

# # C716075 : MAJOR ELECTRICAL ENGINEERING

KEY WORD: SPEECH RECOGNITION / NEURAL NETWORK / LPC

WUTHIPONG PORNSUKJANTRA : SPEAKER-INDEPENDENT THAI NUMERAL SPEECH RECOGNITION USING LPC AND THE BACK PROPAGATION NEURAL NETWORK.

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This research has the objective to develop speaker-independent Thai numeral speech recognition using back propagation neural network. Feature of speech is extracted by linear predictive coding(LPC). Set of LPC coefficients is used as input data for neural network.

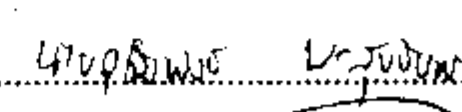
The data set is divided into 2 groups: 1. zero to nine Thai digits 2. 12 words of two and three syllables numeral speech. Number of persons in the training set is 30 persons. Other 12 persons are deployed in the test set.


The result of this research show that speaker-independent recognition rate is 89.4 % for one syllable speech and 84.7 % for two and three syllables speech.

ภาควิชา.....วิศวกรรมไฟฟ้า

สาขาวิชา.....วิศวกรรมไฟฟ้า

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