ABSTRACT

The signal is a basic of learning for engineering students, but students have difficulties in learning about signal processing. It is caused the lack of visualization so that it seems highly mathematical learning signal processing and multimedia technologies. Simulation-based learning module on matlab for students which is discrete signal processing are introduced visually and detail to facilitate user understanding. Therefore made visual aids discrete signal processing using the gui in matlab.

In this research, simulations of discrete signal processing using matlab designed to facilitate the learning signal processing and multimedia technologies. Discrete signal processing using a GUI design is very interesting and easy to use application that helps in understanding the material discrete signal processing. This research will display the some of signals, the first basic signal, the second singular signal operation and the third operation of two or more signals.

The results of this research indicate that the application of discrete signal processing are shown in detail visual form. In subjective test results of 4 lecturers, 36 students of D3 telecommunication engineering , and 15 student of non d3 telecommunications engineering. The results obtained for the matlab GUI display applications has attracted an average value is 4.03. To helps in visualization through the material average value is 3.92. Applications are user friendly the average value is 3.87. Language learning module is easy to understand the average value is 3.83. Procedure module to be easily bypassed the average value is 3.87. The statement on journal can be answered through the procedure practicum average value is 3.83, and overall learning module (application and module) helps in understanding the material processing discrete signal average value is 4. A system of learning modules for discrete signal processing using matlab that appropriate have expected

Key words: Learning modules, Signal processing, Signal discrete, Matlab