ABSTRACT

Text-to-Speech technology is a technology that can convert text input into sound or speech. Text-to-Speech itself is already available in Bahasa Indonesia, as it is in Google Translate. One of the uses of its own Text-to-Speech technology is to make it easy for users to learn the correct pronunciation of a Language.

In this final project, TD-PSOLA method will be applied to Text-to-Speech application that has been designed and made. The previous TD-PSOLA method in Indonesian has been studied, but previous research has only examined the change of voice signal when manipulated by the TD-PSOLA method. In the present study, the TD-PSOLA method will be applied to an application or software, which is expected to help users who want to learn Indonesian.

The test conducted aims to assess the performance of the system using TD-PSOLA method where the number of words or syllables is very influential on processing time, as well as different alpha parameters. At $\alpha = 1.1$ the use of 3 words input on smartphone 2 has an average time of 2.37 seconds and 2.53 seconds, while on smartphone 1 of 2.8 seconds and 3.0 seconds. And 4 words input on smartphone 2 has an average processing time of 3.21 seconds and 3.14 seconds while smartphone 1 has a processing time of 3.7 seconds and 3.5 seconds. In testing also performed intelligebility testing results and overall sound can already be heard quite well but has a lack of quality on the database.

Keywords*:* Text-to-Speech TD-PSOLA, inteligebility.