

G.VENKATASWAMY NAIDU COLLEGE (AUTONOMOUS)

(Re-Accredited with "A" Grade by NAAC)

Department of B.Sc., Electronics

U23EL6OE - ELECTRONIC GADGETS AND HOME APPLIANCES

Course Code	Course Title	Category	Lecture	Tutorial	Practical	Credit
U23EL6OE	Electronic Gadgets and Home Appliances	Open Elective	0	0	0	3

Year	Semester	Internal Marks (CIA)	External Marks (ESE)	Total Marks
III	VI	0	100	100

Course Objective

- the demand of electronic gadgets and home appliances is increasing day by day
- it is constantly making our day-to-day life easy and smart
- The aim of the course is to help the student to attain depth knowledge of electronic gadgets and household devices
- this course will introduce the students with working principles, main features and care and Maintenance of such electronics appliances used in everyday life

Course Outcomes (COs)

On the completion of the course the student will be able to

CO	Course Outcome	Knowledge Level (RBT)
CO1	Identify the principles of home electronic gadgets like recording devices, Remote Control, Video Games, Musical Instruments and Security Systems, Digital Diaries, Digital Calculators and Camcorders, Microphones, TV Broadcasting Systems.	K1,K2,K3,K4,K5
CO2	Understand the fundamental concepts of household and office devices	K1,K2,K3,K4,K5
CO3	Interpret the main features of electronic appliances	K1,K2,K3,K4,K5
CO4	Analyze the care and maintenance of electronic home and office devices	K1,K2,K3,K4,K5
CO5	Evaluate the working principles of the household gadgets and electronics appliances	K1,K2,K3,K4,K5

K1–Remember; K2–Understand; K3–Apply; K4–Analyze; K5–Evaluate; K6–Create

CO-PO and CO-PSO Mapping (Course Articulation Matrix)

COs	POs							PSOs		
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PSO3
CO1	1	2	3	2	3	2	3	3	2	3
CO2	2	3	3	3	1	3	2	1	3	2
CO3	3	2	2	1	1	2	2	1	2	3
CO4	2	1	2	3	2	1	2	2	1	2
CO5	3	2	2	1	1	2	2	1	2	2
Total	11	10	12	10	8	10	11	8	10	12

(3-Strong, 2-Medium, 1-Low, -No Correlation)

Course Content

Unit-I Recording and Reproductions

Self Study

B.Sc., Electronics

Analog sound recording and reproduction – Digital sound recording and reproduction – Block diagram of disk recording and disk reproduction system - Optical recording on disk

Unit-II Remote Control, Video Games, Musical Instruments and Security Systems

Self Study

Remote Control: Operating principle – Block diagram – features. Video Games: Operating principle – Block diagram – features. Musical Instruments: Operating principle – Block diagram – features. Security Systems: Operating principle – Block diagram

Unit-III Digital Diaries, Digital Calculators and Camcorders

Self Study

Digital Diaries: Operating principle – Block diagram – features. Digital Calculators: structure of a calculator – Block diagram - Block diagram with register. Camcorders: Operating principle – Block diagram – features

Unit-IV Microphones

Self Study

Microphone – Characteristics of microphones – Output level – Directivity – Microphone types: Moving coil – Ribbon – Capacitor

Unit-V TV Broadcasting Systems

Self Study

Monochrome TV transmitter – Monochrome TV receiver – Color TV transmitter - Color TV receiver

Text Books

1. S.P.Bali “Consumer Electronics”, First edition, PEARSON, 2008
2. Dr.J.S Chode “Consumer Electronics”, First edition, Seventh reprint 2014, Technical Publication

Reference Books

1. Dr.B R Gupta and V. Singhal “Consumer Electronics”, 10th Revised Edition, S K Kataria & sons, 2013
2. Bali R & Bali S.P, “Audio video systems: principle practices & troubleshooting”, Khanna Book Publishing Co. (P) Ltd., India 2010

Web Resources

1. chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://www.lehman.edu/faculty/dgaranin/Physics_of_Sound/PHY140-Spring-2007-09-Sound_recording_and_reproduction.pdf
2. <https://patents.google.com/patent/US7320643B1/en>
3. <https://sapec.es/tv-broadcasting/>

Course Designer

H.RADHA KRISHNAN