Department of
Electronics Engineering

TECHOTSAV

The Newsletter
JUNE 2021 EDITION

SOMAIYA
V I D Y A V I H A R
Knowledge Alone Liberates
Somaiya Vidyavihar
K J Somaiya Institute of Engineering & Information Technology

Somaiya
T R U S T

Department of Electronics Engineering

presents

TECHOTSAV

The Newsletter
JAN 2021 –JUN 2021

"Educate and raise the masses, and thus alone a nation is possible" -Swami Vivekananda

VISION

To be a place of academic excellence by imparting quality teaching in the field of Electronics.

MISSION

To render quality teaching and provide the required resources needed to acquire cutting edge professional skills.
To encourage innovation through academic and industry exposure.
To foster ethical behaviour, team work skills and soft skills required for a successful professional life.

NEWSLETTER COMMITEE

TEACHER-IN-CHARGE
Prof. Sheetal Jagtap

STUDENT TEAM
· **Shashwati Singh** · **Adithi Kumar** ·
· **Aditya Sarode** · **Jeet Sikligar** ·
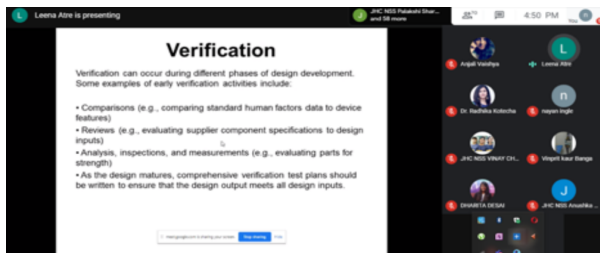· **Supriya Tupe** ·
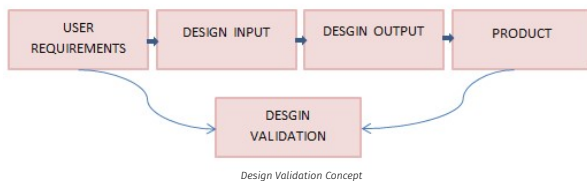
ACTIVITIES

JAN

A webinar was organized on "**Design Validation**" by Institution's Innovation Cell (IIC) KJSIEIT on 26th of Jan 2021, 16:00-17:00 hrs.

The initiative was organized on behalf of MHRD. Mrs. Leena Satpute, Senior Project Manager of Fidel Softech Pvt. Ltd. was the resource speaker for the occasion. The webinar witnessed 85 registered participants from both within the college and beyond. The session was coordinated by Prof. Sejal Shah (ETRX Dept.).

Screengrab of the Webinar

Design Validation is a process of evaluating the software product for the exact requirements of end-users or stakeholders so as to meet the requiremnets of in terms of applications in a user's environment.

Design Validation Concept

MAR

A webinar on "**MEMS Technology**" on 5th Mar 2021 at 15:00 hrs for TE ETRX students was organised by Prof. Vidya Sagvekar (ETRX Dept.).

In the opening webinar, Dr. Amol Morankar from Riva Labs Pvt. Ltd. Nagpur, gave participants an introduction to the technology and outlined it's scopes.

This helped participants to not only discover MEMS technologies and their appliactions but also opened door to various oppurtunities to the aforementioned field. The session also helped participants to get acquainted with various MEMS platforms, that could help researchers and innovators to use resource more efficiently and explore new opportunities.

As an extension to the above event a webinar on "**RF MEMS for Wireless Communication System**" on 8th Mar 2021, 15:00-17:00 hrs. Dr. Amol Monakar, MD, Riva Labs Pvt. Ltd. The event saw a record 97 active participants on MS Teams which was coordinated by Prof. Vidya Sagvekar (ETRX Dept.).

The webinar was application centric focussing on the basic principles of Radio Frequnecy (RF) and Wireless Communications including the command function-specification and key parameters involved in defining and evaluating RF based Communications Systems.
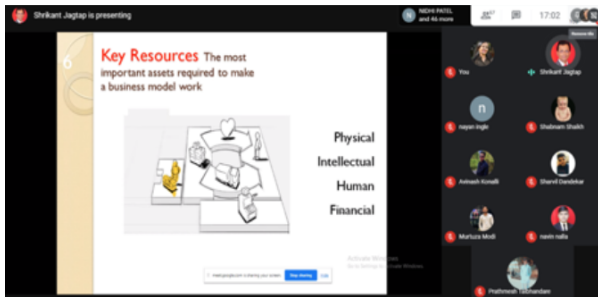
APR

Prof. Sheetal Jagtap Sagvekar (ETRX Dept.) coordinated a one week certification course on "**LaTeX**" held from 5th Apr 2021 to 9th Apr 2021 and on "**Arduino**" from 5th Apr 2021 to 16th Apr 2021 in association with Spoken Tutorial, IIT-B for TE ETRX students. The LaTex Course was completed by 61 students while 12 students completed the Arduino Course.

During the course, Spoken Tutorial posted daily lectures on both Latex and Arduino and an assignment to complement and asses the learnings.

Prof. Sejal Shah also had organised a Webinar on "**Business Model Canvas**" on 23rd Apr 2021.

The resource speaker for the occasion was Mr. Shrikant Jagtap of NBN Sinhgad College of Engineering, the webinar witnessed 50 registered participants.

Screengrab of the Webinar

The Business Model Canvas is a strategic management template or method, utilised for developing new business models and documenting existing ones.
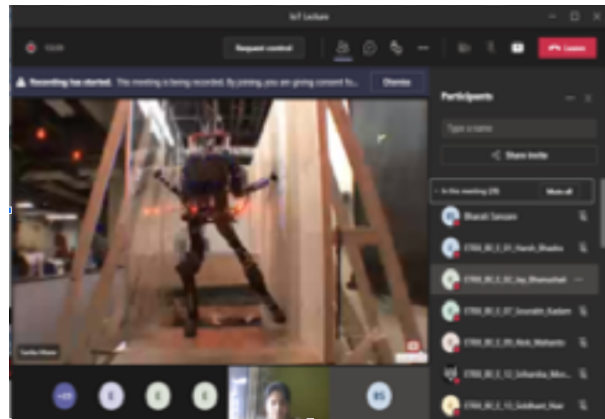
Virtual Industry Visit:
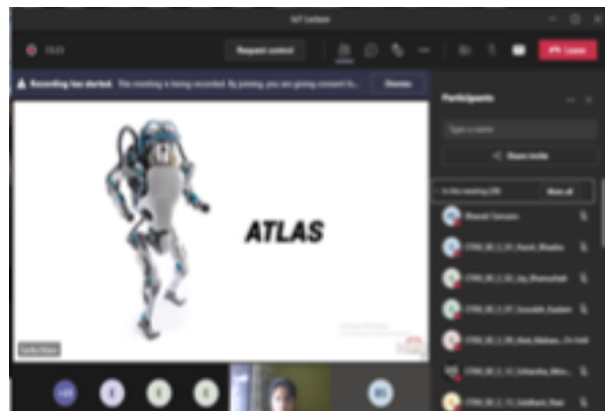A virtual tour to "**Industrial Robots Exhibition**" Prof. Sarika Mane (ETRX Dept.) on 28th Apr 2021.

Industry visits are necessary to get to know current functiong of industries and their trends. Pandemic has put a major halt on live-visits hence the virtual tour helped undertsand the automated robots used for manufacturing purposes.

An industrial robot is a robot system used for manufacturing. Industrial robots are automated, programmable and capable of movement on three or more axes.
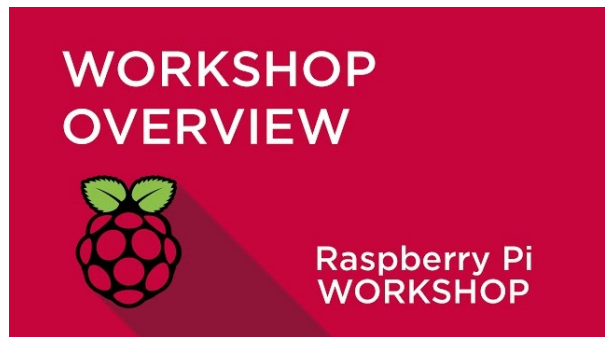
Typical applications of robots include welding, painting, assembly, disassembly, pick and place for printed circuit boards, packaging and labelling, palletizing, product inspection, and testing; all accomplished with high endurance, speed, and precision. They can assist in material handling. This proved to be helpful, knowledgeable and something new for the students.

Screengrab of the Virtual Tour

An Online workshop on "Basics of Raspberry-Pi & It's Applications" in association with ISTE Student Chapter was also organized by Prof. Sarika Mane on 30th Apr 2021. The event was a wonderful opportunity for students to learn and apply knowledge on the working of Raspberry-Pi.

WORKSHOP OVERVIEW

Raspberry Pi **WORKSHOP**

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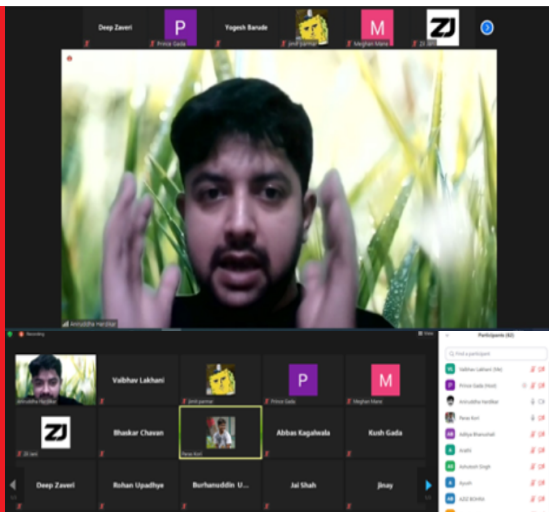
Somaiya
T R U S T

OSCILLATIONS

The Annual Technical Fest of IETE, Oscillations was held on 19th March and 20th March

Using VR devices such as HTC Vive, Oculus Rift or Google Cardboard, users can be transported into a number of real-world and imagined environments such as the middle of a squawking penguin colony or even the back of a dragon.
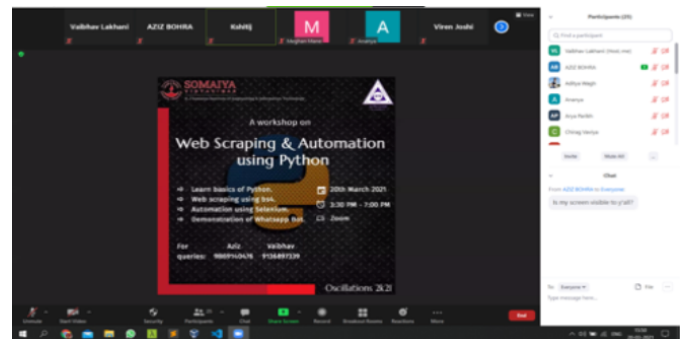
"Web scraping and Automation using Python."

"Setting up AR/VR Projects with Unity 2020 LTS"

Augmented reality (AR) adds digital elements to a live view often by using the camera on a smartphone. Virtual reality (VR) implies a complete immersion experience that shuts out the physical world.

The scope for development in these fields are massive. Prof. Medha Asurlekar, the convener of IETE organised workshop.

Unity 2020 LTS provides a stable foundation for projects that are in production or about to ship. Unity 2020 LTS stream release has the same feature set as the 2020.2 Tech stream release.

Examples of augmented reality experiences include Snapchat lenses and the game Pokémon Go.

Web scraping is used to collect large information from websites and as we all very well know; Automation is the creation and application of technologies to produce and deliver goods and services with minimal human intervention.

Using the basics of python the concepts were built from the grassroot level. The workshop ended up opening a lot of new windows for students to explore structured data from the web, selection of the right data and passing along the collected date to be processed further.

ACHIEVEMENTS

FEB

Prof. Vaishali Wadhe (ETRX Dept.) was awarded the **Women Researcher Award** in the International Awards on Engineering, Science and Medicine was held on 7th Feb organized by VDGOOD Association, Coimbatore.

This award ceremony is a unique international platform that's a confluence of all stakeholders of the ecosystem – Industry, Academia, Reserachers, Innovators, Regulators – coming together to meet and share knowledge among them from all around the world.

VDGOOD Scientist Awards 2021 strives to offer a professional awards program that encourages and recognizes the accomplishments of project management professionals and organizations around the world.

Prof. Vaishali Wadhe with the Women Reseracher Award

ETRX Dept. in association with Alumni Committee and Industry Institute Interaction on 13th Mar 2021 organised the **Intra-Department Project** and **Poster Competition**. Our Almuni Mr.

Shashank Karn (2019) and Mr. Bharat Mishra (2013) were also involved in the activities. The winners of Intra-Department Project Competition were **Saikath Duttaroy, Sushant Devgonde** and **Vivek Parmar** from BE ETRX while the runner ups were **Varshil Jain** and **Kavya Kunder** from TE ETRX and the winners of Intra-Department Poster competition were **Vishakha Shrinivasan, Yash Gondaliya, Neha Malviya** and **Manav Harbada** from BE ETRX.

Glimpse from the Intra-Department Project and Poster Competition

MAR

On the 20th Mar 2021 **Pragati Project Competition** was organised by SFIT, Borivali. There were numerous participants from vaious college in the

competition our college's BE students **Saikath Duttaroy, Saurabh Kadam, Sushant Devgonde** and **Vivek Parmar** won the third prize in the competition.

The award winning project is called **Field Monitoring Autonomous Drone (F-MAD)**. The project had also won the first prize in KJSIEIT's HACKATHON held on 17th Jan 2020 and was the winner of Innovative Business Plan sponsored by MHRD'S IIC. The project was also the recipient of another award in a project competition "**Technodium**" which was organised by Silicon Institute of Technology on 30th Mar 2021.
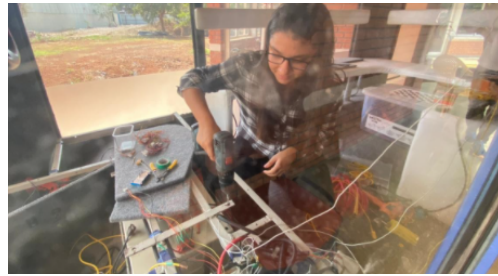

Field Monitoring Autonomous Drone (F-MAD)

A **MEGA-HACKATHON** was hosted from 19th Mar – 21st Mar 2021 by MHRD's IIC. The major highlight was the winning team of BE ETRX, consisting **Narmada Limbuwala, Neha Govekar, Kalyani Khamgaonkar** and **Satyakama Yerranguntla.** They have shown phenomenal performance and commendable coding skills.

APR-JUN

Mitali Shah (TE ETRX) has been working on a project as an intern for the company **Accelo Innovation Pvt. Ltd., in association with Riidl.**

The duration for the same was from Aug 2020 to May 2021. She has completed 1.5 years in the company and they have also offered her a full-time job. She is working on a project of **10-Seater, Fully Autonomous Electric Shuttle** as a design engineer. Riidl provides services to the incubated start-ups. Some of the services are limited to incubation period whereas some extend up till start-ups get Series-A funding. Accelo's mission is to build safe and sustainable vehicles by using advanced robotics.
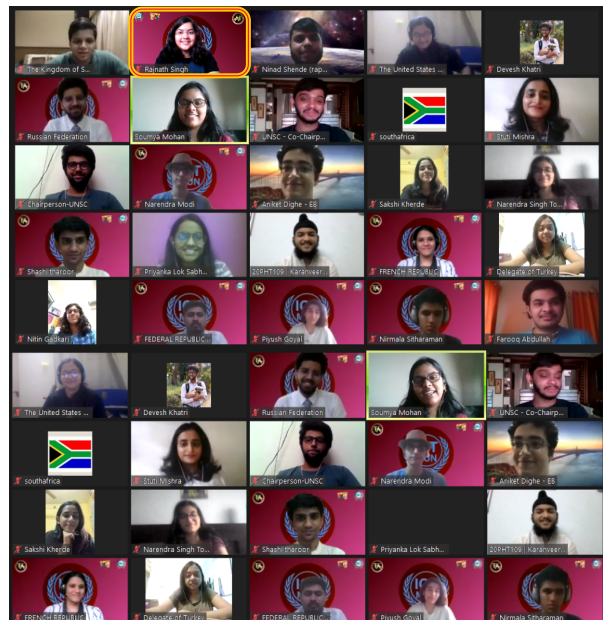

Mitali Shah working on her project

Shashwati Singh (TE ETRX) won the **ICT MUN 2021** and brought the award for Best Delegate in the Lok Sabha committee of the two-day conference. She represented Sh. Rajnath Singh, Hon. Defence Minister Indian Republic in the Lok Sabha, the agenda was to Debate the 2020 Standoff between India and China in Galwan Valley.

The conference was held on 3rd and 4th Apr 2021, the session lasted for 10+ hours, the committees witnessed the participation of 51+ Students from various professional colleges in Mumbai viz; ICT, VIT, VJTI, CKCL.
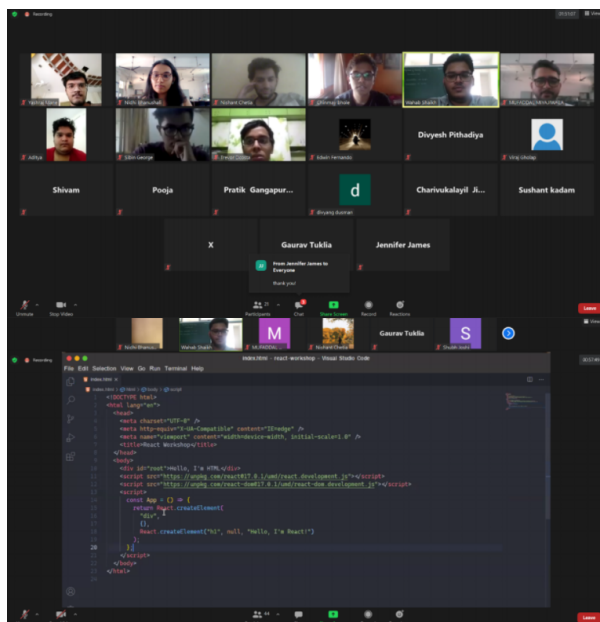

Screengrab of the Virtual Award Ceremoney of the ICT-MUN

RENAISSANCE 2021

Web Development with React

A one day Workshop on "**Web Development with React**" was held on 14th Mar 2021, 11:30-16:00 hrs. A very enthusiastic audience of 40 participated in the event.

The session started with showing the course website, that contains the source code and notes, followed by giving the demo of the project. The speakers then introduced the participants to React and it's role in Web Development. Later, they explained how React is used in creating Single Page Web Applications and then carried on with the introduction of JSX and simplified the complicated Javascript Code followed by a short introduction about Class Components. The session also included distribution of links to various other resources which would help the participants to learn and apply the learnings of the session. Finally the session ended with a Q&A session.
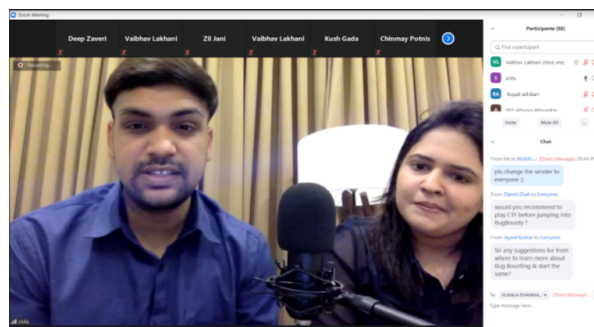

Screengrab of the Workshop

Cyber Security

A workshop on "**Cyber Security**" was held on 14th Mar 2021, 16:30-18:30 hrs. It had an active 108 participation.

The Workshop started with the introduction of speakers Mr. Rohit Gautam and Ms. Shifa Cyclewala from Hacktify Cybersecurity, a well known Ethical Training Institute in Mumbai.

The Speakers then introduced the participants to the world of Bug Bounty, a field in Cyber Security for which people get paid for ethically reporting bugs. The speakers then guided the participants on how to start their career in the field of Bug Bounty, and which resources should they use. This was followed with the explanation of what exactly is Google Dorking. Following which they showed what can be achieved using Google Dorking.

The Speakers then explained about how one can create its own dork and how it can be ethically published on ExploitDB, a website known for storing such dorks and gives credit to the user who published it. The workshop ended with a Q&A session.

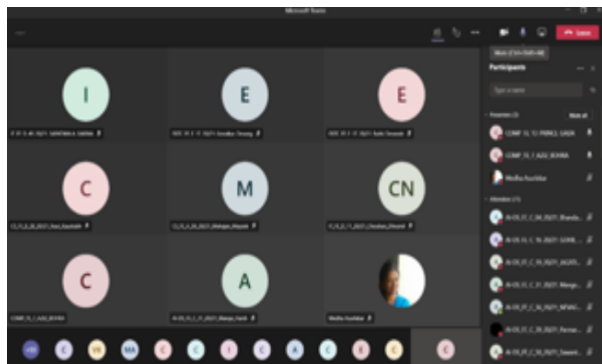*Screengrab of the live Q&A Session*

IETE ACTIVITIES

FEB

A Webinar on "**Profile Building**" on 23rd Feb 2021, 14:30-15:30 hrs. This was implemented as an induction training to the newly admitted students. The objective of the profile building webinar was to impart the knowledge and skills which would to enhance heir non academic profile.

Mr. Prince Gada and Mr. Aziz Bohra (TE COMPS-KJSIEIT) were the main speakers for the occasion.After the program, e-proceedings were published and circulated to all the participants. The session was efficiently coordinated by Prof. Medha Asurlekar (Convener, IETE).
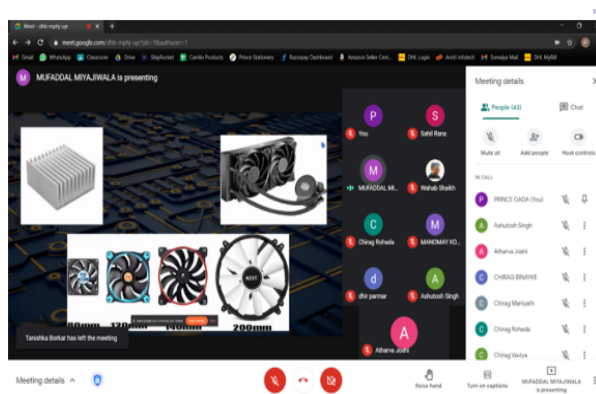

Screengrabs of the Webinar

MAR

A seminar titled "**Know Your PC**" was conducted on Friday, 12th Mar 2021. The seminar was organized by IETE and was aimed specifically at FE students, to help them choose the best laptop/PC suiting their needs.

This seminar had a participation of 30 students. Seminar commenced with a brief introduction of IETE-KJSIEIT by Mr. Prince Gada which consisted of their schedule and previous works. He also took discussions on GPU and Display and continued the necessities and requirements for PC/laptops.

Mr Mufaddal Miyajiwala later took over to explain Motherboards, processors and cooling systems which was followed by Wahab Shaikh who shed light on Storage, RAM and ports. Session ended with doubt solving.

Screengrab of the Seminar