ABSTRACT

One of application of Microcontroller Technology and Digital Signal Processing can be used for creating a door controlled system, which using human's voice for an input of this system. The unique voice of each human to another can be used for make a diferent features and system. TMS320C6455 as one of digital signal processor of this system has aim to process voice signal as a recognized input signal voice. Microcontroller ATMega8535 using for interface, which can control the door by using motor driver.

Human's voice will be go in to the mic through line in TMS320C6455,then it will be processed until the voice was recognized by this system which saved in database. Human's voice as an input of the system make a triggering adjustment voltage on led board TMS320C6455, which suitable with keywoard spoken. The adjustment of voltage on led board is using to logical input for Microcontroller ATMega8535,thus the motor driver can be controlled for make a movement of the door by this microprocessor. The Method for recognizing voice as an input, is using the nearest distance (Euclidean) among the average of voice input signal and from database.

The accurated score result by using euclidean distance is about 70% over 40 times experiments. But in this case, the words only accepted for keywords "open" and "close",and for other input keywoards also can be used in this system,but should be noted the average score energy has to come near within database. For build a data communication among TMS320C6455 and microcontroller ATMega8535, it hasn't be built as well because of some damage on a TMS320C6455's board. Thus,for this research the prior aim wasn't achieve well.

Keywords : Microcontroller ATMega8535,TMS320C6455, Motor DC