Generative Adversarial Network (GAN)

Sample – Original Satellite Image

Sample – GAN Generated Forecast

Figure 2: The left panel shows a real satellite image of Tamil Nadu sourced from historical climate observations spanning 2000–2024. The right panel presents a synthetic image generated by our GAN model, trained on this historical dataset to simulate plausible satellite conditions for the future period 2026–2050.

Input GAN Image

Predicted Temperature Map (°C)