory: Introduction to AI Image Generators**

### *1. 1. What are AI Image Generators?*

AI Image Generators are models that create images from textual descriptions using deep learning techniques. These tools can generate photorealistic, abstract, or stylized visuals based on the user's prompts.

### *1.2 Popular AI Image Tools*

- DALL·E (by OpenAI)
- Midjourney
- Stable Diffusion
- Leonardo AI
- Canva AI
- Adobe Firefly

### *1. 3. Applications*

- Advertising and Marketing
- Book and Game Illustration
- Content Creation
- Branding and Logo Design
- Education and Storytelling

#### ***1.4 Limitations & Ethical Concerns***

- Difficulty with text generation inside images
- Inaccuracy in human anatomy
- Potential misuse in misinformation
- Copyright and bias issues

#### **Assignment Tasks**

##### ***Task 1: Comparative Research***

Compare at least 2 AI image generators (e.g., DALL·E vs Midjourney). Evaluate them based on:

- Image quality
- Prompt accuracy
- Style flexibility
- Usability
- Licensing & terms

Example: 'A steampunk city under moonlight with flying airships and glowing lanterns.'

### ***Task 2: Visual Design Project***

Choose one of the following projects:

- Create a poster for a fictional event or product
- Design a visual story using 3 image prompts
- Generate concept art for an educational topic

### ***Practice Activity (If No Direct Access)***

If you do not have access to Midjourney or paid AI tools:

- Use DALL·E from ChatGPT or Canva AI tools
- Generate visuals and save screenshots
- Use them to simulate a story, poster, or presentation