

DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING
SYLLABUS FOR B.E. VI-SEMESTER

CONSUMER ELECTRONICS

(for other Departments)

Instruction: 1 Hr /week	SEE Marks : 50	Course Code : OE610EC
Credits : 1	CIE Marks: 30	Duration of SEE : 2 Hrs

Course Objective	Course Outcomes
1. Upon completion of the subject, the student shall know the basics of Electronics, operations of various Audio & Video Systems, Office & Home appliances and advance consumer electronic gadgets used in our day-to-day actives.	At the end of the course, students will be able to: <ol style="list-style-type: none">1. List technical specification of electronics Audio / Video systems.2. Understand the working of microphones and speakers and their application in Audio systems.3. Understand the basic functions of consumer electronic goods like cell phones, ATMs.4. Troubleshoot consumer electronic products like TV, Washing machine and AC.

UNIT - I

Brief history and development of Electronics – Basic Electronic Components - DC & AC –Sources, Kirchoff’s Laws, ADCs, Frequency spectra - Ranges (Audio, Video, RF UHF, VHF, Microwave), Audio System - working principles, components - Microphones and Speakers, Principles of Video Processing and Displays (LCD, LED displays), Analog and Digital Video standards.

UNIT - II

Telecommunication Systems: Basics of Telephone system, Caller ID Telephone, Intercoms, Cordless Telephones, Cellular mobile systems, Basics of satellite communication.

Office Electronics: Automatic Teller Machines, Facsimile machines, Digital Diaries, Safety and security systems.

Home Electronics: Digital Camera system, Microwave ovens, Washing Machines, Air Conditioners and Refrigerators, Troubleshooting.

Suggested Reading:

1. Mitchel Schultz ‘Grob’s Basic Electronics’, Mc Graw Hill Publishers, 12/e, 2016.
2. A.M. Dhake ‘Television and Video Engineering’, McGraw Hill Education, 2/e, 2014.
3. B.R. Gupta and V. Singhal, “Consumer Electronics”, S.K. Kataria& Sons, 2013.
4. R.R.Gulati. ‘Monochrome and Color Television’ New Age International Publisher, 2/e, 2010.
5. S.P. Bali, ‘Consumer Electronics’, Pearson Education, 2008.