



**Sandip Foundation's
Sandip Institute of Technology & Research Centre, Nashik
Department of Electronics & Telecommunication**

Date: 30st March 2019

Name of Event:- Three days workshop on “Fundamentals concepts of electronics components & devices testing”

Date of Event:- 26-28 March. 2019

Name of resource person: - Mr. Sanjay Chaudhari, Electronics study centre, Nashik

Objectives:

- To familiarize with commonly used Active and Passive Electronic Components.
- To learn the Basic Building Blocks commonly used in making Projects.
- To learn Soldering, use of Test equipment in Fault Finding.
- To construct a simple Utility Project.

Contents Covered in the Workshop:

- **Familiarization with Electronic Components & testing of components**

Following components will be covered:

- (a) Resistors – Functions, Characteristics and Types.
- (b) Capacitors – Functions, Characteristics and Types.
- (c) Inductors and Transformers.
- (d) Relays, Switches, Cables and Connectors.
- (e) Diodes Zener Diode and LEDs.
- (f) Transistors and Triacs (Switching Action Only)
- (g) Op Amplifiers.
- (h) 555 Timers.
- (i) MOSFETS.

- **Basic Building Blocks**

Following Building Blocks will be covered:

(a) Rectifier Circuit with Filter and Regulator.

(b) Switching Circuit using Transistor.

(c) Astable and Monostable Circuits with 555 timer.

(d) Sine Wave, Square Wave, Comparator and Difference Amplifier Circuits using 741 Ops.

- **Electronic Workshop Practice**

Following aspects will be demonstrated:

(a) Essential Components of an Electronic Tool Kit.

(b) Use of Multi meter.

(c) Soldering Techniques.

- **Project Construction**

Construction of a minor but useful project by the student from the kits of Electronics study centre, Nashik

Outcome: After successfully completing the workshop students will be able to

1) Understand the importance of basic electronics components & their testing.

2) Use and importance of testing, soldering techniques & measurements tools.

3) Implement the minor project.

Photos:



