

THE PULSE

NEWSLETTER
DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



Vision

To emerge as a centre of academic excellence in the field of Electronics & Communication Engineering to address the dynamic needs of the industry upholding moral values.

Mission

- Impart in-depth knowledge in Electronics & Communication Engineering to achieve academic excellence.
- Develop an environment of research to meet the demands of evolving technology.
- Inculcate ethical values to promote team work and leadership qualities befitting societal requirements.
- Provide adaptability skills for sustaining in the dynamic environment.

MESSAGE FROM FACULTY

The Forest

Dr. Sarwesh P*

According to UNSD (United Nations Statistics Division) Report the prime component of world's biodiversity is forests, since it maintains the major role in maintaining the eco system. In global land area 31 percent is contributed by the forest. The most of the forest areas are relatively intact and primary forest is occupied by one third of it. 4.06 billion hectares are occupied by forest and in the world the forest areas are not equally distributed. In the world five countries (Brazil, the Russian Federation, the United States of America, Canada, and China) holds the half of the world's forest area.

The world is losing its bio diversity day by day because of deforestation and forest degradation. From the past three decades the deforestation has increased drastically, From 1990 it is estimated that 420 million hectares of forest area is lost due to deforestation. Around 10 million hectares of deforestation is done from the year of 2015 to 2020. 80 million hectares of primary forest area is decreased since 1990 the prime component that leads to deforestation and forest degradation is agriculture expansion, which severely affects the bio-diversity. Statics says between 2000 to 2010 topical deforestation happened due to large scale commercial agriculture.

We think trees that make a forest, but various different species of plants, animals, birds contributes for forest expansions. Deforestation destroys the planetary biodiversity and various animal species and bird species. While trees are the defining component of forests and their diversity can give an indication of overall diversity, there are many other ways to determine the biodiversity significance of forests.

SAVE FOREST; SAVE WORLD; SAVE SOULS ; SAVE FUTURE; SAVE YOURSELF



EVENTS

Highlights of the Month:

- Organized an Online Workshop on “Antennas for Aerospace Applications: Trends and Perspective” organized jointly by RF and Microwave Research Lab, Department of ECE and IEEE Student Branch and IEEE AP-S held on 25.09.2021 - All the ECE students and faculty members were briefed on the applications of antenna systems in the aerospace industry.
- Organized a Webinar on “A Story of the Short History of AI and ML” by Dr. K. Rajanikanth, Former Advisor, Principal, M S Ramaiah Institute of Technology held on 27.09.2021 - All the ECE students were enlightened with the evolution of AI and ML and its potential applications.

Events in Brief:

- Dr.S.Sujatha participated in a Seminar on “Building the Remote Surveying System Energy Consumption for the Maritime Transportation Industry using Internet of Things (IoT)” organized by IEEE, held on 18.09.2021.
- Dr.S.Chidambaram participated in ATAL FDP on “Magnetic Levitation” organized by AICTE-Hindusthan Institute of Technology, held from 20.09.2021 to 24.09.2021.
- A department faculty meeting with a primary agenda on the NBA accreditation process and other academic-related matters was held on 27.09.2021.

Research/ Publications:

- Prof.Chandra Mukherjee published an article “Implementing a programmable drop voltage controller VLSI” in Journal of Nuclear Energy Science & Power Generation Technology, published on 06.09.2021.

STUDENT CONNECT

Neutrino

It is an elementary subatomic particle with no electric charge. Neutrinos are nearly massless particles that travel at near-light speeds. Born from violent uranium events like electromagnetic radiation bursts and exploding stars, they are fascinating well endowed within the universe and might move through lead as move through the air. Neutrinos belong to the family of the particles known as leptons that subject to the fundamental interaction underlines sure processes of radioactive decay. There are three types of neutrino, the electron(ν_e), the muon(ν_μ), and the tau(ν_τ).

Neutrinos were initially detected in 1956 by Fred Reines of the university of Golden state at Irvine and therefore the late martyr cowan. They showed that a nucleus undergoing disintegration emits a lepton with the lepton a discovery that was recognized with a 1956 accolade for physics.

An invisible and nearly massless particle can be the building block for a few unimaginable new technologies. Neutrinos are made from radiation thus it would be potential for the international nuclear energy agency to use lepton detectors to watch that countries are following the written agreement on the non-proliferation of nuclear weapons. These particles will undergo just about something and if you send a message, say from the U.S to China on the opposite face of the world. it would be quicker to send the message through earth instead of over it. This would even be a straightforward thanks to communicate with submarines submerged way below the surface. The presence of substances has still not been directly discovered by scientists, however, neutrinos may well be the missing link. Scientists have theorized that a definite sort of lepton may return from decaying matter. this one may be a tiny farfetched. However since its potential to code messages in neutrinos, on paper, those encoded neutrinos can be beamed into the house. Currently, scientists do not have the flexibility to beam neutrinos that so much.

MUKESH HARI
2167001
MTECH



STUDENT CONNECT

Student participation in Engineers Day (ICETECH++ 2021)

Team1- IOT Based Contactless Vending Machine



Prem Kumar



Erol John D'Silva

Team 2 - Smart Water Distribution



Shreecharan



Nikhil Gupta

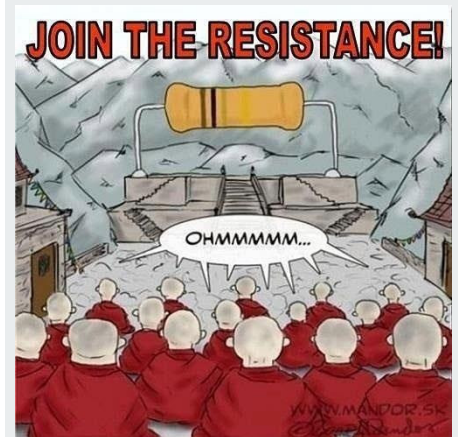


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Humor



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Kindly share your thoughts and research experiences via e-mail to our team, and be featured in next month's issue!