ENEE3309 Lecture recording links

Fall 2021-2022

Dear Students,
Here are the links to the youtube-recorded lectures of the course

Part 1: Quick Review of Signals and Systems (4 lectures)

1	Introduction	https://www.youtube.com/watch?v=8etQ1P8Hqdw&feature=youtu.be
2	Signal Classifications	https://www.youtube.com/watch?v=ztk-_s34VUg&feature=youtu.be
3	Fourier Series	ps://www.youtube.com/watch?v=CJWJNSxkQLQ&feature=youtu.be
4	Fourier Transform of Energy Signals	https://www.youtube.com/watch?v=LrklJvFIemQ&feature=youtu.be
5	Fourier Transform of Power Signals	https://www.youtube.com/watch?v=tLV6SHYtUL8&feature=youtu.be
6	Linear Time-Invariant Systems.	https://www.youtube.com/watch?v=SLm0IRkvgec&feature=youtu.be
7	Signal Distortion in Transmission	https://www.youtube.com/watch?v=gj22ksOshsw&feature=youtu.be
8	Introduction to Filters	https://www.youtube.com/watch?v=XAHdWcyZ5M0&feature=youtu.be
9	Hilbert Transform	https://www.youtube.com/watch?v=t69SaS5JoJs&feature=youtu.be
10	Bandwidth of Signals and Systems.	https://www.youtube.com/watch?v=kEH5uaT_ZRU&feature=youtu.be
11	Pulse Response and Rise-time	https://www.youtube.com/watch?v=6cA9X2HZ4R8&feature=youtu.be
12	Autocorrelation Function	https://www.youtube.com/watch?v=FhPDGk8rDfQ&feature=youtu.be

Part 2: Analog Modulation Techniques (9 Lectures)

13	Amplitude Modulation	https://www.youtube.com/watch?v=EpfxB01ILG0&feature=youtu.be
14	AM modulation: Generation and Demodulation	https://www.youtube.com/watch?v=9HTLuW_hbOw&feature=youtu.be
15	DSB-SC modulation	https://www.youtube.com/watch?v=SAYdSKvvqI8&feature=youtu.be
16	SSB-SC modulation	https://youtu.be/qiyTN2Rclkc?list=PLtSOZHH00XnHQVGlbwuqTfM4gaCJ-ciMu
17	Basic Principles of Frequency Modulation.	https://www.youtube.com/watch?v=OhZCDvAaMWs&feature=youtu.be
18	Spectrum and Bandwidth of an FM Signal	https://www.youtube.com/watch?v=6Dw4uGqJMKo&feature=youtu.be
19	FM Generation	https://www.youtube.com/watch?v=qxuFGxdol6c&feature=youtu.be
20	Frequency Demodulation	https://www.youtube.com/watch?v=BzwfuP3L2nE&feature=youtu.be
21	Frequency Division Multiplexing	https://www.youtube.com/watch?v=2j-qUvjVk6k&feature=youtu.be
	Part 3: Analog to Digital Conversion (6 lectures)	
22	Sampling Theorem	https://www.youtube.com/watch?v=dVzeVuLqAOY&feature=youtu.be
23	Natural Sampling	https://www.youtube.com/watch?v=2Ip4Dw8uHV4&feature=youtu.be
24	Flat-topped Sampling	https://www.youtube.com/watch?v=okgM-pygOts&feature=youtu.be
25	Uniform Quantization	https://www.youtube.com/watch?v=EHUanTWxH9I&feature=youtu.be
26	Non-uniform Robust Quantizer	https://www.youtube.com/watch?v=UXU_iuK-o-c&feature=youtu.be
27	Differential Pulse Code Modulation (If time permits)	https://www.youtube.com/watch?v=HPIRA2rP6gg&feature=youtu.be

28	Delta Modulation	https://www.youtube.com/watch?v=1SE4D4-Sd5k
	Part 4: Digital Modulation Techniques (8 lectures)	
29	Line Encoding	https://www.youtube.com/watch?v=Uie2yW770fU&feature=youtu.be
30	Optimum Receiver	https://www.youtube.com/watch?v=a67zmk8HSd4&feature=youtu.be
31	Matched Filter	https://www.youtube.com/watch?v=gdOzKn_45cY&feature=youtu.be
32	Baseband Data Transmission	https://www.youtube.com/watch?v=UxJbWRh_6_o&feature=youtu.be
33	Binary Phase Shift Keying	https://www.youtube.com/watch?v=F0FamN0JfZQ&feature=youtu.be
34	Binary Amplitude Shift Keying	https://www.youtube.com/watch?v=rTi1ZLgqPd0&feature=youtu.be
35	Binary Frequency Shift Keying	https://www.youtube.com/watch?v=KFYrETH7ZwI&feature=youtu.be
36	Quadri-phase shift keying (If time permits)	https://www.youtube.com/watch?v=7n7PbMOyZPQ&feature=youtu.be