

Sandip Institute of Technology and Research Centre At & Po – Mahirawani, Trimbak Road, Tal & Dist. – Nashik Phone: (02594) 222552,53,54, Fax: (02594) 222555 website : www.sandipfoundation.org, e-mail : principal@sitrc.org (Approved by-AICTE, New Delhi, & Govt. of Maharashtra and Permanently Affiliated to Savittibai Phule Pune University (Formerly Pune University), Pune. Accredited with "A" grade by NAAC With CGPA Score of 3.11 NBA Accredited for Computer & Mechanical Engineering(UG Course) w.e.f. 2023-24 to 2025-26



Date : 21/09 /2022

## Notice

Department of Electrical Engg is going to conduct free of cost Workshop on Industrial approach in electrical and electronic on date 26/09/22 to 27/09/22 for SE student's. Interested students enroll their name to Prof. R.B.Sadaphale before 26/09/2022.

Time : 10:30AM To 5.00PM

Venue :For TH- SE Class room Electrical Engineering Dept

HOD Electrical



Head of Department Electrical Engineering Sandip Institute of Technology and Research Centre Mahiravani, Nashik-422213



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## Theory Course Content- Topics covered during the Workshop -

## Electronics Components Study :

Identification - Name, Symbol, Unit, Physical appearance, size, weight

**Testing using DMM-** Check working condition& compare with std. values, Possible faults with respective reading, Detect the faults.

**Working** - Function of component and its application

Ratings -Specifications, Available range, Safe limit use

Availability-Market, Name of the shops in city, district, Mumbai, Price in retail &Wholesale of various components, some are listed below..

1	Carbon Film Resistor ( CFR )	21	Transformers assorted- Step Down
		22	Relay- General purpose various shapes, sizes
		23	Solenoid- Valve, Latch, Switch
		24	Loud Speaker
		25	General Purpose Diode
	Presets all types, Vert, Hori. Small, big	26	Point Contact Diode- Signal Diode
	Multiturn preset Vertical, Horizental	27	LEDs assorted sizes & colors, Focus
	Pot- PVC, Metal Shaft Liner, Log	28	Zener Diode
-		29	Power diode
10	Thermistor NTC, PTC diff. shapes	30	Metal Diode
11	Thermostat	31	Photo Diode
12	Ceramic Capacitor	32	Photo Transistor
13		33	BJT Transistors NPN, PNP
14	Polyester capacitor	34	Power Transistor
15	Mica Capacitor	35	SCR
16	Tantalum capacitor	36	Diac
17	Electrolytic capacitor	37	Triac
18	Super Capacaitor		MOSFET P Channel, N Channel
19	Inductor		IGBT
20	CT- Current Transformer		Fuse &Connectors
	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19	2Metal Film Resistor (MFR)3Ceramic Resistor4Wire Wound Resistor5Tapped Wire Wound Resistor6Presets all types, Vert, Hori. Small, big7Multiturn preset Vertical, Horizental8Pot- PVC, Metal Shaft Liner, Log9LDR all sizes & packages10Thermistor NTC, PTC diff. shapes11Thermostat12Ceramic Capacitor13Paper Capacitor14Polyester capacitor15Mica Capacitor16Tantalum capacitor17Electrolytic capacitor18Super Capacaitor19Inductor	2Metal Film Resistor (MFR)223Ceramic Resistor234Wire Wound Resistor245Tapped Wire Wound Resistor256Presets all types, Vert, Hori. Small, big267Multiturn preset Vertical, Horizental278Pot- PVC, Metal Shaft Liner, Log289LDR all sizes & packages2910Thermistor NTC, PTC diff. shapes3011Thermostat3112Ceramic Capacitor3213Paper Capacitor3415Mica Capacitor3617Electrolytic capacitor3718Super Capacaitor3819Inductor39

## Project Construction-

PCB

-Different types, PCB Designing manually, as well as by software (Express PCB)Image expouse technique using Laser Printer

Identification of Soldering Aids- Soldering Iron ratings, Solder metal proportions, flux, acidtheir use.

**Circuit Assembly-** Soldering skill tips- use of proper soldering Iron, Metal, Flux, Cleaning, Tinning etc.

Soldering -Use of proper metals, Soldering Iron, Proper required time to solder. PCB circuit study, Components lead cleaning, placement of proper component in right polarity, Soldering skill tips, lead cutting aftersoldering.

**Connections** - Power +ve, -ve, Ground, -Input-Output using std. color code wires.

**Desoldering** - Desolder pump, Desolder wire & their practice. How to remove (Desolder) components.

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**Project**-Assembly of few simple project, their connection & testing,<br/>Representation of project to get easy demonstration for user