

**HEMCHANDRACHARYA NORTH GUJARAT UNIVERSITY, PATAN.**

**B.E. SEMESTER IV (ELECTRONICS & COMMUNICATION)**

**REVISED NEW SYLLABUS**

**Subject Code: EC-404**

**Subject Name: Communication Engineering**

Teaching Scheme		Examination Scheme					
Theory Hrs.	Tutorial Hrs.	Practical Hrs.	Theory Hrs.	Theory Marks	Pract./Viva Marks	Termwork Marks	Total Marks
4	-	2	3	100	25	25	150

**Syllabus:**

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

**Reference Books:**

Communication Systems by Kennedy and Davis –Tata McGraw Hill Edition