**Synopsis**

**1. Project Title :** Sign-to-Text Translator

**2. Problem Statement:**

Effective communication is a fundamental right for all individuals, including those who are hearing impaired. Traditional methods of communication for the hearing impaired, such as sign language, often face barriers in digital and non-verbal communication environments. This gap can limit accessibility and interaction in various aspects of life, including online platforms, customer service, and personal communication. The aim of this project is to bridge this gap by developing a system that translates sign language into text, thus facilitating seamless communication between hearing impaired individuals and those who do not understand sign language.

**3. Objective:**

The objective of this project is to create a "Sign Language to Text Translator" that can accurately convert hand signs into readable text. By utilizing computer vision and machine learning technologies, the system will recognize different sign language gestures and translate them into corresponding text. This tool aims to improve accessibility and communication for hearing impaired individuals, enabling them to interact more effectively with the digital world and enhance their day-to-day interactions.

**4. Proposed Solution:**

The proposed solution involves developing a gesture recognition system that utilizes a camera to capture hand movements and gestures. The system will process these inputs using computer vision techniques and machine learning models to identify specific sign language gestures. Recognized gestures will be translated into text, which can be displayed on a screen or integrated into various applications. By employing robust image processing and classification algorithms, the system aims to provide accurate and real-time translation of sign language gestures into text, facilitating smoother communication for hearing impaired individuals.

**5. Expected Outcome:**  
The expected outcome is a functional Sign Language to Text Translator capable of accurately interpreting and translating hand signs into text. This system will enable hearing impaired individuals to communicate more effectively with those who do not understand sign language, thus enhancing their accessibility and interaction in various digital and physical environments. The translator will support improved communication, foster inclusivity, and provide a valuable tool for bridging communication gaps between hearing impaired individuals and the wider community.

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