



Sriehya Educational Trust (R) Bheemasamudra

GM INSTITUTE OF TECHNOLOGY, DAVANGERE

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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

Report On

Institute IQAC

“3 days’ Workshop on “PCB Design and Fabrication”

11/08/2023 to 13/08/2023


Coordinators

Mr. Santhosh B G /
Mrs. Revathi S N
Assistant Professor


Checked by

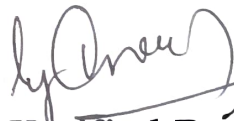
Dr. Sunil Kumar B S
Dean Academics

DEAN ACADEMICS
G.M. Institute Of Technology
DAVANGERE-577006.



Approved by

Dr. Sanjay Pande M B
Principal
PRINCIPAL
GM Institute of Technology
Davangere - 577 006.


Verified By 7/9/23

Dr. Praveen J
Head of the Department
Head of the Department
Dept. of Electronics & Comm. Engg
GM Institute of Technology
DAVANGERE-577 006


Checked by 7/11/23

Dr. Praveen J
IQAC-Director
Head of the Department
Dept. of Electronics & Comm. Engg
GM Institute of Technology
DAVANGERE-577 006



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Department of Electronics and Communication Engineering

Invitation

We cordially invite you for the
3-days Student Development program
on
“PCB Design and Fabrication”

11th to 13th August 2023

Convener:

Dr. Praveen J
IQAC-Director
Professor & Head
Dept. of ECE, GMIT

President:

Dr. Sanjay Pande M B
Principal
GMIT, Davangere

Coordinators

Mr. Santhosh B G
Assistant Professor
Dept. of ECE, GMIT

Mrs. Revathi S N
Assistant Professor
Dept. of ECE, GMIT

Organized By:

Department of Electronics and Communication Engineering
in association with Institute IQAC Cell.

Venue: MBA 416A.

Date: 11th August 2023 Time: 9:30 AM



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Report on

3 day Workshop of “PCB Design and Fabrication”

PCB Design and fabrication, means building an actual circuit to a theoretical design to verify that it works.. It is a very exciting and interesting way to learn, apply and understand engineering principles.

PCB Design and Fabrication Workshop is 100% hands on workshop, where students/Participants can design & develop their own PCB board and can perform product development. Participants will learn PCB design using Design spark PCB software. Then they will print the design on copper clad using toner transfer method followed with few scientific steps. Once the PCB is ready, we need to mount all the required electronic components on it with soldering.

To enhance the technical skills in students Electronics and Communication Department of GMIT organized 3 days' workshop on PCB Design and Fabrication in collaboration with Institute IQAC at GM Institute of Technology Davangere from 11/08/2023 to 13/08/2023.

During Day 1 the first session on 11th August from 9.30 am to 12.00 pm resource person Mr. Santhosh B G explained about the basics of PCB, Working principle of PCB, difference between Bread board and PCB and Applications of PCB.



Talk by Resource Person



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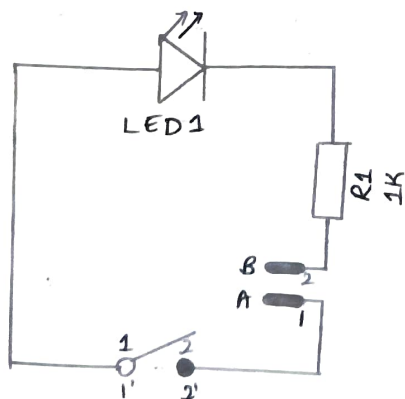
During the second session on 11th August from 1.00 pm to 4:30 pm resource person Mrs. Revathi S N explained about Design spark software installation and how to draw schematics and layout for PCB using Design spark software tool.



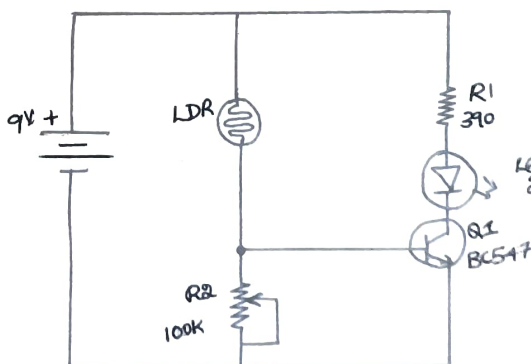
Design Spark Software Installation

Day 2 on 12th August 2023 1st session from 9:30 am to 1.00 pm the resource persons **Mr. Santhosh B G & Mrs. Revathi S N** taught how to design different schematics circuits by using design spark software tool. In 2nd session from 2.00 pm to 4:30 pm the session was completely hand on session, simulation using Design spark software. 4 student Coordinators helped participants to develop their Schematics of different circuits.

① LED [light-emitting diode]

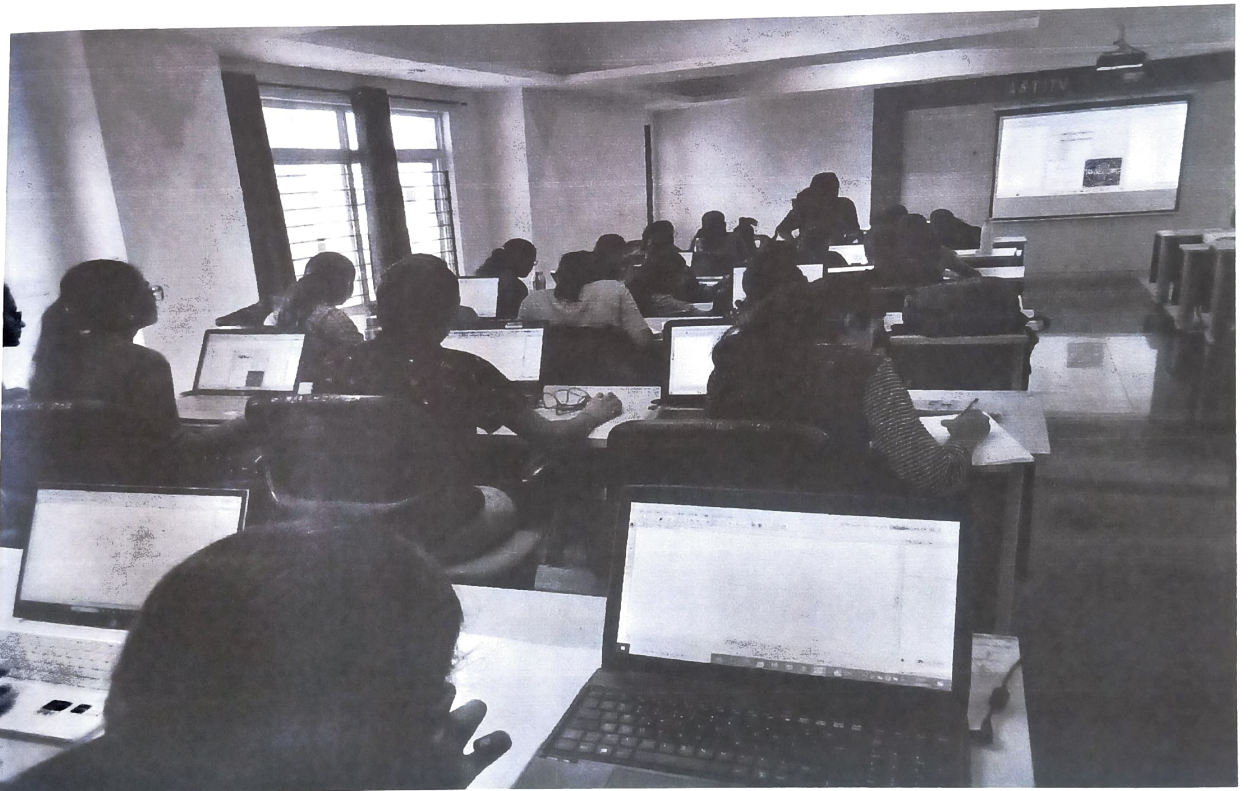
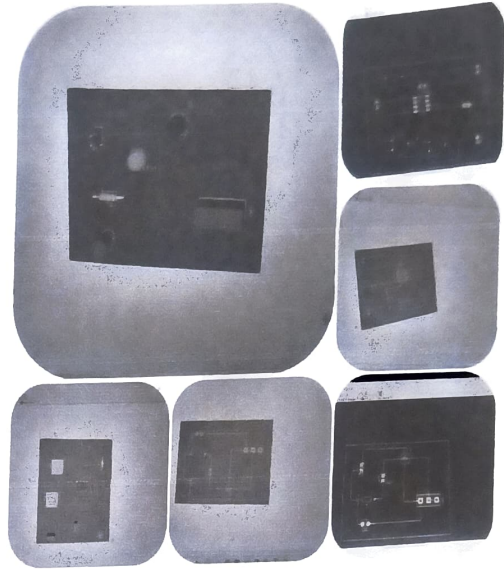
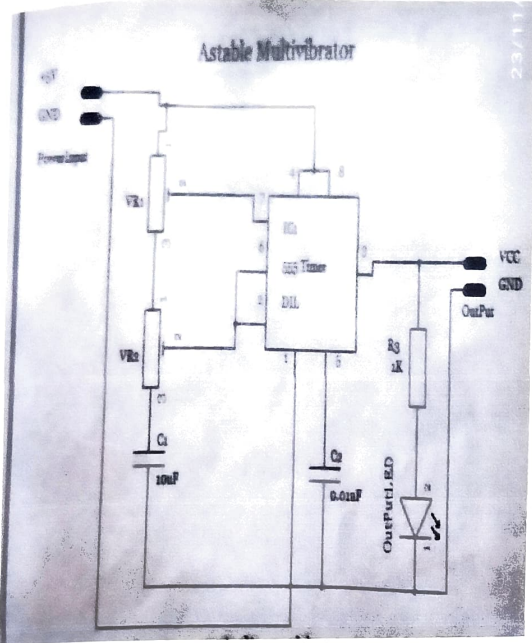


② LDR [light dependent Resistor]





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Circuit Design in Spark tool software

Third day session was conducted on 13/08/2023. The morning session from 9.30 am to 1.00 pm. Students involved in workshop with great enthusiasm and developed their



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own PCB Fabrication by including following steps such as Clad cutting, etching by using Ferric Chloride and salt in hot water.

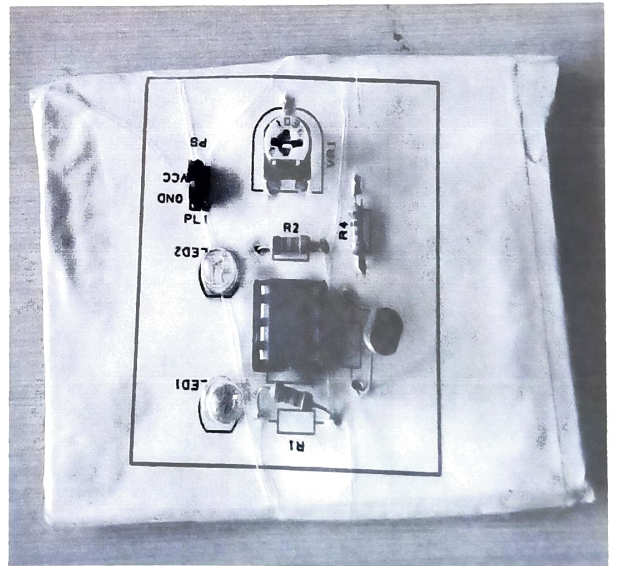


Copper clad cutting



Copper plate etching process

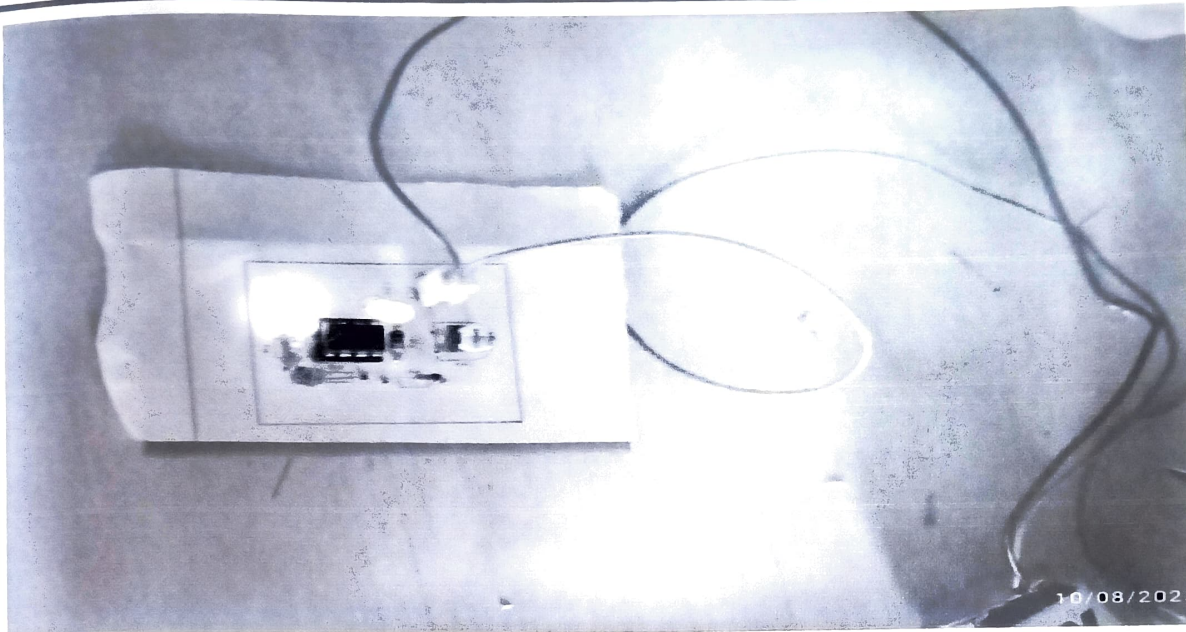
Same day the afternoon from 2.00pm to 5.00pm they mounted required electronic components on PCB and the same were tested.



Mounting of electronic components on PCB with soldering

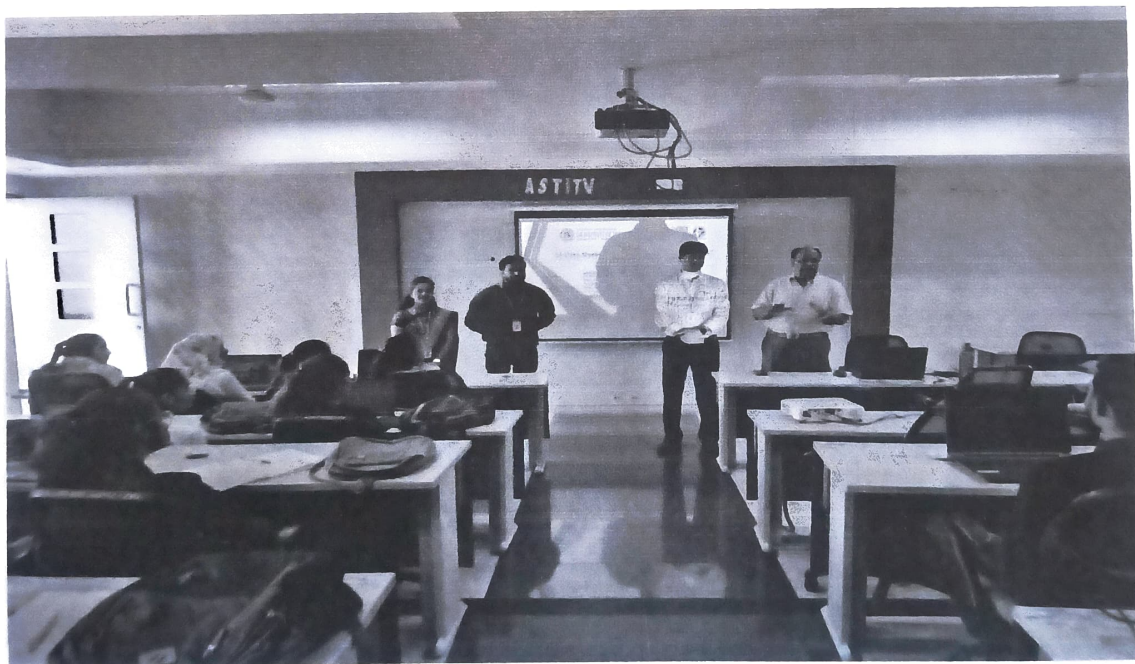


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PCB circuits output

The workshop was concluded with a valedictory function. During the function **Dr. Sanjay Pande M B**, Principal addressed the gathering. And **Dr. Praveen J** Professor and Head ECE Department, GMIT., addressed the gathering. Students improved their technical skills and enjoyed by making their own PCB. Participants gave good feedback on workshop few snapshots taken during the workshop is attached here.

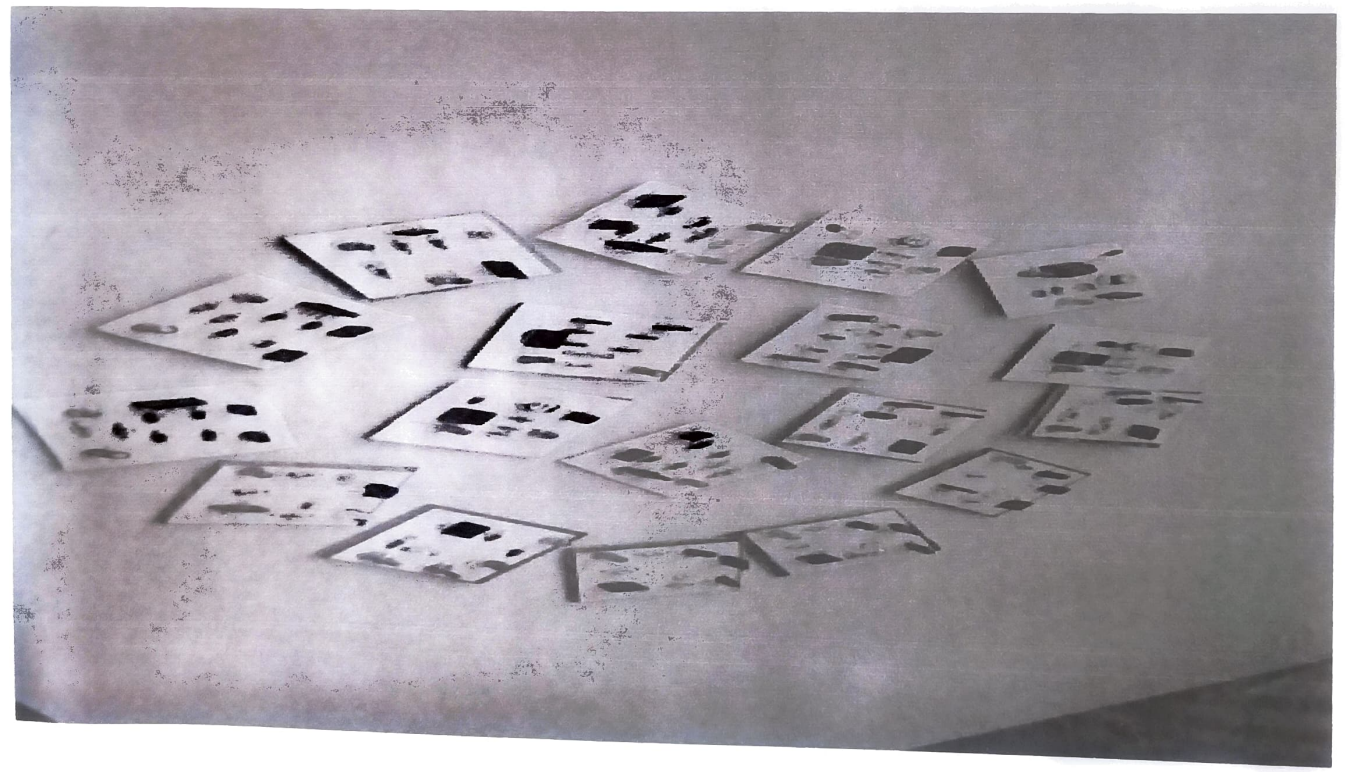


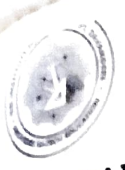
Valedictory of 3 day workshop on **“PCB Design and Fabrication”**

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Glimpses of 3day Workshop on “PCB Design and Fabrication”





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**Impact Analysis of 3-Days hands-on workshop on
 “PCB Design and Fabrication”**

Conducted for 2nd Semester H Section Students

On 11th to 13th August 2023

Feedback of workshop on PO's & PSO's

Total Number of Students: 57

Program Outcome		Strongly Agree	Moderately Agree	Slightly Agree
PO1	Engineering knowledge	30	25	2
PO3	Design/development of solutions	29	27	1
PO5	Modern tool usage	30	25	2
PO9	Individual and team work	31	24	2
PO10	Communication	30	24	3
PO12	Life-long learning	30	25	2
PSO1	Are you able to design, analyze and develop analog/digital systems using the development process and software tools used in this SDP for the development of Circuit boards.	30	25	2
PSO2	Are you able to implement modules of embedded systems for various applications after this SDP.	30	26	1



GM INSTITUTE OF TECHNOLOGY
P. B. Road, Davanagere - 577 006, Karnataka, INDIA

Accredited Program
NAAC Accredited

IQAC
Internal Quality Assurance Cell

IQAC Initiative
Department of Electronics & Communication Engineering

CERTIFICATE
OF PARTICIPATION

This is to Certify that Mr. /Ms. _____ has
Participated in a 3-Days workshop on "**PCB Design & Fabrication** " from 11th to 13th August 2023
organized by Department of Electronics & Communication Engineering in association with
Institute IQAC at GM Institute of Technology, Davangere.

Mr. Santhosh B G/ Mrs. Revathi S N
Resource Person & Co-ordinators

Dr. Praveen J
Convenor

Dr. Sanjay Pande M B
Principal

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