

LBS INSTITUTE OF TECHNOLOGY FOR WOMEN



ELECTRENEITY

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ELECTRONICS AND COMMUNICATIONS DEPARTMENT

2021

MAY - AUGUST EDITION

CONTEXT

- **New innovations and discoveries ~ 3-4 pages**
- **5th page**
- **An Expert Talk on IOT**
- **Workshops conducted**
- **Vision and Mission ~ 6th page**

Dear Readers,

It's my pleasure to welcome you to the latest edition of our semester wise newsletter, which aims to keep you informed about the latest trends, advancements, and breakthroughs in the world of electronics and communications.

This year has been marked by unprecedented challenges that have tested our resilience and adaptability in new and unexpected ways. Despite these difficulties, the field of electronics and communications has continued to push forward, driven by the passion and dedication of researchers, engineers, and innovators around the world.

In this edition of our newsletter, you'll find a wealth of information on some of the most exciting developments in the field, from breakthroughs in wireless technology and smart devices to the latest developments in artificial intelligence and machine learning.

We're also pleased to share news and updates on the latest events, conferences, and opportunities for networking and collaboration.

We hope that this newsletter will inspire you to continue exploring the frontiers of electronics and communications, and to contribute your own ideas and innovations to this dynamic and ever-evolving field.

Sincerely,

GOWRI PRIYA P , S2 ECE (2020-2024 BATCH)

MAY - AUGUST 2021

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- Newsletter by ECE (2020-2024), LBSITW



New findings on Mars

Three missions arrived at Mars in February 2021, taking advantage of the Earth-Mars orbit alignment, something that happens once every 26 months.

NASA's Perseverance lander, which is based on the design of the Curiosity but comes with a suite of instruments to drill and store rock samples, will spend the next few years travelling across Jezero Crater. It will collect up to 43 rock samples which will then be sent back in caches in the Sample Return mission which is still being planned.

Most powerful Quantum processor yet

Quantum computers can do in seconds what the best supercomputers of today would take several days or weeks to process.

Quantum computers use the law of quantum physics for incredible processing capabilities which can revolutionise meteorology, cybersecurity, manufacturing, national defense, and much more.

In November 2021, IBM launched its 127-qubit Eagle. This is the most powerful quantum processor yet.

Later the company Quantinuum launched a cloud-based cybersecurity platform called Quantum Origin, the world's first commercial product built from quantum computing. Quantum computing is now set to evolve rapidly.

Artificial titanium heart developed



Scientists have been trying to build an artificial heart for over 50 years now. Cardiovascular diseases (CVDs) take an estimated 17.9 million lives around the world each year and are the leading causes of deaths globally. An Australian research team has created BiVACOR, a titanium heart that utilises spinning disc technology. It doesn't work exactly like a human heart but tries to surpass evolution with a better mechanism to pump blood around the human body. It has a circular pump suspended between magnets in an artificial heart made of titanium. A full human trial is yet to be conducted. Till now, it has been tested only temporarily on heart transplant patients and has undergone animal trials.

Making Text audible



Reading can be a serious challenge for tens of millions of people, whether they struggle with comprehensive difficulties, poor vision, dyslexia or other issues. But using computer vision and artificial intelligence, the OrCam Read can read any piece of text aloud. User's target the device's laser frame at a page of a book, a menu, an advertisement or a screen displaying text, press a button, and a device instantly vocalizes it, in a voice that sounds remarkably natural; it also can read text in multiple languages. And since the device is able to respond to voice commands, you can ask it to read, say a phone number from an ad and also to narrate story

Launch of the James Webb Telescope



The James Webb Space Telescope, the largest and most powerful space telescope ever developed, launched in December. It will travel nearly 1 million miles over 30 days to a stable spot in space, and then take another six months to unfold its instruments, align, and calibrate. The work to create the telescope started in 1996 by NASA, the Canadian Space Agency and the European Space Agency, and it cost around USD 500 million. The launch was delayed several times. For the next several decades, it will track Earth's orbit around the sun. Previously unseeable parts of the universe would now be observable and it would be able to do things the Hubble Space Telescope cannot. Humans will soon be able to see possible signs of life on other planets, watch the birth of stars, and discover how early galaxies formed.

An Expert Talk on

**THE INTERNET OF THINGS-
STANDARDS,
TECHNOLOGIES,
AND GOVERNANCE**

by
Mr. PRAVEEN KUMAR D
Sr. Sub Divisional Engineer
BSNL (Retd.)

30th March 2021
02:30 PM to 04:00 PM
Join with Us on zoom

CO-ORDINATOR
Prof. SUMA SEKHAR
Associate Professor

**DEPARTMENT OF
ELECTRONICS & COMMUNICATION ENGINEERING**
LBS INSTITUTE OF TECHNOLOGY FOR WOMEN
(A GOVERNMENT OF KERALA UNDERTAKING)
POOJAPPURA, THIRUVANANTHAPURAM-12

On 30th march 2021, conducted an expert talk on The Internet Of Things by Dept. of Electronics and Communication Engineering. The talk was by Mr Praveen Kumar (Sub divisional engineer at BSNL) and the session was coordinated by Prof. Suma Sekhar

Conducted a value added online course about Python for Beginners by Dept. of Computer Science and Engineering in association with R&Ee. The session was coordinated by Prof. Gisha GS

**LBS INSTITUTE OF TECHNOLOGY FOR
WOMEN, POOJAPPURA**
DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING
in association with
Research and Enhanced Education Forum (R&Ee)
VALUE ADDED ONLINE COURSE
PYTHON FOR BEGINNERS

25/09/2021 - 04/10/2021
6 PM - 8 PM

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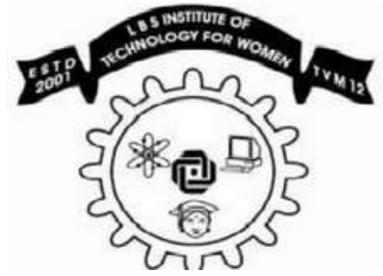
CO-ORDINATOR
PROF. GISHA GS

REGISTRATION FEE : 1000 IN

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CERTIFICATES WILL BE PROVIDED ON SUCCESSFUL COMPLETION OF THE COURSE

Vision & Mission of Institute



VISION

To be Centre of Academic Excellence empowering women in technical domain

MISSION

Imparting value based technical education for transforming young women to professionals excelling globally in academics ,research and development and industry meeting societal challenges

Vision & Mission of Department

VISION

To become centre of excellence in Electronics ,Communication and Instrumentation to facilitate professional education and research keeping higher level of value systems.



MISSION

To transform young women to high quality engineers and entrepreneurs with ethical values for providing creative engineering solutions and intellectual services for the society and industry application of Electronics, Communication and Instrumentation Engineering.