

## 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-pheripheral expecially for the FIR filter design using window method. In this final project, i develop a tool that will help lecturer in presenting material so the students can understand faster, it is tittled ***The Developing Teaching-Pheripheral of FIR Filter Planning Using Window Method.***

This tool is represented by *Graphical User Interface* (GUI) that used Matlab R2008a. Which is shown in this simulation is a planning process with the method of FIR filter windowing and presented step by step to facilitate students in learning the material. Applications are also equipped with the basic theory relating to the material, this is done to facilitate the teachers in presenting the theory of matter.

To see the benefits of simulation, was conducted to ITT Telkom students who took Digital Signal Processing subject for S1 Telecommunication Engineering, Electrical Engineering S1, and S1 Computer System. Through a questionnaire to thirty respondents, in getting the results based on the view that the teaching tools, content, and perfomansi overall average interest rate is 84% and the average score of satisfaction level is 78%, so it has fulfilled the teaching tools of interest rates expected. To see the accuracy of calculations, carried out test calculations with a teaching tool and a manual for each window of each filter and then compared the results obtained that the figures obtained were 100% correct, the difference is just rounding the numbers behind the comma.

Key word: *FIR filter, window,teaching-pheripheral, GUI*