



Using FPGAs for Spectrum Sensing and Modulation Recognition Project

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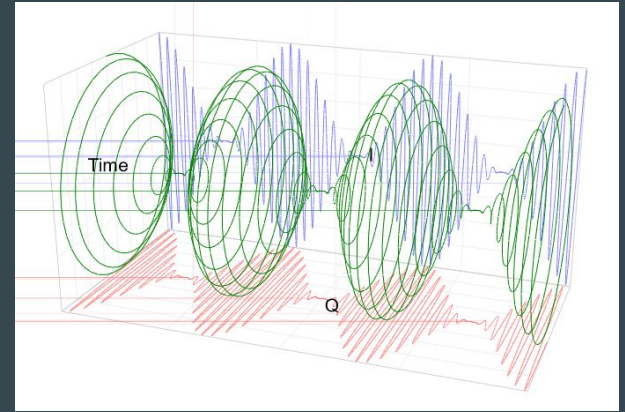
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Project Overview

- Project seeks to use machine learning to recognize different wireless devices
- Use software defined radios (SDRs) to record various devices as training data for neural nets
- Classify type of device based on RF signature

Last Week

- I/Q Data in Radio Communications
- MATLAB and WLAN waveforms
- Data Collection on Grid
- Go UDP client / server

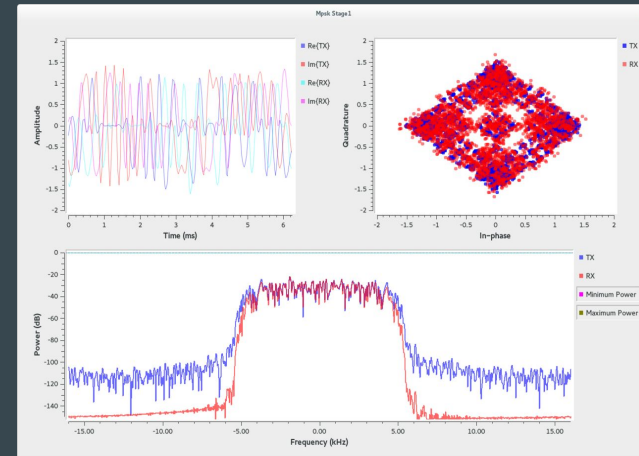


Tasks for this week

- Rework UDP client / server to work with Go to Verilog compiler
- Running Go programs through the argo2verilog compiler
- Get familiar with machine learning concepts
- Begin collecting data using the grid

Plans for next week

- Using USRP hardware driver(UHD) to process several signals received inside a certain environment
- Learn the features for the GNU Radio software known as “flowgraphs” which supports USRP
- Analyze the plotting and data visualization delivered by GNU Radio



Questions?