

From  
Dr.G.Mohan Babu,  
Professor and head,  
Department of Electrical and Electronics Engineering,  
SSM Institute of Engineering and Technology,  
Dindigul.

To  
The Principal,  
SSM Institute of Engineering and technology,  
Dindigul.

Respected sir,

Sub: Requesting Approval of conducting **Technological Teaching** for II year and III year EEE Students –Reg

The Department of EEE has planned to conduct technological teaching for II year and III year EEE students on "**TRAINING ON PRODUCT DESIGN AND MANUFACTURING**" which is scheduled to be conducted on the month of December 2022. In this regard, I request your permission to conduct this training on the month. The quotation details, syllabus and training schedule are attached with this letter, kindly do the needful sir.

Name of the technological Training	Name of the Company	Total Number of students	No of hours	Date	Amount	Coordinator /Faculty in charges
Training On Product Design And Manufacturing	SUNSHIV Electronic solutions	76	48	10.10.22 to 15.10.22	1,48,200	Mr.D.Manoj AP/EEE Mr.P.Siva Subramanian AP/EEE

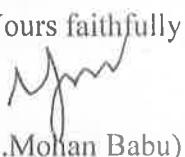
Resource person details:

Mr.S. Sundramoorthy  
CEO  
Sunshiv Electronic Solution

NOTE: Training cost will be settled to the company two days before the end of training.

Thanking you,

Yours faithfully

  
(Dr.G.Mohan Babu)







## SSM INSTITUTE OF ENGINEERING AND TECHNOLOGY

(Approved by AICTE, New Delhi / Affiliated to Anna University, Chennai / Accredited by NAAC)  
Dindigul-Palani Highway, Dindigul-624002

### CIRCULAR

7/10/2022

This is to inform that six days training program on **PRODUCT DESIGN AND MANUFACTURING** is going to conduct for II year EEE & III YEAR students from 10.10.2022 to 15.10.2022, by Sunshiv electronics Dindigul. All the students are informed to attend and enrich your knowledge.

Faculty In-charge

HOD/EEE





ISSM INSTITUTE OF ENGINEERING AND TECHNOLOGY

Sindalagundi post. Dindigul-624002, Tamilnadu.Ph:0451-2448800

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

**TECHNOLOGY TRAINING ON "PRODUCT DESIGN AND MANUFACTURING"  
ATTENDANCE SHEET**





Year	Month	Day	Time	Cloud	Wind	Wind direction	Temperature	Rainfall	Humidity	Barometric pressure
1923	July	15	10:00 AM	Partly cloudy	Light	South	72°F	0.00 in	65%	30.05 inHg
1923	July	15	12:00 PM	Sunny	Light	South	74°F	0.00 in	64%	30.04 inHg
1923	July	15	2:00 PM	Sunny	Light	South	76°F	0.00 in	63%	30.03 inHg
1923	July	15	4:00 PM	Sunny	Light	South	78°F	0.00 in	62%	30.02 inHg
1923	July	15	6:00 PM	Sunny	Light	South	76°F	0.00 in	63%	30.01 inHg
1923	July	15	8:00 PM	Sunny	Light	South	74°F	0.00 in	64%	30.00 inHg
1923	July	15	10:00 PM	Sunny	Light	South	72°F	0.00 in	65%	30.01 inHg
1923	July	16	10:00 AM	Partly cloudy	Light	South	73°F	0.00 in	64%	30.02 inHg
1923	July	16	12:00 PM	Sunny	Light	South	75°F	0.00 in	63%	30.03 inHg
1923	July	16	2:00 PM	Sunny	Light	South	77°F	0.00 in	62%	30.04 inHg
1923	July	16	4:00 PM	Sunny	Light	South	75°F	0.00 in	63%	30.03 inHg
1923	July	16	6:00 PM	Sunny	Light	South	73°F	0.00 in	64%	30.02 inHg
1923	July	16	8:00 PM	Sunny	Light	South	71°F	0.00 in	65%	30.01 inHg
1923	July	16	10:00 PM	Sunny	Light	South	69°F	0.00 in	66%	30.00 inHg
1923	July	17	10:00 AM	Partly cloudy	Light	South	70°F	0.00 in	65%	30.01 inHg
1923	July	17	12:00 PM	Sunny	Light	South	72°F	0.00 in	64%	30.02 inHg
1923	July	17	2:00 PM	Sunny	Light	South	74°F	0.00 in	63%	30.03 inHg
1923	July	17	4:00 PM	Sunny	Light	South	72°F	0.00 in	64%	30.04 inHg
1923	July	17	6:00 PM	Sunny	Light	South	70°F	0.00 in	65%	30.03 inHg
1923	July	17	8:00 PM	Sunny	Light	South	68°F	0.00 in	66%	30.02 inHg
1923	July	17	10:00 PM	Sunny	Light	South	66°F	0.00 in	67%	30.01 inHg
1923	July	18	10:00 AM	Partly cloudy	Light	South	67°F	0.00 in	68%	30.00 inHg
1923	July	18	12:00 PM	Sunny	Light	South	69°F	0.00 in	67%	30.01 inHg
1923	July	18	2:00 PM	Sunny	Light	South	71°F	0.00 in	66%	30.02 inHg
1923	July	18	4:00 PM	Sunny	Light	South	69°F	0.00 in	67%	30.03 inHg
1923	July	18	6:00 PM	Sunny	Light	South	67°F	0.00 in	68%	30.04 inHg
1923	July	18	8:00 PM	Sunny	Light	South	65°F	0.00 in	69%	30.03 inHg
1923	July	18	10:00 PM	Sunny	Light	South	63°F	0.00 in	70%	30.02 inHg
1923	July	19	10:00 AM	Partly cloudy	Light	South	64°F	0.00 in	71%	30.01 inHg
1923	July	19	12:00 PM	Sunny	Light	South	66°F	0.00 in	70%	30.02 inHg
1923	July	19	2:00 PM	Sunny	Light	South	68°F	0.00 in	71%	30.03 inHg
1923	July	19	4:00 PM	Sunny	Light	South	66°F	0.00 in	70%	30.04 inHg
1923	July	19	6:00 PM	Sunny	Light	South	64°F	0.00 in	71%	30.03 inHg
1923	July	19	8:00 PM	Sunny	Light	South	62°F	0.00 in	72%	30.02 inHg
1923	July	19	10:00 PM	Sunny	Light	South	60°F	0.00 in	73%	30.01 inHg
1923	July	20	10:00 AM	Partly cloudy	Light	South	61°F	0.00 in	74%	30.00 inHg
1923	July	20	12:00 PM	Sunny	Light	South	63°F	0.00 in	73%	30.01 inHg
1923	July	20	2:00 PM	Sunny	Light	South	65°F	0.00 in	72%	30.02 inHg
1923	July	20	4:00 PM	Sunny	Light	South	63°F	0.00 in	73%	30.03 inHg
1923	July	20	6:00 PM	Sunny	Light	South	61°F	0.00 in	74%	30.04 inHg
1923	July	20	8:00 PM	Sunny	Light	South	59°F	0.00 in	75%	30.03 inHg
1923	July	20	10:00 PM	Sunny	Light	South	57°F	0.00 in	76%	30.02 inHg
1923	July	21	10:00 AM	Partly cloudy	Light	South	58°F	0.00 in	77%	30.01 inHg
1923	July	21	12:00 PM	Sunny	Light	South	60°F	0.00 in	76%	30.02 inHg
1923	July	21	2:00 PM	Sunny	Light	South	62°F	0.00 in	75%	30.03 inHg
1923	July	21	4:00 PM	Sunny	Light	South	60°F	0.00 in	76%	30.04 inHg
1923	July	21	6:00 PM	Sunny	Light	South	58°F	0.00 in	77%	30.03 inHg
1923	July	21	8:00 PM	Sunny	Light	South	56°F	0.00 in	78%	30.02 inHg
1923	July	21	10:00 PM	Sunny	Light	South	54°F	0.00 in	79%	30.01 inHg
1923	July	22	10:00 AM	Partly cloudy	Light	South	55°F	0.00 in	80%	30.00 inHg
1923	July	22	12:00 PM	Sunny	Light	South	57°F	0.00 in	79%	30.01 inHg
1923	July	22	2:00 PM	Sunny	Light	South	59°F	0.00 in	80%	30.02 inHg
1923	July	22	4:00 PM	Sunny	Light	South	57°F	0.00 in	81%	30.03 inHg
1923	July	22	6:00 PM	Sunny	Light	South	55°F	0.00 in	82%	30.04 inHg
1923	July	22	8:00 PM	Sunny	Light	South	53°F	0.00 in	83%	30.03 inHg
1923	July	22	10:00 PM	Sunny	Light	South	51°F	0.00 in	84%	30.02 inHg
1923	July	23	10:00 AM	Partly cloudy	Light	South	52°F	0.00 in	85%	30.01 inHg
1923	July	23	12:00 PM	Sunny	Light	South	54°F	0.00 in	84%	30.02 inHg
1923	July	23	2:00 PM	Sunny	Light	South	56°F	0.00 in	85%	30.03 inHg
1923	July	23	4:00 PM	Sunny	Light	South	54°F	0.00 in	86%	30.04 inHg
1923	July	23	6:00 PM	Sunny	Light	South	52°F	0.00 in	87%	30.03 inHg
1923	July	23	8:00 PM	Sunny	Light	South	50°F	0.00 in	88%	30.02 inHg
1923	July	23	10:00 PM	Sunny	Light	South	48°F	0.00 in	89%	30.01 inHg
1923	July	24	10:00 AM	Partly cloudy	Light	South	49°F	0.00 in	90%	30.00 inHg
1923	July	24	12:00 PM	Sunny	Light	South	51°F	0.00 in	89%	30.01 inHg
1923	July	24	2:00 PM	Sunny	Light	South	53°F	0.00 in	90%	30.02 inHg
1923	July	24	4:00 PM	Sunny	Light	South	51°F	0.00 in	91%	30.03 inHg
1923	July	24	6:00 PM	Sunny	Light	South	49°F	0.00 in	92%	30.04 inHg
1923	July	24	8:00 PM	Sunny	Light	South	47°F	0.00 in	93%	30.03 inHg
1923	July	24	10:00 PM	Sunny	Light	South	45°F	0.00 in	94%	30.02 inHg
1923	July	25	10:00 AM	Partly cloudy	Light	South	46°F	0.00 in	95%	30.01 inHg
1923	July	25	12:00 PM	Sunny	Light	South	48°F	0.00 in	94%	30.02 inHg
1923	July	25	2:00 PM	Sunny	Light	South	50°F	0.00 in	95%	30.03 inHg
1923	July	25	4:00 PM	Sunny	Light	South	48°F	0.00 in	96%	30.04 inHg
1923	July	25	6:00 PM	Sunny	Light	South	46°F	0.00 in	97%	30.03 inHg
1923	July	25	8:00 PM	Sunny	Light	South	44°F	0.00 in	98%	30.02 inHg
1923	July	25	10:00 PM	Sunny	Light	South	42°F	0.00 in	99%	30.01 inHg
1923	July	26	10:00 AM	Partly cloudy	Light	South	43°F	0.00 in	100%	30.00 inHg
1923	July	26	12:00 PM	Sunny	Light	South	45°F	0.00 in	99%	30.01 inHg
1923	July	26	2:00 PM	Sunny	Light	South	47°F	0.00 in	100%	30.02 inHg
1923	July	26	4:00 PM	Sunny	Light	South	45°F	0.00 in	101%	30.03 inHg
1923	July	26	6:00 PM	Sunny	Light	South	43°F	0.00 in	102%	30.04 inHg
1923	July	26	8:00 PM	Sunny	Light	South	41°F	0.00 in	103%	30.03 inHg
1923	July	26	10:00 PM	Sunny	Light	South	39°F	0.00 in	104%	30.02 inHg
1923	July	27	10:00 AM	Partly cloudy	Light	South	40°F	0.00 in	105%	30.01 inHg
1923	July	27	12:00 PM	Sunny	Light	South	42°F	0.00 in	104%	30.02 inHg
1923	July	27	2:00 PM	Sunny	Light	South	44°F	0.00 in	105%	30.03 inHg
1923	July	27	4:00 PM	Sunny	Light	South	42°F	0.00 in	106%	30.04 inHg
1923	July	27	6:00 PM	Sunny	Light	South	40°F	0.00 in	107%	30.03 inHg
1923	July	27	8:00 PM	Sunny	Light	South	38°F	0.00 in	108%	30.02 inHg
1923	July	27	10:00 PM	Sunny	Light	South	36°F	0.00 in	109%	30.01 inHg
1923	July	28	10:00 AM	Partly cloudy	Light	South	37°F	0.00 in	110%	30.00 inHg
1923	July	28	12:00 PM	Sunny	Light	South	39°F	0.00 in	109%	30.01 inHg
1923	July	28	2:00 PM	Sunny	Light	South	41°F	0.00 in	110%	30.02 inHg
1923	July	28	4:00 PM	Sunny	Light	South	39°F	0.00 in	111%	30.03 inHg
1923	July	28	6:00 PM	Sunny	Light	South	37°F	0.00 in	112%	30.04 inHg
1923	July	28	8:00 PM	Sunny	Light	South	35°F	0.00 in	113%	30.03 inHg
1923	July	28	10:00 PM	Sunny	Light	South	33°F	0.00 in	114%	30.02 inHg
1923	July	29	10:00 AM	Partly cloudy	Light	South	34°F	0.00 in	115%	30.01 inHg
1923	July	29	12:00 PM	Sunny	Light	South	36°F	0.00 in	114%	30.02 inHg
1923	July	29	2:00 PM	Sunny	Light	South	38°F	0.00 in	115%	30.03 inHg
1923	July	29	4:00 PM	Sunny	Light	South	36°F	0.00 in	116%	30.04 inHg
1923	July	29	6:00 PM	Sunny	Light	South	34°F	0.00 in	117%	30.03 inHg
1923	July	29	8:00 PM	Sunny	Light	South	32°F	0.00 in	118%	30.02 inHg
1923	July	29	10:00 PM	Sunny	Light	South	30°F	0.00 in	119%	30.01 inHg
1923	July	30	10:00 AM	Partly cloudy	Light	South	31°F	0.00 in	120%	30.00 inHg
1923	July	30	12:00 PM	Sunny	Light	South	33°F	0.00 in	119%	30.01 inHg
1923	July	30	2:00 PM	Sunny	Light	South	35°F	0.00 in	120%	30.02 inHg
1923	July	30	4:00 PM	Sunny	Light	South	33°F	0.00 in	121%	30.03 inHg
1923	July	30	6:00 PM	Sunny	Light	South	31°F	0.00 in	122%	30.04 inHg
1923	July	30	8:00 PM	Sunny	Light	South	29°F	0.00 in	123%	30.03 inHg
1923	July	30	10:00 PM	Sunny	Light	South	27°F	0.00 in	124%	30.02 inHg
1923	July	31	10:00 AM	Partly cloudy	Light	South	28°F	0.00 in	125%	30.01 inHg
1923	July	31	12:00 PM	Sunny	Light	South	30°F	0.00 in	124%	30.02 inHg
1923	July	31	2:00 PM	Sunny	Light	South	32°F	0.00 in	125%	30.03 inHg
1923	July	31	4:00 PM	Sunny	Light	South	30°F	0.00 in	126%	30.04 inHg
1923</										

S. No.	Reg.no.	Student Name	FN	AN								
35	922121105036	PRADISH V S	Raj	Datt								
36	922121105037	PRIYA DHARSHINI J	Raj	SRI								
37	922121105038	RAGAVI R	Ragavi									
38	922121105039	RAJESHWARI J	Rajeshwari									
39	922121105040	RAJKUMAR S	RAJKUMAR									
40	922121105041	REETHANA M	M. Reethana									
41	922121105042	SANJAY G	Sanjay									
42	922121105043	SANTHIYA M	Santhiya									
43	922121105044	SANTHOSH C	Santhosh	C.								
44	922121105045	SARAN RAHUL G	Saran	G.								
45	922121105046	SELVAKUMARC	Selvakumar	C.								
46	922121105047	SHARMILA M	Sharmila	M.								
47	922121105048	SRI SAKTHI J T	Sri Sakthi	J T	Sri Sakthi	J T	Sri Sakthi	J T	Sri Sakthi	J T	Sri Sakthi	J T
48	922121105049	SRI SUPRAJAS	Sri Suprajaa									
49	922121105050	VAISHALIM	Vaishali	M.								
50	922121105051	VANAJA G	Vanaja	G.								
51	922121105052	VEERACHAMY S	Veerachamy	S.								
52	LE 1	SALAMON VINCENT RAJ R	Salomon	Vincent								
53	LE 2	YUVARAJ T	Yuvraja	T.								
54	LE 3	YUGDISH	Yugdish									

1921 1922 1923 1924 1925  
1926 1927 1928 1929 1930  
1931 1932 1933 1934 1935  
1936 1937 1938 1939 1940  
1941 1942 1943 1944 1945  
1946 1947 1948 1949 1950  
1951 1952 1953 1954 1955

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SSM INSTITUTE OF ENGINEERING AND TECHNOLOGY

Sindalagundi post, Dindigul-624002, Tamilnadu. Ph:0451-2448800

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

**TECHNOLOGY TRAINING ON "PRODUCT DESIGN AND MANUFACTURING"**

**ATTENDANCE SHEET**

RECOMMENDED CONSTRUCTION DETAILS  
FOR THE DESIGN OF REINFORCED CONCRETE  
STRUCTURES

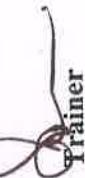
## LEEDERSHIP IN ENERGY AND ENVIRONMENTAL DESIGN

LEED® is a registered trademark of the U.S. Green Building Council.

LEED® is a registered trademark of the U.S. Green Building Council.

LEED®

S. No.	Reg.no.	Student Name	12-05-22	13-05-22	12-05-22	13-05-22	13-05-22	14-05-22	15-05-22
17	922120105018	R.Shammugavel							
18	922120105019	M.Suriya prakash	P.B	P.B					
19	922120105020	V.Tamilselvan							
20	922120105021	H. Thirsath daniel	H.T. Daniel						
21	922120105301	R.Sharan kailash							
22	922120105302	M.Hariprasath	H.M.P						

  
 HOD/EEE  
  
 Trainer

  
 Faculty Incharge



29-09-2022

To,  
The HOD -EEE  
SSM college of Engineering & Technology  
Dindigul.

Dear sir,  
Greetings from SUNSHIV ELECTRONIC SOLUTIONS, Coimbatore.  
Thank you for choosing our industry for 6 days practical industrial training to our students.  
I assure all our students will become as industry ready engineers by our exclusive hands-on practical training which are badly expected by Core & IT industries.

**Topics for our 6 days training:**

**1. PRODUCT DESIGN AND MANUFACTURING :**

- \*Live Demo of electrical and electronics components(value finding and working principle)
- \*Computer Aided Drafting (Practical Training)
- \*Circuit creation for industrial applications
- \*Circuit creation simulation softwares
- \*PCB Designing(single and Multi layer PCB)
- \* Trouble shooting of Products, Machines & Instruments
- \*Product Manufacturing (2 products/ student) (All soldering tools , pcb , components will be arranged by us) - TWO Take away products

**2. Industrial EMBEDDED PROGRAMMING USING PIC MICRO CONTROLLER :**

- \* C keywords with applications
- \* PIC IC architecture and PIN configuration
- \* SENSORS - Digital & Analog
- \* Circuit creation for micro controller products
- \* I/O PORTS (ROBOTIC) Programming
- \* TIMER programming
- \* ADC ( Analog sensors interfacing)
- \* Programming 7 seg. Display & sensors interfacing
- \* MPLAB, REAL PIC SIMULATOR & SIMULIDE software training
- \* IOT(Internet Of Things) –Data storing in CLOUD.
- \* Programming for industrial applications (50 products and more)



Your Technical Friend

**SUNSHIV**  
Electronic Solutions  
Since 1994

ELECTRONIC CORE INDUSTRY

**PCB Designing & Manufacturing**  
**Industrial Automation Products**  
**Electronics / Embedded / PLC Training**  
**In-plant / Internship Training**  
**3D Modeling & Printing**

Training schedule for our 6 days industrial training

**1. PRODUCT DESIGN AND MANUFACTURING :**

**Day1**

Forenoon :

Live Demo, value finding, identification, working principle of electronic components and circuits & Drafting fundamentals  
@ conference hall

Afternoon :

Hands on – Computer Aided Designing & Drafting  
@ computer lab

**Day2 :**

Forenoon

INDUSTRIAL PCB DESIGNING – single & Multilayer  
@ Conference hall

Afternoon :

PCB DESIGNING (Single & multilayer) – PRACTICAL  
@Computer lab

**Day 3 :**

Forenoon :

Two individual products manufacturing & Testing

@ Electronics lab

(All equipments, soldering iron, stand , lead, pcb & components will be arranged by our industry)

Afternoon :

Circuit Creation for industrial and domestic electronic products &

Trouble shooting of Components, Products & instruments

(All multimeters , components will be arranged by our industry)

## **2. Industrial EMBEDDED PROGRAMMING USING PIC MICRO CONTROLLER :**

### **Day 4 :**

#### **Forenoon**

**C keywords with applications**

**PIC IC architecture and PIN configuration**

**I/O PORTS (ROBOTIC) Programming**

- With Source code & hardware explanations

**@ Conference hall**

#### **Afternoon :**

**Robotic I/O , MPLAB & REAL PIC SIM programming – PRACTICAL**

**@ Computer lab (Or conference hall with laptops)**

### **Day 5 :**

#### **Forenoon**

**SENSORS - Digital & Analog**

**Circuit creation for micro controller products**

**TIMER programming with live applications & SFRs**

**7 Seg. Display interfacing programming**

**SIMULIDE Software training**

#### **Afternoon:**

**Timer Programming & simulation - Practical**

**@Computer lab (Or conference hall with laptops)**

### **Day 6 :**

#### **Forenoon**

**ADC - Analog sensors interfacing**

**Programming for Industrial applications (50 products and more)**

**Afternoon:**

Analog sensor Programming & simulation - Practical

How to become an ENTREPRENEUR?

How to get outsourcing orders from Industries on your studying period?

How to get Industry Projects & Internships?

Feedback session

Training certification

@Computer lab (Or conference hall with laptops)

**Outcome of our exclusive practical training:**

1. Our trainings are purely practical oriented.
2. Participants can create drawings, Circuits, Programs for any industrial applications on their own.
3. All Participants can trouble shoot machines, instruments and PCB kits.
4. Participants will meet all the expectations of IT & Core industries.
5. Participants can manufacture their projects by their own at our college premises (No need of project centers)
6. Industrial certification (Training , Internship certificates)
7. Our Industry visit & follow up session after training

Note :

Minimum students batch - 70

Maximum students batch – 140

Fees :

For 6 days training with two individual take away products

Rs 1950 / Participant – for cash payment

(For cheque or bank transfer Taxes will be extra)

Thank you.

Regards

S.SUNDARAMOORTHY, CEO, 9842202351  
SUNSHIV ELECTRONIC SOLUTIONS,  
COIMBATORE.



## SSM INSTITUTE OF ENGINEERING AND TECHNOLOGY

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DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

### TECHNOLOGY TRAINING ON " PRODUCT DESIGN AND MANUFACTURING MARK SHEET

S. No.	Reg.no.	Student Name	MARK
1	922120105001	M.AKASHKUMAR	12
2	922120105002	S.A.AMANULLA	9
3	922120105003	P.M.BALAJI	17
4	922120105005	U.DINESHKUMAR	15
5	922120105006	T.GEETHANJALI	20
6	922120105007	P.JOTHISELVAM	15
7	922120105008	N.KARTHIKEYAN	19
8	922120105009	M.MARIARAJ	21
9	922120105010	S.MOHAMED ABURAR	12
10	9221120105011	S.MOHAMED KASIM	12
11	922120105012	M.MONESH	10
12	922120105013	S.PREETHI	14
13	922120105014	M. PREETHIVIRAJ	13
14	922120105015	T.ROHITH	17
15	922120105016	S.SADHAM HUSSAIN	8
16	922120105017	S.SANGARAPANDI	19
17	922120105018	R.SHANMUGAVEL	15
18	922120105019	M.SURIYA PRAKASH	09
19	922120105020	V.TAMILSELVAN	20
20	922120105021	H. THIRSATH DANIEL	19
21	922120105301	M.HARIKRASATH	11
22	922120105302	R.SHARAN KAILASH	13

Faculty Incharge

HoD/EEE

PRINCIPAL





## SSM INSTITUTE OF ENGINEERING AND TECHNOLOGY

Sindalagundu post, Dindigul-624002, Tamilnadu.Ph:0451-2448800

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

### TECHNOLOGY TRAINING ON "PRODUCT DESIGN AND MANUFACTURING MARK SHEET"

S. No.	Reg.no.	Student Name	MARK
1	922121105001	ABIRAMI G	15
2	922121105003	AISHWARYA M.P	18
3	922121105004	ARCHANA DEVI B	12
4	922121105005	ARUN KUMAR S	11
5	922121105006	BALAMURUGAN M	10
6	922121105007	BALA SUBRAMANIYAN R	12
7	922121105008	BHUVANESWARI G	13
8	922121105009	CATHRIN NISHA M	15
9	922121105010	CELIN JAYAMARY A	13
10	922121105011	DEENA DHAYALAN P A	08
11	922121105013	DIVYA J	14
12	922121105014	DOMINIC SCAPLARRAJ A	10
13	922121105015	EZHUMALAI NAGA VISHNU S	11
14	922121105016	GOPI J	15
15	922121105017	HARIHARAN T	14
16	922121105018	JAYASRI S	12
17	922121105020	KALEESWARAN M	15
18	922121105021	KAMALEE A	18
19	922121105022	KAMILA SAI K	20
20	922121105023	KANYA K	19
21	922121105024	KARTHICK RAJ D	17
22	922121105025	KAVIYA LAKSHMI S	14
24	922121105027	LOKENDRA SOWMIYAN S	20
25	922121105028	MANIKANDAN S	22
26	922121105029	MANIVASAGAN B	18
27	922121105030	MANI VEL G	12
28	922121105031	MANOJKUMAR A	18
29	922121105032	MINIPRIYA K	18
30	922121105033	MOHAMMED SIDDIQ A	12
31	922121105034	NARMATHA DEVI P	11
32	922121105035	PONRAJ R	10
33	922121105036	PRADISH V S	13

34	922121105037	PRIYA DHARSHINI J	18
35	922121105038	RAGAVIR	12
36	922121105039	RAJESHWARI J	15
37	922121105041	REETHANA M	12
38	922121105042	SANJAY G	8
39	922121105043	SANTHIYA M	19
40	922121105044	SANTHOSH C	12
41	922121105045	SARAN RAHUL G	20
42	922121105046	SELVAKUMAR C	18
43	922121105047	SHARMILA M	17
44	922121105048	SRI SAKTHI J T	12
45	922121105049	SRI SUPRAJA S	15
46	922121105050	VAISHALI M	16
47	922121105051	VANAJA G	19
48	922121105052	VEERACHAMY S	18
49	922121105301	SALAMON VINCENT RAJ R	16
50	922121105302	YUDISH M	10
51	922121105303	YUVARAJ T	11

Faculty Incharge

ym  
HOD/EEE

PRINCIPAL



## SSM INSTITUTE OF ENGINEERING AND TECHNOLOGY, DINDIGUL - 624 002

(Approved by AICTE, New Delhi / Affiliated to Anna University, Chennai / Accredited by NAAC)  
Dindigul – Palani Highway, Dindigul 624 002

### Department of Electrical and Electronics Engineering

### TECHNOLOGY TRAINING PROGRAMME ON PRODUCT DESIGN AND MANUFACTURING

#### PRODUCT DESIGN AND MANUFACTURING MULTIPLE CHOICE QUESTION

Name of the student:

Year/Sem :

Date:

1. Which phenomenon is not reduced by the circuit paths of lowest impedances especially provided by power and return planes for shielding purposes?
  - a) Radiation
  - b) Convection
  - c) Noise
  - d) Crosstalk
2. High current circuits are purposely located or placed near the edge of PCB in accordance to the supply lines for \_\_\_\_\_
  - a) Removal of heat
  - b) Isolation of stray current
  - c) Reduction of path length
  - d) All of the above
3. Which among the below stated soldering methods is also renowned as 'High Frequency Resistance Soldering'?
  - a) Iron Soldering
  - b) Furnace Soldering
  - c) Torch Soldering
  - d) Electrical Soldering
4. Which among the below mentioned approaches belongs to the category of In-circuit Testing?
  - a) Impedance Testing
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6. What is/are the necessity/ies to provide guarding to precision differential amplifiers?
  - a) To increase leakage resistance
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7. Which among the below mentioned assertions is not a way of cross-talk reduction while designing digital PCBs?

- a) Decrease in the distance between conductors
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  - d) Avoid running of parallel traces for longer distances especially for asynchronous signals
8. Which among the below mentioned packages does not belong to the category of 'Small Outline Package'?
- a) SO
  - b) SOP
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14. Which among the following assists in obtaining the desired value of wave impedance in reflection phase while designing digital PCBs?
- A. Width of signal lines
  - B. Distance between signal line and ground line
  - C. Signal Delays
  - D. Double Pulsing

- 15. What are the components of the electric system?**
1. Electric joints and cables
  2. Batteries and electric wiring
  3. Engines and joints
  4. thunder and lightning
- 16. How many components does the control system have?**
1. 4
  2. 1
  3. 2
  4. 5
- 17. The processor belongs to the**
1. Sensory system
  2. Mechanic system
  3. Electric system
  4. Control system
- 18. One of these is NOT a type of robot**
1. Medical
  2. Industrial
  - 3 Household
  4. Apologetic
- 19. The small mobile robot base used in the Robot Educator. This robot is able to perform some but not all of the tasks in the Robotics Engineering activities**
1. Light sensor
  2. Lego Mindstorms Education Software
  3. Robot
  4. Robot Educator Model (REM)
- 20. A block is the basic unit of programming in the NXT programming Software. Blocks perform their operations in order along the Sequence Beam**
1. Touch Sensor
  2. Block (programming)
  3. Ports
  4. Behaviors
- 21. The primary source of physical motion in the Mindstorms NXT system.**
1. Interactive Servo Motor
  2. Behaviors
  3. Light Sensor
  4. Touch Sensor
- 22. A machine that is able to interact with and respond to its environment. characterized by three central capabilities: the ability to Sense, the ability to Plan, and the ability to Act**
1. Code
  2. Taskbot
  3. Robots
  4. Ports
- 23. The three characteristic capabilities that define a robot \_\_\_\_\_**
1. Comment
  2. Sensor
  3. Sense-Plan-Act
  4. NXT Brick

**24.**When working in a group for robotics, students should \_\_\_\_\_

1. Socialize instead of work and then work alone
2. Stay on task and don't work with your group
3. Work alone and don't socialize with group members
4. stay on task and work with group members appropriately

**25.**General term for any command or group of commands in a program. In the NXT Programming Software, this is one or more blocks \_\_\_\_\_

1. Comment
2. Code
3. Ports
4. Robot



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### Department of Electrical and Electronics Engineering

### TECHNOLOGY TRAINING PROGRAMME ON PRODUCT DESIGN AND MANUFACTURING

20

#### PRODUCT DESIGN AND MANUFACTURING MULTIPLE CHOICE QUESTION

Name of the student:

T. Geethanjali

Year/Sem :

II IV

Date:

10/10/22

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8. Which among the below mentioned packages does not belong to the category of 'Small Outline Package'?
- a) SO  
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c) SOT  
d) ~~SON~~
9. Which among the below specified assertions is not a grounding consideration associated with ADC as well as DAC?
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15. What should be the resistance of 0.6 mm wide conductor with 15 cm length and 25  $\mu\text{m}$  thickness of standard copper foil? (Assume  $\rho = 1.7241 \times 10^{-6}$  (at 20° C))

- a) 118.2 m $\Omega$
- b) 138.2 m $\Omega$
- c) 172.4 m $\Omega$
- d) 192.4 m $\Omega$

16. The actual cost of PCB can be evaluated on the basis of \_\_\_\_\_

- a) PCB size & material
- b) Number of layers
- c) Vias on PCB
- d) All of the above

17. Which factors contribute to the occurrence of mechanical stress?

- a) Resonance
- b) Cracked Solder Joints
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18. Which type of PCB requires minimum soldering on component side in order to avoid replacement oriented difficulties?

- a) Single-sided PCB
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19. What effects can be observed if the separate power and ground planes are provided with large conducting surfaces for better decoupling in PCB layouts?

- a) Increase in self-inductance
- b) Reduction in self-inductance
- c) Stability in self-inductance
- d) None of the above

20. 1. Which memory storage is widely used in PCs and Embedded Systems?

- a) EEPROM
- b) Flash memory
- c) SRAM
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21. 1. Which of these designs considers both the software and hardware during the embedded design?

- a. Peripheral Design
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- c. Software/Hardware Design
- d. Memory Design

22. Which of these can lead to a reduction of the loop overhead thus leading to an increase in the speed?

- a. Loop permutation
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23. The Index set L would denote what?

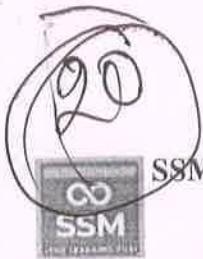
- a. Processor
- b. Task Graph Node Type
- c. Task Graph Node
- d. Hardware Components

24. The main ingredient for the optimization of power is:

- a. Energy Model
- b. Power Model
- c. Watt Model
- d. Power Compiler

25. The first power model was proposed by:

- a. Tiwari
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### Department of Electrical and Electronics Engineering

### TECHNOLOGY TRAINING PROGRAMME ON PRODUCT DESIGN AND MANUFACTURING



#### PRODUCT DESIGN AND MANUFACTURING MULTIPLE CHOICE QUESTION

Name of the student:

R. Shanmugavel

Year/Sem :

SSS / V

Date:

15/10/12

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- b) Number of layers
- c) Vias on PCB
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## SSM INSTITUTE OF ENGINEERING AND TECHNOLOGY, DINDIGUL - 624 002

(Approved by AICTE, New Delhi / Affiliated to Anna University, Chennai / Accredited by NAAC)  
Dindigul – Palani Highway, Dindigul 624 002

### Department of Electrical and Electronics Engineering

### TECHNOLOGY TRAINING PROGRAMME ON PRODUCT DESIGN AND MANUFACTURING

#### PRODUCT DESIGN AND MANUFACTURING MULTIPLE CHOICE QUESTION

Name of the student: M. Moresh

Year/Sem : II / V

Date: 15/10/22

10

1. Which phenomenon is not reduced by the circuit paths of lowest impedances especially provided by power and return planes for shielding purposes?

- a) Radiation
- b) Convection
- c) Noise
- d) Crosstalk

2. High current circuits are purposely located or placed near the edge of PCB in accordance to the supply lines for \_\_\_\_\_

- a) Removal of heat
- b) Isolation of stray current
- c) Reduction of path length
- d) All of the above

3. Which among the below stated soldering methods is also renowned as 'High Frequency Resistance Soldering'?

- a) Iron Soldering
- b) Furnace Soldering
- c) Torch Soldering
- d) Electrical Soldering

4. Which among the below mentioned approaches belongs to the category of In-circuit Testing?

- a) Impedance Testing
- b) Component Testing
- c) Apply Signal and check output
- d) All of the above

5. Which type of solderability testing is carried out for the generation of solder sample due to immersion of wire or sheet metal specimen in a bath of molten solder?

- a) Solder Bath Testing
- b) Meniscus Rise Testing
- c) Solder Iron Testing
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6. What is/are the necessity/ies to provide guarding to precision differential amplifiers?

- a) To increase leakage resistance
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7. Which among the below mentioned assertions is not a way of cross-talk reduction while designing digital PCBs?

- a) Decrease in the distance between conductors
- b) Shielding of clock lines with guard strips
- c) Reduction in the loop area of circuits
- d) Avoid running of parallel traces for longer distances especially for asynchronous signals

8. Which among the below mentioned packages does not belong to the category of 'Small Outline Package'?

- a) SO
- b) SOP
- c) SOT
- d) SON

9. Which among the below specified assertions is not a grounding consideration associated with ADC as well as DAC?

- a) Analog side to analog ground
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10. Which among the below stated devices/equipments are preferred for elimination of ground and supply line noise especially in TTL/CMOS / ECL PCB designing?

- a) Coupling capacitor
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11. Which among the below specified condition is precise in the crosstalk verification mechanism using logic flow in opposite direction with the limit of avoiding dangerous interference in digital PCB designing?

- a)  $Z_{even} > Z_{odd}$
- b)  $Z_{odd} \geq 0.5 Z_{even}$
- c)  $Z_{odd} \geq 0.8 Z_{even}$
- d)  $Z_{odd} = Z_{even}$

12. Which terminology of PCB represents a thin photo-sensitive polymer by supporting photographic pattern of single traces or IC pads for etching?

- a) Prepreg
- b) Etching
- c) Photo-resist
- d) Solder mask

13. Which problems are about to occur if PCB is not designed properly in a confined manner for digital circuits?

- A. Diffraction
  - B. Refraction
  - C. Ground & Supply-line Noise
  - D. Electromagnetic Interference
- a) A & B
  - b) B & C
  - c) C & D
  - d) A, B, C, D

14. Which among the following assists in obtaining the desired value of wave impedance in reflection phase while designing digital PCBs?

- A. Width of signal lines
- B. Distance between signal line and ground line
- C. Signal Delays
- D. Double Pulsing

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15. What should be the resistance of 0.6 mm wide conductor with 15 cm length and 25  $\mu\text{m}$  thickness of standard copper foil? (Assume  $\rho = 1.7241 \times 10^{-6}$  (at 20° C))

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(13)

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## Department of Electrical and Electronics Engineering

STUDENT FEEDBACK FORM

Year/Sem: II - 3rd Sem

Date: 15/10/22

Dear Student,

Thank you for your participation in Technology Training on "Product Design and Manufacturing & Industrial Embedded Programming using PIC Microcontroller" conducted from October 10-15, 2022. We would like to hear from you - areas that you find useful and areas that you think we can do better. Your feedback will help us evaluate the effectiveness of this program and allow us to make improvements in future.

S.No	Criteria	Rating				
		Excellent	Verygood	Good	Fair	Satisfactory
1	Course content	✓				
2	Skill development	✓				
3	Motivation	✓				
4	Regularity and punctuality of trainer	✓				
5	Coverage of syllabus	✓				
6	Interaction	✓				
7	Individual attention	✓				
8	Outcome	✓				

Feel free to give QUALITATIVE comments too

This training helps us to get know more about our knowledge about electrical. It is very useful.

Signature of the student with name

[K. Kanya]





## Department of Electrical and Electronics Engineering

STUDENT FEEDBACK FORMYear/Sem: 1<sup>st</sup> year / 5<sup>th</sup> sem

Date: 15/10/22

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8	Outcome	✓				

Feel free to give QUALITATIVE comments too

I'm so lucky to have this sessions... I have learned lots of new things... I'm so proud that I'm going to do something new in my life.

Signature of the student with name

• 2010 •

ANSWERING PRAYER

personal agent I consider don't stand up very well with  
the right kind of people I could even go ahead  
and you up your publications about philip

Wang S. P. S.

STUDENT FEEDBACK FORMYear/Sem: 2<sup>nd</sup>, 3<sup>rd</sup> semester

Date: 15/10/22

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6	Interaction	✓				
7	Individual attention	✓				
8	Outcome	✓				

Feel free to give QUALITATIVE comments too

About this training, it is very useful for our course, and I have learnt lot of new things about circuits, AUTOCAD, EAGLE, PIC microcontroller etc...)

Signature of the student with name

A-KAMALEE





## Department of Electrical and Electronics Engineering

STUDENT FEEDBACK FORMYear/Sem: III / IVDate: 15/10/22

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6	Interaction	✓				
7	Individual attention	✓				
8	Outcome	✓				

Feel free to give QUALITATIVE comments too

It was very useful and learnt lot of things about PCB and Embedded .

Signature of the student with name GIEETHANJALI.T





## Department of Electrical and Electronics Engineering

STUDENT FEEDBACK FORM

Year/Sem: 2nd year / 3rd Sem

Date: 15/10/22

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Feel free to give QUALITATIVE comments too

.....Your teaching is... so... useful... for... us.... we.... learned  
many.... things.... from.... you.... Sir.... No.... I.... am.... so.... proud  
to tell I am a BE. EEE.

P. Narmatha Devi  
Signature of the student with name



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Industrial Electronics Training  
PCB Design Hands-on-Training  
PIC Industrial Embedded Training



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Phone : 0422 4980499, M:97509 14445.

# Hands-On-Training Certificate

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...SSSM...Institute...of...Engineering...and...Technology....=....Dindigul.....  
has successfully completed hands-on-training on  
Industrial...Embedded...C...Programming...I/O.parts...TIMER, ADC, SENSOR & I.JEDEC  
...display...intefacing...PCB...designing...+...circuit...creation...&...trouble...shooting...

Arun  
Trainer

www.sunshivelectronics.com  
sunshivpcb@gmail.com

# Wing 9

Wing 9 was located in the  
area of the main terminal  
and was used for passenger

## Passenger Terminal

Passenger Terminal Wing 9 was located in the area of the main terminal and was used for passenger

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....Industrial.....Embedded.....C.p.Programming.....I/O.PORTS.....+.....TIMER.....,ADC.....,SENSOR.....,P.....T.....  
....segment.....display.....interfacing.....,PCB.....Designing.....,Front.....Creation.....,&.....  
.....Trouble.....Shooting.....

  
Trainer





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SENSOR & 1 segment display interfacing, PCB Designing,...  
Circuit creation & Troubleshooting

  
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Trainer



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...display...Interface.....

  
Ashwathy  
Trainer



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has successfully completed hands-on-training on

..Industrial..Embedded...&.programming...&..PORTS., TIMER., ADC., SENSOR.Q.7....  
Segment..display.. interfacing., PCB..Designing..&..Schematic..Creation..&..Trouble..Shooting

A handwritten signature in black ink, appearing to read "Arun" followed by "Trainer".

[www.sunshivelectronics.com](http://www.sunshivelectronics.com)  
sunshivpcb@gmail.com

