

GUJARAT TECHNOLOGICAL UNIVERSITY

Electronics Engineering / Electronics & Telecommunication
Engineering/

Electronics & Communication / Electrical & Electronics
Engineering/ Information & Communication Technology

B.E Semester: 4

Subject Name: **Communication Engineering (Institute Elective-I)**

Sr.No	Course content
1.	Introduction to Communication Systems
2.	Noise: External noise, internal noise, noise calculations, noise figure, noise temperature
3.	Amplitude Modulation : AM Theory, generation of AM
4.	SSB Techniques: Suppression of carrier, suppression of unwanted sideband
5.	Frequency Modulation: FM Theory, noise and FM, generation of FM
6.	Radio Receivers: Types, AM receivers, Communication receivers, FM receivers, SSB receivers
7.	Pulse and Digital Communications: Information theory, PCM, Telegraphy, Telemetry, fundamentals of data communications systems, data sets and interconnection requirements
8.	Broadband Communication Systems: Multiplexing, short and medium haul systems, long haul systems, elements of long distance telephony
9.	Television Fundamentals: Introduction, standards, color transmission and reception

10.	Introduction to Fiber Optic Technology: History, introduction to light, optical fiber cables, components and systems
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Reference Book:

Communication Systems by Kennedy and Davis –Tata McGraw Hill Edition