Nitin N. Raut, A text to speech converter using cascaded pole-zero synthesizer, M. Tech. Thesis, Department of Electrical Engineering, Indian Institute of Technology Bombay, 1994.

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Abstract – The use of a complex formant synthesizer such as cascaded pole zero synthesizer would be greatly simplified if one can specify the control parameters in some simpler form such as text. A text to speech converter would appropriately map these text symbols into the parameter tracks required for the synthesizer.

The Text To Speech converter described in here accepts text in Devnagri script using AKSHAR, a bilingual text editor. The synthesis is done by principle of "synthesis-by-rule". The basic phonemes in Marathi are used as references to generate initial and final targets and are generated by extensive hand tailoring. The rules for algorithmic coding are derived from observations during the generation of the phonemes.