



**DON BOSCO INSTITUTE OF TECHNOLOGY**  
**DEPARTMENT OF ELECTRONICS AND TELECOMMUNICATION**  
**IEEE-DBIT STUDENT BRANCH**

## **Report on Technical Poster Presentation Competition**

**Topic:** "Technical Poster Presentation Competition"

**Date:** 18<sup>th</sup> July, 2020

**Time:** 6:30 pm

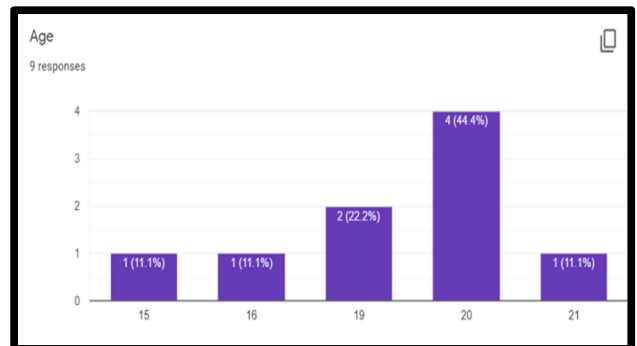
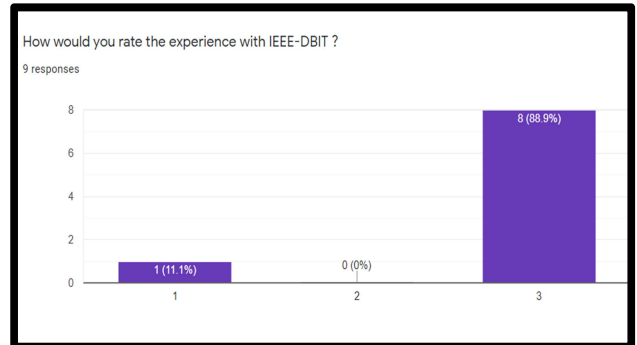
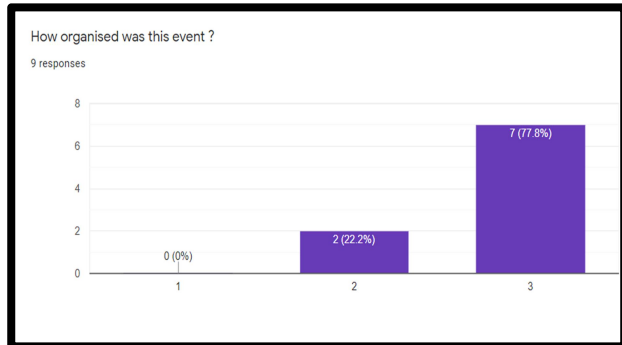
**Venue:** Live Zoom Meeting / YouTube

**No of participants:** 9 Teams

**Description:**

- The IEEE-DBIT student branch organized a Technical Poster Presentation Competition on the 18th July, 2020 as a part of the NEXUS 2020 event. The competition aimed to help students showcase their technical poster making skills and their ability to present their respective technical posters.
- The judges for the competition were Ms. Joveen Jacob and Dr. Minirani.
- A total of nine teams participated in the technical poster competition, each team consisting of two team members.
- Each team was given 5 minutes to present their poster followed by Q & A by the judges and marks were given accordingly.
- Winners of the competition were:
  - 1<sup>st</sup> - Ms. Ajitha Rajkumar and Ms. Sanskriti V
  - 2<sup>nd</sup> - Mr. Abhishek Joshi and Mr. Sahil Pednekar
  - 3<sup>rd</sup> - Mr. Aditya Birajdar and Mr. Harsh Agrawal

## **FEEDBACK ANALYSIS:**



## **FEEDBACK SUMMARY:**

From the above analysis, we can see the overall reception to the competition was highly positive. Many participants were about 20 years of age, followed by 19 and 21 respectively. The majority of the participants enjoyed the experience with IEEE-DBIT and was met with their expectations.

## POSTER SUBMISSIONS



By Ms. Ajitha Rajkumar and Ms.  
Sanskriti V (First Place)



Mr. Abhishek Joshi and Mr. Sahil  
Pednekar (Second Place)

**SIES Graduate School of Technology**  
RISE WITH EDUCATION

**SIES GST IEEE**

**Social Distancing Monitoring tool for Educational Institutes**  
(By Harsh Agrawal & Aditya Birajdar)

**COVID-19**  
sdmonitoring.in

**About the Project**

This is where social distancing has to be managed and here AI comes in for help. A camera is mounted at the highest point in the room or place which click images and sends them to the processing models every few seconds. These models are mounted on a remote computation device - Rpi or a sparkfun tensorboard - which gives the label to the image if it is violating any safety rules and informs authorities and the concerned person of the same. If safety rules are being disregarded numerous times, a fine and consequent ban is imposed.

**Models of project**

1. Social Distancing - This model uses a Convolutional Neural Network to create a bird's eye view of people in the view of a camera. This plots the people as points in a Cartesian plane, and then a simple algorithm calculates distance between all points. If no two points are close to each other then the model returns an array of all 0 values. If any two points get closer to each other than the decided safe distance, it returns an array which has those points marked as 1. A warning / consequences are issued in the name of the violators.

2. Mask Enforcer - This model finds faces in the view of the image supplied. It then uses a Transfer Learning Deep Learning model to ensure all the faces have their nose and mouth covered with an appropriate masks. Failure to do so, raises an alarm and a warning is issued in the name of the violator.

**Advantages**

The algorithms will be applied parallelly to multiple images of the same place and the results will be combined to get the most precise output as well as parallel analysis ensures no disagreement is caused between models. The system uses very less database power, as it clears memory once the object is out of scope. Day to day functions are handled by the processor on a local computation environment which helps speed up the system. The system can be controlled and edited using a very interactive UI which is simple to understand by the end user. Also, the feedback of the effectiveness of the solution will update the database, so that our technology adapts to the changes in the pattern of spreading of diseases under different conditions.

**Flowchart:**

```

    graph LR
    A[Get Camera Frame] --> B[Detect Students]
    B --> C[Localize Students in the frame]
    C --> D[Project Students Location in birds eye view]
    D --> E[Find Distance between students]
    E --> F[Display Lines between Students who are close]
  
```

Click on logos for college and IEEE branch website

By Mr. Aditya Birajdar and Mr. Harsh Agrawal (Third Place)

**TECHNOLOGIES FOR BETTER MANAGEMENT AFTER LOCKDOWN**

**MONITOR**  
Institution should monitor the social distance among the people with help modern camera.

**ONLINE EDUCATION**  
We Should Encourage The Online Connection Even After The Lockdown. It Will Happen For Atleast Twice A Week.

**THERMAL SCAN**  
Each and every member of institution should be tested with thermal scanner. To find person with the temperature above 98.6°F (37°C)

**GERM SPRAY**  
Spray the germ killer around and inside the institution everyday in order to avoid the spread of COVID-19

**TOUCHLESS Bio-metric**  
Use facial recognition system instead of fingerprint system.

**Digital Lock**  
It better to get rid of COVID 19

**Air Filter**  
To purify the air with viruses

**Sanitizer**  
Use automated hand sanitizer and water tap to wash your hands

**Wifi Electronics**  
Usage of wifi connected electronics.

**MEASUREMENTS**

- Contact-less deliveries through people inside the institution.
- Institution should encourage the online transactions.
- Use Mini level robots to encourage small works such sweeping, serving and cleaning
- Meeting can be between the employees should be done through video conference.

By: Dineshwaran S

**Tech For Educational Institutes**

**INTRODUCTION**

TECHNOLOGICAL INNOVATION IS ABILITY OF WORKFORCE TO CREATE, DISTRIBUTE, SHARE AND USE THE NEW KNOWLEDGE

**OBJECTIVE**

- MAINTAIN HYGIENE
- INITIATE AUTOMATIONS LIKE
  - AUDIO-VISUAL LEARNING
  - INTERACTIVE SESSIONS
  - DIGITAL VIDEO-ON-DEMAND
  - ONLINE STUDY TOOLS
- PROVIDE SOPHISTICATED LAB EQUIPMENTS

**RESULT**

- MOTIVATES STUDENTS
- GET TO THE CORE OF TOPIC
- CAPTURE INFORMATION
- ENHANCE SELF-ESTEEM
- RISE IN TECHNICAL SKILL

**LUCIDITY ON SUBJECTS**

**Bar Chart:**

Subject	Books	AV
Books	10	20
AV	20	30

By Ms. Bhagya S

**TECHNOLOGY FOR PREPARING EDUCATIONAL INSTITUTES FOR BETTER MANAGEMENT AFTER LOCK DOWN**

**NAME: GOUTAM BHAT** **INSTITUTE: KLEIT HUBLI**

**ABSTRACT:** The Covid-19 cause major damage to education sector. The key challenge is how manage after re-open. The technology are plays major role in education management. So we implement these technology which mention in posters to over come from problem.

**Technology are:**

- Biometric sensor
- ML base screening
- HOLOGRAPHY base conference
- Arogya setu app implement

**ML base screening:**  
\* The ml base training set pre defined and when he person enter the screening undergoes.

**HOLOGRAPHY**  
The holography can be implement in conference

**BIOMETRIC SENSOR BASE SANITISER:**  
\*The sensor which recognise the human when he pass the door, drop sanitizer on him, it can apply to both collage bus and indoor  
\*The SENSOR which act as main role in first stage of protection

**AROGYA SETU APP:**  
The management should make compulsory to all

The holography can be implement in daily lab session also it helps lot and make social distance

**SECURITY:** The covid 19 time lot of security breaching happen when use of zoom or other apps and so to mitigate this better to upload file to YouTube before and take Google form test need for assignment

**Conclusion:** The covid-19 is disease it can take undesirable time to control so using technology should manage education because education is part of life.

By Mr. Goutam Bhat



# Technologies for Preparing Educational Institutions for better Management after Lockdown

## Abstract

To understand the technology adoption, teaching and learning process, student engagement and faculty experience towards virtual classrooms during COVID-19 Lockdown.

## Introduction

India's fight against the COVID outbreak has been unique. When it comes to the education sector, many countries have closed down schools and universities. Teaching is moving online on an untested and unprecedented scale. Technology has a key role in educating the future generations in a world where knowledge is a mouse-click away; the role of the educator must change too.

Reference: <https://www.researchgate.net/publication/340009688>

## Method

Faculty have been asked open-ended questions based on four categories: Such as technology adoption, teaching and learning, student's engagement and faculty experience towards virtual classrooms during COVID-19 Lockdown.

## Report

This study is confined to the positive side of COVID-19 and change in the education sector by adopting technology, teaching and learning and engaging students with various virtual sessions. Focus more on a hybrid system of education that is a combination of both online and offline.

## Conclusion

It has created the revolution in Indian higher education, as there was lots of resistance in teaching fraternity towards adopting technology pre-COVID-19 crisis and due to the situation most of the faculty has adapted technology and started taking virtual classes and their experience is great. Virtual engagement of students better than normal classrooms and attendance is almost 100 percent. The teaching fraternity doing a great job.

By Mr. Rameshwar Chavan

## Technical Poster Designing



Because of covid-19 all education system has changed, for eg. Lve, admission, forms, fees, etc.

**Online classes**  
**New method of education system**  
**Efforts of teachers**  
**Students gaining knowledge**

Every teachers try to give their Best so students play you also give Your efforts to learn its all government Doing for you

- Teaching through collaboration  
- Teaching through innovative methods  
- Virtual reality technology involves Helping students learn through interactions With 3D world. For instance, instead of taking the students through a boring class, to 3D technology to explore knowledge.

## Transfer of knowledge through online classes

The bottom line of the success of online courses is the engagement of students. The knowledge component is more natural to deliver in online mode. The transfer of skills through online mode is case dependent. For example, conducting a design studio in an online mode could be very challenging. Conducting a lab-based experiment may not be feasible. If skill-based courses (or it's part) also can be addressed.

## New way of learning



How Virtual Classroom? One of the biggest challenges for teachers across the ages has been to keep the students in the classroom engaged and attentive to the content that is being taught.

## Teaching during Covid-19 lockdown: Coping up with online classes and excelling

Here is how teachers are coping up with the challenges faced by them during online classes and webinars amid the covid-19 lockdown.

## 6. Teaching through 3D printing technology

Teachers looking for innovative methods of teaching can also look at 3D printing as a means of teaching. This method is fast gaining global acceptance, especially in higher educational institutes where 3D printers are used to create prototypes and make complex concepts easy to understand. In the lower level classrooms, teachers can use the 3D printers to teach content that was previously taught via textbooks, thus helping students gain a better understanding of the concept, especially STEM subjects.

By Ms. Neha Pandey

# TECHNOLOGIES

for *better management of*

## EDUCATIONAL INSTITUTES AFTER LOCKDOWN.

### Online learning for students at home

- For sick students
- For students living in villages

### Virtual Reality for 'Interactive Learning'

- Visual aid at an 'interactive level'
- Enhanced spatial ability

### Online Performance Reports

- Helpful for busy parents
- Gives real-time progress of student

### Paperless textbooks through e-ink devices

- Reduces load on student
- Eco-friendly
- Easy on the Eyes

### Online Parent-Teacher connections

- Immediate interaction
- Parent Convenience

### RFID Tags for Students and Faculty

- Used to take attendance
- Track students on campus

@ieee\_dbt

By Yohan D'souza

**EVENT POSTER:**



**Report Prepared by:** Ms. James Robin K- IEEE-DBIT-REPORTING HEAD

**Report Approved by:** Ms. Lakshmi Vinayakvitthal- IEEE-DBIT SB Coordinator