



**DON BOSCO INSTITUTE OF TECHNOLOGY, MUMBAI**  
**DEPARTMENT OF ELECTRONICS AND TELECOMMUNICATION**  
**ENGINEERING**

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**Report on Tinkercad Workshop**

**Topic:** “Tinkercad Workshop”

**Date:** 3<sup>rd</sup> and 4<sup>th</sup> July 2021

**Time:** 3:00 - 5:00 p.m.

**Venue:** Zoom Meeting (Online Platform)

**Speakers:**

1. Ms. Ajitha Rajkumar (Chairperson - IEEE DBIT)
2. Mr. Velton D'Souza (Treasurer - IEEE DBIT).

**No. of participants attended:** 13

**Description:**

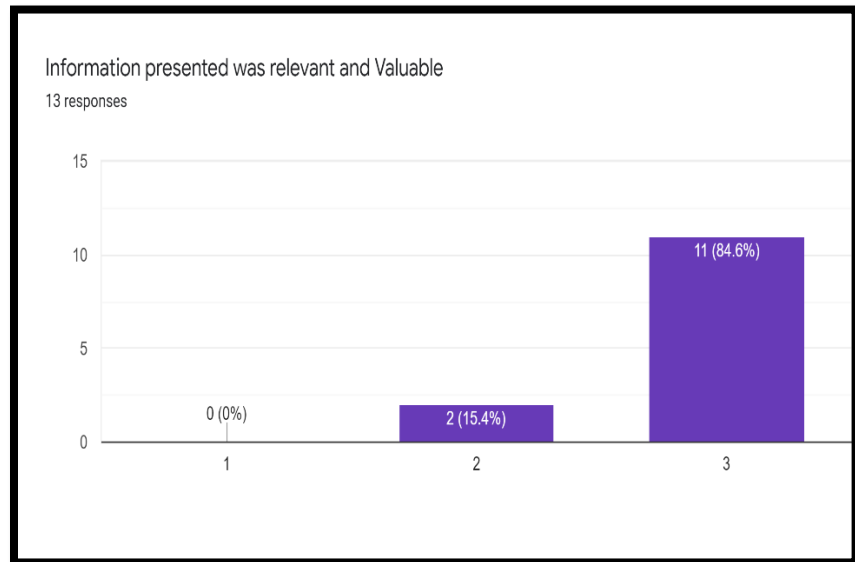
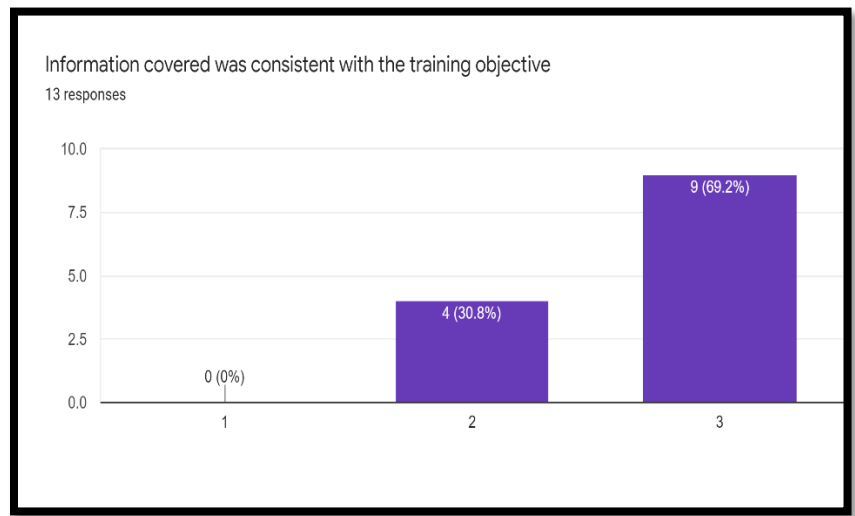
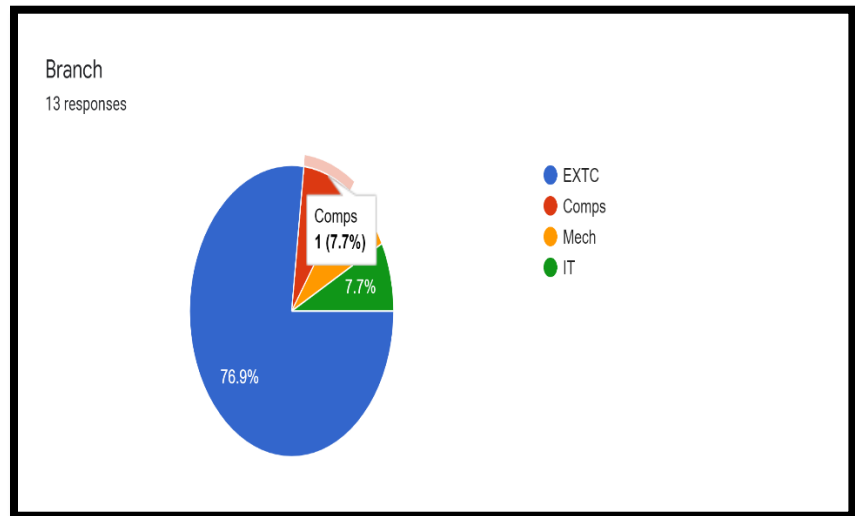
- IEEE-DBIT Student Branch conducted a workshop extensively covering the Tinkercad software on 3<sup>rd</sup> July 2021 and 4<sup>th</sup> July 2021 from 3:00 pm to 5:00 pm.
- The workshop helped the participants gain a hands-on experience of Tinkercad by designing gates and electric circuits from basic to advanced levels.
- Ms. Ajitha Rajkumar commenced the session on 3<sup>rd</sup> July 2021 by welcoming all the students and provided a gist of what is to be expected from the session and what would be expected of the students for the successful completion of the workshop.
- The workshop was structured into a well-defined and systematic schedule in the following manner to help students reap maximum benefit from the session.

Day	Topics	Speaker
3 <sup>rd</sup> July 2021	<ol style="list-style-type: none"> <li>1. Introduction to Tinkercad <ul style="list-style-type: none"> <li>- Interface Exploration</li> <li>- Benefits</li> <li>- Uses</li> <li>- Advantages/Disadvantages</li> </ul> </li> <li>2. Explanation of Pin diagram, Gates, Half Adder Electrical Circuits.</li> <li>3. Implementation of the following: <ul style="list-style-type: none"> <li>- AND Gate</li> <li>- OR Gate</li> <li>- Half Adder</li> </ul> </li> </ol>	Ms.Ajitha Rajkumar
4 <sup>th</sup> July 2021	<ol style="list-style-type: none"> <li>1. Difference between Microcontrollers and Microprocessors.</li> <li>2. Introduction to Arduino Uno <ul style="list-style-type: none"> <li>- Uses</li> <li>- Pin Diagram</li> <li>- Functions of various pins.</li> <li>- Basic Arduino Programming.</li> <li>- Applications.</li> </ul> </li> <li>3. Arduino and TinkerCad <ul style="list-style-type: none"> <li>- Various types of Arduino in Tinkercad</li> </ul> </li> <li>4. Implementation of blinking of LED using Arduino on Tinkercad. <ul style="list-style-type: none"> <li>- Circuit assembly on breadboard with LED's, resistors, wires, jumpers and Arduino Uno.</li> <li>- Walkthrough of the block code to implement the same.</li> </ul> </li> </ol>	Mr.Velton D'Souza

- On both the days the participants were encouraged to perform the implementation of the circuits by themselves and screen share the same. For this a buffer period of 15 minutes was provided from 3:30 pm to 4:45 pm.
- The last 15 minutes of the session on both days was exclusively devoted for answering the queries posted by the participants.
- Ms.Ajitha Rajkumar concluded the workshop on 4<sup>th</sup> July 2021 by thanking the students for their active participation in the workshop and encouraged them to extend similar cooperation for all the future events to be conducted by IEEE DBIT Student Branch. Finally, some general information about the various IEEE membership opportunities were shared with the enthusiastic participants and also informed them to follow the social media handles of IEEE to stay updated on all further events to be held in the upcoming days.

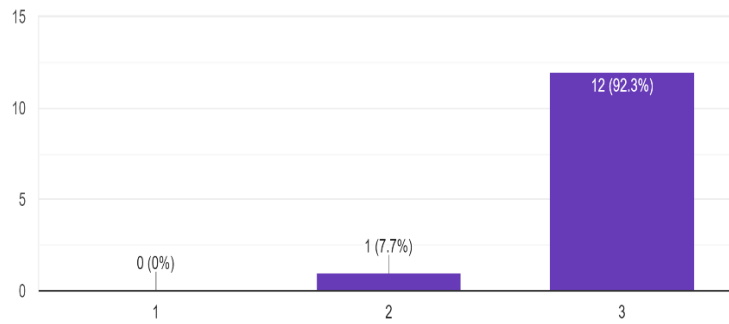


Feedback Analysis:



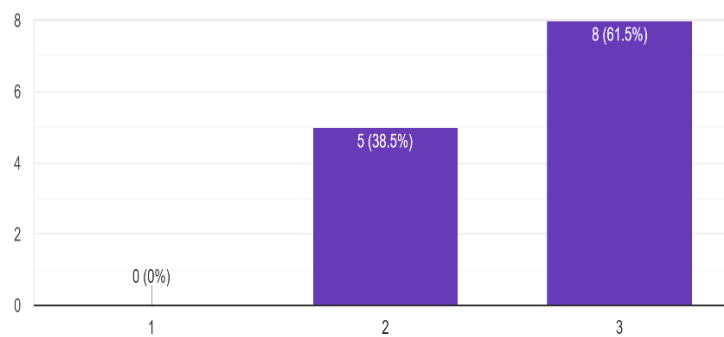
### Presentation materials were in an organized manner

13 responses



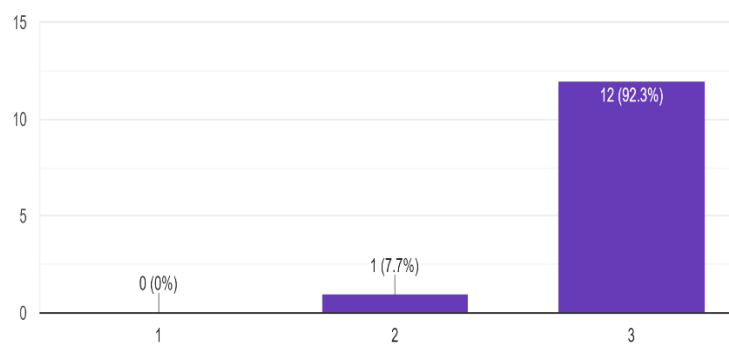
### Information presented were clearly explained

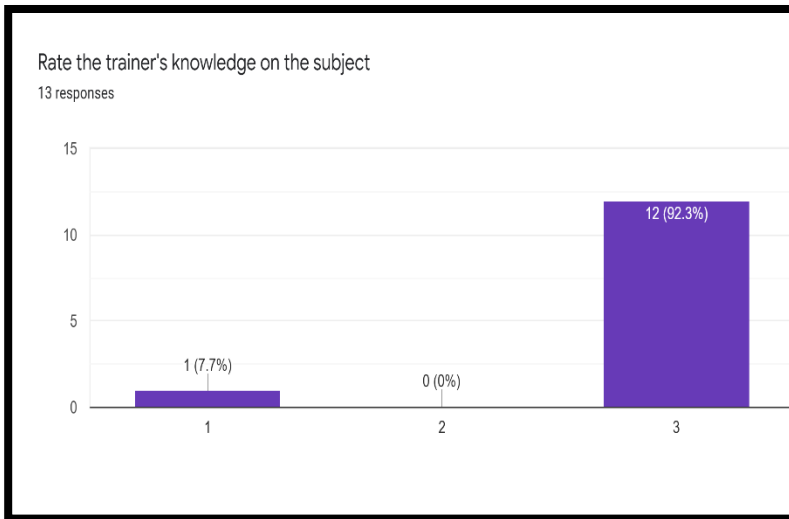
13 responses



### Participants questions were clearly answered

13 responses





### **Summary of Webinar Analysis:**

From the above analysis we can infer that the overall reception to the workshop was quite positive and the participants found the sessions to be very satisfactory and informative. As reflected in the feedback, the workshop helped many students gain a clear perspective about Tinkercad and were confident of designing circuits in the software. Further, many students were quite optimistic about attending such similar workshops in the future.

**Event Poster :**



DON BOSCO INSTITUTE OF TECHNOLOGY, MUMBAI

IEEE DBIT STUDENT BRANCH



PRESENTS

# TINKERCAD WORKSHOP



EVENT ON

SATURDAY  
&  
SUNDAY

3rd & 4th July, 2021

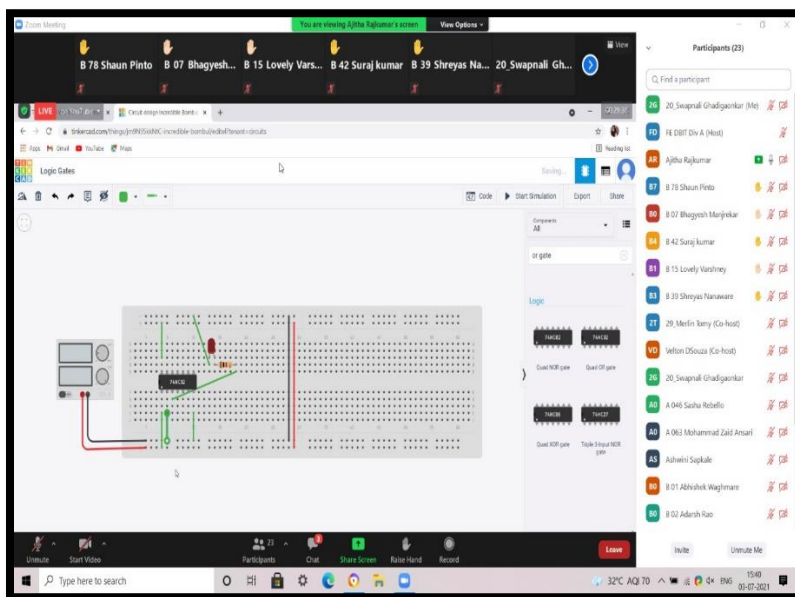
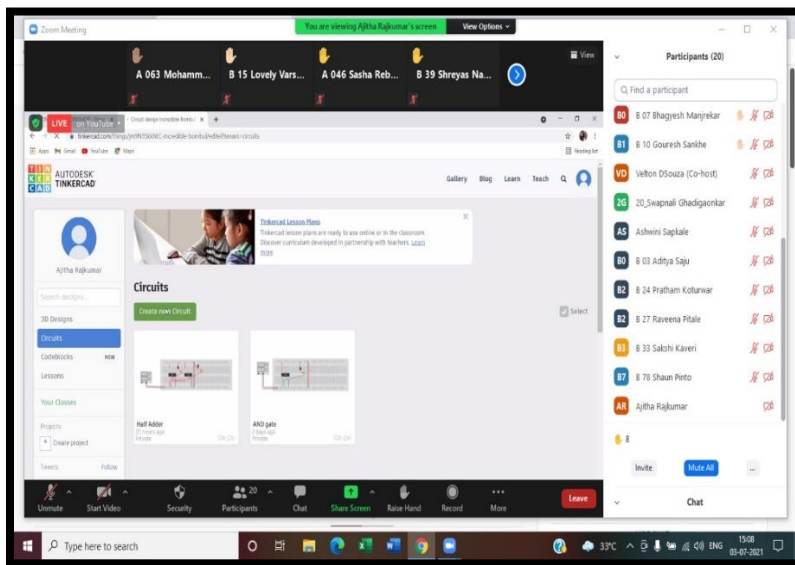
3PM TO 5PM

CONTACT:  
AJITHA RAJKUMAR: 8850280243  
BHAVESH BARDE: 9702775359



## Event Photographs :

### Day 1 :





Zoom Meeting You are viewing Ajitha Rajkumar's screen View Options

B 02 Adarsh Rao B 78 Shaun Pinto B 39 Shreyas Na... B 07 Bhagyesh... B 15 Lovely Vars... B 42 Suraj kumar

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HOME File Resize All changes saved TINKERCAD WORKSHOP Try Canva Pro Share Present

### HALF ADDER CIRCUIT

A B

SUM

CARRY

A	B	Sum	Carry
0	0	0	0
0	1	1	0
1	0	1	0
1	1	0	1

1 2 3 4 5 6 7 8 9 10 11 12 13 14

Participants (23)

Find a participant

- 20\_Swapnali Ghadigaonkar (Me)
- FE DBIT Div A (Host)
- Ajitha Rajkumar
- B 02 Adarsh Rao
- B 78 Shaun Pinto
- B 39 Shreyas Nanaware
- B 07 Bhagyesh Marjekar
- B 42 Suraj kumar
- B 15 Lovely Varschney
- B 01 Abhishek Waghmare
- 29\_Merlin Torrey (Co-host)
- VD Yelton D'Souza (Co-host)
- 20\_Swapnali Ghadigaonkar
- A 046 Sasha Rebello
- A 063 Mohammad Zaid Ansari
- AS Ashwini Sapkal

Unmute Start Video Participants Chat Share Screen Raise Hand Record Leave

Type here to search 32°C AQI 70 15:43 09-07-2021

Zoom Meeting You are viewing Ajitha Rajkumar's screen View Options

B 02 Adarsh Rao B 78 Shaun Pinto B 39 Shreyas Na... B 07 Bhagyesh... B 15 Lovely Vars... B 42 Suraj kumar

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HOME File Resize All changes saved TINKERCAD WORKSHOP Try Canva Pro Share Present

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Unmute Start Video Participants Chat Share Screen Raise Hand Record Leave

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## Day 2 :

The screenshot shows a Zoom meeting window. The top bar lists participants: Swapnali Ghadi..., FE DBIT Div A, Ajitha Rajkumar, TE\_VELTON DSO..., TE\_29\_Merlin To..., and B 42 Suraj kumar. The main window displays a presentation slide titled "What is ARDUINO?". The slide features an image of an Arduino Uno microcontroller board on the left. To the right of the image, there is text explaining that a microcontroller board contains an onboard power supply, USB port to communicate with the PC, and an ATMELE microcontroller chip. It further states that it simplifies the process of creating any standard system that can be programmed and connected to the system without the need for any sophisticated PCB design and implementation. At the bottom of the slide, it mentions that it is one of the open-source hardware which anyone can get the details of design and modify and even build one. The Zoom interface includes a bottom toolbar with icons for mute, video, chat, share screen, raise hand, and record. A search bar is visible at the bottom left.

**What is ARDUINO?**

A microcontroller board contains the onboard power supply, USB port to communicate with the PC, and an ATMELE microcontroller chip.

It simplifies the process of creating any standard system that can be programmed and connected to the system without the need for any sophisticated PCB design and implementation.

It is one of the open-source hardware which anyone can get the details of design and modify and even build one

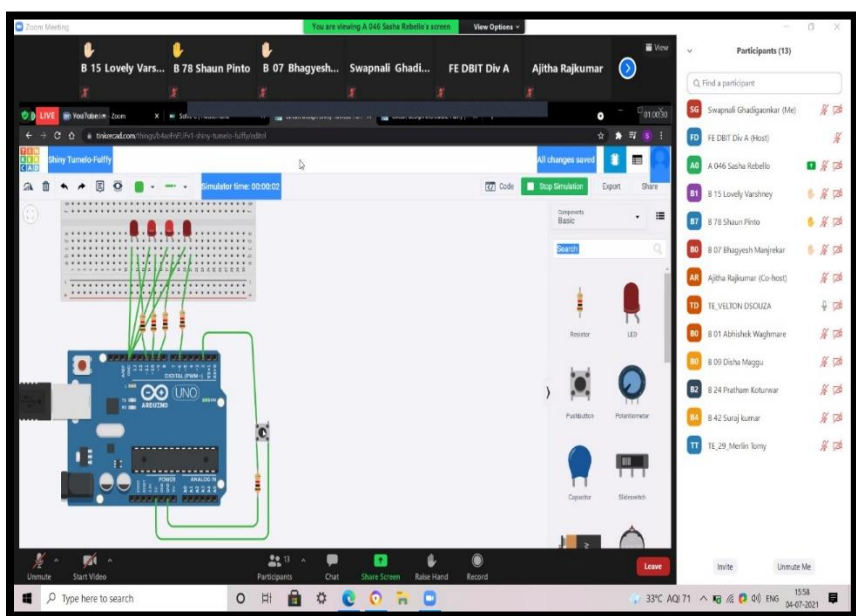
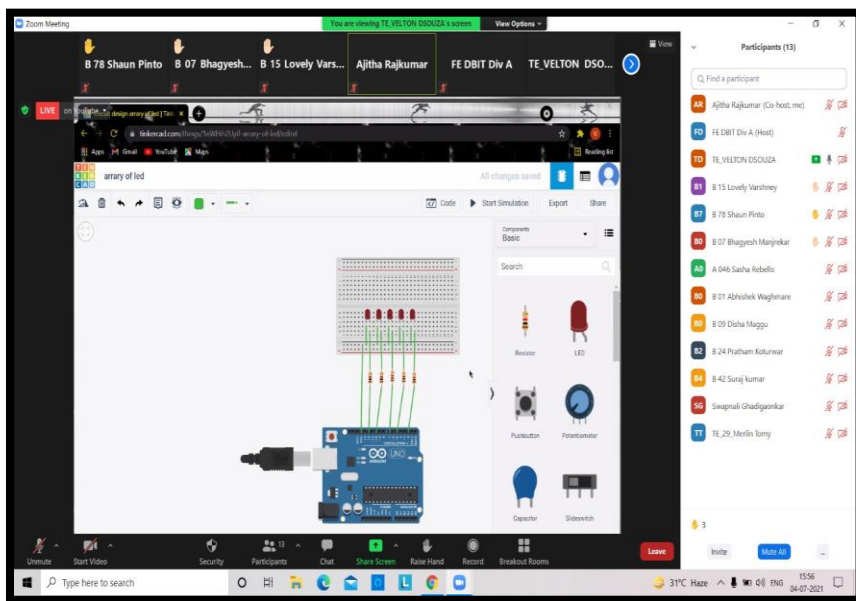
The screenshot shows a Zoom meeting window with the same participant list as the first image. The main window displays the Arduino IDE interface. The top bar shows the file explorer with a project named "Cool\_Arduino". The main workspace shows a breadboard diagram with an Arduino Uno connected to a sensor module. The code editor on the right contains the following code:

```
int sensorPin = A0; // Analog pin connected to sensor module
int ledPin = 13; // LED pin

void setup() {
  pinMode(sensorPin, INPUT);
  pinMode(ledPin, OUTPUT);
}

void loop() {
  int sensorValue = analogRead(sensorPin);
  int value = map(sensorValue, 0, 1023, 0, 255);
  digitalWrite(ledPin, value);
}
```

The Zoom interface includes a bottom toolbar with icons for mute, video, chat, share screen, raise hand, and record. A search bar is visible at the bottom left.



**Report Prepared By: Ms. Ria George (Secretary - IEEE DBIT )**  
**Report Approved By: Prof. Gejo George (IEEE-DBIT-SB Counselor)**