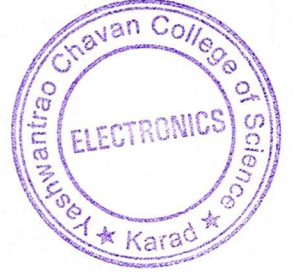


Yashwantrao Chavan College of Science, Karad


Department of Electronics

Best Practice – Printed Circuit Board (PCB) Fabrication

2021-22 INDEX



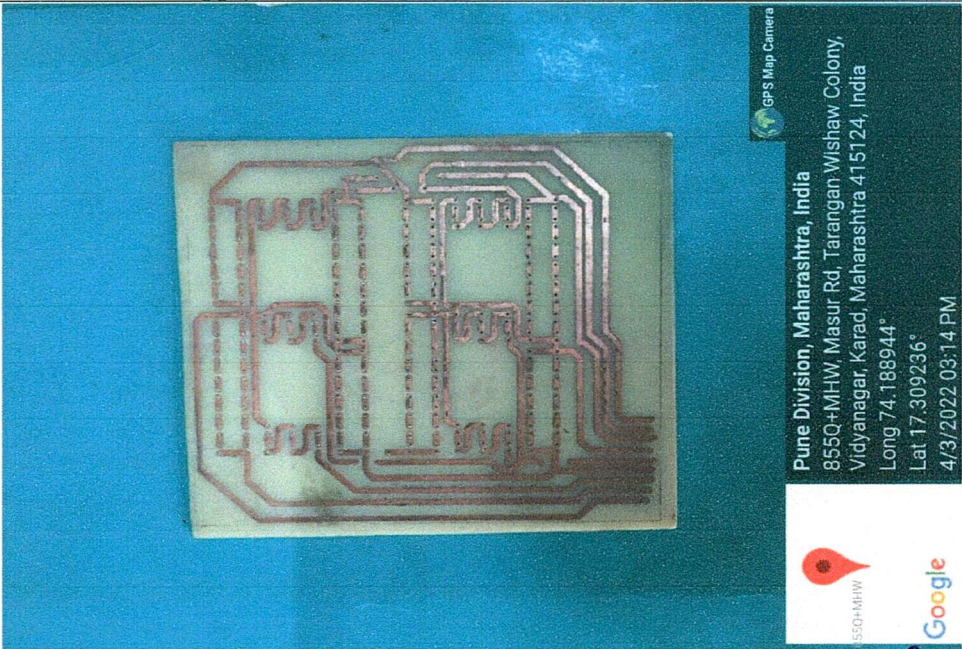
Sr. No.	Content
1.	One Page Report
2.	Best Practice in Format
3.	Students Beneficiary


HEAD
Department of Electronics
Yashwantrao Chavan College of Science,
Karad


Principal
Yashwantrao Chavan College of Science
Karad

Yashwantrao Chavan College of Science, Karad

ACTIVITY REPORT

Name of the Department: Electronics		Academic Year : 2021-22
Title of the Best Practice	Printed Circuit Board (PCB) Development	
The Goal	The design and development of the PCB board required for practical's, projects and electronics equipment.	
The Context	PCBs requires for electronics Lab Project and requires practical kit. A pre-made PCBs expensive. So, electronics department leads in creating required PCBs. The Stepper motor driver for TIP122, a minimum Connection PCB for microcontroller 8051 and power supply PCBs are designed using ditrace software. Using iron we press it on copper clade and etched using FeCl_3 .	
No. of Students Participated	09	
Best Practice outcomes	The following PCB are developed and fabricated in the current academic year, 1) LED based Seven Segment Display - 02 2) A Minimum Connection PCB for microcontroller 8051 - 01 3) Dual Power Supply – 01 4) +5 V Supply – 02	
Developed PCB Photos		

[Signature]
Coordinator

[Signature]
HOD

[Signature]
Coordinator(IQAC)

[Signature]
Principal

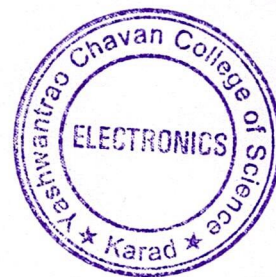
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Department of Electronics

Departmental Best Practices



1. Printed Circuit Board (PCB) development

The Goal :

The design and development of the PCB board required for practical's, projects and electronics equipment.

The Context :

In the electronics laboratories, for every project, practical kits and the equipment's PCB are needed. Purchasing a ready-made PCB is costly. So, the electronics department took the initiative to develop the required PCBs for the department.

The Practice :

The departmental staff and students of B.Sc. II and B.Sc. III are involved in this activity. Using open-source or limited-edition software such as Diptrace, Express PCB, Eagle, etc. The developed artwork of the PCB is printed on photopaper and transferred to the copper or glass clad by pressing iron. After etching using FeCl_3 and drilling, components are soldered to the PCB according to the circuit.

Evidences of Success :

A number of PCBs are designed, developed, and used in electronics projects, practicals, and power supplies.

Problem encountered and Resource Required

Developing PCBs in manual mode with FeCl_3 -based etching is a little convoluted. The software's used during PCB development is evaluation, limited versions, or open source. Therefore, purchasing automatic PCB makers with software is costly.


Co-ordinator


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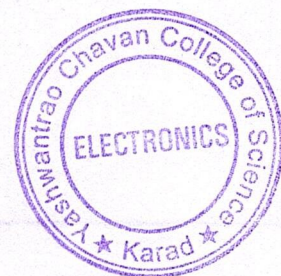

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Department of Electronics

Best Practice – Printed Circuit Board (PCB) Fabrication

Students Beneficiary 2021-22



Sr.No.	Name of student
1)	Deshmukh Chaitali Sambhaji
2)	Ghadge Mayur Maruti
3)	Kachare Aishwarya Ankush
4)	Khabale Yogaita Duryodhan
5)	Panaskar Shrutika Vijay
6)	Pawar Vaishnavi Arjun
7)	Pawar Ashwini Sanjay
8)	Pawar Pratiksha Suresh
9)	Surve Shivani Sunil
10)	Suryawanshi Shidhant Bajrang
11)	Hirwale Rohan Mahendra
12)	Vishwakarma Aman Arvind
13)	Kaski Kalyan Basavaraj
14)	Jagadale Amar Dhanaji

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