ABSTRACT

The making of teaching assistive tool of Matching Impedance using Smith Chart is a way to enlighten the students in learning matching impedance using smith chart. It helps the students in practicum in Transmission Laboratory, in studying Electromagnetic Fields and Waves II (S1 Telecommunication Engineering) and Transmission Line (D3 Telecommunication Engineering).

In this Final Project, entitling ”The Making of Teaching Assistive Tool of Matching Impedance using Smith Chart”, is a simulation design with MATLAB 7.1.3. It is used to show us the way in solving matching impedance in transmission line using Smith Chart in single stub, double stub, and quarter wavelength transformer in lossless line. The making of this assistive tool is supposed to help the students in learning Smith Chart in Transmission Line. The test has been done for the students who have taken Electromagnetic Fields and Waves II or transmission line in order to see the its function. It is proved this simulation helps in learning those lessons. The calculation is also done manually to compare the result with the teaching assistive tool.

It is known from the questioner that the students agree this teaching assistive tool is helpful in matching impedance using smith chart. The calculation, both manual and using the tools, doesn’t show too much different.