# BYTE QUEST

Vasavi College of Engineering

Department of Computer Science and Engineering

August 30, 2018
Volume 58

Contents:



Byte Quest is the article published by the CSE dept of Vasavi College of Engineering regarding the latest innovative Technologies and Software that have been emerged in the competitive world. The motto of this article is to update the people regarding the improvement in technology. The article is designed by the active participation of students under the guidance of faculty coordinators.

 Good, bad or indifferent if you are not investing in new technology, you are going to be left behind.

-Philip Green

 Once a new technology rolls over you, if you're not part of the steamroller, you're part of the road.

-Stewart Brand


FACULTY CO-ORDINATORS

T.NISHITA(ASST. PROFESSOR)

M.SUNDARI(ASST. PROFESSOR)



STUDENT COORDINATORS

AMREEN KOUSAR (4/4 CSE-A)

D.SWAPNA (3/4 CSE-A)

NIKHITHA (2/4 CES-A)

KRISHNA CHAITANYA (4/4 CSE-B)

RAHUL (3/4 CSE-B)

ABHINAV(2/4 CSE-B)

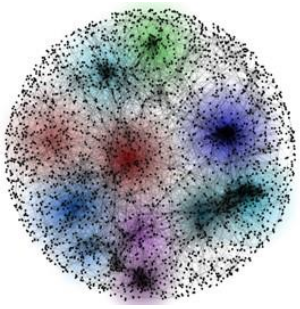
# BRAIN GATE TECHNOLOGY

Thousands of people around the world suffer from paralysis, rendering them dependent on others to perform even the most basic tasks. But that could change, thanks to the latest achievements in the field of BrainGate technology, which could help them regain a portion of their lost independence.
Braingate neural interface system is based on Cyber kinetics platform technology to sense, transmit, analyze and apply the language of neurons. Scientists are to implant tiny computer chips in the brains of paralyzed patients which could 'read their thoughts'.

The computer chip, which is implanted into the brain, monitors brain activity in the patient and converts the intention of the user into computer commands.

SATVIKA (CSE B 3/4)

# BIO INFORMATICS



Bioinformatics is an interdisciplinary field mainly involving molecular biology and genetics, computer science, mathematics, and statistics. Data intensive, large-scale biological problems are addressed from a computational point of view.

Bioinformatics is a new Discipline but it is making progress in every field of Science very rapidly.

As it has its application in the medicine by providing the genome information of various organisms Bioinformatics today has entered every major discipline in biology. In genomics, Bioinformatics has aided in genome sequencing, and has shown its success in locating the genes, in phylogenetic comparison and in the detection of transcription factor binding sites of the genes.
Moreover, Bioinformatics is a new field of science but it is making progress in every field of biotechnology very rapidly. As it has its application in the medicine by providing the genome information of various organisms

YASHWANTH (CSE-B 3/4)

# FOG COMPUTING

Cloud services to smart things face latency and intermittent connectivity issues. Fog computing extends the concept of cloud computing to the network edge, making it ideal for internet of things (IoT) and other applications that require real-time interactions. The Fog Computing architecture is used for applications and services within various industries such as industry IoT, vehicle networks, smart cities, smart buildings and so forth. Fog computing, also known as fog networking, is a decentralized computing architecture in which business logic and computing power are distributed in the most logical, efficient place between the things producing data and the cloud. Fundamentally, the development of fog computing frameworks gives organizations more choices for processing data. Fog computing can create low-latency network connections between devices and analytics endpoints. This architecture in turn reduces the amount of bandwidth needed compared to if that data had to be sent all the way back to a data center or cloud for processing. It can also be used in scenarios where there is no bandwidth connection to send data, so it must be processed close to where it is created. As an added benefit, users can place security features in a fog network, from segmented network traffic to virtual firewalls to protect it.

Fog computing is the nascent stages of being rolled out in formal deployments, but there are a variety of use cases that have been identified as potential ideal scenarios for fog computing.

*Connected Cars:* The advent of semi-autonomous and self-driving cars will only increase the already large amount of data vehicles create. Having cars operate independently requires a capability to locally analyze certain data in real-time, such as surroundings, driving conditions and directions. Other data may need to be sent back to a manufacturer to help improve vehicle maintenance or track vehicle usage. A fog computing environment would enable communications for all of these data sources both at the edge (in the car), and to its end point (the manufacturer).

Y. POOJA(CSE-B 3/4)