# Abstract Details

**Title:** VHDL Implementation of Phase Vocoder for Voice Morphing

**Authors:** Hitanshu Saluja, Ritu Juneja and Kavinder Singh

**Abstract:** Speech is usually characterized as voiced, unvoiced or transient forms. Voiced speech is produced by an air flow of pulses caused by the vibration of the vocal cords. The resulting signal could be described as quasi-periodic waveform with high energy and high adjacent sample correlation. The two broad categories of pitch-estimation algorithms are time-domain algorithms and frequency-domain algorithms. Voice morphing is the process of producing intermediate or hybrid voices between the utterances of two speakers. It can also be defined as the process of gradually transforming the voice of one speaker to that of another. Like image morphing, speech morphing aims to preserve the shared characteristics of the starting and final signals, while generating a smooth transition between them. This paper describes the Phase vocoder method of voice morphing. We extract the feature difference of source and targeted voice apply this phase different to the source voice.

**Keywords:** Phase Vocoder, Voice Morphing, Speakers, Vocal Cords.