Call for Papers

Special Issue of The IEEE Transactions on Audio, Speech and Language Processing on Voice Transformation

With the increasing demand for Voice Transformation in areas such as speech synthesis for creating target or virtual voices, modeling various effects (e.g., Lombard effect), synthesizing emotions, making more natural dialog systems which use speech synthesis, as well as entertainment, film and music industry, toys, chat rooms and games, dialog systems, security and speaker individuality for interpreting telephony, high-end hearing aids, vocal pathology and voice restoration, there is a growing need for high-quality Voice Transformation algorithms and systems processing synthetic or natural speech signals.

Voice Transformation aims at the control of non-linguistic information of speech signals such as voice quality and voice individuality. A great deal of interest and research in the area has been devoted to the design and development of mapping functions and modifications for vocal tract configuration and basic prosodic features. However, high quality Voice Transformation systems that create effective mapping functions for vocal tract, excitation signal, and speaking style and whose modifications take into account the interaction of source and filter during voice production, are still lacking. We invite researchers to submit original papers describing new approaches in all areas related to Voice Transformation including, but not limited to, the following topics:

- Preprocessing for Voice Transformation (alignment, speaker selection, etc.)
- Speech models for Voice Transformation (vocal tract, excitation, speaking style)
- Mapping functions
- Evaluation of Transformed Voices
- Detection of Voice Transformation
- Cross-lingual Voice Transformation
- Real-time issues and embedded Voice Transformation Systems
- Applications

Proposed Schedule:

Submission deadline: 1st April 2009 Notification of acceptance: 15 September 2009 Final manuscript due: 30 October 2009 Tentative publication date: January 2010

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