

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

In Association with

Andhra Pradesh State Skill Development Corporation (APSSDC)

Three Week Student Skill Development Program on, "PCB Design"
(10 Jan.2022 to 04 Feb. 2022)

REPORT

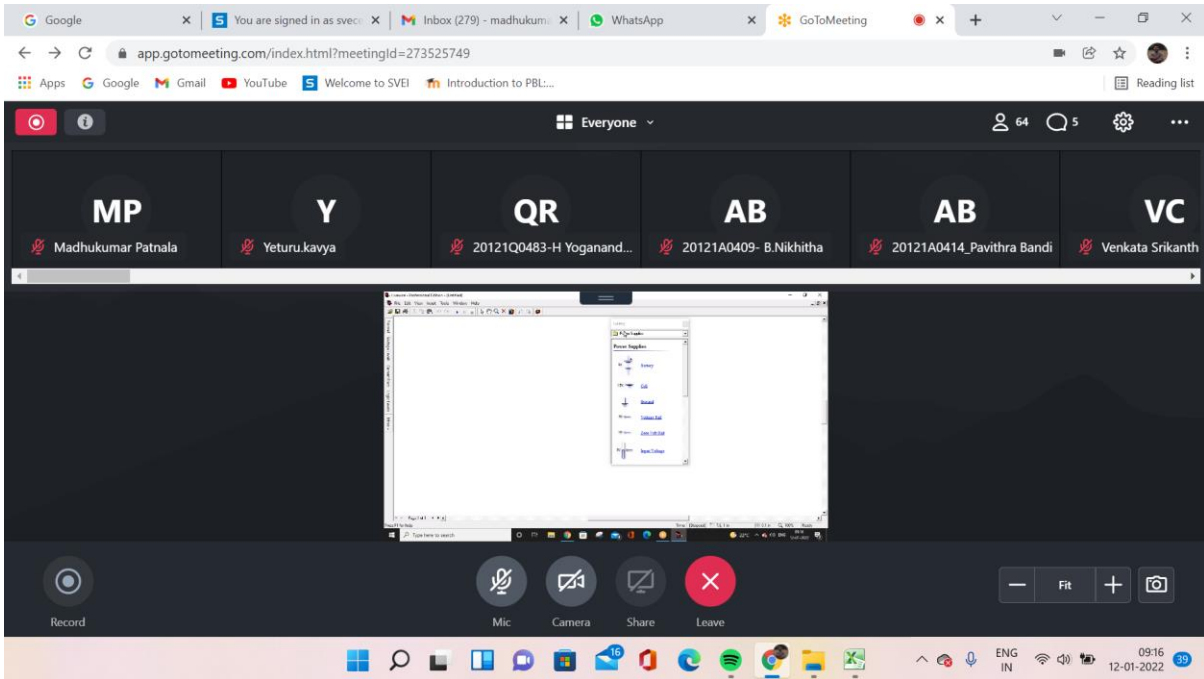
Department of ECE in association with APPSSDC organized the program to inculcate skills of designing the Printed Circuit Boards while students design their own hobby/project works. The Program received a huge response and 74 students from II B.Tech ECE were encouraged to take up the course based on their past academic performance and attendance. The detailed syllabus of the course was confirmed in association with the resource person so that participants with enough electronics background can take up and practice the mentioned tools comfortably. The Digital library computing facility was reserved for students for smooth conduction of the course. Live Wire & PCB Wizard, EasyEDA, Eagle open source tools were practiced by the participants rigorously on various circuits they encounter in the course as well are essential for common system design in electronics. Participants actively interacted with the resource person in every session from installation, demonstration to use the tool for their tailored requirements. The course also constituted exercises/ assignments the students have picked circuits from their hobby experiments, project works they knew and took up recently. The tools were taught from scratch and participants appreciated the team effort in making them skilled in handling them at ease. Participants gained skill in using the above listed tools for implementing their circuits. They too have demonstrated their own designed PCBs to rest of the participants as the part of the course. The participants had gone through the test at the end and received participation certificates from the Andhra Pradesh State Skill Development Corporation, AP. The feedback from the participants was quite interesting and they expressed their desire to be part of such skill development courses in near future in association with APSSDC.

The following are some of the screenshots of the event:

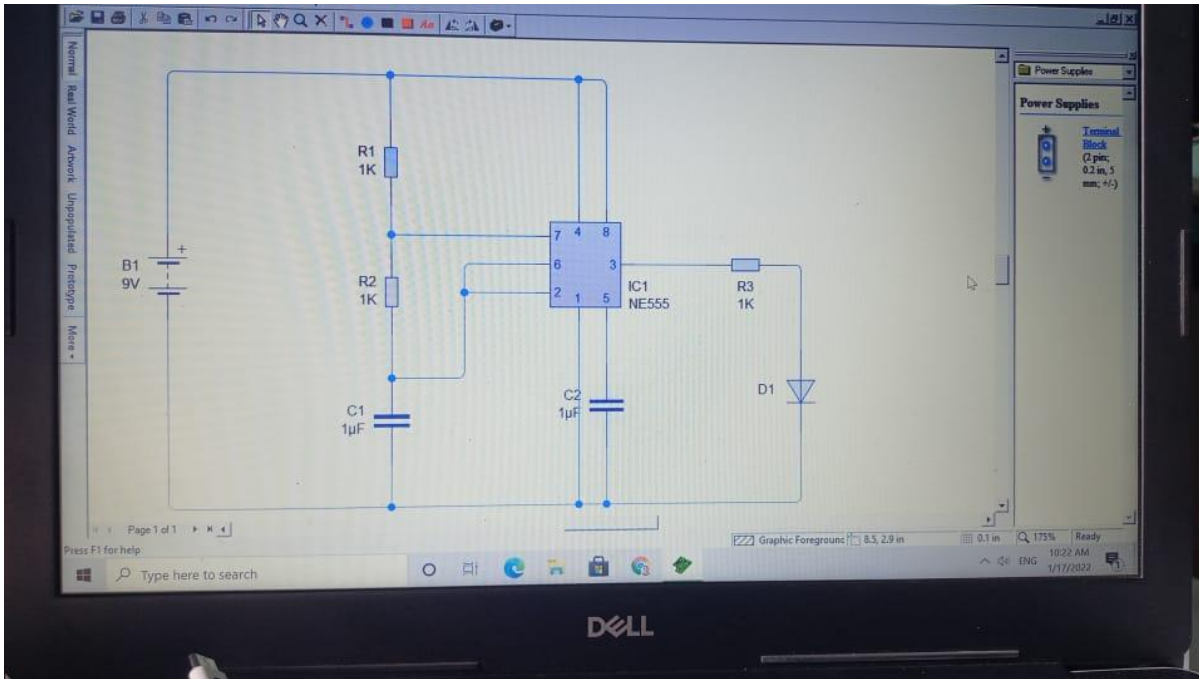


Participants listening to the resource person using Central digital library and lab computing facilities available in the department.

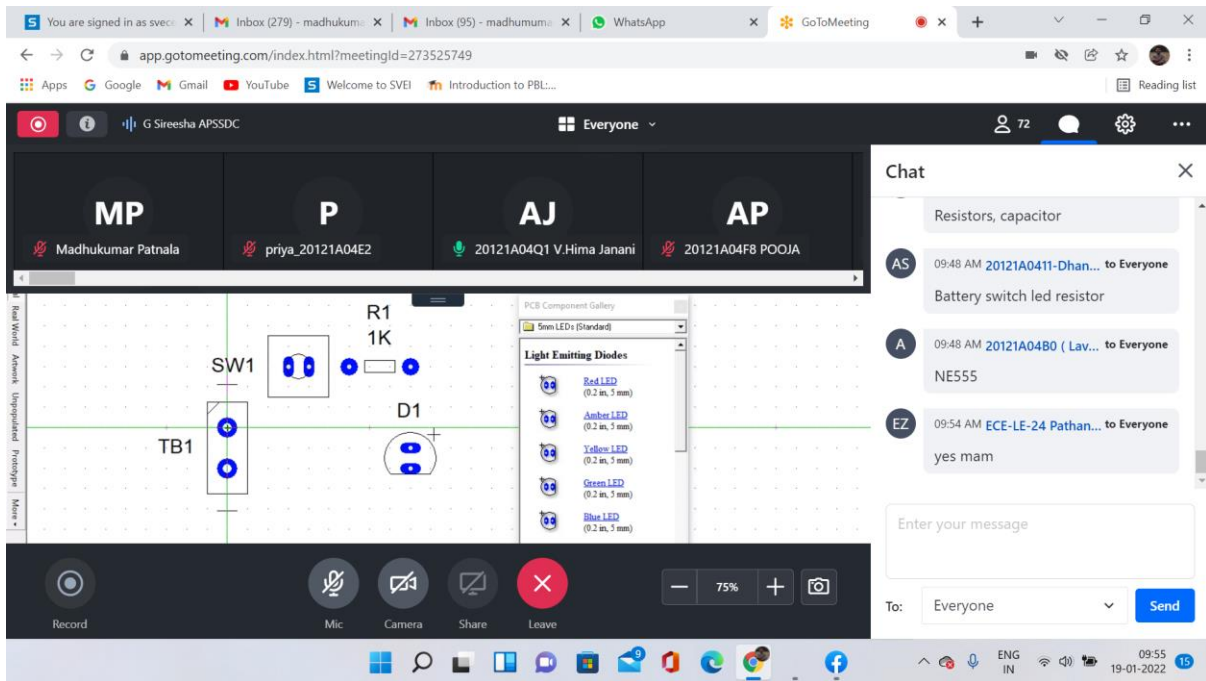
The screenshot shows a GoToMeeting interface. At the top, there are browser tabs for WhatsApp, GoToMeeting, and others. The meeting ID is 273525749. Below the browser tabs, there are participant names: MP (Madhukumar Patnala), AK (20121A04C1 K.Vijayalaksh...), AP (20121A04F8 POOJA), and DJ (Devarla Sai Jahnavi). The main content area displays a circuit diagram with a resistor and a diode. A 'Resistor Properties' dialog box is open over the circuit. The chat window on the right shows a conversation about the internal resistance of a diode. A message from 'Me to Everyone' states: 'LED is special diode which emits light (because of material property) when forward biased'. The bottom of the screen shows the Windows taskbar with the time 10:58 on 11-01-2022.



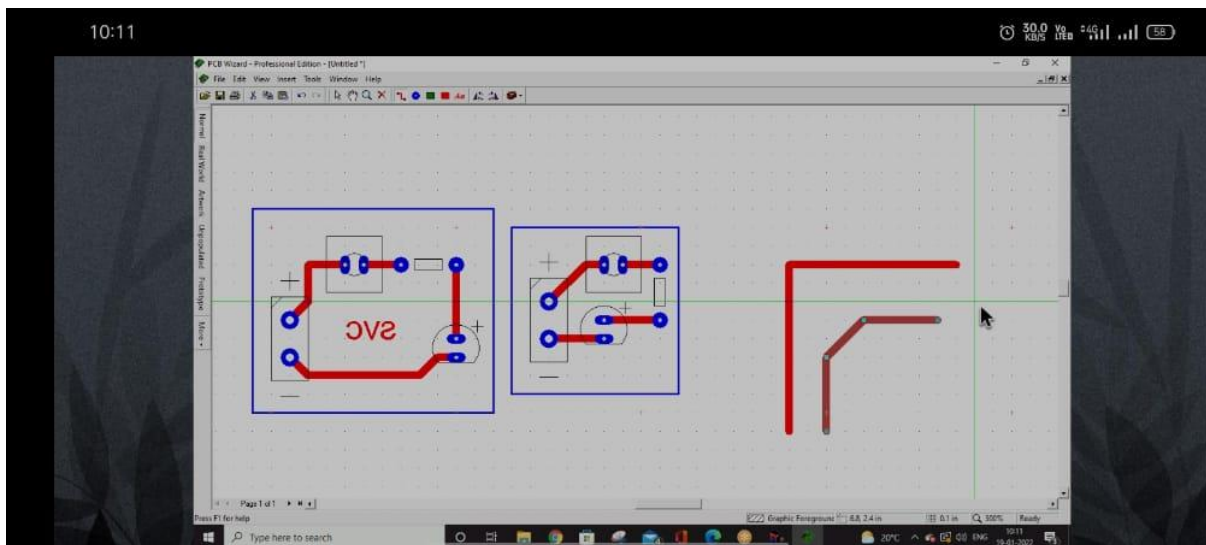
Screen shot of livewire demonstration for simple LED circuit setup



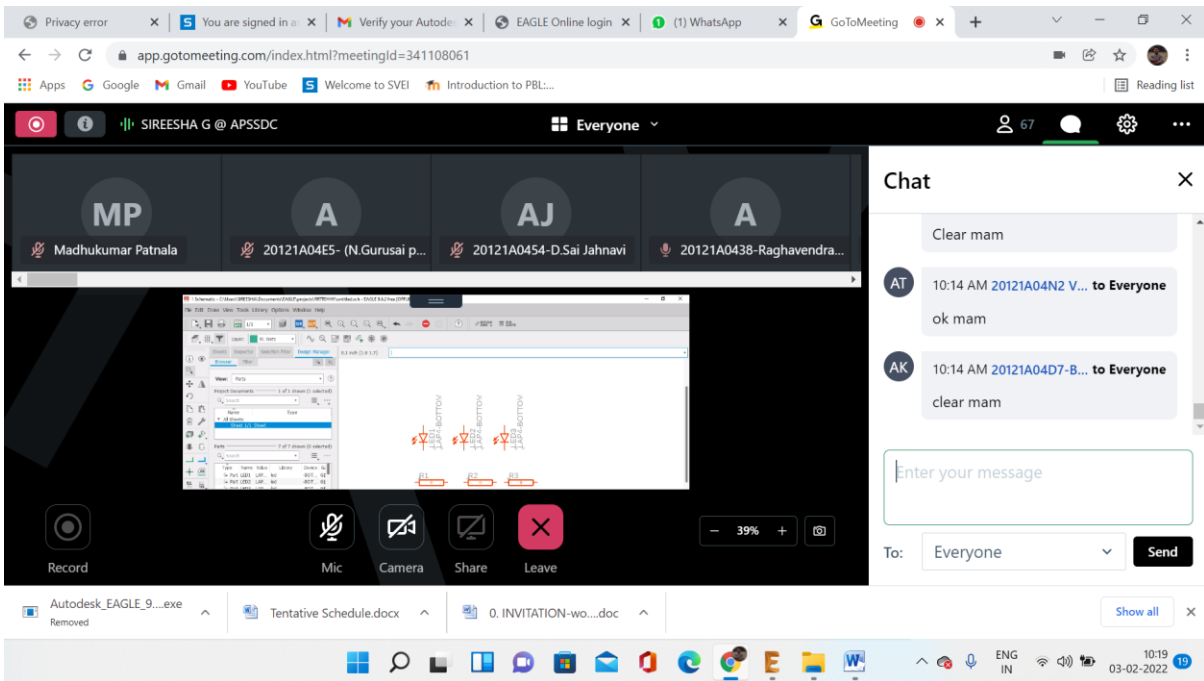
17 Jan.2022 – 555 based square wave generator..



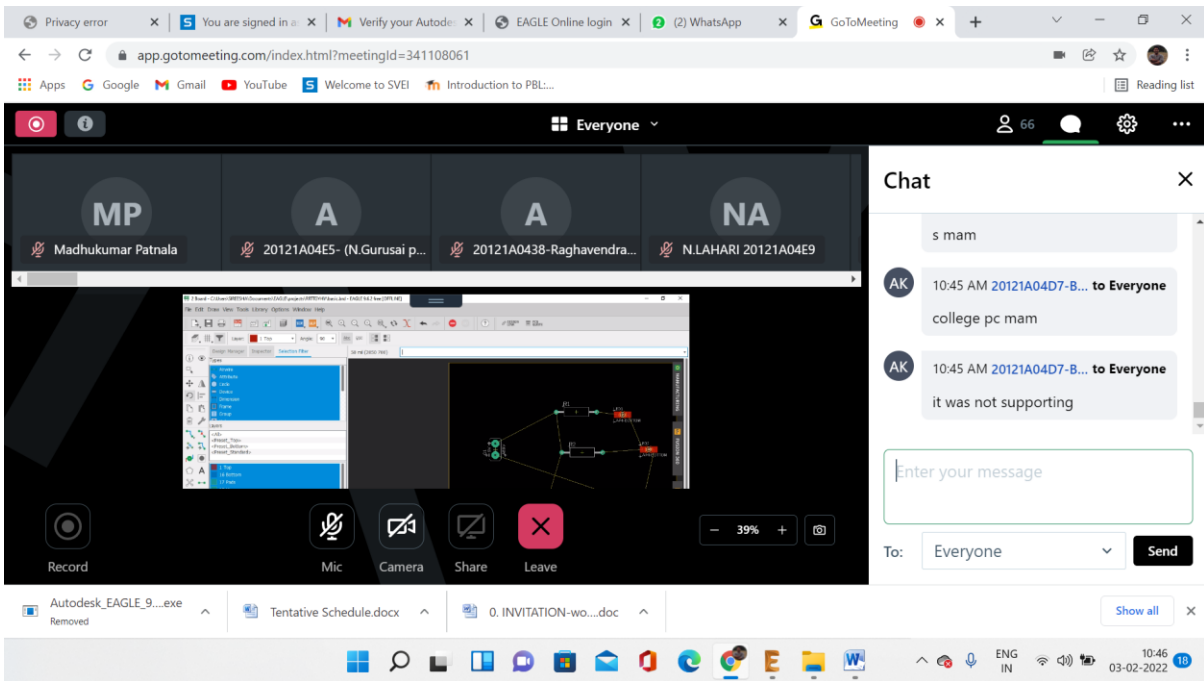
Simple LED Circuit – PCB Wizard demonstration



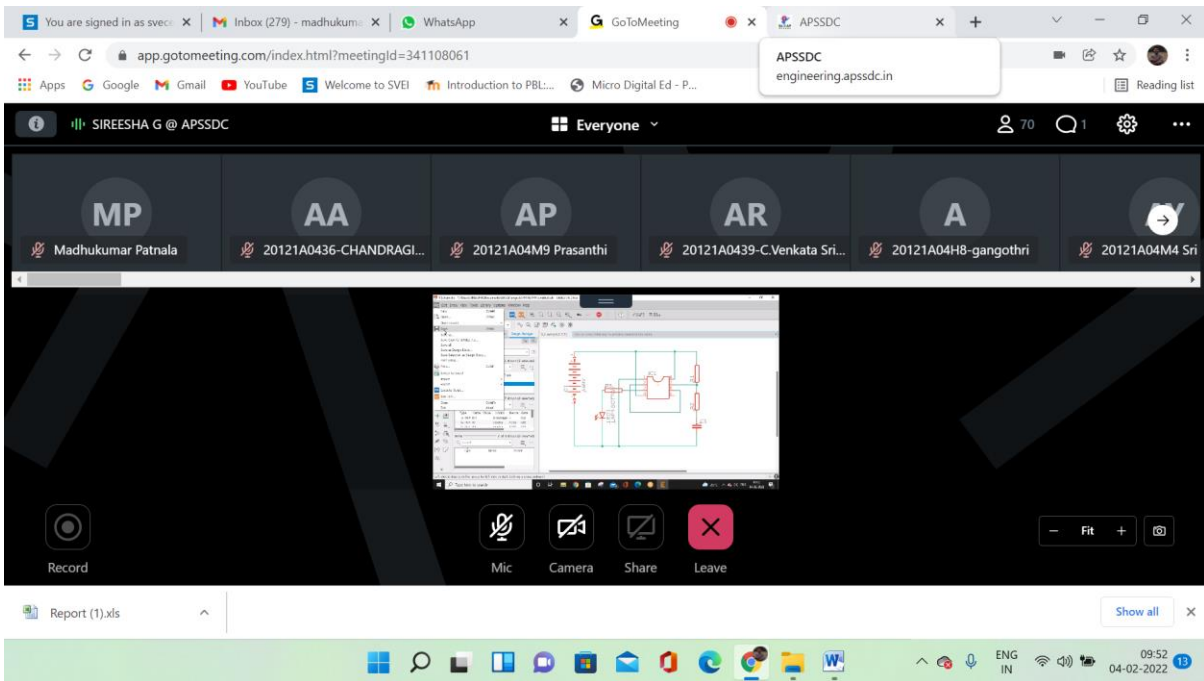
Sample PCB layout presented by the participant



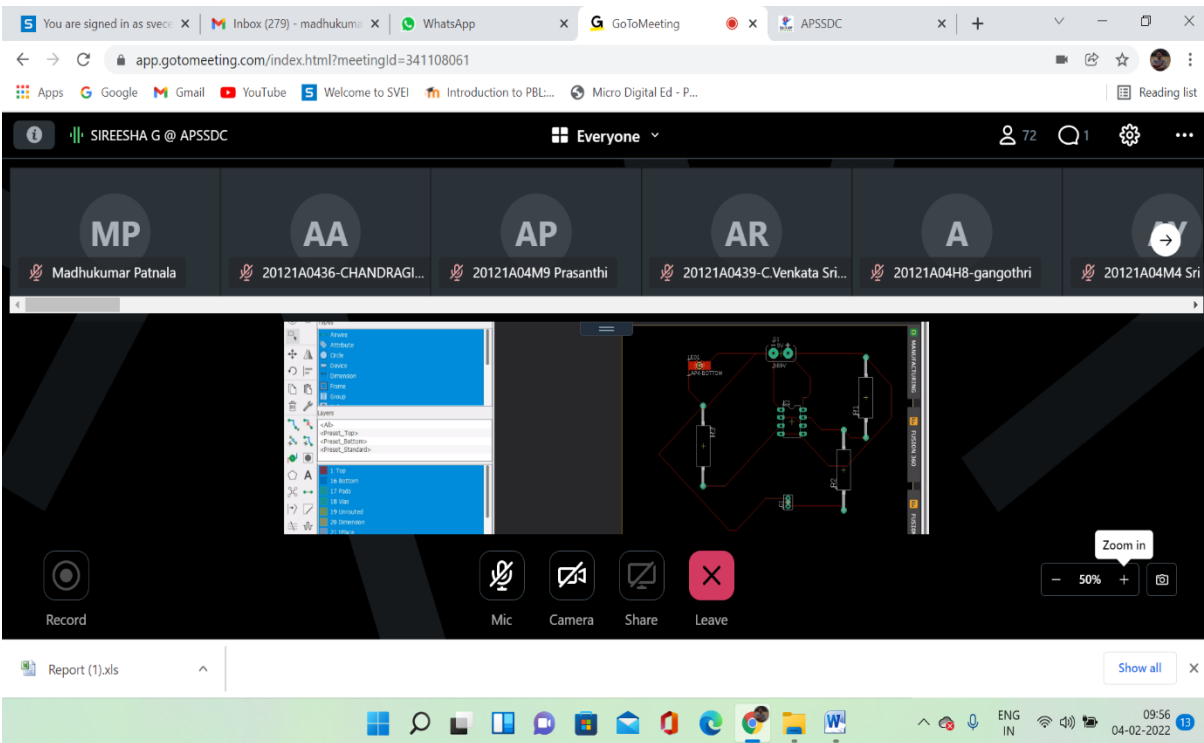
Demonstration of Eagle PCB schematic



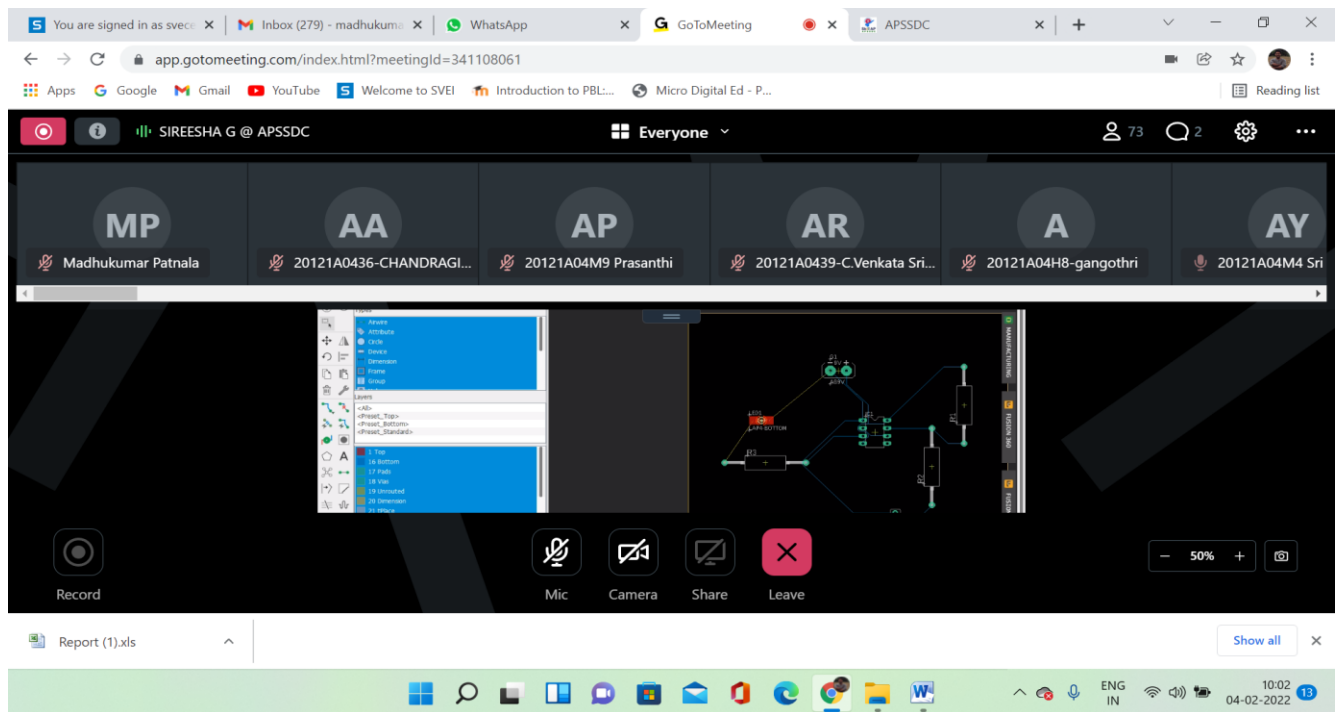
Interactive design being done under mentorship of the resource person by participant



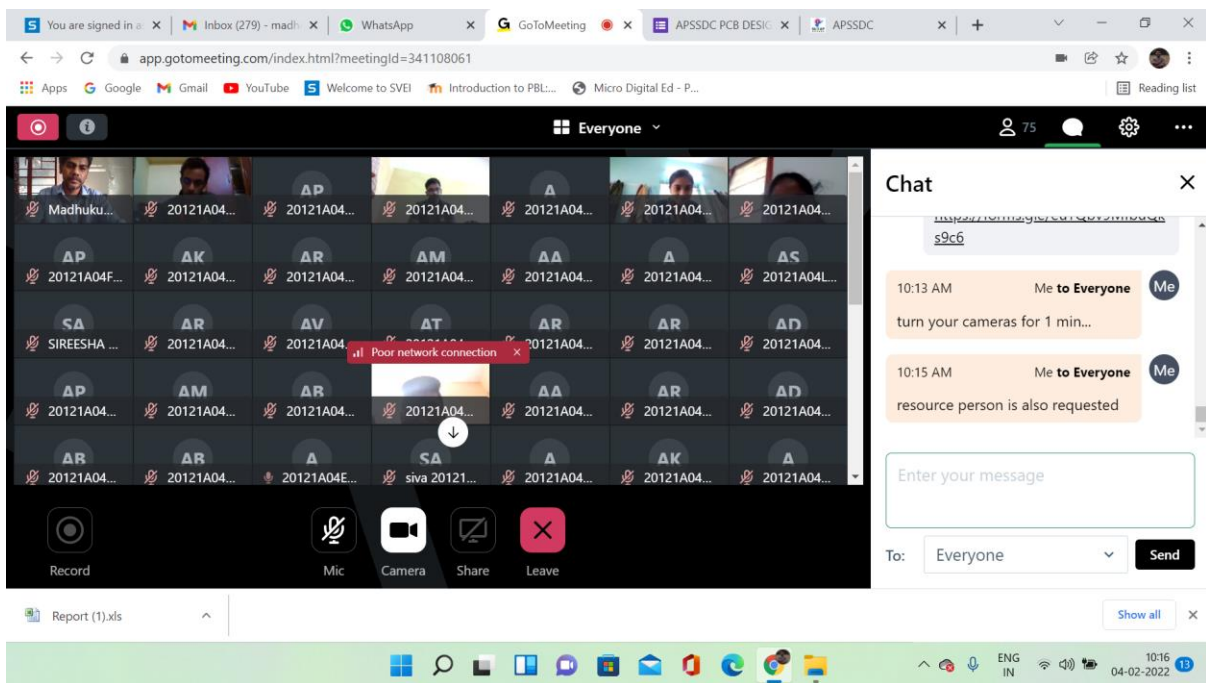
555 based As table Multi using Eagle



Manual Routed PCB on Eagle for 555 based As table Multivibrator



Auto Routed PCB on Eagle for 555 based Astable Multivibrator



Participants sharing their valuable feedback at the program valedictory

Convener