A webinar
On
"Big Data Challenges in 5G Networks"

Introduction: World is witnessing a huge flood of data due to ever growing heterogeneous traffic, mobile network subscribers and online services. This trend is evolving continuously at a rapid pace and diversely in the form of big data. Wide range of use-cases scenarios with diverse requirements brings huge challenges for 5G. Big data analytics is required to process this huge amount of raw data and extract small sized and useful information. This information can be used by arbiters to make consistent decisions.

Objectives:

- It presents challenges of 5G technical scenarios, big data perspective and emerging technologies of 5G.
- Provides a detailed overview of big data challenges, imminent in achieving 5G goals.
- Advanced analytics techniques are applied on large data sets to depict emerging opportunities and knowledgeable extraction of data.

Speaker's Details   : Mr.K.Parthasarathi, Assistant Professor, Department of ECE, Dhanalakshmi College of Engineering, Chennai.

Date : 20.05.2020

Target Audience : II & III Year of ECE

Organised by : Department of ECE, SITAMS

A Webinar
On
"Blockchain and Networking"

Introduction:

Blockchain, the foundation of Bitcoin, has received extensive attentions recently. Blockchain serves as an immutable ledger which allows transactions take place in a decentralized manner. Blockchain-based applications are springing up, covering numerous fields including financial services, reputation system and Internet of Things (IoT), and so on. However, there are still many challenges of blockchain technology such as scalability and security problems waiting to be overcome. Furthermore, technical challenges and recent advances are briefly listed. We also lay out possible future trends for blockchain.

Objectives:

- Brief introduction of blockchain architecture.
- It provides various typical consensus algorithms used in blockchain.
- It also summarizes the technical challenges and the recent advances in this area. and some possible future directions

Speaker's Details : Mr.R.Ramaeswaran, Research Associate, Department of ECE, MIT

Date : 31.01.2020
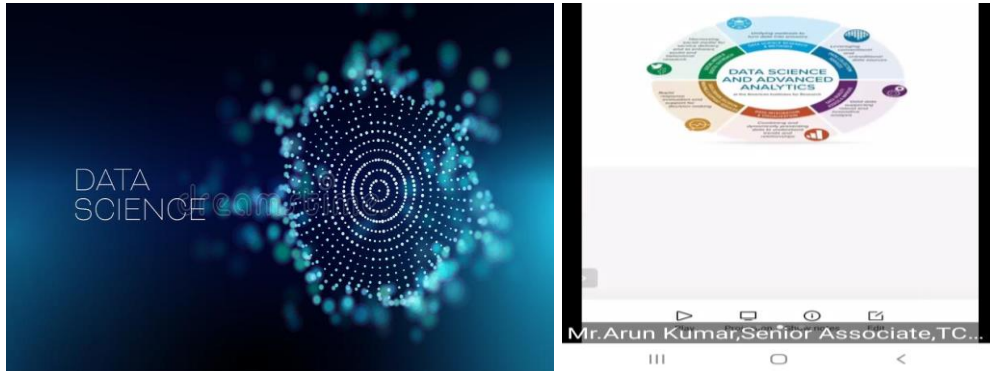
Target Audience : III Year of ECE.

Organised by : Department of ECE, SITAMS.

A Webinar
On
"Introduction to Data Science"

Introduction:

Data is everywhere, including the Internet, the Internet of things, sensor networks, social networks, and entertainment. Data drives discovery, decision making, innovation, and productivity. From ecommerce transactions to electronic healthcare records, the deluge of data has invaded our everyday lives. The analysis of such large quantities of data has become ubiquitous in nearly every discipline. This has led to the development of data science (DS). It is an interdisciplinary field which embraces many domains such as probability, machine learning, computer programming, data engineering, signal processing, database, pattern recognition.

Objectives:

- To prepare the next generation of data scientists, institutions have started offering courses on data science
- Developing and teaching DS course can be challenging because students may be from different majors and some of them may have little or no prior programming experience.
- Collaborations between data scientists and professionals from other fields are needed to address these challenges.

Speaker's Details : Mr.N.Arun Kumar, Senior Associate, TCS, Chennai

Date : 13.11.2019
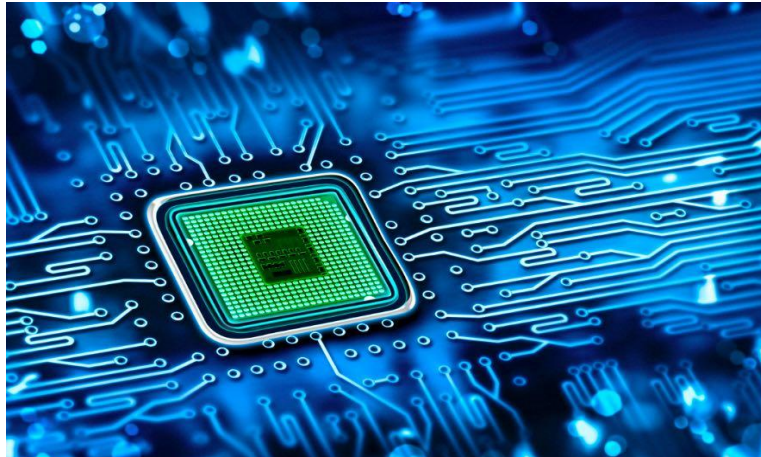
Target Audience : II & III Year of ECE.

Organised by : Department of ECE, SITAMS.

A webinar
On
"Advances in FPGA"

Introduction: The use of information technologies in the implementation of industry 4.0 applications has naturally attracted the attention of many entrepreneurs and the business community. Industry 4.0 applications enabled cost reduction and efficiency in Industrial production systems. However, there are difficulties in the process of reliable data collection, integration and analysis of production-related data. The authors propose FPGA-based hardware and ANFIS software-driven intelligent algorithms to use temperature and humidity sensor test data for these processes. This approach achieves a significant performance and resource utilization rate in Industrial IoT systems and shows 55% decrease in the amount of HW resources in FPGA.

Objectives:

- To develop an easy to use reconfigurable system, based on an embedded computer and a FPGA to implement highly customized interfaces with external devices, including dedicated pre-processors to alleviate the load of the main processor.
- specialized computing modules to accelerate critical parts of the software applications running on main processor.

Speaker's Details :,Dr.S.Vijayakumar, Associate Professor, Department of ECE, SITAMS

Date : 27.12.2019

Target Audience : III Year of ECE.

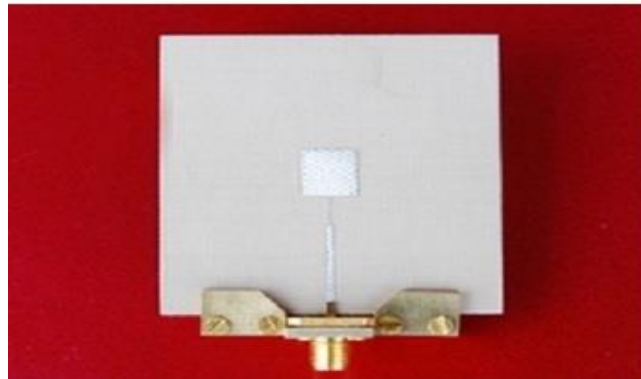**Organised by** : Department of ECE, SITAMS.

A webinar
On
"Compact Microstrip Patch Antenna for Wireless Applications"

Introduction: Most of the mobile, wireless and communication systems, the antenna technology has been used. To increase the quality factor, use higher data rate, and increase the quality of signal . This technology particularly used in 3G and 4G devices. In this method, several antennas are connected in single board at both receiver and transmitter and operating in same resonant frequency. Printed microstrip patch antennas are widely used in ISM Band and wireless applications. Due to tremendous use of wireless communication devices, dual band or multiband antennas have received great attention for different wireless applications.

Objectives:

We wish to address the generic compact antenna problem. Other objectives are:
• To design and simulate a dual band microstrip patch antenna for LTE applications.
• To design a compact antenna for smart phones.
• A comparison of performance involving the standard antenna parameters.

Speaker's Details   :Mrs.K.Anusha, Assistant Professor, Department of ECE, Kumaraguru College of Technology, Coimbatore.

Date   : 22.10.2019

Target Audience   : III Year of ECE.

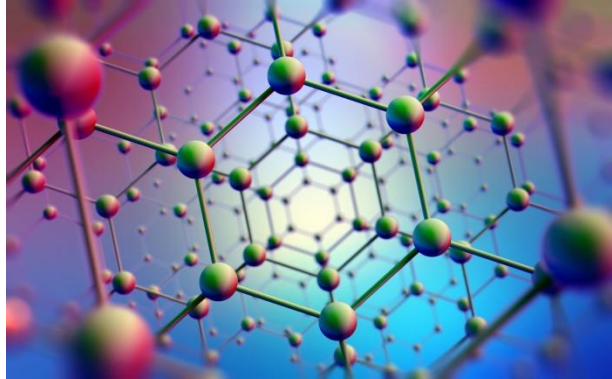**Organised by**   : Department of ECE, SITAMS.

A Webinar
On
"Recent Development in Nanotechnology"

Introduction:

an introduction to the principles and advances made in the fields of nanoscience and nanotechnology including inventions, discoveries and design and study of molecular building blocks (MBBs) studied through nanoscience and applied in nanotechnology. Nanoscience is the study of systems in nanoscale and nanotechnology is the ability to systematically organize and manipulate properties and behavior of matter in the atomic and molecular levels.

Objectives:

- lucidate emerging needs in nanotechnology environment, health; and safety, and incorporate them into basic education that can be immediately employed in industry;
- Promote interdisciplinary interactions among engineering, engineering technology, science, and industrial management/technology majors; Assess the effectiveness of the newly developed curriculum using a rigorous formative and summative assessment plan

Speaker's Details : Mr.S.Nagaraj, Associate Professor, Department of ECE, SVCET

Date : 13.02.2020

Target Audience :II & III Year of ECE.

Organised by : Department of ECE, SITAMS.

A webinar
On
"Scope of Robotics in Agriculture"

Introduction: Robotics is playing a significant role in agricultural production and management. There is a need for autonomous and time saving technology in agriculture to have efficient farm management.Now focusing towards different farming operational parameters to design autonomous agricultural vehicles as the conventional farm machineries are crop and topological dependent. Till date the agricultural robots have been researched and developed principally for harvesting, chemical spraying, picking fruits and monitoring of crops. Robots like these are perfect substitute for manpower to a great extent as they deploy unmanned sensing and machinery systems. and drudgery.

Objectives:

- The objective of **agricultural robotics** is to help the sector in its efficiency and in the profitability of the processes.
- In other words, mobile robotics works in the agricultural sector to improve productivity, specialization and environmental sustainability.

Speaker's Details : Dr.K.Rasadurai, Associate Professor, Department of ECE, Kuppam Engineering college, Kuppam

Date : 15.05.2020

Target Audience : II & III Year of ECE.

Organised by : Department of ECE.

A webinar
On
"Universal Human Values"

Introduction: Universal human values-this is one of the most frequently encountered phrases today; we are constantly coming across it on the pages of newspapers and magazines. Its frequency creates the illusion that its content is intuitively clear, attractive, and shared by everyone. However, the various versions of what is understood by universal human values-the good, truth, beauty, freedom, or civil society, a non-nuclear world, ecological protection, pluralism, etc.-show that this is by no means the case.

Objectives:

- To help the student to see the need for developing a holistic perspective of life.
- To sensitize the student about the scope of life – individual, family, society and nature/existence.
- Strengthening self-reflection.
- To develop more confidence and commitment to understand, learn and act accordingly.

Speaker's Details   : Mr.K.Malika Arjun Reddy, Associate Professor, Department of ECE, Vemu Institute of Technology, Chittoor.

Date   : 10.04.2020

Target Audience   : II & III Year of ECE.

Organised by   : Department of ECE.

A webinar
On
"Laser Based Visible Light Communication"

Introduction: Visible light communication (VLC or LiFi) has been a topic of intense research after the idea was proposed in 2011. To date, a data rate of multiple 100s Mbps has been demonstrated using LED as light source. The next generation of SSL lighting using visible laser diodes (LDs) are developing. Laser diodes do not suffer efficiency droop at high current densities. This allows for the design of lamps using a single, small footprint, light-emitting chip operating at high current densities. In this talk, I will focus on the recent progress of visible diode LD-based VLC technology. High-speed optoelectronics and communication systems for multiple Gbps VLC links will be discussed.

Objectives:

- Detailed description of optoelectronics for communication system.
- Discussion about the visible light communication using laser.
- Recent progress of visible light diode which helps for communication purpose.

Speaker's Details : Dr.N.Padmaja, Professor, Department of ECE, SVNE, Tirupati
Date : 16.09.2019

Venue : Online.

Target Audience : II & III Year of ECE.

Organised by : Department of ECE.