CompuManTech:

CompuManTech is organizing a research paper presentation competition for B.B.A and B.C.A students, with a focus on encouraging participants to engage in case studies and research work. This initiative aims to cultivate a habit of conducting detailed studies on subjects or topics, thereby enhancing the students' research capabilities. Here are some suggestions to further promote the capability of research among the participants:

1. Define Clear Objectives: Clearly outline the objectives of the competition. Specify the expectations regarding the depth of research, the quality of case studies, and the relevance of the topics chosen.
2. Theme Selection: Provide a range of themes relevant to the field of B.B.A and B.C.A that encourage students to explore contemporary issues or emerging trends. This ensures that the research is not only rigorous but also addresses current challenges.
3. Mentorship: Assign mentors or advisors to guide students throughout the research process. This can help participants refine their research questions, choose appropriate methodologies, and improve the overall quality of their work.
4. Research Methodology Workshop: Conduct workshops on research methodologies to equip students with the necessary skills for effective data collection, analysis, and interpretation. This can be especially beneficial for those who may be new to conducting research.
5. Resource Access: Ensure that students have access to relevant resources such as databases, journals, and other academic materials. This can significantly enhance the depth and quality of their research.
6. Peer Review: Encourage a peer-review process where participants have the opportunity to receive feedback from their peers. This not only fosters a collaborative research environment but also helps students improve their work before the final presentation.
7. Presentation Skills Workshop: Offer workshops on presentation skills to help participants effectively communicate their research findings. This includes structuring presentations, creating compelling visuals, and engaging with the audience.
8. Recognition and Awards: Recognize outstanding research work through awards or certificates. This can motivate participants to invest time and effort into producing high-quality research.
9. Publication Opportunities: Explore the possibility of publishing exceptional research papers in relevant journals or conference proceedings. This not only adds credibility to the students' work but also provides a platform for broader dissemination.
10. Feedback and Improvement: Encourage constructive feedback from judges and mentors, emphasizing the importance of continuous improvement in research skills. This feedback loop will contribute to the ongoing development of the participants' capabilities.

By incorporating these elements, CompuManTech can create a comprehensive and enriching research competition that not only promotes the habit of detailed study but also enhances the research capabilities of B.B.A and B.C.A students.
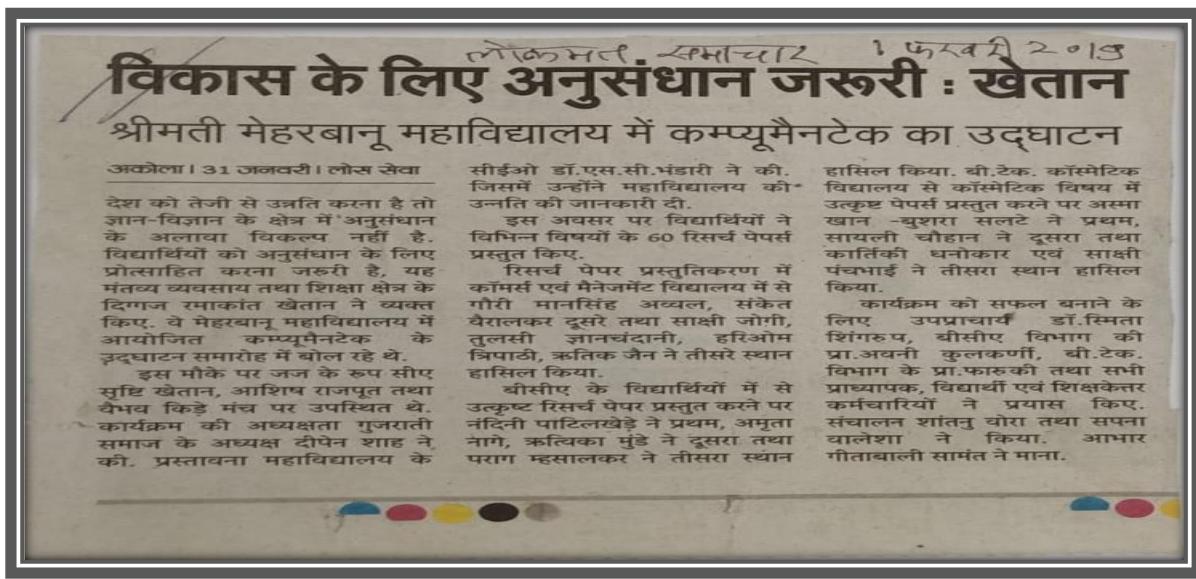
Dr. Usha Wankhede, Principal R.D.G. School in CompuMan Tech 28thJanuary 2020inaugral

CA Shrusti Khetan, Mr. Ashish Rajput, Mr. Viabhav Kide were the judge in CompuMan Tech30th January 2019

विकास के लिए अनुसंधान जरूरी : खेतान

श्रीमती मेहरबानू महाविद्यालय में कम्प्यूमैनटेक का उद्घाटन

अकोला। 31 जनवरी। लोस सेवा

देश को तेजी से उन्नति करना है तो ज्ञान-विज्ञान के क्षेत्र में अनुसंधान के अलावा विकल्प नहीं है. विद्यार्थियों को अनुसंधान के लिए प्रोत्साहित करना जरूरी है, यह मंतव्य व्यवसाय तथा शिक्षा क्षेत्र के दिग्गज रमाकांत खेतान ने व्यक्त किए. ये मेहरबानू महाविद्यालय में आयोजित कम्प्यूमैनटेक के उद्घाटन समारोह में बोल रहे थे.

इस मौके पर जज के रूप सीए सृष्टि खेतान, आशिष राजपूत तथा वैभव किडे मंच पर उपस्थित थे. कार्यक्रम की अध्यक्षता गुजराती समाज के अध्यक्ष दीपेन शाह ने की. प्रस्तावना महाविद्यालय के

सीईओ डॉ.एस.सी.भंडारी ने की. जिसमें उन्होंने महाविद्यालय की उन्नति की जानकारी दी.

इस अवसर पर विद्यार्थियों ने विभिन्न विषयों के 60 रिसर्च पेपर्स प्रस्तुत किए.

रिसर्च पेपर प्रस्तुतिकरण में कॉमर्स एवं मैनेजमेंट विद्यालय में से गौरी मानसिंह अव्वल, संकेत वैरालकर दूसरे तथा तुलसी ज्ञानचंदानी, हरिओम त्रिपाठी, ऋतिक जैन ने तीसरे स्थान हासिल किया.

बीसीए के विद्यार्थियों में से उत्कृष्ट रिसर्च पेपर प्रस्तुत करने पर नंदिनी पाटिलखेड़े ने प्रथम, अमृता नागे, ऋत्विका मुंडे ने दूसरा तथा पराग म्हसालकर ने तीसरा स्थान

हासिल किया. बी.टेक. कॉस्मेटिक विद्यालय से कॉस्मेटिक विषय में उत्कृष्ट पेपर्स प्रस्तुत करने पर अस्मा खान -बुशरा सलटे ने प्रथम, सायली चौहान ने दूसरा तथा कार्तिकी धनोकार एवं साक्षी पंचभाई ने तीसरा स्थान हासिल किया.

कार्यक्रम को सफल बनाने के लिए उपप्राचार्य डॉ.स्मिता शिंगरुप, बीसीए विभाग की प्रा.अवनी कुलकर्णी, बी.टेक. विभाग के प्रा.फारुकी तथा सभी प्राध्यापक, विद्यार्थी एवं शिक्षकेतर कर्मचारियों ने प्रयास किए. संचालन शांतनु चौरा तथा सपना वालेशा ने किया. आभार गीताबाली सामंत ने माना.

News Paper Report on Copumantech 2019

Post Covid the institute started conducting Paper Presentation in class itself. As it was found the need and importance of Research work is increasing day by day and to imbibe the habit of it class room presentation was given more importance and students took keen interest and proved to be scholarly person at the very initial stage of their career.

Paper Presentation 15th December 2021

Paper Presentation 20th February 2022

<u>Paper Presentation inculcate the habit to research, Study and Present to each student of each year.</u>

TECHNICAL PAPERS OF STUDENTS PRESENTED IN "COMPUMANTECH"

<u>Cloud computing</u>

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Abstract- **with every new day we are coming up with new technologies, ideas and techniques that ease our work and lead us to advanced and efficient lifestyle. Cloud computing has become a part of our lives now. And now through this, storage of data can be done on the internet and can be accessed by the user from any system having and internet connection. In this paper, the cloud computing architecture has been assessed, focusing on various features of the private, public and hybrid cloud models relevant to most individuals and organizations. This paper intends to give brief overlook at the topic 'Cloud Computing'.**

Keywords- **cloud computing, IaaS, PaaS, SaaS, Private Cloud, Public Cloud and Hybrid Cloud**

I. Introduction and History of cloud computing.

Earlier, before cloud computing came into being, there was a client/server computing, centralized storage in which all the date, software applications and all the controls reside on the server side. If a user wants to run a program or access a specific data, then he connects to the server and gain appropriate access and can do his business. Just like real clouds which are the collection of water molecules, the term 'cloud' in cloud computing is the collection of networks. The user can use the modalities of cloud computing boundlessly whenever demanded. Instead of setting up their own physical infrastructure, the users ordinarily prefer a mediator provider for the service of the internet in cloud computing. The cloud computing concept came into being in the year 1950 with accessible viaclients and the implementation of mainframe computers. Then in 1961, John Mccarthy delivered a speech at MIT in which he suggested that computing can be sold like a utility like electricity and food. The idea was really advanced and ahead of that time.

In 1999,cloud was accepted and brilliantly provided on enterprise level applications to the end users by Salesforce.com and it became the first company to do so through the internet. Then a very well known company Amazon came up with Amazon Web Services, popularly known as AWS. It provides facilities and services such as storage, computation and even human intelligence. Further taking the services of cloud computing a step ahead, few more very well known companies came into picture and developed apps for the end user's ease. In 2009, Google Apps and Microsoft's Windows Azure also started to provide cloud computing enterprise applications. Other companies like HP and Oracle also joined the stream of cloud computing, for fulfilling the need for greater data.

II. What is cloud computing?

Before cloud computing, we had to carry a physical storage device along with us if we wanted to use our data. And there were no provisions of getting access to our data from another device. Cloud is the future of computing. It is about

outsourcing of IT services and infrastructure to make them accessible remotely via the internet. utilizing cloud computing models not only boosts productivity but also provide a competitive edge to the companies. Cloud computing is just the very solution of this problem. The growing popularity of cloud computing has given rise to different types of cloud service deployment models and strategies.

Figure 1 Network of cloud

Cloud computing has emerged as the next and very important step in the advancement of the technical and virtual world. It is a service, which allows the users/customers to work over the internet and make a better use out of it. It simply states that cloud computing means storing and accessing the data and programs over the internet rather than the computer's hard disk. Data can be anything such as photographs, music, audio files, documents, vides files and many more.

It gives user the control of accessing their data from anyplace having a system with internet connection. Now comes the security part; to avoid anybody accessing that data, the user is given a security ID and Password only through which the user can access the data. Speed of transfer depends on many factors such as speed of the internet, capacity of the server. Now an amazing service like this needs to be managed as the amout of data is increasing day by day, so this is done by the host itself as they come up with new modifications and updates regularly which brings the service of Cloud computing to much more use of the user and continuously improves the service.
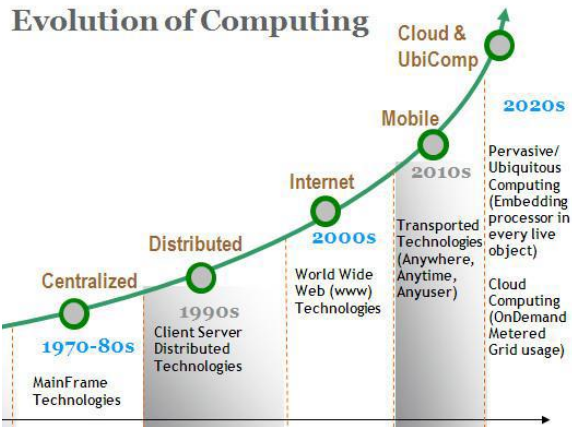
Figure 2 Evolution of cloud Computing

Cloud computing provides the host with ample amount of storage and speed that the host cam access the data quickly and with greater ease.

III. Types of Cloud computing(On the basis of services):

There are three types of cloud computing on the basis of services which are:

i.   SaaS:

SaaS stands for Software as a Service, this type allows the user to access softwares from any part of the the world with the help of internet connection. It is known as the software on demand. It allows access to an application without having to manage or control the underline cloud infrastructure

ex: Gmail, salesforce.com

The various benefits of SaaS as it is economical and only the user has to pay for some of the basic costs maintenance fees, and support fees.

ii.   PaaS:

PaaS stands for Platform as a Service. This helps providing the service of make, publish and customize the software in the hosted environment. It gives you access to a software development environment to allow them to create their own cloud applications using programming languages, libraries, services and tools. The user has control over the application without having to control the underline cloud infrastructure.

example: cloud foundry

iii.   IaaS:

IaaS stands for Infrastructure as a Service. With the help of IaaS, the user can use IT hardware and software just by paying the basic price of it. The companies that use IaaS are IBM, Google and Amazon. With the help of visualization, the host can manage and create the infrastructure resources at the cloud. IaaS has the major advantage as it benefits small startups and firms with the infrastructure rather than spending a large amount of money on hardware and infrastructure. IaaS is easier, faster and cost efficient which reduces the burden of the organizations.
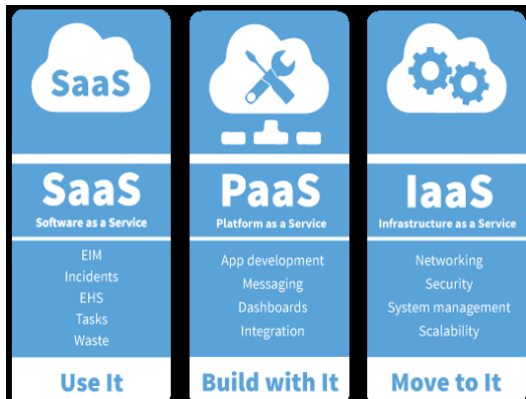
Figure 3: Cloud Computing Services

IV. Advantages of Cloud Computing:

i. 24*7 availability:

We can access our data through the ID and Password at any time of the hour as all the issues and queries are resolved with the help of technical support, which is provided through the phone call. The users can get assistance from anywhere.

ii. Security:

The data has been saved at multiple places so there is absolutely to chances of loosing the data. Cloud Computing provides high security as the data stored is very important and under no circumstances it should be lost. The user can modify or delete the data multiple number of times. The greatest benefit is that even if the system is lost or having any issues in producing the data, the user can still access the data as it is not stored in any physical device but it is stored on the internet itself.

iii.   **Economical**: Cloud computing is economical as the user has many free opportunities when the start using cloud computing and even after that, they have to pay just for the basic services only. There are many reliable services available for the use of the general public.

V. Disadvantages of Cloud Computing

As cloud computing works entirely on the internet so all the disadvantages of the internet are to be applicable to the cloud computing services too.

i. **Downtime:**
One of the major disadvantages of computer is the downtime.This problem is from the host end. That is, if the services from the company which is providing the services have servers which are not accurate then the problem is likely to happen and such a service will lead us to downtime as it wont be able to perform properly and so when the user will demand to access the facility and wants to access the data can deny.

ii. **Vulnerable to attacks:**If you are connected to the internet then this is the most likely problem you'll be facing. There are so many chances of you facing and suffer severe attacks as you are exposed to potential vulnerabilities. The chances are less but sometimes even the best team suffers.

VI. Cloud Computing on the basis of Deployment methods:

There are four cloud types on the basis of cloud deployment. The user can choose any of them according to their need and purpose.

i. **Private Cloud**
ii. **Public Cloud**
iii. **Community Cloud**
iv. **Hybrid Cloud**

i: Private Cloud:

As the name suggests, in this type of cloud a particular cloud company maintains the management deployment and all the operations that are to be performed through the cloud. The operations can be in-house or with the third party interfearnce. It is a cloud-based infrastructure used by stand alone organizations. It offers greater control over security. The data backed up by a firewall and internally, and can be hosted internally or externally. Private clouds are perfect for organizations that have high-security requirements, high management demands and availability requirements

ii: Public Cloud:Public cloud is a type of cloud service which is provided on a networrk for public use. So here there is very less control with the customers and the don't have control over thelocation of the infrastructure. It is bases on shared cost model for all users, or in the form of a terms and conditions applied kind of relations which allows the user to access the

cloud, use it but not to make any changes in it. Or it is present in the form of licensing policy such as pay per user. Public deployment model are perfect for firms and organizations with fluctuating demands. This type of cloud can prove usefull for the firms or individuals for whom cost is major concern. This type of public deployment is famous among businesses of all sizes of their web applications, webmail and storage of non-sensitive data as it is very cost efficient

iii.   Community Cloud:

It is a mutually shared type of cloud computing used and shared by the users of same category such as bankings or government organizationsthat belong to a particular community such as banks, government organizarions or commercial enterprises. Community members generally share similar expectations form the cloud such as similar issues of privacy, performance and security. This type of deployment model of cloud computing is managed and hosted internally or by a third party vendor.

iv.   Hybrid Cloud:

This model incorporates the best features of both the types of cloud i.e. public and private cloud yet can remain as separate entities. Further, as a part of this deployment od cloud computing model, the internal or external providers can povides resources. The hybrid cloud is ideal for scalability, flexibility and security. A perfect example of this scenerio would be that of an organization who uses the privares cloud to secure their data and interacts with its customers using the public cloud.

VII. Conclusion:

This paper discussed how cloud has brought a change in the way we use technology and how advanced we have became just by adapting cloud, also here it is discussed that how the tech world was before cloud came into being, we discussed the architechture of cloud computing i.e. the types of cloud computing on the basis of services and deployment i.e. IaaS,PaaS,SaaS and Public, Private ,community and hybrid clouyd and most of all the advantages and disadvantages of cloud computing.

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<u>**Artificial-Intelligence**</u>.

Amruta Sanjay Nage
BCA 2nd year.

<u>**Abstract :**</u>

Artifical Intelligence is defined as field of science and engineering concerned about the computation comprenhendion of what is commmonly called intlligentbehaviour , and eiht the creation of aritficats that exhibit such behavior. It is subfield of computer science. AI turning into a well known field in computer science as it has enhanced the human life in many areas. AI may allow for better prevention, detection, diagnosis and treatment of diseases. A few ongoing reashearchs of AI application in healthcare that provide a veiw of future where healthcare delivery is more unified, human experineces.

<u>**Keywords :**</u>- Data learning , Artifical intelligence, Model, pattern recognization and robotics, automation,

<u>**Introduction:**</u>

Artifical Intelligence (AI) is the intelligence of machines and the branch of computer science that aims to create it. AI testbooks define the field as the study and design of intelligent agents. Where an intelligent agent is a system that peceices its environment and takes actions that maximize its chances of success.

- AI is the intelligence exhibited by machines or software.
- It is also the name of the academic field of study which studies how to create computers and computer software that are capable of intelligent behaviour.

History Of AI :

   In year 1956 the word AI first adopted by American Computer Scientist John Mccarthy at the Darthmout Conference for the first time AI coined as an academic field. In 1956 john mccarthy in wide at many of the leading researchers of time in the wide range of atoms researchs topic such as complex city theory, language simulation neurons, abstraction of constraints some rays inputs, relation of creative thinking and learning machine.

Current Status Of AI :

1. **Aviation :-** AI in the aviation industry the worlds leading intelligence to imporve operational efficiency, avoid costly mistakes, and increase customer satisfaction.
2. **Education :-** AI powered systems can greately improve the efficiency of many educational institutions. AI will soon replace teachers with the help of machine learning. Now a days many companies can creation a robots to teach the subjects.
3. **Healthcare :-** AI turning into a well known field in computer science as it has enhanced the human life in many areas. AI has recently surpassed human performance in several domains , and there is great hope that in healthcare. AI can also be used to automatically spot problems and threats to patient safety, such as patterns of sub-optimal care or outbreaks of hospital acquiredillnesss with high accuracy and speed.
4. **Finance :-** AI is taking the financial services services industry. Almost every company in the financial tedchnology sector has already started using AI to save time, reduce costes. And add value. So many companies are use AI for increase customer satisfaction.

Goals Of AI :

1. To create expert system :- The systems which exhibit intelligent behaviour, learn, demonstrate, explain, and advice its users.
2. To implement human intelligence in machines:- Creating systems tha understand, think, learn, and behave like humans.

Application of AI :

1. Robotics :- Robotics is the one of the most major application of AI. The human intelligence can apply in the robots understanding the natural language or understanding emotion, feelings.
2. Natural language Processing (NLP) :- NLP, usually shortened as NLP, is a branch of artifical intelligence that deals with the interaction between computers and humans

using the natural language. The ultimate objective of NLP is to read , decipher, understand, and make sense of the human language in a manner that is valueable.

3. Visioin systems Face Rcognization :- AI technology primarily comes in the form of machine learning and deep convolutinal neural networks to help vision systems learn, distingush helping bring vision technology into unpricedented territory.

4. Game Playing :- General game playing is the design of artifical intelligence programs to be able to play more than one game successfully. For may games like chess, computers are programeed to play these game using a specially designed algorithm, which cannot be transferred to another context.

Advantages of AI :

1. Error Reduction :- AI helps us in reducing the error and the chance of reaching accuacy with a greater degree of precision. It is applied in various studies such as exploration of space.

2. Daily Application :- As we know that computed methods and learning hacevecome common place in daily life. Financial institutions and banking institutions are widely using AI. Also AI is used in the detection of fraud sers in a smart care base systems.

3. Faster Decisions :- Using AI decision can be taken very fast.

Disadvantages Of AI :

1. High costs :- Its creation requires huge costs as they are very complex machines . Also, repair and maintenance require huge costs.

2. Job Losses :- There is little doubt that artificial intelligence will displace many low-skilled jobs. Robots have already taken many jobs on the assembly line but now this could extended to new levels. Take, for example, the concept of driverless cars, which could displace the need to have millions of human drivers, from taxi drivers to chauffeurs, very quickly.

3. No Replicating Human :- As intelligence is believed to be a gift of nature. An ethical argument continues. Whether human intelligence is to be replicated or not.

Conclusion :

Finally we can say that the Artifical Intelligence (AI) is the intelligence of machines and the branch of computer science that aims to creat it. AI textbooks define the field as the study and design of intelligent agents where an intelligent agent is a system that perceives its environment and takes actions that maximize the chances of its success.

Reference :- www.google.com

MEANS OF TRANSPORTATION: **HYPERLOOP**

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Abstract - Today's conventional mode of transportation of people consists of four unique types: rail, road, water and air. These modes of transport tends to be either relatively slow (e.g.,road and water),expensive (e.g., air),or a combination of relatively slow and expensive (i.e., rail).Hyperloop is the new mode of transport that seeks to change this pattern by being both fast and inexpensive for people and goods. It is a capsule full of people in a low pressure tube elevated on pylon really goes fast.

Keyword: Conventional mode, Hyperloop, Pylon

Introduction : A **Hyperloop** is a proposed mode of [passenger](#) and [freight transportation,](#) first used to describe an open-source [vactrain](#) design released by a joint team from [Tesla](#) and [SpaceX](#). Hyperloop is a sealed tube or system of tubes through which a pod may travel free of [air resistance](#) or friction conveying people or objects at high speed while being very efficient, thereby drastically reducing travel times over medium-range distances. The name *Hyperloop* was chosen because it would go in a loop. Musk envisions the more advanced versions will be able to go at [hypersonic speed](#).

WHOSE IDEA ?

Hyperloop concept was invented and designed in 1812 by the British Mechanical Engineer **"George** Wenger".The concept of hyperloop is now developed and redesigned by the billionaire Elon Musk in 2012.A high-level alpha design for the system was published on August 12, 2013. To reduce friction, most -- but not all of the air is removed from the tubes by pumps. Overcoming air resistance is one of the biggest uses of energy in high speed travel.

It wouldn't just be fast, the boosters say: Hyperloop could be cheaper and better for the environment than the planes, trains, and cars in which humanity putzes about today. Musk originally suggested doing this with air bearings, little jets of air on the bottom of the pod.

What Is Hyperloop ?

- Existing conventional modes of transportation of people consists of four types: rail, road, water, and air.
- It is the fifth mode generation of transportation.
- Hyperloop is a new mode of transport that seeks to change this paradigm by being both fast and inexpensive for people and goods.
- Hyperloop consists of a low pressure tube with capsules that are transported at both low and high speeds throughout the length of the tube .

Components of Hyperloop

CAPSULE

- Sealed capsules carrying 28 passengers each that travel along the interior of the tube.
- The maximum width is 4.43 ft (1.35 m) and maximum height is 6.11 ft (1.10 m).
- The capsules are accelerated via a magnetic linear accelerator affixed at various stations on the low pressure tube with rotors contained in each capsule.
- Just as aircraft climb to high altitudes to travel through less dense air, Hyperloop encloses the capsules in a reduce pressure tube.
- The pressure of air in Hyperloop is about 1/6 the pressure of the atmosphere on Mars.
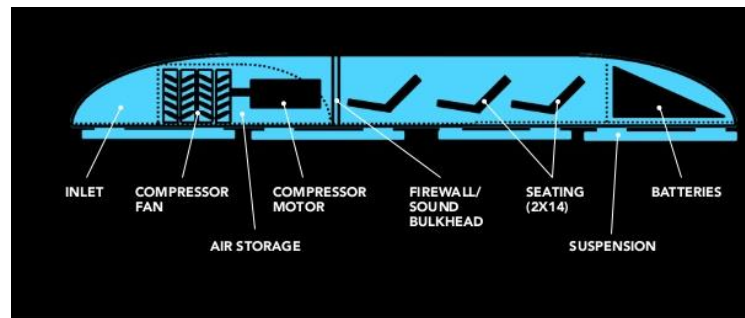
TUBE

- The tube is made of steel. Two tubes will be welded together in a side by side configuration to allow the capsules to travel both directions.
- Pylons are placed every 100 ft (30 m) to support the tube.
- Solar arrays will cover the top of the tubes in order to provide power to the system
- Hyperloop capsule in tube cutaway with attached solar arrays.
- The expected pressure inside the tube will be maintained around 100pa (less pressure).
- This low pressure minimizes the drag force on the capsule while maintaining the relative ease of pumping out the air from the tube.

PROPULSION

- Linear accelerators are constructed along the length of the tube at various locations to accelerate the capsules
- Stators are located on the capsules to transfer momentum to the capsules via the linear accelerators.

The propulsion system has these basic requirements

- Accelerate the capsule from 0 to 300 mph (480 kph) for relatively low speed travel in urban areas.
- Maintain the capsule at 300 mph (480 kph) as necessary, including during ascents over the mountains surroundings.
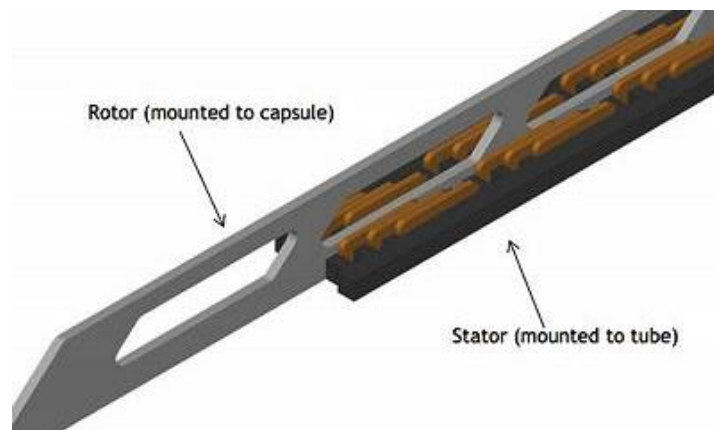
WORKING PRINCIPLE

Working

- Working of hyperloop system is based on magnetic levitation principle.
- The passenger pad travel through low pressure tube which is pylon-supported tube.
- In hyperloop system an air compressor fan is fitted on front side of pod which sucks the air. It transfer high pressure air front side to the rear side of capsule (pod) and it propel the pod. It creates the air cushion around the pod, so that the pod is suspended in air within the tube.

<u>Working</u>

- On the basis of magnetic levitation principle the pod will be propelled by the linear induction motor. By the linear induction motor the capsule send from one place to another place to a subsonic velocity that is slower than the speed of sound.
- The pod will be self-powered. There is solar panel fitted on top of the tube. By this solar panel there is enough energy is stored in battery packs to operate at night and in cloudy weather for some periods.
- The energy is also is stored in the form of compressed air. The air between the capsule acts as a cushions to prevent two capsules from colliding within the tube
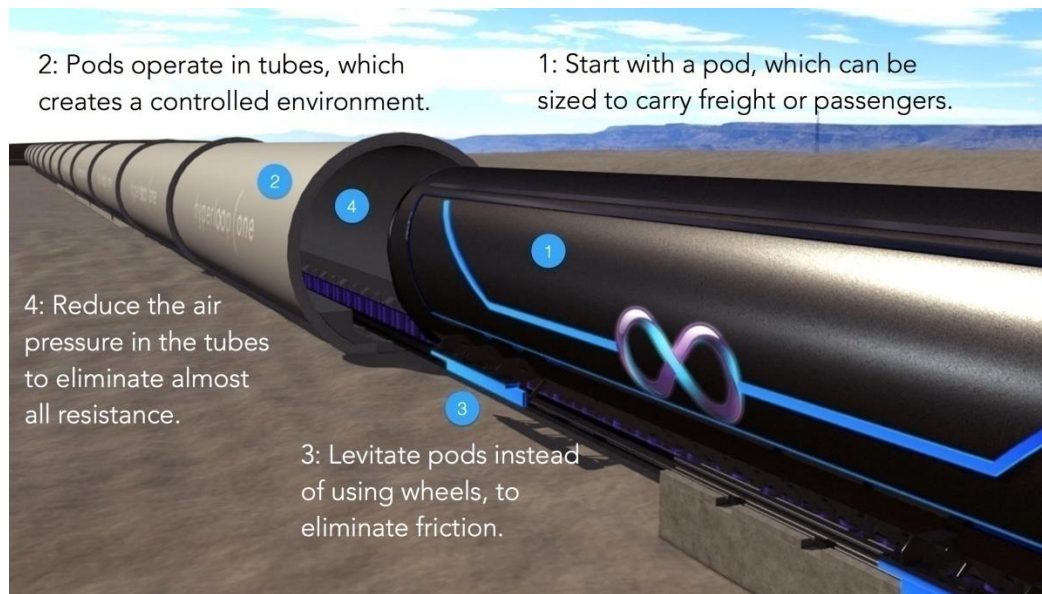
Advantages

- It saves the travelling time.
- There is no problem of traffic.
- Sustainable self powering. It is powered by the solar panel.
- It can travel in any kind of weather.
- Cost of hyperloop is low.
- Not disruptive to those along the route.
- More convenient.
- Resistance to earthquake

Disadvantages

- Turning will be critical.
- Less movable space for passenger.
- High speed might cause dizziness in some passenger.
- Punctured tunnel could cause shockwaves.

Conclusion

- Hyperloop transportation system can be used over the conventional modes of transportation that are rail, road, water and air.At very high speed it provides better comfort and cost is also low.
- By reducing the pressure of the air in the tube which reduces simple air drag and enables the capsule to move faster than through a tube at atmospheric pressure. As it has number of advantages it will very helpful for transport public as well as goods in a very short time and also in low cost. It is new concept so there is some future work will be required for development of this project.

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INTERNET OF THINGS
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ABSTRACT:-In our daily life widely we are using internet now a day's internet is a kind of basic need of people.Internet of things is the internetworking of physical devices,vehical,and other objects which consist of an embedded system with sensors ,actuators and network connectivity that enable to collect exchange of data .

Introduction

Today ,internet application development demand is very high ,basically IoT is the internet of things is a system of interrelated computing devices , mechanical and digital machines ,objects ,animals or people that are provided with the unique identifiers and the ability to transfer data over a network without requiring human to human or human to computer interaction. IoT is a technique which reduces human effort as well as easy access to physical devices .This technique control feature by which any devices can control without any human interaction. As we all know internet can give us any type of solution whatever we need,any kind of information we can get through internet. Things in the IT sense, is the mixture of hardware ,software , data and services. Tings can refer to a wide variety of devices such as DNA analysis devices for environmentalmonitoring, electrical clamps in coastal water,arduino chips in home automatic and many other.. These devices gather useful data with the help of various existing technologies and share that data between other devices.

We are widely using internet at some moment there may question arise that when,how, who invent the internet, what is the history of it?????

The historical background of internet is ,the concept of network is first of all was introduce .The concept of network of smart devices was discussed, with a modified coke machine. In 1994 rezaraji explained the idea of IoT as "small packets of data to a large set of nodes, so to integrate and automate everything from home appliances to entire factories".

The thought of internet of things first became popular in 1999. British entrepreneur KEVIN ASTRON first used the term Internet of things in 1999 while working at auto-ID labs.

KEYSWORDS:-Internet of Things, History, Applications, Advantages, Disadvantages.

A BRIEF HISTORY OF THE INTERNET OF THINGS

The birth of IoT …....The term internet of tings is 16 years old. But the actual idea of connected devices has been around longer, at least since the 70s. back then, the idea was often called "embedded internet" or "pervasive computing". But the actual term "Internet of Things" was conied by KEVIN ASHTON in 1999 during his work at Procter and Gamble. Ashton who was

working in supply chain optimization, wanted to attract senior management attention to a new exciting technology called REID.

Even though Kevin grabbed the interest of some p&g executives, the term internet of things did not get widespread attention for the next 10 years.

The concept of a network of smart devices was discussed as early 1980 with a modified coke vending machine at Carnegie Mwllon University becoming the first interconnected appliance, able to report it inventory and whether and newly loaded drinks cold or not.

APPLICATIONS FOR INTERNET OF THINGS – The Extensive set applications for IOT devices is often divided into consumer's commercial industrial and infrastructure.

CONSUMER APPLICATIONS – A growing portion of IOT devices are created for consumer use including connected vehicles , home automation, verable technology connected health and appliances with remote monitoring capablilities.

SUBTYPES –

SMART HOME –IOT Devices are a part of the larger concept of home automation which can include lighting , heating and air conditioning media and security system , long terms benefits could include energy savings by automatically ensuring lights and electronics are turned off .A smarthome or automated home could based on a platform or hubs that control smart devices and appliances .

ELDER CARE – One key application of a smarthome is to provide assistant for those who with disabilties and elderly individuals. The term enterprise IOT refers to devices used in business and corporate.

1) **COMMERICAL APPLICATION** – The IOT of medical things is an application of IOT for medical and health releated purpose, data collection and analyise for research and monitoring.

2) **INDUSTRIAL APPLICATION**– Also known as IIOT devices acciured and analyise data from connected equipment operational technology, locations and people . Combined with operational technology monitoring devices IIOT helps regulate and monitor industrial systems.

ADVANTAGES

1) **DATA**- The more the information , the easier it is to make the right decision. Knowing what to get from the grocery while you are out without having to check on your own, not only saves time but is convient as well.

2) **Tracking** – the computer keep a track both the quality and the viability of things at home knowing the expiration date of products before one consumes them improves safety and quality of life. Also you will never run out of anything when you need it at lat moment.

3) **Time** – the amount of time saved in monitoring and the number of trips done otherwise would be tremendous .

4) **Money –** the financial aspect is the best advantage. This technology could replace humans who are in charge of moinitoring and maintain supplies.

DISADVANTAGES

1) **COMPABILITY-** As of now, there is no standard for tagging and monitoring with sensors. A uniform concept like the USB or Bluetooth is required which should not be that difficult to do.

2) **Complexity-** there are several oppurtunites for failure with complex systems. For example, both yo and your spouse may recive messages that the milk is over and both of you may end up buying the same. That leaves you with double the quantity required. Or there is a software bug causing the printer to order ink multiple time when it requires a single cartridge.

3) **Privacy/security**- privacy is a big issue with IOT. All the data must be encrypted so that data about mlik you consume isn't common knowledge at the work place or with you friends.

4) **Safety**- There is chance thet the software can be hacked and your personal information misused. The possibilities are endless. Hence all the safety risks become the consumers responsibility.

CONCLUSION- The future of IOT is virtually unlimited due to advances in technology and consumers desires to integrate devices such has smart phone with household machines.

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ARTIFICIAL EYE (VISION)

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Abstract:

Outer retinal degenerations such as retinitis pigmentosa (RP) and age-related macular degeneration (AMD) lead to blindness because of photoreceptor degeneration. To test whether controlled electrical stimulation of the remaining retinal neurons could provide form vision, we electrically stimulated the inner retinal surface with micro-electrodes inserted through the sclera/eye wall of 14 of these patients (12 RP and 2 AMD). This procedure was performed in the operating room under local anaesthesia and all responses were recorded via a video camera mounted on the surgical microscope. Electrical stimulation of the inner retinal surface elicited visual perception of a spot of light (phosphene) in all subjects. This perception was retinotopically correct in 13 of 14 patients. In a resolution test in a subject with no light perception, the patient could resolve phosphenes at 1.75° centre-to-centre distance (i.e. visual acuity compatible with mobility; Snellen visual acuity of 4/200).

Keyword: Artificial vision, Blindness, Visual prosthesis, Retinal prosthesis

Introduction :

   In the current scenario, where over millions of people are affected by visual animalities, it was with a challenge that this project came into being. It aims at restoring vision to the blind. Today, high-tech resources in microelectronics, Optoelectronic, computer science, biomedical engineering and also in vitero retinal surgery are working together to realize a device for the electrical stimulation of the visual system. Artificial Eye, which works through retinal implants, could restore sight to millions of people around the world who suffer from degenerative eye diseases. This technology is still in its infancy, but has progressed to human trials. This report aims to present a brief overview about the basic aspects of this technology and where it's headed.

What is artificial eye?

An ocular prosthesis or artificial eye is a type of craniofacial prosthesis that replaces an absent natural eye following an enucleation, evisceration, or orbital exenteration. The prosthesis fits over an orbital implant and under the eyelids.

How eyes work?

The light coming from an object enters the eye through cornea and pupil. The eye lens converges these light rays to form a real, inverted and diminished image on the retina. The light sensitive cells of the retina get activated with the incidence of light and generate electric signals. These electric signals are sent to the brain by the optic nerves and the brain interprets the electrical signals in such a way that we see an image which is erect and of the same size as the object.

Visual System:

The human visual system is remarkable instrument. Its primary task includes transmitting images with a viewing angle of at least 140deg and resolution of 1 arc min over a limited capacity carrier, the million or so fibres in each optic nerve through these fibres the signals are passed to the so called higher visual cortex of the brain. The nerve system can achieve this type of high volume data transfer by confining such capability to just part of the retina surface, whereas the centre of the retina has a 1:1 ration between the photoreceptors and the transmitting elements, the far periphery has a ratio of 300:1. This results in gradual shift in resolution and other system parameters. At the brain's highest level, the visual cortex an impressive array of feature extraction mechanisms can rapidly adjust the eye's position to sudden movements in the peripherals filed of objects too small to see when stationary. The visual system can resolve spatial depth differences by combining signals from both eyes with a precision less than one tenth the size of a single photoreceptor.
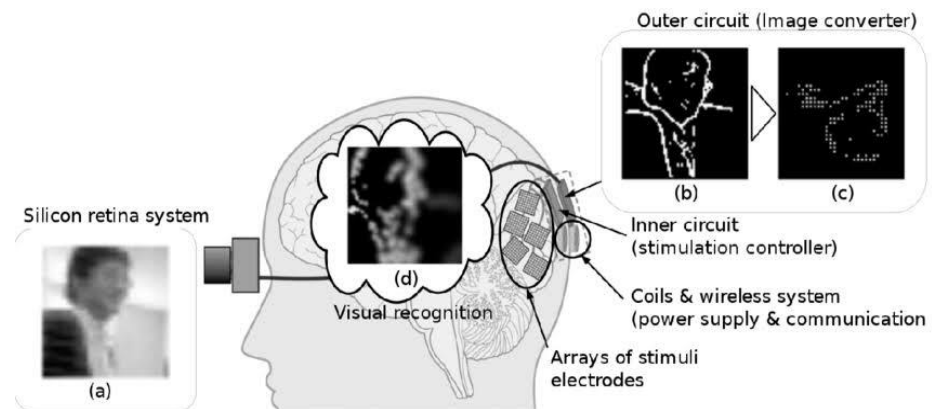
The eye:

The main part in our visual system is the eye. Our ability to see is the result of a process very similar to that of a camera. A camera needs a lens and a film to produce an image. In the same way, the eyeball needs a lens (cornea, crystalline lens, vitreous) to refract, or focus the light and a film (retina) on which to focus the rays. The retina represents the film in our camera. It captures the image and sends it to the brain to be developed.

Conditions Leading to an Artificial Eye:

The following conditions may lead to the necessity of a custom ocular prosthesis or artificial eye. An artificial eye is fit over an orbital implant that is attached to the existing eye muscles. A custom eye prosthesis made with an impression-fitting technique should move as well as the tissue in the socket moves, depending on the shape and edges of the prosthesis.

ENUCLEATION - Removal of entire eye globe. An implant is placed in the tenons capsule to replace volume lost due to eye removal. The four extra-ocular rectus muscles are attached to the implant for motility.

BLIND, PAINFUL EYE - Condition in which eye has no light perception (NLP) and is causing pain. Enucleation is indicated to alleviate pain and avoid risk of sympathetic ophthalmia.

PEFORATING EYE INJURY - Injury to the eye that causes an entrance and exit wound as in for example a BB pellet that enters in one location and exits another.

CATARACT - A condition in which the lens of the eye becomes cloudy, diminishing vision. Cataracts are commonly associated with aging but also may be precipitated by trauma

INFECTION - Many types of infections can result in the loss of vision or the necessity to remove the eye to protect the rest of the body from infection. Shingles, uveitis, endophthalmitis, corneal ulcer, etc.

ENDOPHTHALMITIS - A serious intraocular bacterial infection, often the result of a penetrating eye injury.

Conclusion and Future Scope:

The application of the research work done is directed towards the people who are visually impaired. People suffering from low vision to, people who are completely blind will benefit from this project. The findings regarding biocompatibility of implant materials will aid in other similar attempts for in human machine interface. Congenital defects in the body, which cannot be fully corrected through surgery, can then be corrected. There has been marked increase in research and clinical work aimed at understanding low vision. Future work has to be focused on the optimization and further miniaturization of the implant modules. Commercially available systems have started emerging that integrates video technology, image processing and low vision research. Implementation of an Artificial Eye has advantages. An electronic eye is more precise

and enduring than a biological eye and we cannot altogether say that this would be used only to benefit the human race. In short successful implementation of a bioelectronic eye would solve many of the visual animalities suffered by human's to date. To be honest, the final visual outcome of a patient cannot be predicted. However, before implantation several tests have to be performed with which the potential postoperative function can be estimated. With this recognition of large objects and the restoration of the day-night cycle are the primary goals of the prototype implant

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Impact of cloud computing on every-day life

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Abstract- **Each and every one of us has used cloud computing at least once but haven't realized. Even if you are using a simple E-mail or listening songs online or streaming videos on YouTube, some way or the other you are using a cloud service. Whether we know about it or not cloud computing is a part of our everyday life activities such as Banking, Email, Media Streaming and Ecommerce, all use the Cloud. In this paper, the cloud computing architecture has been assessed, focusing on the various features of the public, private and hybrid cloud models relevant to most individuals and organization. This paper intends to focus on the impact of use of cloud computing in everyday life.**

Keywords- **Cloud computing, IaaS, PaaS, SaaS, Public Cloud, Private Cloud, Hybrid Cloud**

I. **Introduction:** These days, you're probably seeing a lot of new TV commercials for gadgets and Internet services that mention "the cloud" -- or "cloud computing." It may sound like the next big thing, but cloud computing has actually been around for a few years. Some popular examples of cloud services you may already be using are Gmail, YouTube or Google Docs. When people talk about the cloud, they're still

talking about the Internet. In the past, you went online to visit websites and use email, but most of your data and applications still lived locally on your computer. But now, you can store all your files on the Internet in the "cloud" and work directly on them at any time via your Web-connected devices (e.g., smartphone, laptop or desktop computer). Your PC or device is simply what's connecting you to the cloud. Cloud computing is a type of computing that relies on sharing *computing resources* rather than having local servers or personal devices to handle applications. In cloud computing, the word cloud (also phrased as "the cloud") is used as a metaphor for "*the Internet*," **so the phrase** *cloud computing* **means "a type of Internet-based computing," where different services — such as servers, storage and applications —are delivered to an organization's computers and devices through the Internet.**.[1]

Organization: The rest of the paper is organized as follows: in section II, we define architectural components such as Infrastructure as a service (SaaS), Software as a service (SaaS) and Platform as a service (PaaS). Then in section III we discuss about the Types of cloud deployment: public, private, hybrid. In section IV we will see the impact of Cloud on Everyday Life. The Benefits and concerns are covered in section V. Finally we conclude in section VI.

II.   Architectural components

All cloud computing services fall into three basic categories such as infrastructure as a service (IaaS), platform as a service (PaaS) and software as a service (SaaS). These are sometimes called the cloud computing stack, because they build on top of one another. If you know the difference between what they are and how they are you can easily select any one of them according to your requirements

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(a) Infrastructure-as-a-service (IaaS)

This is the most basic category of cloud computing services. With IaaS, you can rent the IT infrastructure such as the servers, virtual machines (VMs), storage, networks, operating systems etc. from a cloud provider on a pay-as-you-go basis.

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[1]Cloud computing, webopedia
http://www.webopedia.com/TERM/C/cloud_computing.html

(b) Platform as a service (PaaS)

Platform-as-a-service (PaaS) refers to cloud computing services that supply an on-demand environment required for developing, testing, delivering and managing software applications. PaaS makes it easier for a developer to quickly build any web or mobile application, without getting worried for the setup and maintenance of the infrastructuresuch as servers, storage, network and databases needed for development, as they are readily available with PaaS.
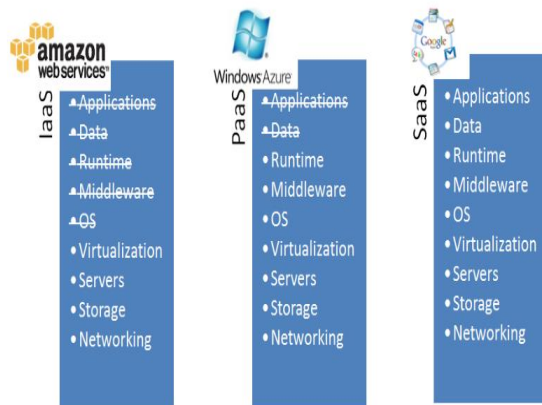

Fig 1: Example of Iaas vs Paas vs Saas
Image source: www.Linkedin.com

(c) Software as a service (SaaS)

Software-as-a-service (SaaS) is a software distribution model over the Internet, in which the applications are hosted on demand and typically on a subscription basis by a service provider. With SaaS, cloud providers handle any maintenance, like software upgrades and security patching. Users can connect to the application over the Internet, using a web browser on their mobile phone, laptops or PC.

III.   Types of cloud deployments

All cloud services are not similar thus enterprises and individuals must determine the hosting solution that best suits their requirements. Below is an outline of three different ways to deploy cloud computing services or resources as follows-

(a) Public cloud

Public cloud is nothing but what most people think when they hear about the term "cloud" and can simply be related to "storage" and sometimes the computing resources such as servers. A public cloud is owned and operated by a third-party cloud service provider which includes the management and maintenance of all the necessary hardware, software and other supporting

infrastructure. The user of a public cloud can access these services and manage their account using a web browser.

Examples of public cloud are: Amazon Cloud Drive, Google Drive, and MicrosoftOneDrive

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(b) Private cloud

The cloud computing resources which are exclusively used by a single business or organization can be referred to a Private cloud. A private cloud can be physically located on the company's on-site datacenter or some companies also pay third-party service providers to host their private cloud. The services and infrastructure are maintained on an individual network in a private cloud.

(c) Hybrid cloud

Hybrid clouds are a combination of public and private clouds which are combined together with the help of technology that allows the data and applications to be shared between them. Due to the easy exchange of data and applications between private and public clouds, hybrid cloud gives a business's greater flexibility and more deployment options.

Fig 1: Features of various types of clouds.
Image source: www.bodhost.com

IV.   Impact of cloud services on everyday life.[2]
93% of businesses use the cloud in some form, And by 2019, 90% of all data traffic will use cloud apps. This means the cloud has become an integrated part of your life probably more than

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[2]www.slideshare.net
https://www.slideshare.net/Dell/6-ways-the-cloud-impacts-everyday-life

you realize. Whether we realize it or not, cloud computing is influencing many daily activities, especially in these ways

(a) Navigation

In order to provide real-time updates, navigation programs need to store massive amounts of information to assist you. Whenever you use a mobile map or GPS tool, you are utilizing the cloud to help you get from point A to point B. With the help of the cloud, you can know the following whenever and wherever you travel Example Traffic, Weather, Road conditions, Accidents

(b) Online Shopping

Thanks to companies like Amazon, Flipkart, E-bay etc. more and more people turn to the internet for their shopping needs for good reason. Many companies now use the cloud to store important information about their customers in order to tailor the buying experience. "Recently viewed", "purchase recommendations", and other features that make our online shopping easier are all because of the cloud.

(c) Social Media

Facebook, Instagram, Twitter, Pinterest, etc. We commonly use at least one of these social networks every day. Think about how many pictures, videos, and messages you sift through in each of these platforms. Whenever you do that, you are accessing into the cloud where most of the shared media on social networks is stored.

(d) Work

On average, both big and small companies offer 16 cloud based applications to assist their employees. If you are using an application at work to share ideas, collaborate, or have an online meeting, then you are using the cloud. Studies even show that access to cloud apps makes an employee happier at work and more satisfied with their work-life balance. Popular cloud apps used in the workplace are Microsoft Office 356, Drop box, Google Apps, Salesforce, GoToMeeting, Zendesk etc.

(e) Leisure

Streaming services like Netflix, Hulu and YouTube pride themselves on providing fast and easy on-demand shows and movies. With so many users and so much data, the cloud is an important tool for them to provide the shows you crave. But it doesn't stop there. Many other activities utilize cloud computing, such as streaming music and e-books. Spotify users listen to on average 1.7 Billion hours of music every month. Netflix users stream 10 billion hours every month.

(f) Personal Storage

It is becoming more popular for phones and computer apps to automatically store personal information and media on cloud services such as I Cloud and Google Drive. By storing music, pictures, and documents in the cloud, more storage space is available on your different devices.

V. Top benefits of cloud computing

Cloud computing is a best way to shift from the traditional way of businesses to a more easy and productive way, buy using the cloud resources.

1. Speed
Most cloud computing services are provided on demand by the service provider, so even vast amounts of computing resources can be allocated in no time, just with a few mouse clicks, giving the user a lot of flexibility.

2. Performance
The largest cloud computing services run on a worldwide network of secure datacenters and are regularly upgraded to the latest generation of fast and efficient computing hardware. This offers several benefits to the users

3. Cost
Cloud computing eliminates the cost of investment for buying hardware and software also there is no need for setting up and running on-site datacenters and maintain the racks of servers, 24 x 7 electricity for power and cooling and hiring the IT experts for managing the infrastructure. You get everything ready-made.

4. Reliability
Cloud computing makes data backup in case of any natural disaster, easier and less expensive, because data can be mirrored at multiple locations on the cloud provider's network.

5. Global scale
With the help of cloud computing services you get the ability to scale elastically. You get the right amount of IT resources such as more or less computing power, storage, and bandwidth; right when it's needed and from the right geographic location.

VI. Disadvantages of Cloud Computing
As every coin has two sides, cloud computing also has its disadvantages. Businesses, especially smaller ones, need to be aware of these cons before using this technology. The Risks Involved in Cloud Computing are.

1. Security in the Cloud
The security is the main issue while using the cloud services because you have to share all your company's sensitive information to a third-party cloud service provider which is the highest risk. Thus while choosing a service provider you should be aware and make sure that the service provider will keep your information totally secure.

2. Technical Issues

Although you can access the information and data stored on the cloud at any time and from anywhere, but sometimes when this system can have some serious dysfunction. You should be aware of the fact that this technology is always prone to breakdown and other technical issues. Even the best cloud service providers have to face these problems, even if there are high standards of maintenance. Also you always need a good Internet connection speed to have access on the server at all times.

3. Prone to Attack

Data stored in the cloud is always vulnerable to external hacker's attacks and threats. As everyone is well aware that nothing is always safe on internet there is always a risk of accessing your confidential data by any external unwanted intruder.

VII. Conclusion

This paper discussed the architecture and popular platform of cloud computing. It also addressed advantages and challenges of cloud computing in detail. In spite of the several limitations and the need for better methodological processes, Cloud computing is undoubtedly the future. Despite its huge dependability on Internet connection, the cloud gives you a better control and accessibility to the data. The flexibility on cost and least security issues makes cloud a better platform than the traditional one. While the cloud technology can prove to be a great success your company, it could also cause harm if not understood and used properly.

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