ABSTRACT

Filter design is part of the Digital Signal Processing material that given in Electrical and Communication Faculty of IT Telkom. This material is somewhat difficult to explain, so needs the teaching-pheriperal expecially for the FIR filter design using window method. In this final project, i develop a tool that will help lecturerin presenting material so the students can understand faster, it is tittled*The Developing Teaching-Pheriperal of FIR Filter Planning Using Sampling Frequency Method.*

This tool is represented by *Graphical User Interface* (GUI) that used Matlab R2012a. Which is shown in this simulation is a planning process with the method of FIR filter frequency sampling and presented step by step to facilitate students in learning the material..

To see the benefits of simulation was conducted to IT Telkom students who took Digital Signal Processing subject for S1 Telecommunications Engineering. Through questionnaires to thirty respondents, in getting the results based on the view that the teaching tools, content, and performasi overall average score of satisfaction level is 79%. To see the accuracy of calculations, carried out test calculations with a teaching tools and a manual. A comparison the results that the numbers obtained is 100% correct, the difference is just rounding the number behind the comma.

Key word: *FIR filter, frequency sampling,teaching-pheripheral, GUI*