AIM

To explore and understand the **various prompting techniques** used for generating videos through **AI video generation models**, and to analyze how prompt refinement influences video quality, motion, style, and consistency.

TOOLS USED (AI VIDEO GENERATION MODELS)

The following AI tools capable of generating videos from text prompts were studied:

1. **Runway Gen-2** – Text-to-video and image-to-video generation
2. **Synthesia** – AI avatar-based video generation
3. **Pictory** – Text-to-video summarization and storytelling
4. **DeepBrain AI** – AI presenter and explainer video generation

EXPLANATION

AI-based video generation systems use **natural language prompts** to create visual sequences, animations, or realistic videos.
The quality of the generated video depends on:

- Prompt clarity
- Level of detail
- Motion and timing descriptions
- Style specification

This experiment demonstrates how **simple prompts evolve into complex, cinematic outputs** through structured prompt engineering.

ALGORITHM

1. Identify suitable AI video generation tools
2. Create simple text prompts
3. Gradually refine prompts with details
4. Add time, motion, and camera movement
5. Experiment with different video styles
6. Iterate and improve prompts
7. Generate multiple versions and compare outputs

PROCEDURE

Step 1: Familiarization with Video Generation Models

Each tool was studied to understand:

- Input format (text, script, image + text)
- Output type (animation, avatar video, cinematic video)
- Limitations (length, realism, motion accuracy)

Step 2: Simple Prompt Creation

Example Prompt:

"A person walking in a park."

Observation:
Generated a short, basic video with minimal background detail and simple motion.

Step 3: Detailed Prompt Refinement

Refined Prompt:

"A person in a red jacket walking along a sunny park path, with birds flying in the sky and a dog running beside them."

Observation:
Improved scene richness, clearer subject description, and more dynamic elements.

Step 4: Adding Time and Motion Elements

Prompt with Motion and Timing:

"A time-lapse video of the sun setting over the ocean, with the camera slowly zooming out from the beach, capturing waves and changing sky colors."

Observation:
Enhanced motion realism, smooth transitions, and improved cinematic feel.

Step 5: Testing Different Video Styles

Animated Style Prompt:

"An animated scene of a futuristic city at night, with glowing neon lights, flying cars, and a bustling crowd."

Observation:
Successfully generated a stylized animation with vibrant colors and imaginative visuals.

Step 6: Iteration and Adjustment

Further Refined Prompt:

"A cinematic shot of a car speeding through a neon-lit city at night, reflections on wet streets, dramatic lighting, and a high-speed chase atmosphere."

Observation:
Improved camera angles, depth, and motion consistency.

Step 7: Generating Multiple Versions

Slight variations in prompt wording were used to generate multiple video versions.
These were saved and compared to observe:

- Differences in motion
- Scene transitions
- Lighting and realism

COMPARISON OBSERVATION TABLE

Prompt Type	Video Quality	Motion	Style Accuracy
Simple Prompt	Low–Medium	Basic	Generic
Detailed Prompt	Medium–High	Improved	Clear
Motion-Based Prompt	High	Smooth	Cinematic
Style-Based Prompt	High	Smooth	Artistic
Iterative Prompt	Very High	Consistent	Professional

RESULT

The prompts for the above tasks were executed successfully, and AI-generated videos were produced with varying levels of realism, motion quality, and stylistic detail based on the **prompting technique used**.

CONCLUSION

This experiment demonstrates that **prompt engineering plays a critical role in AI-based video generation**.

- Simple prompts generate basic visuals
- Detailed prompts improve scene richness
- Motion and timing prompts enhance realism
- Style-based prompts create cinematic or artistic outputs

Iterative prompt refinement significantly improves video quality and consistency. With proper prompt design, AI video generation tools can be effectively used for animations, storytelling, education, marketing, and creative media production.