



**Walchand College of Engineering
Sangli**



**Department of
Electronics
Engineering**

2020

The Electronics Department has a club, **ELESA** (Electronics Engineering Students' Association), through which provides students a platform to develop themselves. Various technical, as well as non-technical activities are carried out by ELESA throughout the year.



What is ELESA?

- They are a Team
ELESA has 69 board members acquainted with notable skills
- They arrange student engagement activities
Technical and non-technical activities are conducted to improve skillset and prepare students for their career
- They are Achievers.
Continuing a strong legacy of 29 years, they believe that teamwork makes the dream work.

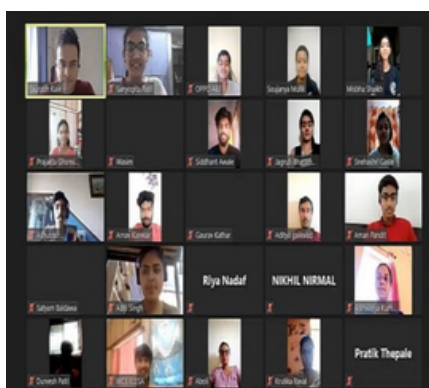
The various activities and events organised in the first semester are as follows:

Sr No	Activities	Date
1	Reconnect 1,2	3 May 2020 and 19 Sep 2020
2	Technolock	26 June 2020
3	Electrovision	11-27 Aug 2020
4	ICube	24 Aug 2020
5	Virtual Teachers' Day	5 Sept 2020
6	Chat with Champions	13 Sept 2020
7	Introduction to VLabs	26 Sep 2020
8	Club Service	

Reconnect

Reconnect is a newly introduced event that is a platform to meet our alumni and get guidance for our upcoming future. We join them through an online platform and conduct an interview session where they clear our all doubts and guide us. Till now we have conducted two sessions of Reconnect:

1. **Saurabh Kale:** currently pursuing M.S. degree in MEMS at TU Hamburg, Germany.
2. **Pranjali Paranjape:** recently cracked the CAT exam and scored 99.91 percentile and pursuing MBA at IIM Ahmedabad

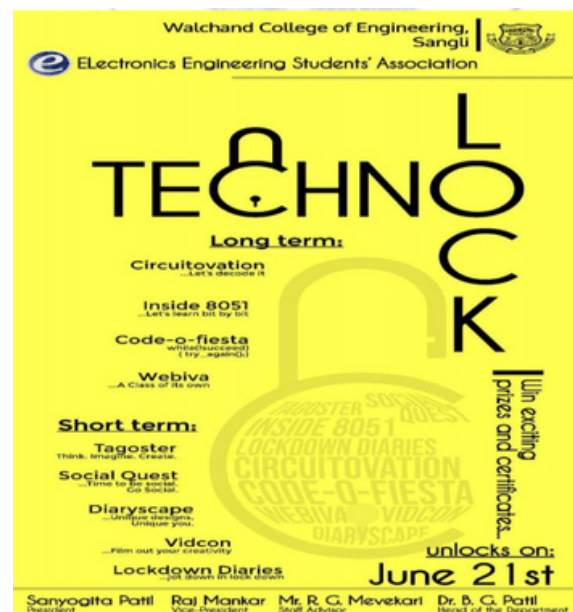


Technolock

Summer Special Event

This event is exclusively for ELESaite's organized by chief board members. This event emphasizes developing skills such as programming, web developing, designing, content development, etc. The event is conducted on online learning platforms such as ClassMarker, Google Classroom and includes online discussion forums such as Zoom where participants can collaboratively work on the project, present their ideas and work together to build a solution. This is a 4-week event consisting of sub-events that are either long term or short-term events. Long term events provide technical knowledge and skill development. Short-term events were to bring out creativity and enhance the soft-skills.

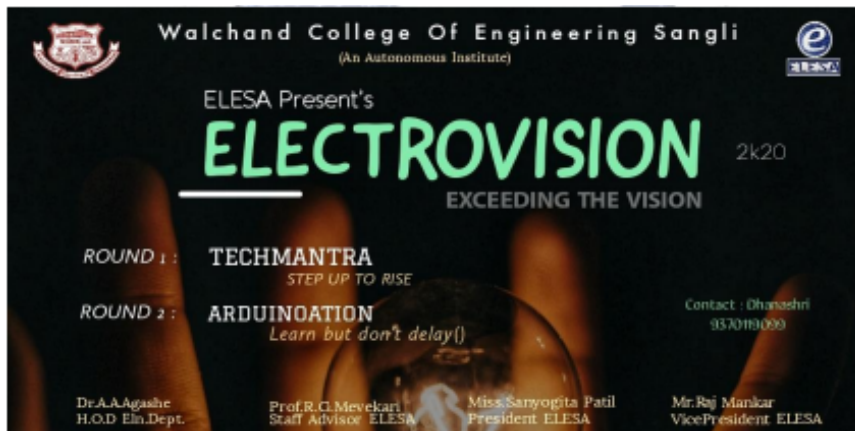
Short Term Events	Long Term Events
Tagoster	Circuitovation
Vidcon	Inside 8051
Lockdown Diaries	Webiva
The Social Quest	Code-O-Fiesta
Diaryscape	



Electrovision

Exceeding your Vision

ElectroVision is a newly introduced event this year by the Joint board members. This event is exclusively for Assistant board members of ELESA. ElectroVision focuses on creating and developing an interest in Electronics as all tasks were based on Technical concepts. The event consists of two rounds and conducted on online learning platforms such as Google Classroom, ClassMarker, Tinkercad, etc.

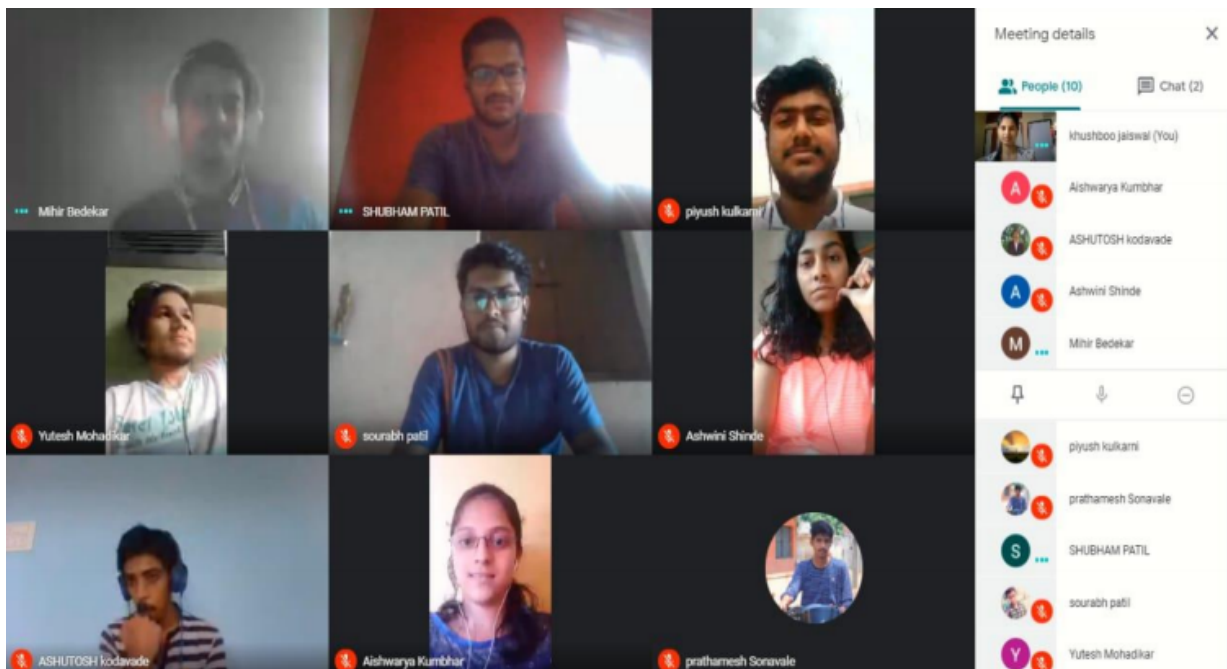


Event details:

1. Techmantra "Step up to rise": Techmantra was based on learning and perusing knowledge. Thus, in this round, the participants had to gain all the knowledge of basic electronics. All the topics of basic electronics were listed and were provided to the participants so that they can learn systematically.
2. Arduinoation "Learn but don't delay()": In this round, the participants should apply their knowledge based on what they learned in the previous round. This round is about simulation of a given task on tinkercad.

ICUBE

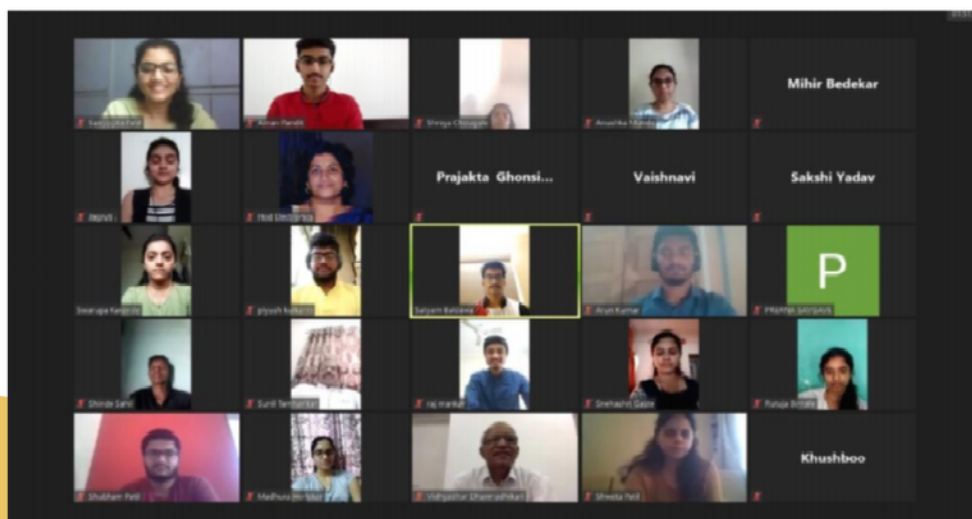
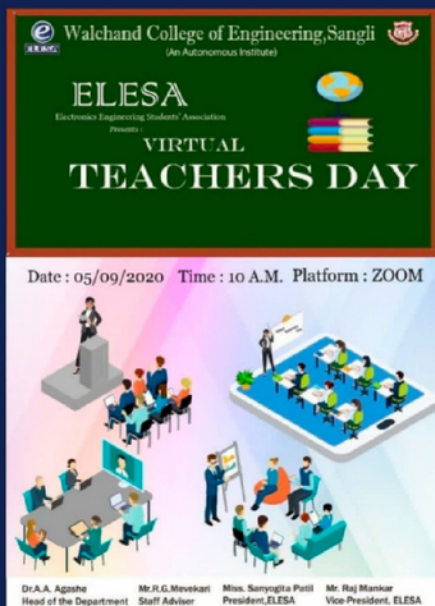
ICUBE which means Ideate, Innovate & Implement is a new event launched in 2019 by ELESA. This event is conducted by joint board members for assistant and joint board. It focuses on the development of Spontaneity, good Public Speaking skills, better Group Discussion Skills, improve Presentation, and good coordination among everyone. ICUBE helps everyone to improve their English and be fluent in it. The activities that are conducted monthly include Spontaneous Speaking, Presentation competition, healthy Debates, fruitful Group Discussion. ICUBE is implemented by the club by observing the importance of soft skills during placements and to help all the club members for their future.



Virtual Teachers' Day

Teachers' day is organized by the ELESA club to show gratitude and appreciation to our teachers. It is organized by Assistant & Joint Board members under the guidance of seniors. The invitation cards are prepared to invite all the faculty members and also convince them to come for the celebration.

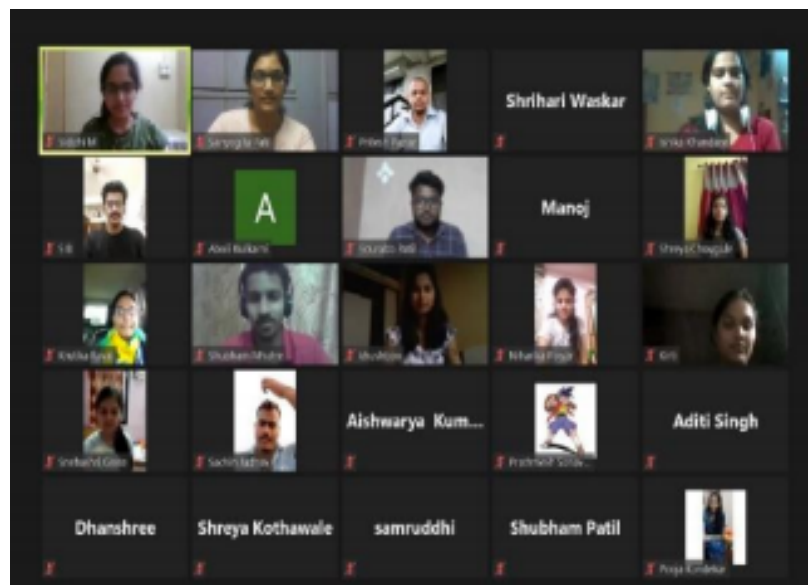
The students performed various speeches, poems, stories, fun activities, and games. Also, teachers share their experiences with the students. Teachers are the real shapers of the future of the students which can never be ignored and ELESA has a culture to give a tribute to our teachers and celebrate this day.



Chat With Champions

Chat with champions is a newly introduced event in which we invite several alumni for their guidance on e-Yantra robotics competition conducted by IIT Bombay. A total of 5 guests were invited who once made it to the top teams of e-Yantra and champions of several robotic and coding competitions. It was conducted on the zoom online platform and queries of all the attendees were answered. Also, they shared their success mantra. The guests were:

1. Shubham Mahatre - Principal Global Services
2. Mahadev Mishal - Principal Global Services
3. Pritesh Pawar - SEAGATE Technology, Pune
4. Sachin Jadhav - SEAGATE Technology, Pune
5. Shrihari Waskar - SEAGATE Technology, Pune



Introduction to V Labs

The screenshot shows a Google Meet interface with a presentation slide titled "HALF ADDER". The slide content includes:

- ▶ Half adder is a combinational circuit.
- ▶ It is used to add single bit number.
- ▶ Half adder doesn't take carry from previous sum.

Below the text is a block diagram of a Half-Adder circuit. It shows two input lines, A and B, entering a green rectangular box labeled "Half-Adder". Two output lines emerge from the box: a dashed line labeled "Sum 'S'" and a solid line labeled "Carry 'C'".

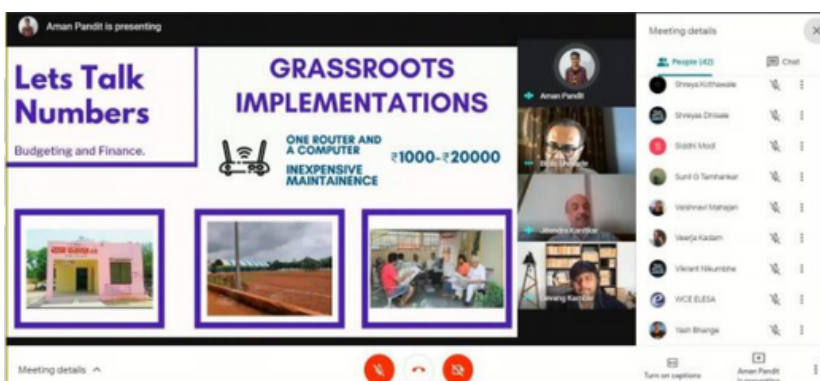
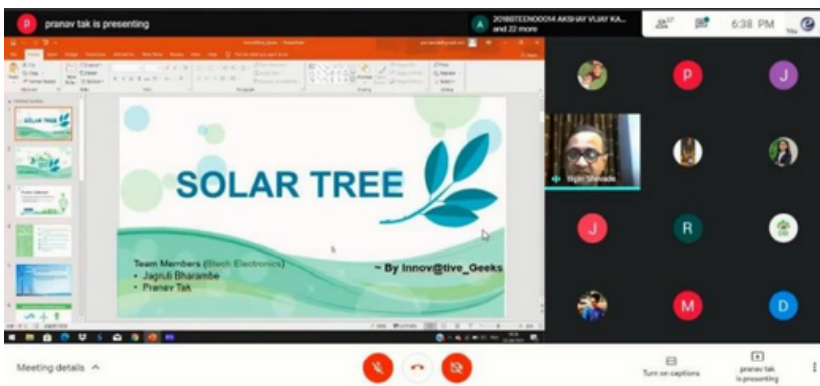
The meeting interface includes a top bar with the presenter's name "ADITYA GAIKWAD is presenting" and a list of participants on the right. The bottom bar shows meeting controls like mute, video, and chat.

Due to the global pandemic, most schools and colleges are shut down and have opted for online teaching to cover academics. The major problem here is that the practicals are a bit difficult to cover in online mode. To help the students, ELESA planned a session on introduction to Virtual lab by IIT Bombay - the most important e-learning tool.

As virtual labs enable students to perform various experiments without any risk at their pace. Vlab not only saves time and effort but also boosts understanding. It was conducted on the Google Meet platform for all the second-year students of the ELECTRONICS department. During the session, registration to Vlab and several demos were conducted.

COMMUNITY DEVELOPMENT ENGINEERING PROJECT

Community development engineering, project, sponsored by FINIQ consulting India PVT Ltd Pune, was organized by ELESA under the guidance of ELECTRONICS DEPARTMENT WCE SANGLI. The competition was in coordination with TPO Walchand College of Engineering. The competition aims to find optimal and innovative engineering solutions for the day-to-day problems faced by underserved communities and to enhance critical thinking among students. Students from the First Year to the Final year participated in this event. Round one was a report presentation where the participants had to submit a detailed report of their idea in pdf format on ELESA Moodle. The final stage of this event was the idea presentation round with the help of ppt on the Google Meet platform to our respectable judges.



Zenith Summary

Web development is an ever-expanding paradigm of the modern World Wide Web and interconnectivity, and as a pioneer in leading technological developments.

Satyam Baldawa and Shreya Kothawale from the 2nd year made their contribution to it with their web designing skills by participating in the ZENITH competition organized by IEEE VIT Pune. Cheers to their team WebRockers for winning it.

The competition started on the 11th of December at 5 pm and lasted for two days. Team WebRockers along with the other 15 teams were provided with various themes. After diligently coding for 2 days, the team designed a 4-page website titled 'Indus Valley Civilization.'

Website:

http://satyambaldawawebtech.me/IndusValleyCivilization_by_WebRockers/

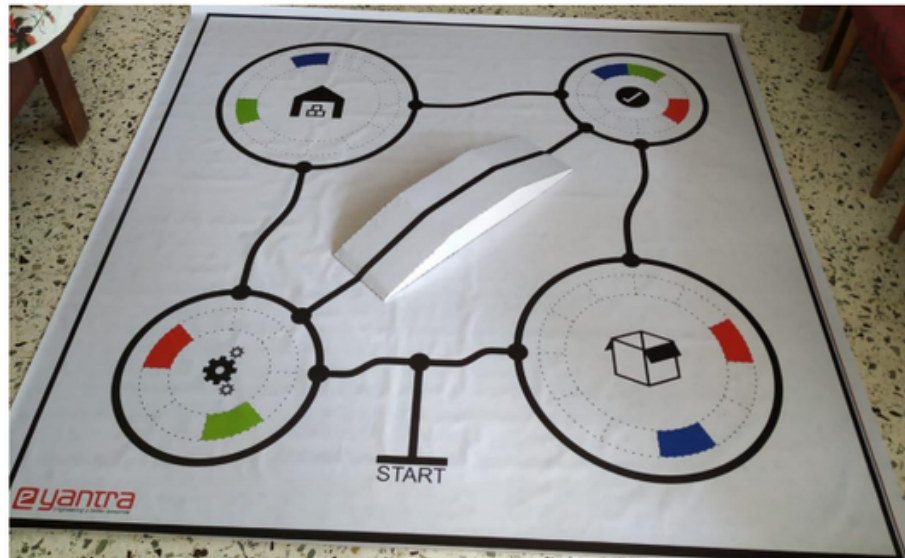
EYRC Report

e-Yantra is a competition to encourage innovative projects from robotics labs set up through the e-Yantra Lab Setup Initiative (eLSI) in colleges across the world. Like every year, this year as well students from our college participated in it with full sincerity.

Mihir Bedekar, a third-year student had enrolled in it with his teammates. Following is the report on the project that they worked on.

EYRC 2021-22

FPGA Based Industrial safety Bot



Introduction

EYRC(Eyantra Robotics Competition) is the International Robotics Competition organised by IIT Bombay every year. It is basically India's biggest PBL(Project Based Learning) robotics competition.The EYRC problem statements range from variety of skills including ROS,machine learning,image processing,3D designing,embedded system,functional programming and many more.It also gives hands on learning experience to enhance our hardware skills

EYRC 2021-22

For 9th version of EYRC me with my team members Piyush Kulkarni, Ashutosh Kodavade and Pradyumna Akolkar participated in the month of August 2020. The actual competition started in September. We got the theme of FPGA based industrial safety bot which was assigned by the EYRC authority based on our skill sets. The theme was aimed to build a prototype of industrial safety bot to inspect various problems or accidents occurring in the industries and to alert the system.

We started with small basic tasks assigned to us like building our own MUX, multiplier, Binary to decimal converter, etc using the Verilog language in Quartus Software. After completing small tasks we stepped into building the combination of small tasks to build our own UART, ADC, I2C protocols.

After successfully completing this we got a chance to enter in the next 2nd stage of competition which was supposed to work with hardware and actually implement the theme. We got whole hardware kit from IIT Bombay and we got a chance to work on FPGA based De0 Nano development board which was a very great learning experience. In stage 2 we also got a chance to work with the Xbee module, motor drivers, line follower sensor, color sensor, etc which helped us to learn new things and implement it actually. And after implementing the theme we were in top 15 teams in our theme which gave us the satisfaction of the hardwork of all 4 during this pandemic situation.

To summarize I would like to say EYRC is the best Robotics competition to learn through the project and to upgrade our engineering skill sets.

-Mihir Bedekar & team

2

Coursera Reviews

Our college provided a Golden opportunity through its association with Coursera. We could enroll in any course from among hundreds of options for free.

Following are the reviews of some gratified students:

Gauri Bodake

|| The Arduino Platform and C programming, Introduction to HTML5, Programming for Everybody (Python), Python Data Structures, Write Professional Emails in English

It was really great experience to learn new courses from Coursera at the time when we were stuck home because of the Pandemic situation. Instead of wasting time, utilizing for the betterment and gaining knowledge for future scope gave the strength and spirit of learning in any situation. Special Thanks to our College for giving us this special opportunity and motivation to learn.

Vaishnavi Phadtare

|| Internet of things and embedded systems

It helps most for me to understand the IoT and embedded system means it now help me a lot for making our mini projects

Ashok Vavare

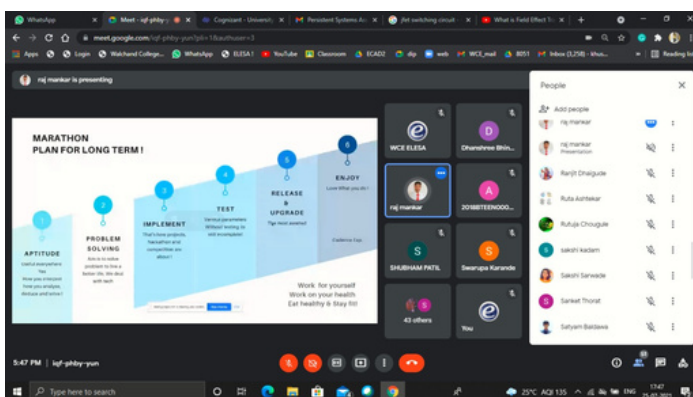
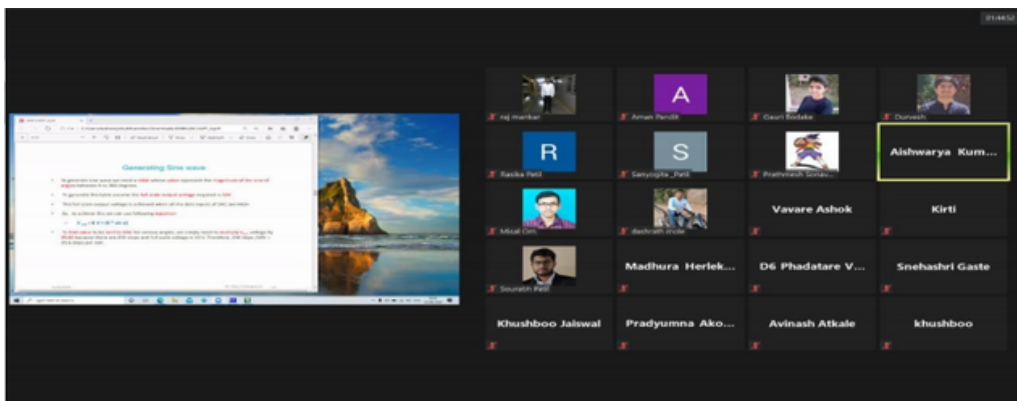
|| Intro to python

IoT and embedded systems

The courses were good and free of cost. Got something new to learn.

Club Service

ELESA conducts Club Service once a week on Monday or Thursday. The main aim of the Club Service is to introduce the students to new advancing technologies. Each club service is planned on a theme that consists of technical and non-technical domains. The club service begins with a brief overview of themes followed by different sessions, such as Technical sessions, Aptitude sessions which help students for their academics and also for placement. Along with that, several soft skills-building activities are taken. The CS is planned under the guidance of seniors. Also, in every CS we have an ELESA Talk by B-Tech seniors which is based on their placement, company, and guidance for the future. Last but not the least, we have a question of the CS in the end which increases interest among the students.



This is the list of Online Club services that were conducted in first semester:

Sr No	Theme of Club Service	Date
1	Swarm Robotics & Gastrobots	21 May 2020
2	Robotics in Medicine	10 Aug 2020
3	Role of Electronics in Defence	20 Aug 2020
4	Internet of Things(IoT)	30 Aug 2020
5	World of Animation	10 Sept 2020
6	Sustainable way of living in Modern Era	24 Sept 2020

