



# MAGAZINE

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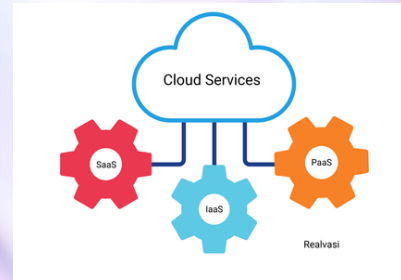
Department of

# CSE

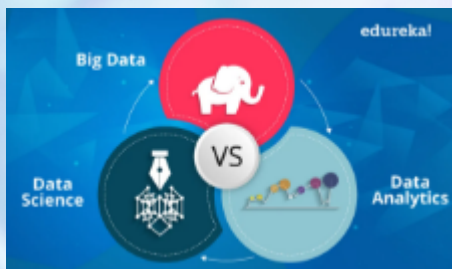
# Byte Quest



**IOT**



**CLOUD COMPUTING**



**DS&BDA**



**AR/VR**

## Department Vision

*To be a center for academic excellence in the field of Computer Science and Engineering education to enable graduates to be ethical and competent professionals.*

### **FACULTY COORDINATORS**

**KOMAL KAUR**  
ASSISTANT PROFESSOR  
**DR. BHARGAVI PEDDIREDDY**  
ASSOCIATE PROFESSOR

## Department Mission

*To enable students to develop logic and problem solving approach that will help build their careers in the innovative field of computing and provide creative solutions for the benefit of society.*

### **STUDENT COORDINATORS**

**TALLURI CHANDRA KIRAN (3/4) CSE C**  
**AMOGHA KANDURI (3/4) CSE C**



# Byte Quest

## INTERNET OF THINGS

The internet of things, or IoT, is a network of interrelated devices that connect and exchange data with other IoT devices and the cloud. IoT devices are typically embedded with technology such as sensors and software and can include mechanical and digital machines and consumer objects.

Increasingly, organizations in a variety of industries are using IoT to operate more efficiently, deliver enhanced customer service, improve decision-making and increase the value of the business.



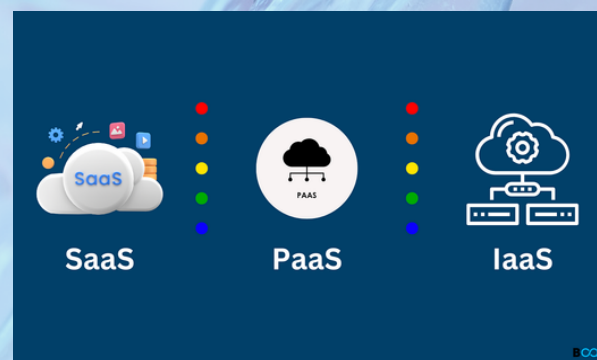
An IoT ecosystem consists of web-enabled smart devices that use embedded systems -- such as processors, sensors and communication hardware -- to collect, send and act on data they acquire from their environments.

IoT devices share the sensor data they collect by connecting to an IoT gateway, which acts as a central hub where IoT devices can send data. Before the data is shared, it can also be sent to an edge device where that data is analyzed locally. Analyzing data locally reduces the volume of data sent to the cloud, which minimizes bandwidth consumption.

Sometimes, these devices communicate with other related devices and act on the information they get from one another.

## CLOUD COMPUTING

Cloud Computing can be defined as the practice of using a network of remote servers hosted on the Internet to store, manage, and process data, rather than a local server or a personal computer. Companies offering such kinds of cloud computing services are called cloud providers and typically charge for cloud computing services based on usage. Grids and clusters are the foundations for cloud computing.



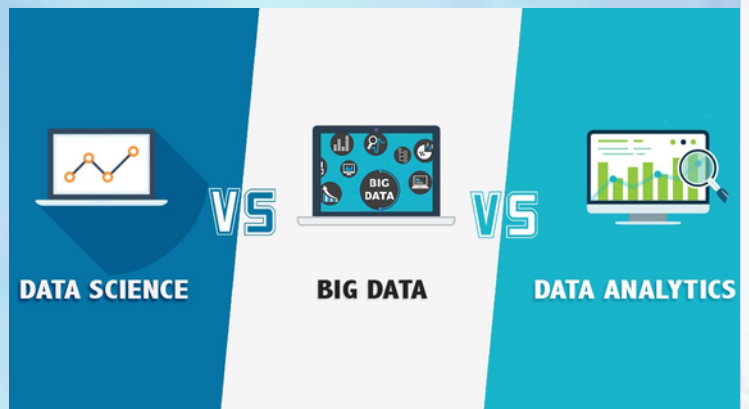
The cloud is a vast network of computer servers located around the world, along with the data, content, applications, databases, and other computing resources that reside on these servers. Cloud computing is made possible by virtualization, a technology that allows one physical server to run multiple "virtual" computers (also known as virtual machines, or VMs). Virtualization makes it possible to pool the resources from many different physical servers — even servers located in different geographic areas — and make them available to customers or users as a single, highly scalable service.



# Byte Quest

## DATA SCIENCE AND BIG DATA ANALYSIS

Data science is a field that deals with unstructured, structured data, and semi-structured data. It involves practices like data cleansing, data preparation, data analysis, and much more.



Big data refers to significant volumes of data that cannot be processed effectively with the traditional applications that are currently used. The processing of big data begins with raw data that isn't aggregated and is most often impossible to store in the memory of a single computer.

Data analytics is the science of examining raw data to reach certain conclusions.

Data science is the combination of statistics, mathematics, programming, and problem-solving; capturing data in ingenious ways; the ability to look at things differently; and the activity of cleansing, preparing, and aligning data. This umbrella term includes various techniques that are used when extracting insights and information from data.

Big data is a buzzword used to describe immense volumes of data, both unstructured and structured, that can inundate a business on a day-to-day basis. Big data is used to analyze insights, which can lead to better decisions and strategic business moves.

Data analytics involves applying an algorithmic or mechanical process to derive insights and running through several data sets to look for meaningful correlations. It is used in several industries, which enables organizations and data analytics companies to make more informed decisions, as well as verify and disprove existing theories or models



# Byte Quest

## AR / VR

Virtual reality and Augmented reality are two main branches of the future computer world where humans can interact with the surroundings with vision, using the help of reality devices.



Virtual reality (VR) and augmented reality (AR) have exciting potential in the future of gaming, marketing, e-commerce, education, and many other fields. Both technologies are known for their enriched experience that brings together a virtual world and the real one with enhanced, 3-D visuals. Although it can be easy to mix up the two, there are some significant differences. Currently, no quantum computer can perform a useful task faster, cheaper, or more efficiently than a classical computer. Quantum advantage is the threshold where we have built a quantum system that can perform operations that the best possible classical computer cannot simulate in any kind of reasonable time.

- AR uses a real-world setting while VR is completely virtual
- AR users can control their presence in the real world; VR users are controlled by the system.
- AR enhances both the virtual and real world while VR only enhances a fictional reality

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