

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>