**ECE430.**

**Lab 0-1.**

**Laura and Joseph.**

Text, letter

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**Figure 1:** showing that I have logged into the system, using my unique ssh key, and I have connected to dwslgrid, under my Drexel username ‘ild27’

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**Figure 2:** showing that I have been able to set up tmux, enabling me to split my screen so I can simultaneously see me inputs for the transmitter and receiver.

Graphical user interface, application

Description automatically generated

**Figure 3:** the received signal spectrum, when a specified frequency (1.3GHz) was transmitted.

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**Figure 4:** simple tone transmission flow graph, using gnuradio-companion.

Graphical user interface, application

Description automatically generated

**Figure 5:** output from flow graph, with a beam appearing at the specified frequency from Fig. 4 (1.5GHz). To check that this was indeed out transmission, we stopped transmitting and watched the beam disappear.

Text, letter

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**Figure 6:** showing that I have been able to logout completely, freeing up space on the grid for others to use.

The received signal spectrum appears different when using uhd\_siggen as a transmitter in Section 2.0 as opposed to tone modulation gnu radio companion (GRC) flowgraph in Section 3.0 because the GRC allows for real-time amplitude and frequency modulation signal transmission and reception