**CSE7101- Capstone Project**
**Review-2**

# Text-to-Video of Various PIB Press Releases using Artificial Intelligence / Machine Learning / Generative Adversarial Networks in English and 13 Regional Languages

**Batch Number: PSCS_36**


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**Name of the HoD: Dr . Asif Mohammed**
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## Github Link

**https://github.com/Bhargavi-Thummala7330/Batch_179_Text-to-Video-of-Various-Press-Releases-using-AI**

# Abstract


•AI-based system to convert PIB press releases into videos.

•Supports English and 13 regional languages.

•Uses NLP for text summarization and GANs for video generation.

•Ensures cultural relevance and accessibility.

•Scalable solution for effective government communication and public awareness.

# Literature Survey

- Read **few research papers**.
- Learned about:
  - Making videos from text using GANs.
  - Understanding text with NLP.
  - Changing text to speech and speech to text.
  - Translating text into many languages.
- Found that there are **less studies** on:
  - Regional language support.
  - Automatic video making from press releases.

# Objectives

- Convert PIB press releases into engaging video format.
- Support **English + 13 regional languages**.
- Improve accessibility for people who prefer video over text.
- Provide faster communication of government information.

# Existing Methods & Drawbacks

## Existing Methods:

- PIB releases are published only in **text format**.
- Information is available mainly in **English** and a few regional languages.
- Users have to **read press releases manually** to get updates.

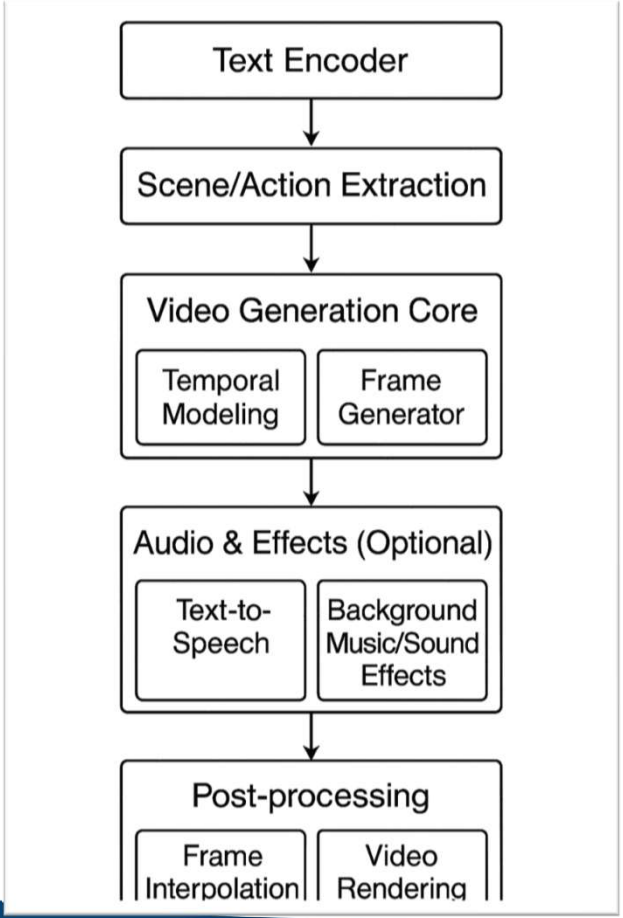
## Drawbacks:

- Reading long text is **time-consuming**.
- **No automatic video generation** available.
- **Limited support** for regional language videos.
- Less engaging and harder to understand for the public.

# Proposed Method & Feasibility

- **Process:**
  - Collect PIB press release text.
  - Use NLP for text understanding.
  - Translate text into 13 regional languages.
  - Generate speech using TTS (Text-to-Speech).
  - Use GANs to generate video with narration.
- **Feasibility:**
  - Technology: Available (AI/ML, GANs).
  - Cost: Low (cloud computing + open-source).
  - Resources: Scalable for large data

# Architecture Diagram



# Modules

- Text Input (PIB press release).
- Language Translation.
- NLP + Text Summarization.
- Text-to-Speech.
- GAN-based Video Generation.
- Final Video Output.

# Software Details

- **Programming Languages:** Python, HTML, CSS
- **Deep Learning / AI Frameworks:** TensorFlow
- **NLP Libraries:** NLTK, Hugging Face Transformers
- **Text-to-Speech Tools:** Google TTS
- **Generative Models / GAN Frameworks:** TensorFlow GAN

# Gantt Chart – Review 2 Timeline

| Task | Week 1 | Week 2 | Week 3 | Week 4 | Week 5 | Week 6 |
|---|---|---|---|---|---|---|
| Literature Survey | | | | | | |
| NLP & Translation Module | | | | | | |
| Text-to-Speech (TTS) Module | | | | | | |
| GAN-based Video Generation | | | | | | |
| Testing & Evaluation | | | | | | |

## References (IEEE Paper format)


- [1] P. Sharma, S. Kumar, and R. Singh, "Creating Corpus of Low Resource Indian Languages for Natural Language Processing," *ACL Anthology*, 2024.
- [2] A. Gupta and M. R. Joshi, "Natural Language Processing Applications for Low-Resource Languages," *Cambridge University Press & Assessment*, 2023.
- [3] K. R. Rao and S. Patil, "A Survey on NLP Tasks, Resources, and Techniques for Low-Resource Indian Languages," *ACM Digital Library*, 2022.


Thank
You!