



# SHRI MADHWA VADIRAJA INSTITUTE OF TECHNOLOGY & MANAGEMENT

(A Unit of Shri Sode Vadiraja Mutt Education Trust®, Udupi)  
Vishwothama Nagar, Bantakal - 574 115, Udupi District, Karnataka, India

## DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING

Dr. H V Balachandra Achar  
Professor & Head

04 Feb 2019

### CIRCULAR

The department of E&C Engineering has arranged a Hands-on Workshop titled "Joy of PCB Design" for the benefit of 1st and 2nd year ECE students to create your own PCBs for projects.

Dates: 16 & 17 February 2019

Venue: ECE department SMVITM

Resource Person: Research Scholar from NITK

Interested students are required to pay the fees amount Rs. 400 per head at the college cash counter and register by producing the fees receipt in the ECE department office. Last date for registration is 09 Feb 2019.

For any more information, contact the coordinator Dr. Asha C S.

Regards

  
4/2/19

HOD, ECE



Principal

SHRI MADHWA VADIRAJA  
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Vishwothama Nagar, Udupi Dist.  
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## DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING

Dr. H V Balachandra Achar  
Professor & Head

04 Feb 2019

Mr. Basti Bharath Shenoy  
Research Scholar  
NITK Surathkal

Dear Sir

**Subject: Request to be a resource person for the hands-on workshop on Joy of PCB Design**

Printed circuit board (PCB) is one of the key concepts in electronics, which every electronics student is expected to know. To improve the skills of our students, we have arranged a hands-on workshop on PCB Design for our 1st and 2nd year ECE students, in association with ISTE Student Chapter. We request you to become the resource person for the above workshop and train our students for two days on 16th and 17th of Feb 2019 in the college campus.

Thanking you in advance

Yours sincerely

Balachandra Achar

Head  
Dept of E&C Engg.  
SMVITM, BANTAKAL - 574 115

*I accept the invitation  
B.B. Shenoy*

Tel: 0820-2589183 Ext. 221. Email: ec@sode-edu.in

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## ACTIVITY REPORT

Academic Year:	2018-19
Name of Activity:	Workshop titled 'Joy of PCB Design'
Resource Person:	Mr. Basti Bharath Shenoy Research Scholar, NITK, Surathkal
Date:	16 & 17 Feb 2019
Time:	9:00 am – 4:45 pm
Venue:	Computer Lab ECE Block, and Chemistry Lab, Admin Block
Target Audience:	Students of 1st and 2nd year ECE
No. of participants:	43

Department of E & C Engineering in association with Department of Chemistry and ISTE Student Chapter conducted a 2-day workshop titled 'Joy of PCB Design' on 16 & 17 Feb 2019. Forty three students from 1st and 2nd year B.E. E&C participated in the hands-on workshop. Research scholar from NITK Surathkal Mr. Basti Bharath Shenoy was the resource person.

Inaugurating the workshop, Principal Dr. Thirumaleshwara Bhat congratulated the students and said that every student should update their knowledge and skill by participating in such workshops and seminars in every semester. Earlier, HOD Dr. Balachandra Achar welcomed the resource person and advised the students to enjoy the workshop rather than doing it for the sake of doing.

Research scholar Ms. Shilpa Kamath, workshop coordinator Dr. Asha C S, faculty & staff members of E&C Engineering department, and participating students were present on the occasion. Ms. Namana of 4th semester compered the inaugural session and proposed the vote of thanks.

From this 2-day workshop, students gained knowledge about analog circuit design, PCB layout design and PCB printing.



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Workshop Name: Joy of PCB Design (Hands On) – Feb 16-17, 2019

Day 1 Agenda:

Time	Details	Requirements/Arrangements
9.30 – 11.00	Problem statement discussion + Circuit Part 1 Schematic Implementation (C1SI)	Projector and simultaneous access to white board + Laptop/Desktop (with downloaded PCB design software) access to students
11.15 – 1.00	C1SI wind Up + PCB Layout Implementation (PLI)	Laptop/Desktop (with downloaded PCB design software) access to students
2.00 – 3.30	PLI wind up + Transfer layout to board	Laptop/Desktop (with downloaded PCB design software) access to students + Laser Printer access to students + Cloth iron access to students
3.45 – 5.00	Wind up – PCB implementation ready	Cloth iron access to students + Water + Ferric Chloride + Boxes to prepare solution + Old Newspaper / Waste clothes

Day 2 Agenda:

Time	Details	Requirements/Arrangements
9.00 – 11.00	Component placement, drilling holes - Circuit Part 1 Ready and working	E & C Hardware Laboratory access to students, drilling equipment access + Components
11.15 – 1.00	Circuit Part 2 – C2SI (Workshop Task Start)	Laptop/Desktop (with downloaded PCB design software) access to students
2.00 – 3.30	C2SI wind up and PLI	Laptop/Desktop (with downloaded PCB design software) access to students
3.45 – 4.45	PLI wind up + Transfer layout to board (Workshop Task to be continued after workshop and may take about 5 hours of effort after completion of the workshop. Certificates to be issued only on completion of this task)	Laptop/Desktop (with downloaded PCB design software) access to students + Laser Printer access to students + Cloth iron access to students + Water + Ferric Chloride + Boxes to prepare solution + Old Newspaper / Waste clothes
4.45 – 5.00	Concluding Remarks + Feedback Session	Feedback forms



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General Components & Equipment's/Facilities for Day 1 and Day 2:

Flux and Lead – Sufficient amount

Drilling machine – As many as available (with enough no. of drill bits as they may break while drilling)

Ferric Chloride, Water, Boxes to prepare the solution & Laser Printer availability

Cloth iron – 1 No. per batch

Steel wool (to clean PCB) – enough quantity

Old Newspapers / Waste cloth - few

Soldering Iron (With stand) – 1 No. per batch

Multimeter – 1 No. per batch

Black Permanent Marker (Thin tip) - 1 No. per batch

Blade – 1 No. per batch

Wire Stripper and Scissor – (2 – 3) Nos. each

Components for Day 1:

Copper Clad PCB for Circuit 1 (1 feet by 1 feet) – 2 No.s

150 GSM Mirror Coated Sheet – 10 No.s

Components (Per Batch):

Single Phase AC Power Chord – 1 No.

Transformer (9-0-9), 250 mA – 1 No.

1N4007 diode – 2 No.s

1000 uF Capacitor – 1 No.

7805 IC – 1 No.

0.1 uF – 1 No.

LED (Red - Small) – 1 No.

Resistor (330 ohm) – 1 No.

2 Pin Connector – 1 No.



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Components for Day 2:

Copper Clad PCB for Circuit 1 (1 feet by 1 feet) – 2 No.s

150 GSM Mirror Coated Sheet – 10 No.s

Components (Per Batch):

470 uF Capacitor – 1 No.

Resistor (4.7 kilo ohm) – 1 No.

0.01 uF – 1 No.

LED (Green - Small) – 1 No.

Resistor (330 ohm) – 1 No.

2 Pin Connector – 1 No.

Reset Switch (2 leg – small) – 1 No.

Resistor (1 kilo ohm) – 1 No.

555 timer IC – 1 No.

IC base for 555 timer – 1 No.

Link to PCB Design Software:

<https://www.autodesk.com/products/eagle/free-download>

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Dr. H V Balachandra Achar  
Professor & Head  
Department of E & C Engineering

17 Feb 2019

Mr. Basti Bharath Shenoy  
Research Scholar  
NITK, Surathkal

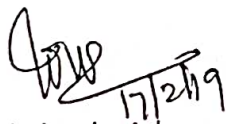
Dear Sir

**Subject: Letter of gratitude**

We express our heartfelt gratitude and thanks to you for being a resource person and conducting the 2-day hands-on workshop "Joy of PCB Design" for our second year Electronics & Communication Engineering students on 16 & 17 February 2019 in the college premises.

We look forward to your continued support in the future too.

Thanks & Regards

  
Balachandra Achar  
Head  
Dept of E&C Engg.  
SHRIMATI, BANTAKAL - 574 115

  
Principal  
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Dr. H V Balachandra Achar  
Professor & Head  
Department of E & C Engineering

17 Feb 2019

Ms. Shilpa Kamath  
Research Scholar  
NITK, Surathkal


Dear Madam

Subject: Letter of gratitude

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We look forward to your continued support in the future too.

Thanks & Regards

  
Balachandra Achar  
Head  
Dept of E&C Engg.  
SMVITM, BANTAKAL - 574 115

  
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## DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING

### Attendance

Name of event: "Joy of PCB design" Workshop  
Date & Time: 16-17 Feb 2019, 9:00 am to 4:45 pm  
Venue: Computer lab ECE block and Chemistry lab

SL. NO.	USN	NAME	SIGNATURE			
			FN 16-Feb	AN 16-Feb	FN 17-Feb	AN 17-Feb
1	4MW17EC001	ABHIJITH	<i>Abhijith</i>	<i>Abhijith</i>	<i>Abhijith</i>	<i>Abhijith</i>
2	4MW17EC004	AKHILA K V	<i>Akhila</i>	<i>Akhila</i>	<i>Akhila</i>	<i>Akhila</i>
3	4MW17EC006	AMRIT T NAIK	<i>Amrit</i>	<i>Amrit</i>	<i>Amrit</i>	<i>Amrit</i>
4	4MW17EC009	ASHISH SUVARNA U	<i>Ashish</i>	<i>Ashish</i>	<i>Ashish</i>	<i>Ashish</i>
5	4MW17EC011	B PRADYUMNA TANTRY	<i>Pradyumna</i>	<i>Pradyumna</i>	<i>Pradyumna</i>	<i>Pradyumna</i>
6	4MW17EC014	CHETHANA	<i>Chethana</i>	<i>Chethana</i>	<i>Chethana</i>	<i>Chethana</i>
7	4MW17EC016	DEVADIGA POOJA NARAYAN	<i>Pooja</i>	<i>Pooja</i>	<i>Pooja</i>	<i>Pooja</i>
8	4MW17EC019	GAUTHAM VIJAY N	<i>Gautham</i>	<i>Gautham</i>	<i>Gautham</i>	<i>Gautham</i>
9	4MW17EC022	JEEVAN JAGANNATH ACHARI	<i>Jeevan</i>	<i>Jeevan</i>	<i>Jeevan</i>	<i>Jeevan</i>
10	4MW17EC023	K ADITH HOLLA	<i>K Adith</i>	<i>K Adith</i>	<i>K Adith</i>	<i>K Adith</i>
11	4MW17EC024	K R SUPREETH KUMAR	<i>Supreeth</i>	<i>Supreeth</i>	<i>Supreeth</i>	<i>Supreeth</i>
12	4MW17EC025	KAVANA MAHESH HEGDE	<i>Kavana</i>	<i>Kavana</i>	<i>Kavana</i>	<i>Kavana</i>
13	4MW17EC030	NAMANA	<i>Namana</i>	<i>Namana</i>	<i>Namana</i>	<i>Namana</i>
14	4MW17EC035	POOJA	<i>Pooja</i>	<i>Pooja</i>	<i>Pooja</i>	<i>Pooja</i>
15	4MW17EC037	PRADHYUMNA P TANTRY	<i>Pradyumna</i>	<i>Pradyumna</i>	<i>Pradyumna</i>	<i>Pradyumna</i>
16	4MW17EC044	PRATHAM S KANCHAN	<i>Pratham</i>	<i>Pratham</i>	<i>Pratham</i>	<i>Pratham</i>
17	4MW17EC045	PREEMA DSOUZA	<i>Preema</i>	<i>Preema</i>	<i>Preema</i>	<i>Preema</i>
18	4MW17EC047	PRERANA P	<i>Prerana</i>	<i>Prerana</i>	<i>Prerana</i>	<i>Prerana</i>
19	4MW17EC048	RASHMI	<i>Rashmi</i>	<i>Rashmi</i>	<i>Rashmi</i>	<i>Rashmi</i>

Tel: 0820-2589183 Ext. 221. Email: ec@sode-edu.in

*Chazop*  
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20	4MW17EC049	RESHMA NAYAK	Reshma Nayak	Reshma Nayak	Reshma Nayak	Reshma Nayak
21	4MW17EC050	ROOPESH KUMAR A	Roopesh Kumar	Roopesh Kumar	Roopesh Kumar	Roopesh Kumar
22	4MW17EC051	SRIHARI S	S. Srihar	S. Srihar	S. Srihar	S. Srihar
23	4MW17EC053	SHAMITH	Shamith	Shamith	Shamith	Shamith
24	4MW17EC054	SHARANYA	Sharanya	Sharanya	Sharanya	Sharanya
25	4MW17EC055	SHARANYALAXMI K	Sharanya	Sharanya	Sharanya	Sharanya
26	4MW17EC058	SHETTY NAMRATHA ANIL	Shetty	Shetty	Shetty	Shetty
27	4MW17EC059	SHREERAKSHA	Shreeraksha	Shreeraksha	Shreeraksha	Shreeraksha
28	4MW17EC061	SHREYA H P	Shreya	Shreya	Shreya	Shreya
29	4MW17EC062	SHREYAS	Shreyas	Shreyas	Shreyas	Shreyas
30	4MW17EC065	SOURABH MOHAN REVANKAR	Sourabh	Sourabh	Sourabh	Sourabh
31	4MW17EC066	SOWBHAGYA DERANNA RAI	Sowbhagya	Sowbhagya	Sowbhagya	Sowbhagya
32	4MW17EC067	SOWJANYA DERANNA RAI	Sowjanya	Sowjanya	Sowjanya	Sowjanya
33	4MW17EC069	SUCHITRA NARAYAN NAIK	Suchitra	Suchitra	Suchitra	Suchitra
34	4MW17EC072	SUPREETHA S RAO	Supreetha	Supreetha	Supreetha	Supreetha
35	4MW17EC074	SUSHMA'S	Sushma	Sushma	Sushma	Sushma
36	4MW17EC075	SUSHMITHA N DEVADIGA	Sushmitha	Sushmitha	Sushmitha	Sushmitha
37	4MW17EC076	SUVIDHA	Suvidha	Suvidha	Suvidha	Suvidha
38	4MW17EC077	TEJASVINI	Tejasvini	Tejasvini	Tejasvini	Tejasvini
39	4MW18EC001	ABHINANDANA M NAIK	Abhinandana	Abhinandana	Abhinandana	Abhinandana
40	4MW18EC002	AISHWARYA	Aishwarya	Aishwarya	Aishwarya	Aishwarya
41	4MW18EC043	SUDARSHAN U L	Sudarshan	Sudarshan	Sudarshan	Sudarshan

42 4MW17EC026 KAVITHA.U

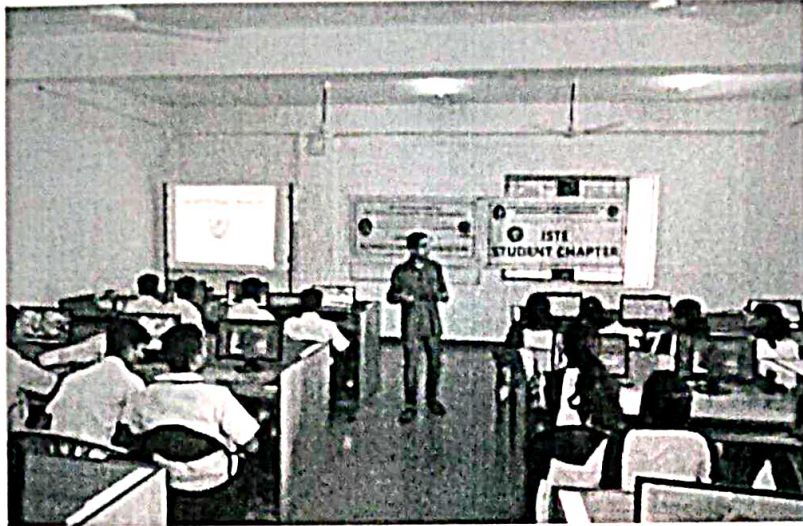
43 4MW18EC041 Privathsa

Asha C.S.  
Dr. Asha C S  
Coordinator

Dr. HVB Achar  
HOD, ECE

*[Signature]*

Principal  
SHRI MADHVA VADIRAJA  
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Vishwothama Nagar, Udipi Dist  
BANTAKAL - 574 115



Longitude	13.254846822883607
Latitude	74.78566960246253
Location	Analog Lab, Department of ECE, SMVITM, Bantakal

*[Handwritten Signature]*

Principal

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