Software Defined Radio

The Universal Software Radio Peripheral (USRP) accomplishes much of signal processing through software implementation, and thus minimizes the need for exchanging of hardware components to suit each use.

A software defined radio is adaptable by user configuration to receive many frequency ranges from AM/FM Radio to Wi-Fi/Bluetooth data.

**Topics To Learn More About:**
- Background: Signals and Systems (ECE301)
- Digital Signal Processing (ECE438)
- Communication Systems (ECE440)
- Python, MATLAB

Radio Broadcast Data System (RBDS) Sub-team

**RBDS is a small data channel that is transmitted with FM Radio containing information such as song title and artist.**

**The SDR RBDS sub-team's goal is to understand, transmit, and receive RBDS information through the Universal Software Radio Peripheral.**

**Once a working transmitter is established, the team will be able to transmit arbitrary RBDS information from a software defined radio to a commercial digital radio.**

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