Lec 19 -- Dipole radiation patterns, patch antennas, noise intro

Draw the E and H fields around a dipole antenna and also the Poynting vector

Draw the radiation pattern of a dipole antenna and relate it to the Poynting vector

Draw a patch antenna and the voltage, current, E field and H field distributions around it

How does the feed point resistance of a patch vary with feed position?

What are alternate ways to feed a patch antenna?

What is the directivity of a patch antenna?

Compare and contrast noise against hum, pickup, buzz and coupling.

What is a picture of noise in the time domain? What is a picture of thermal noise in the frequency domain?

What are the four variables we use to discuss noise? Which is the most important and why?

How do we refer noise power density from one part of the circuit to another?

How is noise power density related to noise temperature?

Sketch noise propagating through a simple receiver including a band pass filter