

## **ABSTRACT**

### **DESIGN AND IMPLEMENTATION ELECTROMYOGRAPH FOR DETECTION SPEECH VOWELS LETTERS IN DEAF PEOPLE**

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*Deaf is a condition where a person has hearing problems in both permanent and non permanent disabilities due to barriers in the hearing of individuals with hearing impairment have barriers in speaking so they called tunawicara.*

*In this final project will be designed a unified system of electromyography to detect speech vowel to be displayed on LCD 16x2. Metode used for data processing on the task using the neural network with backpropagation learning method by taking the value of the ADC is the source of information of data pengolahan data obtained from muscle contraction in the facial area.*

*The The results showed that for the design of neural networks can work on the detection of vowels with learning rate 0:01, epoch 100, targets error of 0. 265 and a hidden layer with 10 neurons produce a 74% accuracy rate*

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*Keywords :deaf people, electromyograph, vowels letters*