

PROGRAMME:Electrical and Electronics Engineering
Semester:iv
Course:Elements of Communication Systems (3024)

Teaching Shedule per week			Test Marks	Termwork	Theory	Total
Lectures	Practical	Total	25	25	75	125
3	2	5				

1.Introduction to Communication System HRS MKS
6 11

Defination of Communication system,Block diagram of Communication System,Functions of each Block,Analog and Digital Signals,Need for Wireless Communication,Defination of Noise and their types such as Internal noise,Shot noise,Partition noise,Flicker noise,Transit time noise,External noise,Signal to noise ratio,Frequecy spectrum(Various Frequency bands used),Concept of sound and its characteristics.

2.Modulation and Demodulation HRS MKS
16 24

Modulation:Defination and Need.
Classification of Modulation:AM,FM,PM
Defination of carrier wave:AM,FM,PM
Principle of AM and FM
Frequency spectrum and Bandwidth of AM and FM wave
(only descriptive Treatment)
Comparison between AM ,FM and PM
Demodulation and Detection:
Defination,Demodulation of AM and FM signal(Brief Treatment)

3.Transmitter

HRS MKS

8 12

AM Transmitter:-Low level and High level –Block Diagram

FM Transmitter-Block Diagram of FM Stereophonic Broadcast Transmitter

4.Receiver

HRS MKS

6 10

Types of AM receivers-Block Diagram of Superheterodyne

Receiver,Functions of each Block,Identification of Stages,Block diagram of Stereophonic FM receiver and Functions of each Block

5 .TV Systems

HRS MKS

12 18

TV Camera-Basic Principle and Function

TV antennas-Types and Functions

TV Transmitter-for Monochrome TV Block Diagram and its Functions

TV Receiver-Block Diagram and its Functions

List of Laboratory Practicals/Field

1.Study of Superheterodyne Radio Receiver(2 turns)

2.Troubleshooting of Faults in Radio Receivers,their Identification and causes(4 turns)

3.Study of various controls of TV receiver(2 turns)

4.Tracing of various sections of TV receivers(2 turns)

5.Location of Faults in different sections of TV receivers(4 turns)

6.Field visit to ALL INDIA RADIO(1 turn)

7.Field visit to Goa Doordarshan.(1 turn)

Referance Books:

1. Electronic communication systems by George Kennedy
2. Electronic communication by Dennis Roddy and John Coolen
3. Monochrome and colour TV by R.R. Gulati
4. Basic TV and Video systems by Bernard Grob.