Notes for project

Requirements for language

Mathematical computation

Random number generation

File conversion, Image file display such as jpeg

Complex numbers and complex exponentials

Graphing

GUI capabilities

Python

Libraries such as numpy and random provide the requirements for computation

Tkinter and pyplot for the interface. For the image transfer procedure, the input and output images are stored as files and tkinter can display them using ImageTK module

Matlab/Simulink

Useful commands such as demodulate? From communications toolbox. But may be difficult to see the underlying mathematics at work. Considering the mathematics will be quite easy

Alamouti-Transmit Diversity Scheme- Implemented in python http://www.raymaps.com/index.php/alamouti-transmit-diversity-scheme-implemented-in-python/

http://math.arizona.edu/~jwatkins/o-mle.pdf