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A TEXT-TO-PHONEME CONVERSION WITH BACKPROPAGATION NEURAL NETWORK IMPLEMENTED USING AN INMOS T800 TRANSPUTER MODULE (TRAM) PARALLEL PROCESSOR AND PHONEME-TO-SPEECH CONVERSION USING A SOUND BLASTER

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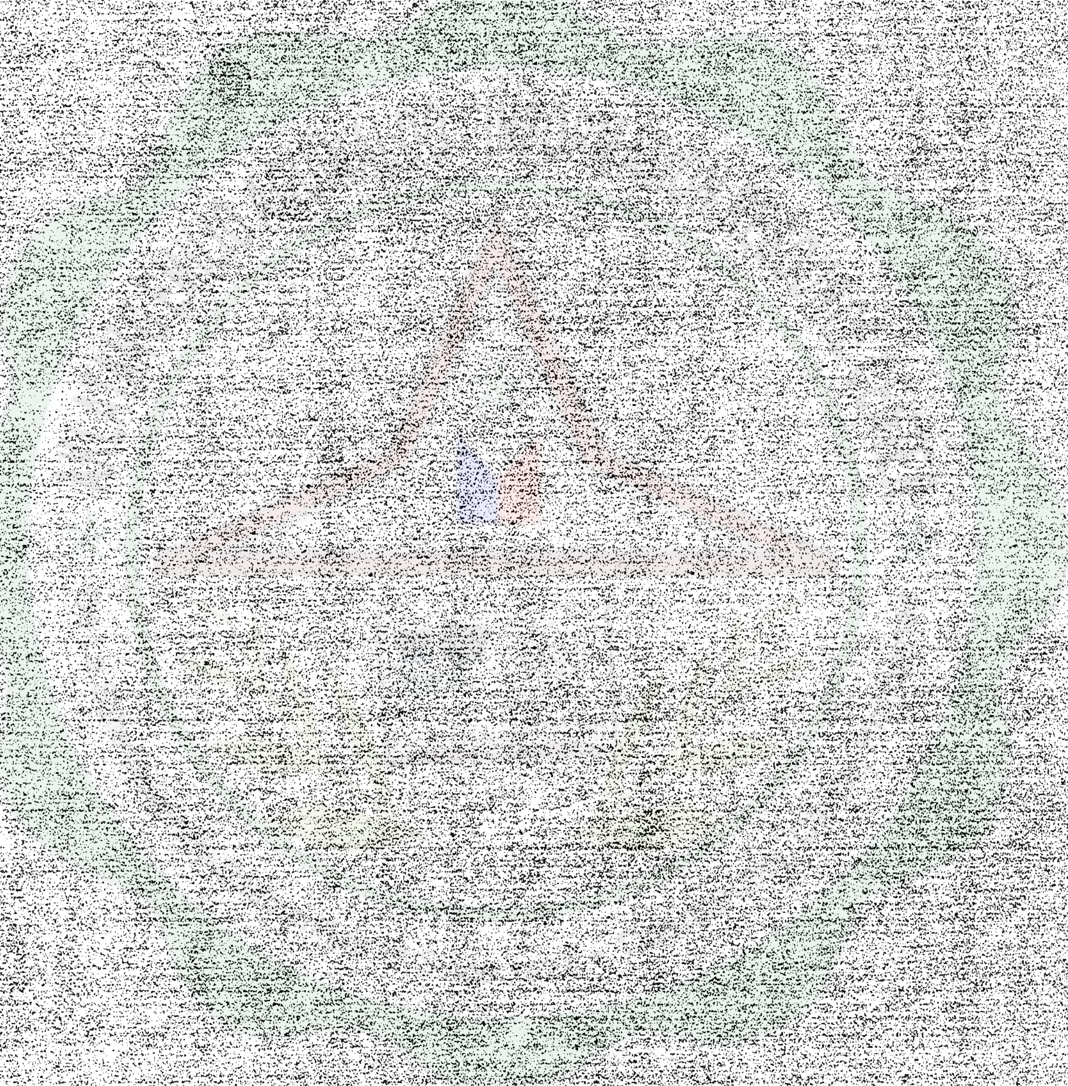

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Abstract

A text-to-speech synthesis system is presented in this study. The system uses a backpropagation neural network to transform English text into its equivalent phonemes. The output of the neural network is converted to sounds and a sound blaster is used to produce speech from the concatenated phonemes. The system is implemented using parallel processors, INMOS T800 transputer modules (TRAM), mounted on a TBX10/TBX05 motherboard and an Intel 486DX PC serves as the host computer.

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