

Weekly Schedule for Syllabus Completion

B.Tech Semester-VII (Computer Science)

Paper Code: CS-703 Principles of Communication Engineering

No. of weeks	Weekly Schedule	Unit	Topics Completed/To be completed
1	22 nd July to 29 th July	1	Elements of Communication System, Need for modulation, Introduction to signals.
2	30 th July to 5 th August	1	Details about noise Amplitude Modulation, Modulation index and frequency spectrum. Generation of AM,
3	6 th August to 12 th August	1	Amplitude Demodulation (envelope detector), Double side band suppressed carrier (ring modulator), Single side band suppressed Carrier (phasing method), Vestigial Side Band modulation
4	13 th August to 19 th August	1	Frequency and Phase modulation, Modulation index and frequency spectrum, Equivalence between FM and PM, Generation of FM (direct and indirect methods),
5	20 th August to 26 th August	1	FM detector (PLL). Comparison between AM, FM and PM. Basic concepts of digital modulation. Advantages of digital modulation over analog modulation
6	27 th August to 2 nd September	1	Nyquist Sampling theorem, PAM, PDM, PPM modulation and detection techniques,
7	3 rd September to 9 th September	1	Time Division Multiplexing. Pulse Code Modulation: Need for digital transmission,
8	10 th September to 16 th September	1	Quantizing, Uniform and Non-uniform Quantization. Quantization Noise, Companding, Coding, Decoding, Regeneration.
9	16th September 2016 (1st Internal Assessment)	1	Elements of Communication System, Signals, Noise,

			Amplitude Modulation
10	17 th September to 23 rd September	1	Digital Carrier Modulation Techniques, Block diagram of digital transmission and reception, Information capacity, Bit Rate, Baud Rate and M-ary coding. Amplitude Shift Keying (ASK),
11	24 th September to 30 th September	1	Frequency Shift Keying (FSK), Phase Shift Keying (PSK), Binary Phase Shift Keying (BPSK)
12	01 st October to 7 th October	1	Quadrature Phase Shift Keying (QPSK) SNR calculation for various modulation systems
13	4th October 2016 (2nd Internal Assessment)	1	Frequency Modulation, Basics of Digital Modulation, Sampling Theorem, Information Capacity, ASK, PSK, FSK, BPSK, QPSK
14	8 th October to 14 th October	2	Background of Transmission Line, Two conductor system, Equation of Transmission Line, Characteristic Impedance
15	15 th October to 21 st October	2	Propagation constant, Attenuation and delay distortion, Return Loss, Standing wave ratio
16	22 nd October to 28 th October	2	Matching using single and double stub, Smith Chart, Basics of U.H.F. Lines
17	25th October 2016 (3rd Internal Assessment)	1, 2	PAM, PPM, PDM, PCM and Transmission Lines

(Signature of the teacher)

Mrs. Amrita Chakraborty

(Name of the teacher)