



KONGU ARTS AND SCIENCE COLLEGE

(An Autonomous Institution, Affiliated to Bharathiar University, Coimbatore)

ERODE – 638 107

DEPARTMENT OF PHYSICS

VALUE ADDED COURSE – SYLLABUS


18VPPEE - ELECTRONICS FOR EVERYONE

Course Objective:

- To provide electronic fundamentals
- To inculcate the basic ideas of circuit control devices
- To study various trendy electronic gadgets and its application

UNIT I	Electricity and Electronics	8 Hours
An overview – analog and digital electronics - Electronic components: Resistor, Capacitor and Inductor - AC and DC - single phase – Three phase – Applications of AC and DC – Advantages of AC over DC		
UNIT II	Circuit Control and Protective Devices	8 Hours
Switch – Switching Action – Types of Switches - Fuse - Circuit Breaker – Printed Circuit Board - Types of PCBs – Board Construction – Steps involved in the development of a PCB – Advantages of PCBs.		
UNIT III	Integrated Devices and Circuits	8 Hours
Introduction – Integrated Circuits – Advantages and Limitations of ICs - Scale of Integration – Classification of ICs Function - Linear Integrated Circuits – Digital Integrated Circuits – IC Terminology		
UNIT IV	Electronic Gadgets	8 Hours
i pod - Digital camera - pen drive - memory card – Modem – Kindle – printer – ups and inverter – wireless mobile charger – web cam		
UNIT V	Mobile Electronics	8 Hours
Optical mouse –Touch Screen Mobile – Bluetooth – Difference between Dial up and broadband internet connections – Functioning of Sim card in mobile phones – GPS		
Total Hours		40 Hours




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BOOKS FOR REFERENCE:


1. R.S.Sedha – A Text book of Applied Electronics – Revised Edition 2006 – S.Chand& Company Ltd., NewDelhi
2. The Hindu Speaks on Scientific Facts – Edition 2006.
3. Basic Electronics – B. L. Theraja – Recent Edition 2014 (Reprint 2015) – S. Chand Publications, New Delhi.
4. Principles of Electronics - V. K. Mehta & Rohit Mehta - Revised Edition 2013 – S. Chand Publications, New Delhi.
5. Study Material Department of Physics

COURSE OUTCOME:

Upon successful completion of the course, Students will be able to

- ❖ Gain the knowledge of basics of electronics
- ❖ Recognize protective and control circuits
- ❖ Gain basic knowledge in the area of integrated circuits.




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