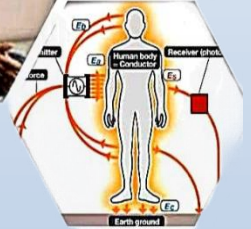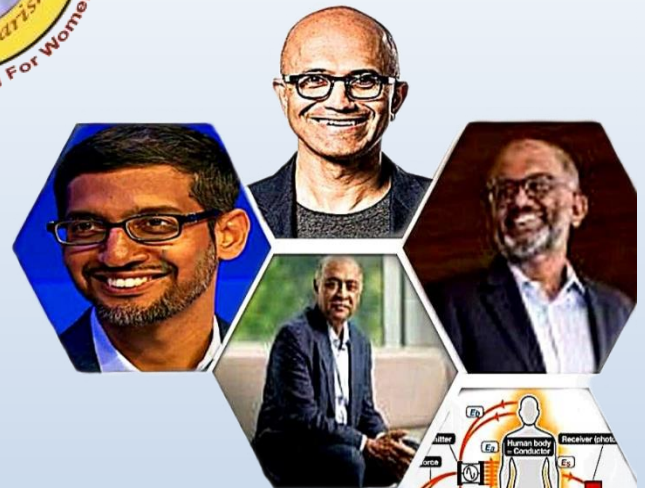# GAYATRI VIDYA PARISHAD COLLEGE OF ENGINEERING FOR WOMEN

[Approved by AICTE NEW DELHI, Affiliated to JNTUK Kakinada]

[Accredited by National Board of Accreditation (NBA) for B.Tech. CSE, ECE & IT – Valid from 2019-20 to 2021-22]

Kommadi, Madhurawada, Visakhapatnam – 530048

Department of Computer Science and Engineering

COSCENGER'S INSPIRE

2021

Volume - 5

GAYATRI VIDYA PARISHAD COLLEGE OF ENGINEERING FOR WOMEN

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Department of Computer Science and Engineering

Institute Vision

To emerge as an acclaimed centre of learning that provides value-based technical education for the holistic development of students

Institute Mission

- Undertake the activities that provide value-based knowledge in Science, Engineering, and Technology
- Provide opportunities for learning through industry-institute interaction on the state-of-the-art technologies
- Create a collaborative environment for research, innovation, and entrepreneurship
- Promote activities that bring in a sense of social responsibility

Department Vision

To evolve into a Centre of learning that imparts quality education in Computer Science and Engineering to produce highly competent professionals.

Department Mission

- Impart computing and technical skills with an emphasis on professional competency and human values.
- Enrich the learning aptitude to face the dynamic environment of the Computer Industry.
- Enhance the analytical and problem-solving capability through contests and technical seminars.

Program Educational Objectives

After successful completion of the program, the graduates will be able to:

PEO-1: Apply both fundamental and advanced knowledge to analyze, design and develop innovative computing products.

PEO-2: Design and develop interdisciplinary and innovative software systems for real-world problems.

PEO-3: Inculcate soft skills, ethical conduct and an ability to engage in lifelong learning to serve the societal and environmental needs.

Program Specific Outcomes

Engineering Graduates will be able to:

PSO-1: Develop real-time applications by applying software engineering principles and implementing with emerging technologies in the field of Computer Science and Engineering.

PSO-2: Apply the knowledge of data analytics, soft computing, information security and other domains in Computer Science and Engineering for developing software systems.

From the Principal's DESK

It is pleasure to know that GVPCEW is bringing out the magazine of CSE department" **COSCENGER'S INSPIRE - 2021**" for the Academic year 2020-21.

This institution constantly strives in the all-round development of the students through its endless efforts. COSCENGER'S INSPIRE is one such endeavor providing a wide spectrum of engineering and artistic edifice, swaying from serious thinking to playful inventiveness. The inspiring women students at GVPCEW are brimming with zeal for life empowering themselves with skills and creativity.

I am happy that there is a dedicated team of staff and students who have brought out **COSCENGER'S INSPIRE - 2021**. They have presented the stupendous achievements of CSE students of GVPCEW in the field of academics, sports and extra- curricular activities.

I extend my heartiest congratulations to the editorial board and all those who have shelved their valuable time to elevate this magazine to unprecedented heights. I wish the readers have a delightful reading. May all our students soar high in uncharted skies and bring glory to the world and their profession with the wings of education.

-   **Dr.K.V.S.Rao**

EDITORIAL

We are happy to bring out an issue of the departmental magazine "**COSCENGER'S INSPIRE-2021**" for the year 2020-21.

This issue has the faculty article by Dr. N. Sharmili, Associate Professor, Student articles, snippets on technology, and other regular features. The student's department activities in the preceding semester/year have been listed in brief.

We thank all the department members for continuous help bringing out this issue.

Editorial Team:

Faculty Co-Ordinator: Mr. Addanki Udaya Kumar

Assistant professor,

Department of CSE.

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D. Swapana	20JG1A4214

For Any Suggestions, Mail to: csemagazine@gvpcew.ac.in

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The Role of Blockchain in the Current IT Industry Scenario

Dr. N. Sharmili
Associate Professor
Department of CSE

1. INTRODUCTION

Blockchain is a shared, immutable ledger that facilitates the process of recording transactions and tracking assets in a business network. As a novel technology, blockchain has a broad impact on various business practices. Since the immense success of cryptocurrencies (e.g., bitcoin) and the incrementally mature technology development in various industries, blockchain mania has been at its apex in recent years.

According to Singh and Kim, the standard features of blockchain intriguing to companies are higher security, higher transparency and higher reliability. In particular, data stored with blockchain technology are impossible to modify, tamper or rebuild. Every "block" has a copy of all communication data, so any error or flaw can be easily found by the network members. The aforementioned benefits of blockchain technology in business are derived from its unique characteristics, such as decentralization so that the third party of the central trusted agency is no longer needed; persistency through which valid and invalid transactions will be recorded and discovered; anonymity which makes the real identity of the users concealed; and suitability by which transactions can be verified and tracked.

From Casino, Dasaklis, and Patsakis, the current prevalent areas of study in blockchain technology include:
- Supply chain and energy section
- Data management and data distribution
- Cryptocurrency and prediction marketplace
- Intellectual property, insurance and counterfeit
- Identity management, e-voting, public administration, notary and law, proof of the existence
- IoT e-business, distributed device management
- Electronic medical record
- Reputation and certification management
- Anonymization and secure storage

Though studies are starting to investigate how blockchain can be adopted from multiple perspectives in the above-mentioned areas, research in management and application perspectives is still paucity.

2. BLOCKCHAIN OVERVIEW

Blockchain is a decentralized system. It refers to the collective maintenance of a technical solution that maintains a continuous record file as a reliable database through decentralization. It was initially used extensively on Bitcoin. Bitcoin is an example, its Blockchain consensus mechanism is a proof of work algorithm (POW). Each node competes based on its respective computing power to solve a math problem that is complicated to solve but easy to check. The first node that solves this problem will get the latest block accounting correct.

Blockchain data is stored on each node, and the nodes communicate with one another through the network. Each node manages an entire Blockchain data. The node will validate the obtained transactions and include them in the new. In today's social structure a large part of the economic behavior individuals depends on trust where regularly two sides interact with a third party, thereby creating a trusting relationship. Typically, there is a reciprocal non-confidence between these two parties that has long been focused on trust assurances given by third parties, hence it is necessary to take note of the characteristics of Blockchain technology that help subvert the basis of human interactions that have been practiced for thousands of years. Using Blockchain one can build a data record system that does not rely on a trustworthy third party as a transaction broker, and that is freely shared and secure at the same time. The characteristics of Blockchain technology are

1) **Protection and Privacy:** Public key encryption in cryptography is used in Blockchain to secure data security. Users can create their key pairs, including a private key and a public key. The private key is used to sign data, and the public key is used to validate the validity of the signed data. As long as the user keeps the private key from escaping, the data will remain stable.

When the computer is turned on, only one address is used for authentication, and the anonymous address can hardly be mapped person, protecting the user's privacy.

2) **Decentralization:** By decentralized operations and storage, each node of the Blockchain implements the authentication, distribution, and maintenance of information at the local side. Blockchain technology does not rely on an additional third-party control, has no centralized control, and is self-contained.

3) **Untraceability:** Once a block has been decided in the Blockchain, it cannot be tampered with. According to the following conditions, if a block in the Blockchain is changed, it will be automatically identified and refused by other nodes.

4) **Transparency:** The data in Blockchain is entirely transparent and everyone can ask. Inside the Information flow, one can easily see who is transferring data to whom as Blockchain keeps a constant transaction log file.

5) **Flexibility:** Blockchain's code is open source, and anybody can use it to create their version. There are now several flexible Blockchain systems available, and users can also redevelop a new Blockchain network if they wish so. Blockchain is an unlimited technology meaning that users can build several apps built on Blockchain.

3. BLOCKCHAIN 1.0 - BITCOIN

Bitcoin is a decentralized virtual currency that is not dependent on particular currency institutions to circulate. The problem of virtual currency stability, such as the double-spending problem, can be fully solved by using the Blockchain consensus mechanism to exchange virtual currency transactions. It has the following four characteristics:

- Decentralized peer-to-peer network

- Public transaction ledger

- Fixed currency circulation

- Decentralized transaction verification

Bitcoin is an example of Blockchain 1.0. Transaction data is the information stored in the block. Its primary use is as a decentralized electronic currency. Later, there was more Bitcoin-based research and development, such as color coin. Several other electronic currencies use the same protocol, such as Litecoin.

4. BLOCKCHAIN 2.0 AND LATER VERSIONS ETHEREUM

Vitalik Buterin presented the Ethereum white paper at the end of 2013, and the yellow paper was published in 2014. Ethereum Frontier Framework was introduced in July 2015 and is still being improved to this day. Ethereum is a Blockchain technology network. Unlike Bitcoin's Blockchain technology, Ethereum is no longer limited to transaction records and is more powerful and stable than Bitcoin. Ethereum is a Blockchain framework that can be used to create smart contracts using a programming language with turning completeness. On Ethereum, anyone can create smart contracts or other decentralized applications. Users can configure access permissions, transaction types, state conversion equations, and so on, as well as create any rules they like. Users of Ethereum will first create a smart contract in Solidity, then convert the Solidity code into Ethereum bytecode, insert the byte code into a transaction, and publish the transaction to the network. When Ethereum miners receive the transaction, they will record it in a block and run the byte code in the Ethereum virtual machine each time this smart contract's transaction is called. To interact with an Ethereum smart contract, the user must submit information packaged in a transaction to communicate with the smart contract and interact with the smart contract by following the rules defined within the smart contract. If effective, the smart contract's state will be changed on each miner's local storage. As our backend network, we chose Ethereum, a Blockchain 2.0. Since our framework needs multi-state and versatility in block storage to record data, Ethereum would be a much better option than Bitcoin if we need to configure our smart contracts system. Our system's block time must also be short for the trading response time to be sufficient by customer standards. Furthermore, using a Turing complete method makes writing a smart contract in the Blockchain easier than in previous models.

5. CONCLUSION

A growing number of Blockchain-based applications are being developed. Some of the applications, such as digital currency, stock trading, or financial securities, focus on payment verification. Some people are interested in integrating Blockchain and the Internet of

Things (IoT), such as recording IoT system data. Other decentralized Blockchain applications include games, gambling, online voting, car rental, and many more. Blockchain is a distributed and immutable ledger technology that provides solutions to two key challenges that internet-based applications is facing – trust and transparency. Blockchain uses smart contracts to facilitate the automation of transactions and eliminate the need for manual intervention in transaction processes that are prone to fraud or error. In summary, Blockchain provides the highest level of transparency which offers solutions to the efficient implementation of various applications free from fraud.

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NON-FUNGIBLE TOKEN (NFT)

D. SREELEKHA

(19JG1A0533)

Department of CSE

ABSTRACT:

Techno-friendly readers may have noticed that there is a sudden surge of interest in Non-Fungible Tokens (NFTs) across the internet and may have even purchased some for themselves. Some more Luddite readers like I may have still been grappling with this 'blockchain thing', and now find ourselves needing to know about NFTs as well! What exactly are they? Why the sudden interest in them? What implications do they have, especially on copyright law?

1. INTRODUCTION

An NFT is a unique digital asset (token) that is minted, recorded, and traded on blockchain technology and can be used to determine the authenticity and ownership of a particular asset or item (an artwork, a music album, a tweet, and possibly even tangible property). The ownership of an NFT is recorded in the blockchain, and can be transferred by the owner, allowing NFTs to be sold and traded. NFTs typically contain references to digital files such as photos, videos, and audio. Because NFTs are uniquely identifiable, they differ from cryptocurrencies, which are fungible. The market value of an NFT is associated with the digital file it references.

An NFT is a digital asset that represents real-world objects like art, music, in-game items and videos. They are bought and sold online, frequently with cryptocurrency, and they are generally encoded with the same underlying software as many cryptos. Although they've been around since 2014, NFTs are gaining notoriety now because they are becoming an increasingly popular way to buy and sell digital artwork. A staggering $174 million has been spent on NFTs since November 2017.

NFTs are also generally one of a kind, or at least one of a very limited run, and have unique identifying codes. "Essentially, NFTs create digital scarcity," says Arry Yu, chair of the Washington Technology Industry Association Cascadia Blockchain Council and managing director of Yellow Umbrella Ventures.

2. HOW IS NFT DIFFERENT FROM CRYPTOCURRENCY?

NFT stands for non-fungible token. It's generally built using the same kind of programming as cryptocurrency, like Bitcoin or Ethereum, but that's where the similarity ends.

Physical money and cryptocurrencies are "fungible," meaning they can be traded or exchanged for one another. They're also equal in value—one dollar is always worth another dollar; one Bitcoin is always equal to another Bitcoin. Crypto's fungibility makes it a trusted means of conducting transactions on the blockchain.

NFTs are different. Each has a digital signature that makes it impossible for NFTs to be exchanged for or equal to one another (hence, non-fungible). One NBA Top Shot clip, for example, is not equal to EVERYDAYS simply because they're both NFTs. (One NBA Top Shot clip isn't even necessarily equal to another NBA Top Shot clip, for that matter.)

3. HOW DOES AN NFT WORK?

NFTs exist on a blockchain, which is a distributed public ledger that records transactions. You're probably most familiar with blockchain as the underlying process that makes cryptocurrencies possible.

Specifically, NFTs are typically held on the Ethereum blockchain, although other blockchains support them as well.

An NFT is created, or "minted" from digital objects that represent both tangible and intangible items, including:

- Art
- GIFs
- Videos and sports highlights
- Collectibles
- Virtual avatars and video game skins
- Designer sneakers
- Music

Even tweets count. Twitter co-founder Jack Dorsey sold his first ever tweet as an NFT for more than $2.9 million.

Essentially, NFTs are like physical collector's items, only digital. So instead of getting an actual oil painting to hang on the wall, the buyer gets a digital file instead.

They also get exclusive ownership rights. That's right: NFTs can have only one owner at a time. NFTs' unique data makes it easy to verify their ownership and transfer tokens between owners. The owner or creator can also store specific information inside them. For instance, artists can sign their artwork by including their signature in an NFT's metadata.

4. WHAT ARE NFT's USED FOR?

Blockchain technology and NFTs afford artists and content creators a unique opportunity to monetize their wares. For example, artists no longer have to rely on galleries or auction houses to sell their art. Instead, the artist can sell it directly to the consumer as an NFT, which also lets them keep more of the profits. In addition, artists can program in royalties so they'll receive a percentage of sales whenever their art is sold to a new owner. This is an attractive feature as artists generally do not receive future proceeds after their art is first sold.

Art isn't the only way to make money with NFTs. Brands like Charmin and Taco Bell have auctioned off themed NFT art to raise funds for charity. Charmin dubbed its offering "NFTP" (non-fungible toilet paper), and Taco Bell's NFT art sold out in minutes, with the highest bids coming in at 1.5 wrapped ether (WETH)—equal to $3,723.83 at time of writing.

Nyan Cat, a 2011-era GIF of a cat with a pop-tart body, sold for nearly $600,000 in February. And NBA Top Shot generated more than $500 million in sales as of late March. A single LeBron James highlight NFT fetched more than $200,000.

Even celebrities like Snoop Dogg, Lindsay Lohan, Amitabh Bachchan and Salman Khan are jumping on the NFT bandwagon, releasing unique memories, artwork and moments as securitized NFTs.

5. WHO CAN CREATE NFT FOR ARTWORK?

Under Section 14 of the Copyright Act of 1957, the copyright owner of a creative work owns a bundle of rights, including the right to make reproductions and adaptations. Upon purchase of an NFT that relates to a creative work, the buyer receives a copy of the underlying work (in JPEG, PDF, or MP4 format) and the NFT i.e., tokens get added to the buyer's digital wallet. Since the sale of an NFT involves making a copy of the creative work and communicating it to the buyer, any unauthorized reproduction, distribution, or adaptation may amount to copyright infringement. Unfortunately, there are increasing reports of artists finding their artworks on NFT trading websites. NFT marketplaces such as OpenSea are battling these concerns by including "Notice and Takedown" and "Repeat Infringer" policies in its Terms of Use.

6. POPULAR NFT MARKET PLACES

Once you've got your wallet set up and funded, there's no shortage of NFT sites to shop.

Currently, the largest NFT marketplaces are:

1) **OpenSea.io:** This peer-to-peer platform bills itself a purveyor of "rare digital items and collectibles." To get started, all you need to do is create an account to browse NFT collections. You can also sort pieces by sales volume to discover new artists.

2) **Rarible:** Similar to OpenSea, Rarible is a democratic, open marketplace that allows artists and creators to issue and sell NFTs. RARI tokens issued on the platform enable holders to weigh in on features like fees and community rules.

3) **Foundation:** Here, artists must receive "upvotes" or an invitation from fellow creators to post their art. The community's exclusivity and cost of entry—artists must also purchase "gas" to mint NFTs—means it may boast higher-caliber artwork. For instance, Nyan Cat creator Chris Torres sold the NFT on the Foundation platform. It may also mean higher prices — not necessarily a bad thing for artists and collectors seeking to capitalize, assuming the demand for NFTs remains at current levels, or even increases over time.

Although these platforms and others are hosts to thousands of NFT creators and collectors, be sure you do your research carefully before buying. Some artists have fallen victim to impersonators who have listed and sold their work without their permission.

In addition, the verification processes for creators and NFT listings aren't consistent across platforms — some are more stringent than others. OpenSea and Rarible, for example, do not require owner verification for NFT listings. Buyer protections appear to be sparse at best, so when shopping for NFTs, it may be best to keep the old adage "caveat emptor" (let the buyer beware) in mind.

SHOULD YOU BUY NFT's?

Just because you can buy NFTs, does that mean you should? It depends, Yu says.

"NFTs are risky because their future is uncertain, and we don't yet have a lot of history to judge their performance," she notes. "Since NFTs are so new, it may be worth investing small amounts to try it out for now."

In other words, investing in NFTs is a largely personal decision. If you have money to spare, it may be worth considering, especially if a piece holds meaning for you.

But keep in mind, an NFT's value is based entirely on what someone else is willing to pay for it. Therefore, demand will drive the price rather than fundamental, technical or economic indicators, which typically influence stock prices and at least generally form the basis for investor demand.

All this means, an NFT may resale for less than you paid for it. Or you may not be able to resell it at all if no one wants it.

7. CONCLUSION

Finally, NFTs are currently taking the digital art and collectibles world by storm. Digital artists are seeing their lives change thanks to huge sales to a new crypto-audience. And celebrities are joining in as they spot a new opportunity to connect with fans. But digital art is only one way to use NFTs. Really they can be used to represent ownership of any unique asset, like a deed for an item in the digital or physical realm.

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ACCELERATION OF CLOUD COMPUTING IN COVID-19

YELLANKI SAI MEGHANA
18JG1A05A9, Department of CSE

1. INTRODUCTION

The impact of the novel coronavirus (COVID-19) epidemic has prompted a global lockdown and raised alert levels in countries around the world. With over 97.46 million positive cases worldwide, social isolation appears to be the only practical method of containing the virus at this time. As a result, businesses encounter obstacles and struggle to adjust to the new reality of working remotely. The (COVID-19) has presented us with numerous new obstacles, forcing us to adapt new working methods. Cloud computing is becoming a vital technology due to the need for access to critical applications and infrastructure scalability. Cloud computing has become indispensable. In several aspects of life, the cloud has played an important role in our fight against the epidemic.


Many countries have made the decision to shut down schools, colleges, and institutions. The epidemic encapsulates the dilemma faced by politicians in selecting whether to close schools (to limit interaction and preserve lives) or to keep them open (allowing workers to work and Preserving the economy). Many homes throughout the world are experiencing this tremendous disruption in the short term: home schooling is a huge blow not only to parental productivity, but also to children's social lives and learning. Education is moved online at an unprecedented and unproven pace. Importantly, these interruptions may not just be a short-term concern for the impacted groups, but they may also have long-term effects.

2. CONCEPTS OF CLOUD COMPUTING

Private cloud deployment is a model for offering ubiquitous, ergonomic, and on-demand network access to a shared collection of configurable computing resources (such as software, utilities, storage, networks, and servers) that can be quickly deployed and released with low effort. There is less interaction with service providers or support employees. Cloud computing has several advantages, including scalability, management, and flexibility. On-demand operation, economy, universality, comfort, leasing diversity, reliability, and versatility are all advantages of cloud infrastructure. A cloud customer can use these resources on demand to develop, operate, and host apps and services on any device, anytime, anywhere.
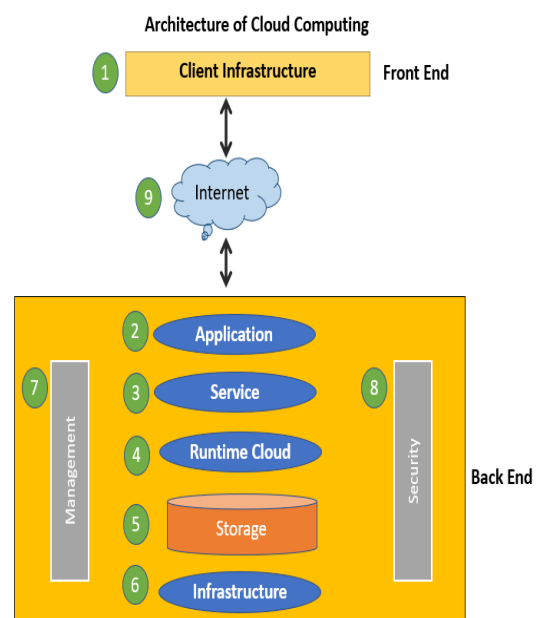
The three service models - Platform as a Service (PaaS), Program as a Service (SaaS), Infrastructure as a Service (IaaS), and cloud service delivery through a Cloud Service Provider (CSP). It also summarizes the four deployment models - public cloud, hybrid cloud, private cloud, and community cloud, while highlighting the computing

infrastructure sharing model for delivering cloud services. Moreover, it provides an integrated view of five essential and unique features of each cloud service - resource pooling, self-service on demand, rapid flexibility, scaled services, and wide network access.

3. CLOUD COMPUTING SERVICE MODELS

1. The bottom of the paradigm is Infrastructure as a Service (IaaS). Computer hardware (processing, memory, network storage, server/virtual machine, and data centre) is provided as a service through IaaS.
2. Platform-as-a-Service (PaaS) PaaS is a service paradigm that provides development, tools, frameworks, architecture, software, and integrated development environments.
3. SaaS (Software as a Service) is a collection of online computer services. Among delivery models, SaaS is at the top of the list. Application deployment by a third party is permitted.

4. CORE CONCEPTS OF CLOUD COMPUTING

This section discusses the basic components of cloud computing. These components include a diverse set of services that can be accessed from anywhere on the internet.

Virtualization is an important part of cloud implementation. It's an important part of the cloud that allows multiple users to share physical resources. It gives the program a simulated instance of a resource or unit, such as an operating system, servers, network infrastructure, or storage devices that it may use in a variety of execution scenarios.

Multi-tenancy: In a multi-tenant system, several clients or consumers cannot see or access each other's data, but they can share resources or applications in an implementation environment, even if they are not affiliated with the same company. Multi-tenancy facilitates the most efficient utilization of hardware and data storage technologies.

Cloud Storage:
Cloud storage is a component that is remotely maintained, controlled, and backed up and made available via the network for users to access data.

The hypervisor (hypervisor):
The virtual machine monitor, sometimes known as the boss, is an important part of virtualization. It allows multiple Virtual Machines (VMs) to run on a single hardware host. It manages and tracks the different operating systems that share the same physical system.

Cloud Network: A typical data center has hundreds or thousands of servers; a cloud network can manage more than one traditional data center. The cloud requires a secure network architecture called cloud networking to efficiently develop and manage storages. It requires an internet connection as well as a virtual private network, which allows the user to view information securely.

5. APPLICATIONS OF CLOUD COMPUTING

Since its introduction, cloud computing has swept the digital world. The method of managing, storing, or processing data on a network of remote servers hosted on the Internet is known as cloud computing. This information had to previously be saved on local servers or personal PCs, which limited storage space. Cloud computing, on the other hand, allows users to access nearly endless storage while still enhancing remote processing. The potential of cloud computing has grown significantly as a result of improved utilization, adaptability, cost reduction, and flexibility. There are several advantages to using machine learning on the cloud. Cloud computing applications have also expanded to include mobile phones.

LEONARD ADLEMAN

G BLESSITTA
19JG1A0536, Department of CSE

 "A pioneer who always keeps pushing the limits"
Leonard Adleman (born December 31, 1945) is an American computer scientist. He is one of the creators of the RSA encryption algorithm, for which he received the 2002 Turing Award, often called the Nobel prize of Computer science. He is also known for the creation of the field of DNA computing.Adleman with Rivest and Shamir eventually pioneered the one-way function that is now used in public key cryptosystems with Rivest and Shamir thinking up possible one-way functions while Adleman attempted to break them. All together, 42 different functions were tried until they found one that Adleman could not break. This became the basis for the widely used cryptography system which came to bear the initials of the trio: RSA (Rivest, Shamir, and Adleman).

Adleman made a discovery in AIDS research where he discovered that when HIV killed off a certain type of white blood cell (T-8's), it would be accompanied by an unexpected spike in another T-cell, the T-4.

Dr. Adleman's interest in molecular biology, especially the HIV virus, also bore fruit. In 1983, one of Adleman's students, Frederick Cohen, created the first (or one of the earliest) self-replicating programs, which copied itself to other programs to spread.

Adleman saw the similarities between his biological work on HIV and what Cohen was doing, and he called Cohen's creation a computer "virus." Cohen credited Adleman with creating the name in his 1984 paper, "Experiments with Computer Viruses."

In recent years Adleman has focused on the interface between biology and computation. He is the father of the field of DNA computation. DNA can store information and proteins can modify that information. These two features assure us that DNA can be used to compute all things that are computable by silicon based computers. Adleman showed experimentally that DNA can be used to compute by solving an instance of the SAT problem, one of the central problems of computer science. Adleman currently dedicates himself to research in complex analysis. In recent years Adleman has focused on the interface between biology and computation. He is the father of the field of DNA computation. Many awards are achieved by him like 2000 IEEE IEEE Kobayashi Award,1997 MIT RSA Chair,

1996 ACM ACM Paris Kanellakis Award for Theory and Practice, etc..

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<u>STORY</u>

Rocks, Pebbles, and Sand

A professor once came into the classroom carrying a glass jar filled with rocks, pebbles, and sand. The students were amused to witness his antics. He started by filling the jar with rock parts till he couldn't add any more.

When he asked the pupils if the jar was full, they all said yes. He then began placing pebbles inside the jar, which entered through small gaps, and shaking the jar to allow the pebbles to enter the empty spaces between the rocks.

When he asked the pupils the same question, they answered the jar was full once more. Finally, he poured the sand into the jar, which filled in the crevices between the sand grains.

The professor explained that this is how you should set priorities in life. Rock is like your family, while pebbles are like your career while sand is like the least priorities in life and unnecessary quarrels and egos. If you put sand on the jar first, it will get easily filled up leaving no space for rocks and pebbles.

Moral: Rather than wasting time and effort on unimportant elements of life, you should determine your priorities and establish a sound strategy for achieving them.

Quiz

1. Take our quiz to find out how much you know about the technology that dominates our modern lives.
1. What year was the world's first mobile phone handset released for sale?

a) 1979 **b) 1983** *c) 1991* *d) 2001*

Explanation: First-generation analogue systems started in 1979 in Japan, but the first commercially available mobile phone handset didn't appear until 1983 in the US.

2. The World Wide Web was created in …

a) 1968 *b) 1972* **c) 1989** *d) 1992*

Explanation: The World Wide Web was created in 1989 by Tim Berners-Lee and scientists at CERN. However, it was not made publicly available until 1992.

3. Who designed the 'first' small computer for home use?

a) John Blankenbaker *b) Steve Wozniak* *c) Chuck Peddle* *d) Steve Leininger*

Explanation: According to the Computer History Museum the world's first computer small enough to be used at home was the Kenbak-1 designed by John Blankenbaker in 1970.

4. When was the first email sent over the internet?

a) 1961 *b) 1965* **c) 1971** *d) 1988*

Explanation: While researchers at MIT discovered the possibility of leaving messages on a shared computer as early as 1961, it wasn't until 1971 that the first email was sent between computers by Ray Tomlinson across ARPANET, the early version of the internet.

5. When was the internet created?

a) 1968 *b) 1972* *c) 1982* *d) 1995*

Explanation: The US Defense Force commissioned a computer network for its think tank ARPRA in 1968, called ARPRAnet. This was publicly demonstrated in 1972.

JOKES

1. Which animal is the absolute expert in navigating the internet? A spider. Because spiders know all about the web!

2. Why can you never find a single AC in the rooms or offices of a computer programmer? Because they love to open Windows all the time!

3. Why are humans known to be extremely afraid of computers? Probably, because they byte!

4. What do computers do for fun and where do they go for parties? Computers love dancing, especially at disc-OS!

5. What's a computer programmers house made of? Firewalls!

FUN TECH FACTS

1. Over 6,000 new computer viruses are created and released every month. 90% of emails contain some form of **malware**!

2. NASA's internet speed is **91 GB per second**.

3. The first **computer mouse** was made in 1964 by Doug Engelbart. It was rectangular and made from wood!

4. One **Petabyte** (PB) = 1024 (TB). To put this in perspective, a 50PB hard drive could hold the entire written works of mankind from the beginning of recorded history in all languages.

5. Alexa is always listening to your conversations. **Alexa** stores all of your dialogue history in the cloud to improve the Alexa experience.

CROSSWORD
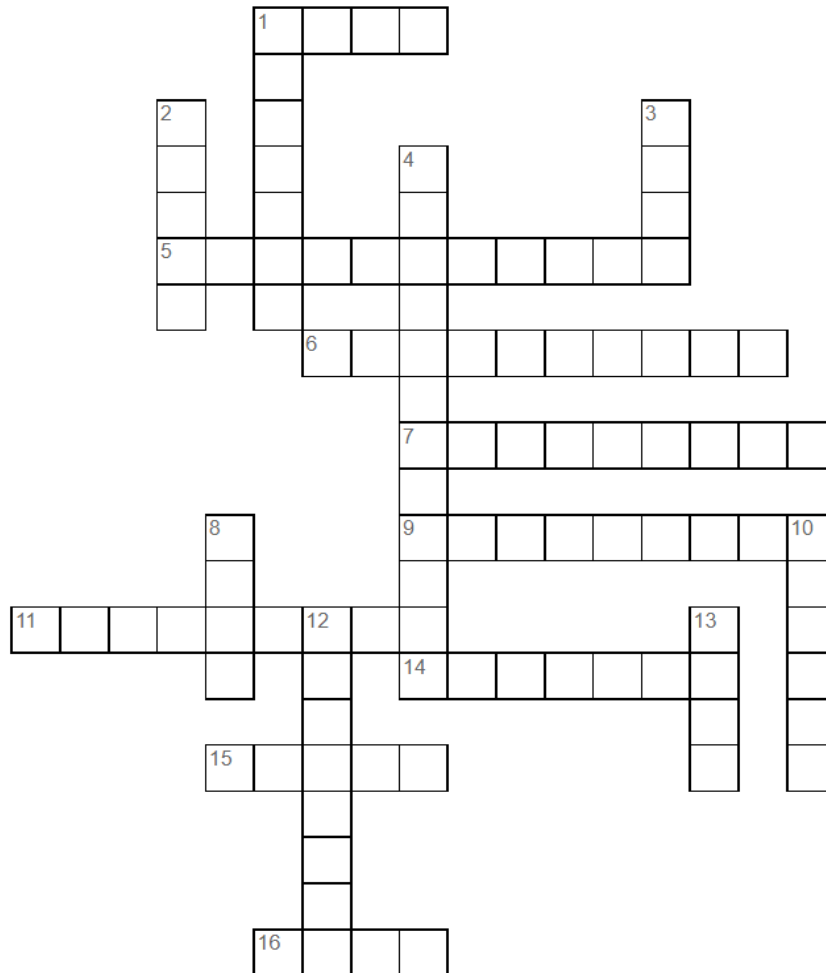
Across

1 A movie or picture is what type of file?

5 Type of communications where both received and sender are active at the same time.

6 A link should aways be _____.

7 When a computer connects to the internet it is assigned an _____?

9 Type of Cache that makes web browsing faster.

11 Scribbs headquarters is located?

14 Used to view web pages on the internet.

15 Search engines use web crawlers and _____ processors.

16 _____ Editor is a type of program used to edit plain text files.

Down

1 Edu and Com are examples of?

2 True or False, people read faster on a computer monitor than paper.

3 HTML is made up of _____.

4 WWW stands for?

8 Permissable number of images you can use from one artist or photographer.

10 A search _____ is used to search the internet.

12 Copyrights last a _____ plus 70 years.

13 True or False, Information is considered copyright unless it explicitly says it is fee to use.

Picking Up the Pieces from The Art Studio

19JG1A05B6

19JG1A056

19JG1A0584

TOP HACKER RANK HACKOS FROM CSE DEPARTMENT:

Hacker Rank is a technology hiring platform that is the standard for assessing developer skills for over 2,800+ companies around the world. By enabling tech recruiters and hiring managers to objectively evaluate talent at every stage of the recruiting process, Hacker Rank helps companies hire skilled developers and innovate faster!

S.No.	Name of the Student	Roll number	HACKOS
1.	Y. Harsha Sravani	19JG1A05C5	5277
2.	TVL Prathyusha	19JG1A05B4	4464
3.	Syed Suhana	19JG1A05B2	4229
4.	NNS Harani	19JG1A0578	4201
5.	M Harshitha	19JG1A0576	3624
6.	Thatavarthi Harshini	19JG1A05B5	3611
7.	P. Kavya	19JG1A0593	3311
8.	Y. Sai Anusha	19JG1A05C2	3231
9	S S L Sindhura	19JG1A05A3	3046

TOPPERS IN NPTEL 2020

National **P**rogramme on **T**echnology **E**nhanced **L**earning (NPTEL) is a project of MHRD initiated by seven Indian Institutes of Technology along with the Indian Institute of Science, Bangalore in 2003, to provide quality education to anyone interested in learning from the IITs.

The main goal was to create web and video courses in all major branches of engineering and physical sciences at the undergraduate and postgraduate levels and management courses at the postgraduate level. Since 2013, through an online portal, 4-, 8-, or 12-week online courses, are being offered. The enrolment to and learning from these courses involves no cost. An in-person, proctored certification exam (optional) will be conducted at Rs.1000/- per course and a certificate is provided through the participating institutions and industry.

Total No of NPTEL Certificates: **14**

CONTRIBUTIONS & ACHIEVEMENTS

List of Department Activities conducted in the Academic Year: 2020-21

| Sl.No	Date	Action Taken	Resource	Class/Section attended
1	24-06-2021	An Industry Expert on "Art of Machine Learning"	Ms. Ekta Shah, Senior Machine Learning Engineer, Quantiphi, Mumbai	CSE & IT
2	29-05-2021	"Building a website using Django"	Jaya Preethi Chamarthi (18JG1A0537) & Chebrolu Lakshmi Prasanna(18JG1A0517)	II CSE
3	28-11-2020	A webinar on "Big Data Analytics"	Mr. Rama Krishna Reddy Ranabothu, Manager Projects, Cognizant Technologies	CSE
4	18-10-2020	Event on "Major League Hacking"	Harika Kasimahanthi (18JG1A0546) and Jaya Preethi Chamarthi (18JG1A0537) who got trained in MLH organized by Google	II CSE
5	05-09-20 - 15-06-21	value-added course on "UIPath RPA Design and Development Module-1"	Mr. PVK Chitanya, Assistant Professor, Dept. of ECE & Mr. M Santosh, Assistant Professor, Dept. of IT	III CSE & IT(2018 BATCH)
6	31-07-2020	"Online Puzzle Solving Context" Event on online platform HackerRank	Dr NB Venkateswarulu, Professor, CSE Department	CSE & IT (170)
7	31-07-2020	Event on "Group Discussions"	Bhavita Potturi (17-513), Sindhura Chintalapati (17-523), Chayasri Satyavarapu (17JG1A05A0) and Naba Dharani (17JG1A0579)	I CSE
8	25-07-2020	Event on "Just A Minute (JAM)"	Bhavita Potturi (17JG1A0513), Sindhura Chintalapati (17JG1A0523), Chayasri Satyavarapu (17JG1A05A0) and Naba Dharani (17JG1A0579)	II CSE
9	23-06-20	A Webinar on "Full Stack Web Development using M-E-A-N TECHNOLOGIES"	Mr. R.D.D.V Siva Ram, Assistant Professor, Dept. of CSE, JNTUK-V.	CSI Members
10	10-06-20 - 13-06-20	An Online Quiz on "Machine Learning"	Mr. K Purushotham Naidu, Assistant Professor, Dept. of CSE,	CSE & IT (370)

PLACEMENTS INFORMATION

For the batch of 2017-2021:

- No. of students placed: **74**

- No. of offers received: **111**

Branch wise offers 2017-2021

36*
19*
111*
61*
■ CSE   ■ ECE   ■ EEE   ■ IT
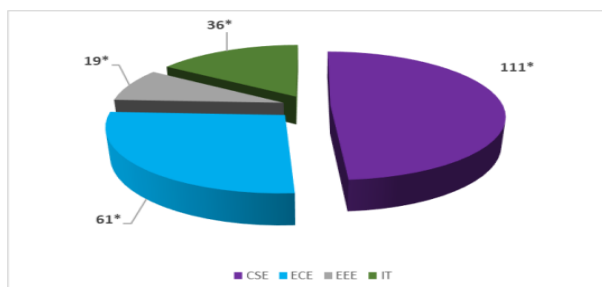
2017-2021 BATCH OFFERS IN BRANCH WISE