

### ATHARVA COLLEGE OF ENGINEERING

Department of electronics & telecommunication

One day Industrial visit to

Yashna circuits(Jogeshwari)



ON 25<sup>th</sup> september,2018 Extc department of engineering has organised an industrial visit for the SE students at Yashna circuits. Under the guidance of MAHALAXMI MAAM & SUPRIYA MAAM

# PCB MANUFACTURING PROCESS

#### STEP 1: DESIGN

The pcb is first design and given to the maufacturer.Once the design is received the basic process come into consideration. STEP 2: CNC DRILLING MACHINE



The drilled pcb is dipped in copper anode and during this process the pcb is moved to&fro so that the anode enters the hole and gets coated.

### STEP 3: CURING

The coating ink is applied to each of the holes of copper plate. It is exposed to uv light

due to which only the required material styas and remaing vanishes off.

### STEP 4: DEVELOPING MACHINE

After the curing process the exposed pcb is developed.





### **STEP 5: TIN PLATING**

The developed pcb is coated with a layer of tin anode so it becomes easy to assemble components.

# **STEP 6: ETECHING MACHINE**

In this prcoess the fr4 material gets washed away, with the help of displacement reaction ammonia gets off copper.

### STEP 7: MASKING INK:

It is used for tracking. It is doine to avoid short circuit. It is done in similar manner as the coating. The pcb is first coated with colour then in masking

the maask is put over and only the ssilver path which is soft turns visible.

# STEP 8:LEGENDERING:

The values of all the components are printed on the pcb.It explains the construction of the system.

#### **STEP 9: LIQUID SOLDERING:**

A liquid solder is present melted at 270 degree C when dipped air pressure extra soldering pops out.Thi Is used for removal of extra soldering except for pcb, After this the pcb is cut into desires shape.



## STEP 10: QC(QUALITY CHECKING)

After the cutting process the pcb is sent for quality checking. A large magnifying glass is used to check the connections of the pcb. The pcb is ready.



All the students participated actively and learnt technically . All the concepts were cleared about pcb. Skill development knowledge achieved.