UNIVERSITI TEKNOLOGI MARA

SPEECH RECOGNITION TO DETERMINE EMOTIONS USING QUICK PROPAGATION NEURAL NETWORK

AISYAH BINTI MOHAMAD TOJID

BSc (HONS) INTELLIGENT SYSTEM

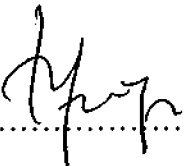NOVEMBER 2006

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APPROVAL

SPEECH RECOGNITION TO DETERMINE EMOTIONS USING QUICK PROPAGATION NEURAL NETWORK

BY

AISYAH BINTI MOHAMAD TOJID

This thesis project was prepared under the direction of supervision of thesis supervisor, Pn.Marina Binti Yusoff. It was submitted to the Faculty of Information Technology and Quantitative Science and was accepted as partial fulfillment of the requirements for degree on Bachelor of Science (Hons) in Intelligent Systems.

Approved by:

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Pn.Marina Binti Yusoff

Thesis Supervisor

NOVEMBER 2006

DECLARATION

I certify that this thesis and the project to which it refers are the product of my own work and that any ideas or quotation from the work of other people, published or otherwise are fully acknowledged in accordance with the standard referring practices of the discipline.

02 NOVEMBER 2006   AISYAH MOHAMAD TOJID
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ABSTRACT

Emotions play important roles in expressing feelings as it tend to make people acts differently. Determine emotions of other people are less complicated if we are facing each other rather than from voice independently such as conversation in telephone. A main industry that major dealing with telephone as a medium for services is call center. Thus it is a significant step to developing a prototype system for this industry. This project is focusing on speech recognition to determine emotions in call center environment. The objectives of this project are to identify the quick propagation neural network, determine the emotion through the recorded speech and develop the prototype system. This system will implement the quick propagation neural network using 65 of speech signal as a sample data. Two features will be extracted from each speech signal which are the Fundamental Track Frequency (FTT) and Mel Frequency Ceptral Coefficient (MFCC). It covers types of emotions which are happy, sad and anger emotions state. However to ensure the ability of the prototype, few experiments are being conducted to achieved the satisfy values for parameter for the prototype inputs to achieve the efficiency. In a conclusion, the prototype is able to determine emotions states from voice using Quick Propagation neural network.

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