



**SREENIVASA INSTITUTE OF TECHNOLOGY AND MANAGEMENT STUDIES
(AUTONOMOUS)**

(Approved by AICTE, New Delhi & Affiliated to JNTU Anantapur) Dr.D.K.Audikesavulu
Marg, Murukambattu Post, Chittoor – 517127

**Guest Lecture
On
Communication & Networking
15-07-2020**



Department of Electronics and Communication Engineering organized a guest lecture on “COMMUNICATION & NETWORKING” for 3rd year ECE branch students on 15.07.2020. The speaker for the session was Dr.S.Samson, Associate Professor from Arunai Engineering College, Tiruvannamalai. He explained the importance of Communication & Networking and its applications. He described the various communication and types of networks. The lecture was very interactive in which the students actively took part to enhance their knowledge about Communication & Networking. Dr.M.Saravanan, HoD, ECE appreciated the efforts of Dr.S.Samson for sharing the knowledge on Communication & Networking. This was very Effective lecture on the topic which helps for the project.

The fields of networking and communication includes the analysis, design, implementation, and use of local, wide area, and mobile networks that link computer together. A network is a set of devices (often referred to as nodes) connected by communication links. Or a network is simply two or more computers that are linked together. A node can be a computer, printer, or any other device capable of sending and/or receiving data generated by other nodes on the network.



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Guest Lecture

On

Deep Learning

Department of Electronics and Communication Engineering organized a guest lecture on “Deep Learning” for 2th year ECE branch students on 18.03.2021. The speaker for the session was Mr. V. Mustafa, Associate Professor from Madanapalle Institute of Technology & Science, Madanapalle. He explained the importance of Application of Deep Learning. He described the various real life examples where a Deep Learning system and its application on Speech recognition, video streaming and Medical applications. The lecture was very interactive in which the students actively took part to enhance their knowledge about Deep Learning. Dr.M.Saravanan, HoD, ECE appreciated the efforts of Mr. V. Mustafa for sharing the knowledge of Application of signals and systems. This was very Effective lecture on the topic which helps for the project.

Deep learning is a subset of machine learning, which is essentially a neural network with three or more layers. These neural networks attempt to simulate the behavior of the human brain—albeit far from matching its ability—allowing it to “learn” from large amounts of data



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Guest Lecture

On

“Basic Project Guidelines in Digital Image Processing”

Department of Electronics and Communication Engineering organized a guest lecture on “Basic Project Guidelines in Digital Image Processing” for 4th year ECE branch students on 28.03.2021. The speaker for the session was Dr.P.Venkatesan, Associate Professor from Sri Chandrasekharendra Saraswathi Viswa Mahavidyalaya.

He explained the importance of Digital Image Processing and its applications. He described the various enhancement techniques, Histogram equalization and applications of image processing. The lecture were very interactive in which the students actively took part to enhance their knowledge about Image Processing. Prof.(Dr.) , Dr.M.Saravanan ,HoD, ECE appreciated the efforts of Dr.P.Venkatesan for sharing the knowledge on Digital Image Processing. This was very fruitful lecture on the topic which helps for the project.



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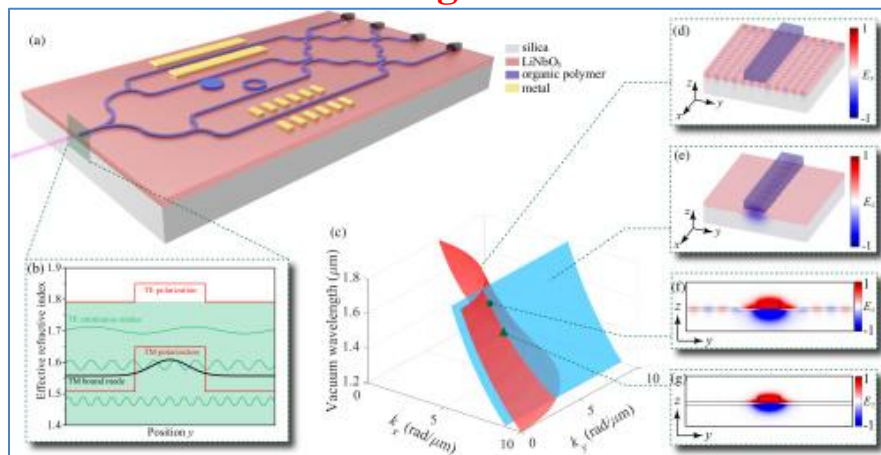
Guest Lecture
On
Optical Amplifiers

Department of Electronics and Communication Engineering organized a guest lecture on “Optical Amplifiers” for ECE branch students on 29.9.2020. The speaker for the session was Dr. S. Kumaran, Associate Professor from saveetha engineering college, Chennai. He explained the importance of Optical Amplifiers. He described about Optical Amplifiers and its applications. The lecture were very intermutual in which the students pleased to take a part to enrich their thoughts on arm cortex-m0-micro controller. Dr.M.Saravanan, HoD, ECE appreciated the efforts of Dr. S. Kumaran for sharing the knowledge of Optical Amplifiers.

An optical amplifier is a device that amplifies an optical signal directly, without the need to first convert it to an electrical signal. An optical amplifier may be thought of as a laser without an optical cavity, or one in which feedback from the cavity is suppressed.



Guest Lecture
On
Photonic Integrated Circuits



Department of Electronics and Communication Engineering organized a guest lecture on “Photonic Integrated Circuits” for 3th year ECE branch students on 21.9.2020. The speaker for the session was Mr. T. K. Srinivasan, Associate Professor from saveetha engineering college, Chennai. He explained the importance of Photonic Integrated Circuits. He described about Photonic Integrated Circuits and its applications. The lecture were very intermutual in which the students pleased to take a part to enrich their thoughts on Photonic Integrated Circuits. Dr.M.Saravanan, HoD, ECE appreciated the efforts of Mr. T. K. Srinivasan for sharing the knowledge of Photonic Integrated Circuits.

The most commercially utilized material platform for photonic integrated circuits is indium phosphide (InP), which allows for the integration of various optically active and passive functions on the same chip. Initial examples of photonic integrated circuits were simple 2-section distributed Bragg reflector (DBR) lasers, consisting of two independently controlled device sections - a gain section and a DBR mirror section. Consequently, all modern monolithic tunable lasers, widely tunable lasers, externally modulated lasers and transmitters, integrated receivers, etc.



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Guest Lecture

On

Relay based wireless communication systems

Department of Electronics and Communication Engineering organized a guest lecture on “Relay based wireless communication systems” for 3th year ECE branch students on 5.9.2020. The speaker for the session was K. Arunkumar, Associate Professor from saveetha engineering college, Chennai. He explained the importance of Relay based wireless communication systems. He described about Relay based wireless communication systems and its applications. The lecture were very intermutual in which the students pleased to take a part to enrich their thoughts on Relay based wireless communication systems. Dr.M.Saravanan, HoD, ECE appreciated the efforts of K. Arunkumar for sharing the knowledge of Relay based wireless communication systems.

Cooperative relaying is a technique for wireless communications promising gains in throughput and energy efficiency. The basic idea sounds simple: A device transmits a data signal to a destination. A third device overhears this transmission and relays the signal to the destination as well



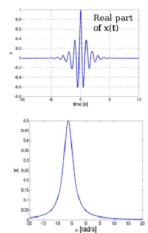
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Guest Lecture
On
Application of Signals and Systems
08-03-2021

Module B – Fourier transform

Example 3 $x(t) = e^{-j2\pi t} e^{-\lambda|t|}$


$$X(j\omega) = \int_{-\infty}^{+\infty} e^{-j\omega t} e^{-j2\pi t} e^{-\lambda|t|} dt$$
$$X(j\omega) = \int_{-\infty}^0 e^{-j(\omega+2\pi)t} e^{\lambda t} dt + \int_0^{+\infty} e^{-j(\omega+2\pi)t} e^{-\lambda t} dt$$
$$X(j\omega) = \int_0^{+\infty} e^{j(\omega+2\pi)t} e^{-\lambda t} dt + \int_0^{+\infty} e^{-j(\omega+2\pi)t} e^{-\lambda t} dt$$
$$X(j\omega) = \left(\frac{e^{j(\omega+2\pi)t} e^{-\lambda t}}{-\lambda + j(\omega+2\pi)} \right)_0^{+\infty} + \left(\frac{e^{-j(\omega+2\pi)t} e^{-\lambda t}}{-\lambda - j(\omega+2\pi)} \right)_0^{+\infty}$$
$$X(j\omega) = \frac{2\lambda}{\lambda^2 + (\omega + 2\pi)^2}$$

Department of Electronics and Communication Engineering organized a guest lecture on “APPLICATION OF SIGNALS AND SYSTEM” for 2th year ECE branch students on 08.03.2021. The speaker for the session was Dr.S.Devanadhan, Associate Professor from REVA University, Bangalore. He explained the importance of Applications of signal and system. He described the various Signal Representation, System Classification and Fourier Analysis of discrete system and application on Speech recognition, video streaming and Medical applications. The lecture was very interactive in which the students actively took part to enhance their knowledge about Signal and Systems. Dr.M.Saravanan, HoD, ECE appreciated the efforts of Dr.S.Devanadhan for sharing the knowledge of Application of signals and systems. This was very Effective lecture on the topic which helps for the project.

A system is defined by the type of input and output it deals. Since we are dealing with signals, so in our case, our system would be a mathematical model, a piece of code/software, or a physical device, whose It does not matter what the information is i-e: Analog or digital information. In mathematics, a signal is a function that conveys some information.



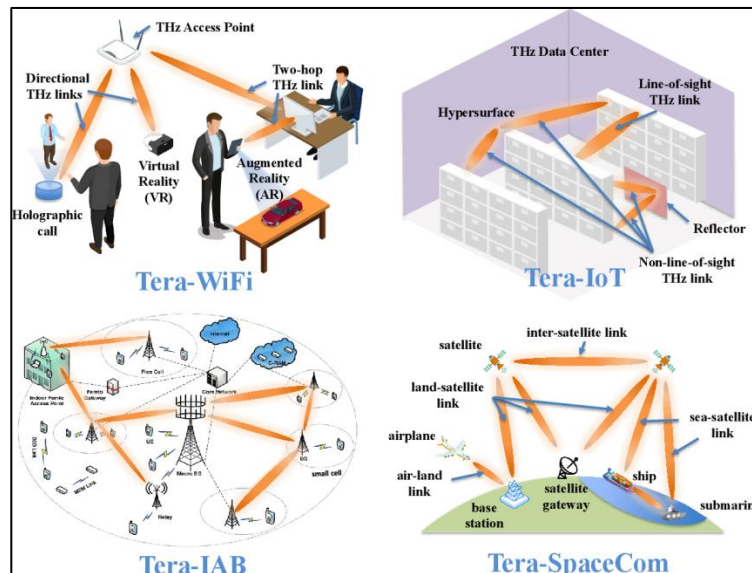
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**Guest Lecture
On
Terahertz band communications**

Department of Electronics and Communication Engineering organized a guest lecture on “Terahertz band communications” for 2th year ECE branch students on 5.9.2020. The speaker for the session was Mr. M Thirumalai, Associate Professor from saveetha engineering college, Chennai. He explained the importance Terahertz band communications. He described about Terahertz band communications and its applications. The lecture was very intermutual in which the students pleased to take a part to enrich their thoughts on Terahertz band communications. Dr.M.Saravanan, HoD, ECE appreciated the efforts of Mr. M Thirumalai for sharing the knowledge on Terahertz band communications.

Terahertz band communications: Applications, research challenges, and standardization activities. Abstract: Terahertz frequency band, 0.1-10THz, is envisioned as one of the possible resources to be utilized for wireless communications in networks beyond 5G.



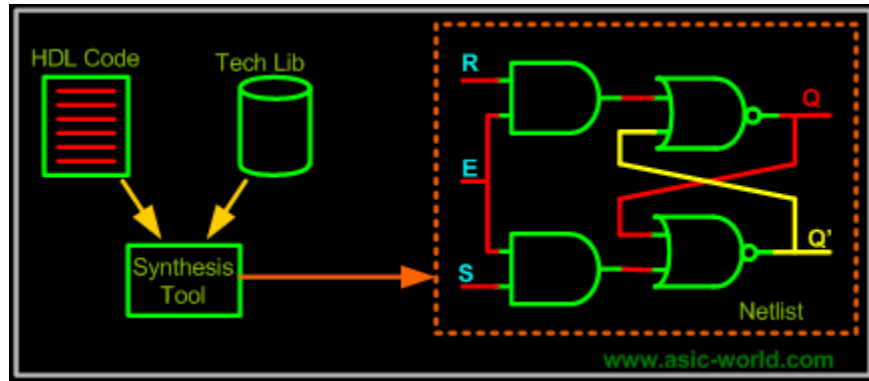


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**Guest Lecture
ON**

Synthesis of digital circuits in VLSI



Department of Electronics and Communication Engineering organized a guest lecture on “Synthesis of digital circuits in VLSI” for 4th year ECE branch students on 17.10.2020. The speaker for the session was Dr. M. Neelaveni Ammal, Associate Professor from SRM Institute of Science and Technology, Chennai. He explained the importance Of Artificial neural network. She described how the problem solving works with Synthesis of digital circuits in VLSI. The lecture were well-spoken in which the students actively took part to meliorated their intelligence on Synthesis of digital circuits in VLSI. Dr. M.Saravanan, HoD, ECE appreciated the efforts of Dr. M. Neelaveni Ammal for sharing her knowledge on Synthesis of digital circuits in VLSI. This was very successful lecture on the topic which helps for the project.

Synthesis of circuit is defined as a process of generating netlist from a circuit design model. Synthesis means 'to generate'. It is a step to generate circuit hardware schematics. VLSI design flow is revisited here (Figure 11.1), explaining the role of synthesis in digital design flow.