

Sabrina Ifahdini Soraya, 2012, Design of Software Pure Tone and Speech Audiometer for Hearing Diagnosis. This final project was under the guidance of Drs Adri Supardi, MS and Franky Chandra SAG, ST, MT, Department of Physics Faculty of Science and Technology, Airlangga University, Surabaya.

ABSTRACT

It has been conducted a research with the goal of designing a pure tone and speech audiometer software that is more practical, effective, efficient and capable of displaying pure tone and speech audiogram as well as the diagnosis of hearing loss patients at a frequency 250 Hz to 8 kHz and stored directly in to database. In this study, the application system audiometer software was programmed using Delphi to be able producing pure tones using soundcard of computer / laptop. In this pure tone generation process needs an audio component called Tonegen. As for the speech audiometer, it needs some recordings of words that have been standardized (PB List) then subsequently tested on patients. Variable of frequency has accuracy percentage of 100% and precision percentage of 100%. Variable of sound level for the right headphone has accuracy percentage of 99,4% and precision percentage of 99,85%, whereas for the left headphone has accuracy percentage of 99,45% and precision percentage of 99,84%.

Keyword : pure tone audiometer, speech audiometer, software, hearing level diagnosis.