ABSTRACT

Concatenation synthesizer is a synthesizer that can produce automatic speech signal through the transcription of grapheme-to-phonemes for the spoken sentence. Research concatenation synthesizer in the Indonesian version was already developed, and has achieved satisfactory results. However, several problems in the research remain unsolved, including the sentence that has not been good intonation. Therefore in this thesis, prosodic control model designed to improve the quality of sentence intonation in previous research. In this thesis HNN selected to realize the prosodic control model and assigned to forecast the index that refers to the data length of duration and intonation contour on each syllable, which would previously trained with a number of feature vector. On the synthesizer used to modify the model generator intonation contour length of duration and intonation on every syllable. The results showed the synthesis of intonation phrase is more prevalent than previous research. Naturalness MOS increased from 2.34 to 3.258824. But the level of clarity of the sentence is decreasing due to lack of improvement in the frequency domain. So the vocal sound is more dominant than consonant sounds.

Keywords: Hopfield neural network, generating prosody, concatenation synthesizer.