

**Title:** Beyond the Code: Automated Narrative Generation for IIT ISM Centenary

**Team Name:** NeuralMines

### **1. Problem Statement & Solution**

The challenge was to synthesize a cohesive video narrative from a massive, unstructured dataset of 1,000+ images. Our solution automates the curation process using Python and leverages Generative AI to transform static archives into a cinematic experience.

### **2. Technical Implementation**

- **Data Pipeline (Python):** We developed `process_batch_2.py` to scan directories (`website_crawls`, `news_articles`), extracting metadata to categorize images into high-impact clusters: Nature, Robotics, and Community.
- **Generative AI Workflow:**
  - Script: Generated via Gemini 3.0 to balance heritage with future-tech themes.
  - Audio: ElevenLabs (Model: George) provided professional voice synthesis.
  - Video: Google Gemini / Luma Dream Machine was used to animate static assets (e.g., the Kingfisher flight, Robot movement), creating 'anchor' visual moments.
- **Video Engineering:** The final output was layered with 'Ken Burns' motion effects and a transparent code-overlay to visually represent the backend engineering.

### **3. Impact**

This project demonstrates how GenAI can modernize institutional storytelling, turning 100 years of static history into a dynamic, future-ready narrative.

### **4. GitHub Repository**

<https://github.com/24je0445/IITISM-Centenary-Hackathon>