EE 528: Signals and Systems Simulation:

1. Introduction to OCTAVE and C Programming
2. Implementation of different mathematical operators and functions in OCTAVE/C.
3. 1D/2D Signal generation, operations and display in OCTAVE/C
4. Verification of system properties in OCTAVE / C.
5. Study of Fourier analysis of signals in OCTAVE / C
6. Study of Laplace transform and z-transform in OCTAVE / C
7. Study of sampling in time & frequency domain, DFT and FFT in OCATVE / C
8. Implementation of structures of digital signal processing systems in OCTAVE /C
9. Design of digital FIR filters in OCTAVE/C
10. Design of digital IIR filters in OCTAVE/C
11. Decimation, interpolation and fractional sampling rate conversion in OCTAVE / C
12. Analysis and Synthesis of Non-stationary signals in OCTAVE / C
13. Feature extraction from non-stationary signals in OCTAVE / C
14. Pattern modeling from non-stationary signals in OCTAVE / C