

# Analog and Digital Modulation

Dr. Aly El-Osery

February 23, 2017

1. Design and implement,
  - (a) an AM modulation system allowing for both the center frequency and the modulation index to be changed, and display the spectrum of the modulated signal
  - (b) an FM modulation system allowing for both the center frequency and the frequency deviation to be changed, and display the spectrum of the modulated signal
  - (c) a QPSK system, display the signal spectrum and the signal space diagram
2. What are the implications of added noise to AM, FM and QPSK?. How are they different.