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(57) Abstract :
Real-time translation of Indian sign language to text using CNN and OpenCV for enhanced communication accessibility is the proposed invention. People with disability especially the deaf and mute individuals face communication barriers due to the lack of effective and accessible tools for translating sign language into text, particularly for languages like Indian Sign Language (ISL), since the technological development translation tools may not have the language. The real-time ISL-to-text translation system helps to bridge the communication gap, making ISL gestures understandable to deaf-mute persons. The main objective of this research is to develop an efficient sign-to-text translator focusing on ISL, using OpenCV, computer vision, and Neural Networks for providing accurate, real-time ISL gesture interpretation. The two main stages of this system are: Gesture recognition and Gesture Classification.

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