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Avatar-based system for transform continuous Arabic speech into Arabic sign language

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Arabic language is the fifth most spoken language in the world, 10% from Arabic speakers are suffering from disability to hear. So the need for translating Arabic speech to sign language is increasing rapidly. This paper presents an automatic translation system that translates continuous Arabic speech to Arabic sign language. This system performs the Arabic speech recognition using a framework that we also developed, based on Carnegie Mellon University Sphinx (CMU Sphinx), hidden mark of model (HMM) and Mel-frequency Ceptral Coefficient Technique (MFCC). In addition to using computer graphics to display the sign language.