

Workshop on Basic Electronics, PCB Designing

and Mini project Development

Basic Electronics , PCB Design and Mini project Development

About Us:

MDB Electrosoft is grooming electronics and software product Development Company. We develop electronics and software products which help society to make life easy and interesting. Our team is always dedicated for the Development and Innovations. Our research in a product development makes the product outlined as per client requirement. Our development strategy gives throughput which inclined with the user requirements. Our vision is to develop society oriented products which always dole out better life. Our economic policies give lot in less. Our product development starts from user's requirement and ends on efficient and well develop product. Our team has well experience and skilled experts who are able to give efficient and in time solution. Every solution provided by us is unique and innovative. Our approach has been always customer and market communication centric. We create products keeping our target consumer and audience in mind. Our expertise always focuses on market requirement and development.

Our Products & Services:

We offer the world class product and services. These are very efficient and well formed products are satisfactory and customer oriented which fulfill client requirements. Our services are bound with user and we are available all days of year. Our services are client communication centric so that they get the in time services. Our products are too efficient and well developed. We offer following product and services.

- Electronics product
 - 1. Advance theft alert system (Patented)
 - 2. Home automation through remote control.
 - 3. Controlling of Water Pump by cell phone.
 - 4. Flush control system.
 - 5. Educational Trainer Kit
- Software Products
 - 1. <u>www.mahavidyalay.in</u>



2. E-attendance

Contents of Basic Electronics Training Program

<u>DAY-1</u>

Sr. No.	Торіс	Duration
1.	Introduction & Practical application of various components a)Resister b) Capacitor c) Inductor d) Diode e) LED f) Multimeter g) Breadboard	1 hr
2.	Introduction to Breadboard	30 min
3.	 Practical Performed with above components a) How to select resistor value and its wattage by performing series, parallel combinations of LEDs. 	1 hr.
	Lunch Break	30 min
4.	h) Transistor I) Switches j) LDR	30 min
5.	 Practical Performed with above components a) Transistor as a switch. b) Conversion of resistance variation into voltage (R to V Convertor. c) Mini Project of Street Light Controller. 	2hr 30 min

Day2

Sr. No.	Торіс	Duration
6.	PCB Design Using CAD tool (PCB Design Software)	
	a) Types of PCB.	2.30 hr
	b) PCB Design Rules.	
	c) Introduction to PCB Design Software.	
	e) Practice of the software by designing of the PCB for various	
	Circuits.	
	d) How to print Soft design on actual PCB.	
	e) Etching of PCB	
	f) Drilling of PCB.	
7.	Regulated Power Supply	30 min



	i) Circuit Design	
	Lunch Break	30 min
	ii) PCB design iii)Etching of PCB iv) Drilling of PCB	1 hr
8.	Introduction to soldering a) What is soldering Iron b) What is soldering c) Soldering Techniques e) Soldering practice	1 hr

<u>Day 3</u>

Sr. No.	Торіс	Duration
	Regulated Power Supplyv) Component mounting vi) Testing of Power Supply.	1.30 hr
9.	Introduction to Relay	30 min
10.	IC555 Design and Practical Implementation of various circuit using IC555 a) Introduction to IC555	30 min
	Lunch Break	30min
	i) Monostable mode And ii) Astable mode	1 hr
11.	Mini Project Street light control	1.30 hr.

<u>Day 4</u>

Sr. No.	Торіс	Duration
12.	Introduction to datasheet	1 hr
13.	Running LEDs	
	a) Clock Design	30min
	b) Introduction to 4017	30min
	c) Development of Running LEDs	30min
	Lunch Break	30 min
14.	Counter Design	30min
	a) Introduction to 4026	20 min
	b) Introduction to Seven segment common K and	
	Common A and testing.	1.10 min
	c) Counter Design.	



<u>Day 5</u>

Sr. No.	Торіс	Duration
15.	 Counter Design to count no. of persons b) Introduction to analog comparator c) Introduction to resistor to voltage convertor. d) Design of counter to count number of persons 	45 min
16.	Tester for Remote controla) Introduction to IR receiverb) Introduction to IR Transmitterc) Design of Remote control Tester	45 min
17.	Water Indicator Alarm	45 min
18.	Variable Power Supply i) Circuit Design	30 min
	Lunch Break	30 min
	ii) PCB design iii)Etching of PCB iv) Drilling of PCB v) Component mounting vi) Testing of Power Supply.	3 hrs.

<u>DAY-6</u>

Sr. No.	Торіс	Duration
14.	Completion of Students Remaining	2 hr
	Ckts.	
	Clarification Of students Doubt	1hr
	Lunch Break	30 min
	Feedback and Certificate distribution	1 hr



Component Provided During Program

NO	NAME OF COMPONANTS	QUANTITY	PRIZE
1	Soldering Wire	10grm	
2	Hook up Wire	1	
3	Resistor 10 kΩ	6	
4	1 kΩ, 100Ω	6	
5	4.7 kΩ	6	
6	870 Ω	6	
7	330 Ω	6	
8	270 Ω	6	
9	LED (3mm)	12	
10	(5mm)	12	
11	9v Battery with Connector	1	
12	LDR	1	
13	POT Resistor 10 kΩ	1	
14	100 kΩ	1	
15	Micro Switch (2 lead)	1	
16	Seven Segment Display Common Cathode	1	
15	Capacitor 1000 μf (36 V)	3	
18	100 μf (36 V)	3	
19	10 µf (36 V)	1	
20	Transformer 12-0-12 750mA with main cord	1	
21	Diode 4007	8	
22	IC 7805	1	
23	LM 317	1	
24	IC 555	1	
25	IC 4017	1	
26	IC 4026	1	
27	IC LM358	1	
28	Relay 6V	1	
29	Transistor bc 548	2	
30	Bus strip Male & Female	1/1	
31	IR Receiver TSOP 1738	1	



Details of Workshop:

Sr. No.	Workshop Intake	Fees per Candidate
1.	25	Rs.2000/
2.	40	Rs.1500/
3	50 Plus	Rs.1200/

Kit Provided

: 1. Hardware Development Kit

(List Provided)

- : 2. Basic Electronics Book.
- : 3. Certificate

Note: 1)The costing of Kit is Rs. 500/ included in the above Fees.

2) Team of three trainer will solve the Difficulties of students.

Our Contact Details:

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Visit us - www.mdbelectrosoft.in

Our Success Stories (2014-15)

Training Program on PCB Designing & Java (Dt- 26 jan 2014)



Workshop on Embedded system @ P.R. Pote Polytechnic







Android Training Program @ NVNS PolytechnicAmravati







Training Program @ P.R. Patil Coet Amravati



Training Program @ Sipna College of Engineering & Technology

Training Program @ J.D. Polytechnic Nagpur

Training Program @ Vidyabharti BCA College

