# CAMPUS CHRONICLES

2021

## TECHNICAL MAGAZINE

## VISION

To empower female students with professional education using creative & innovative technical practices of global competence and research aptitude to become competitive engineers with ethical values and entrepreneurial skills.

## MISSION

To impart value based professional education through creative and innovative teaching-learning process to face the global challenges of the new era technology.

To inculcate research aptitude and to bring out creativity in students by imparting engineering knowledge imbibing interpersonal skills to promote innovation, research and entrepreneurship.

## ABOUT US

Vignan's Institute of Management and Technology For Women , is the brainchild of Dr. L Rathaiah, Chairman, Vignan Group of Institutions, was founded during, August, in 2008, with four branches of Engineering.

VMTW is an exemplary institution of higher learning with a mission of pursuing excellence in education and research. The institution, with their diverse and dynamic community of about 2000 students offers a distinctive combination of some of the finest facilities for MCA, MBA and M.Tech. with 5 different graduate, and undergraduate programs ECE, CSE, IT accomplished faculty, world class facilities with hostel set on a sprawling area of 22 acres sylvan surroundings of mango groves and greenery.

While students at VMTW immerse themselves in academics, the college has a lot in store for them outside the classroom. Student life includes participation in sports, recreational & co-curricular and cultural activities. In short, at VMTW, students will find an academic and social environment where everyone from faculty members to peers help shape their future.

VMTW is a home to aesthetically designed buildings with state of the-art computer and internet facilities, modern laboratories, workshops, seminar halls, auditoriums and well stocked libraries, sports and games fields.

The Institution boasts of a strong alumni network with alumni events held every year serving as a platform for past students to give back to VMTW and share their experiences with its present fellow students. With so much to offer, it is only natural that students of VMTW get a unique opportunity to carve a niche for themselves in their chosen field of study that enables them to become well-rounded and discerning citizens, fully qualified for their chosen professions in the workplace. With so much to offer, it is only natural that students of VMTW get a unique opportunity to carve a niche for themselves in their chosen field of study that enables them to become well-rounded and discerning citizens, fully qualified for their chosen professions in the workplace.

# Chairman Message

"Well Thought-out Reforms In Technical Education Is The Need Of The Hour"

We, in India today, are living in a transitional era. On one hand, we are swamped by the global financial meltdown while on the other; we are witnessing a slow but sure revival of the manufacturing and agricultural sectors. It is evident that highly trained and skilled professionals will be needed in vast numbers to enable our country's transition towards industrial and financial self-sufficiency. In this changing scenario, technology will continue to be a major catalyst for enabling the country's transformation. So the demand for quality technical education in India is huge.

In Telangana, we often mention with pride that the state has the largest number of technical/professional institutions to impart skill based education to fulfill the needs of the industry. However the fact remains that, in spite of the large number of engineers churned out from the 300 and odd colleges every year, there continues to be an unbridged gap between the needs of the Industry and the skill set that the engineering students possess. Thus we are faced with a paradoxical situation where employers keep scouting for employees and vice versa.

The problem is not difficult to analyze. In spite of possessing impressive infrastructure and high-tech labs, the quality of technical education imparted in most engineering colleges is woefully poor. Despite the proliferation of colleges, the demand for holistic engineering education remains as high as ever. A keen introspection by the administrative authorities both at the planning and executive level is needed to evolve effective supervisory and regulatory mechanisms so as to reinforce good standards of technical education. Unscrupulous practices compromising on the quality of education need to be checked. All engineering colleges in the state should vie with each other to develop wholesome systems contributing to innovative teaching - learning practices, which will upscale the educational standards in the state and serve the future generation of students in realizing their dreams.

We at Vignan group of institutions resolve to rededicate ourselves to the cause of the nation the march towards Vision 2020, the dream of seeing India as a developed nation...

# CEO Message

Vignan, a trusted name for quality education in Andhra Pradesh, has always been figuring among the top due to its commitment to student centric initiatives through out its existence of more than three decades even in the unprecedented proliferation of professional institutions in AP during the last decade.

Vignan with its inherent capability to capture the pulse of youth has grasped their aspirations, speed and intellectual capabilities and tuned its curriculum to fulfill their needs.

Vignan provides world class training in transferring subject knowledge, communication and team working skills in learning centered fashion and enables its students to face the global arena with confidence.

With its excellent infrastructure, committed and qualified faculty, strong teaching-learning processes and more importantly a meticulously designed student counseling system, Vignan is indeed the right choice to pursue engineering education and secure placements in top notch companies or admissions in reputed international universities for higher studies. Besides academics, at Vignan, we strive for the integrated development of the students through several internal student professional bodies designed to bring out the best from them

# Principal Message

I, Dr. G. Apparao Naidu, Principal, feels proud to be associated with Vignan's Institute of Management and Technology for Women which is serving the society for more than Two decades in the field of Engineering & Technology by bringing a number of efficient engineers to the nation and world. It gives me immense pleasure to welcome you to the creative world of VMTW which has very eco-friendly campus and is equipped with state-of-art infrastructure. Campus having well equipped labs, workshops and libraries which enables in helping students in attaining highest standards in academics, research and professional skills. The campus has adequate sports infrastructure to take care of Sports and recreational activities. The college is excelling towards meeting its vision of becoming centre

of excellence in the field education in Engineering and Technology. The prime focus of the Institution is to empower students with sound knowledge, wisdom, experience and training both at the academic level of Engineering and in the highly competitive global industrial market. The infrastructure facilities and state-of-the-art equipment combined with a galaxy of competent, talented, qualified and dedicated faculty contribute to an enjoyable and an easy learning experience. Happy to quote the campus is working towards implementing Outcome Based Education System (OBES). Many global players are recruiting the students from the campus after high appreciation which shows strength of the college in nurturing young engineers.

## Dr. A. Sudhir Babu,

Associate Professor &
Head of the Department,
Department of Computer Science &
Engineering

The department is being run by well qualified and experienced faculty members with 13 excellent years of exposure in Computer science & Engineering. We at the department of Computer Science and Engineering believe that learning is a continuous process and does not end with the acquisition of a degree, especially because steady and rapid advances in computing technologies shorten the life of tools and techniques prevalent today. Students are given a strong foundation in computer science and problem-solving techniques, and are made adaptable to changes. We aim at offering the best quality education. The department offers undergraduate programs in Computer Science & Engineering, Information Technology, Artificial Intelligence & Machine Learning, Data Science and Artificial Intelligence & Data Science that owe their emergence to the relentlessly growing demand of professionals with expertise in various fields of Computer Science

## Mr. P. Harikrishna,

Associate Professor &
Head of the Department,
Department of Electronics &
Communication Engineering

It gives me great pleasure to congratulate students, teachers andStaff of electronics department. During study at the department, the students are encouraged toget hands-on experience in the corporate worldthrough internship projects with reputed organizations.

Newsletter is believed to be a Focus of the inside activitiesi.e. academics, students and Faculty achievement as well asinnovation occurring in the department.

# Application Security in Database Management System (DBMS)

By Ms. Rudroj Meghana,
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Application security denotes the security precautionary measures utilized at the application level to prevent the stealing or capturing of data or code inside the application. It also includes the security measurements made during the advancement and design of applications, as well as techniques and methods for protecting the applications whenever. Application security is the discipline of processes, tools, and works on planning to protect applications from dangers all through the whole application lifecycle. It can assist associations in protecting a wide range of applications (like inheritance, work area, web, portable) used by partners including clients, colleagues, and representatives.

**Types of Application Security:**

- **Authentication:** Authentication is a method of ensuring that only authorized users. A weakness known as cross-site scripting (XSS) permits an attacker to introduce client-side code into a site page. The attacker gets direct access to the user's data.rs to have access of controlling the application. Authentication methods confirm that the user is who they guarantee to be. While signing into an application, this can be performed by requiring the user to supply a user name and password. There is also multi-level authentication which ensures maximum security, for example, something you know (a password), something you have(a cell phone), and something you are (a biometric).

- **Authorization:** After authentication, the user is allowed to access and use the application. The application of the user is only validated after comparing the identification of the user to approve the access, thus authentication has to be always before the authorization step.

- **Encryption:** After the verification and authorization of the user while using the application other security protocols can protect the data from threats. Encryption is done to keep sensitive data safe while flowing from end-user to cloud in cloud-based applications.

- **Logging:** Assuming a security break happens in an application, logging can help with figuring out who accessed the data and how it happened. Application log records monitor who accessed and what portions of the application have been accessed.

- **Application Security Testing:** A strategy that guarantees that these security controls are working actually.

**The security loopholes of application security in DBMS that allows hackers to drive the data are as follows:**

- **SQL Injection:** It isalso called SQLI, is a typical attack from the hackers that utilize malicious SQL code for controlling the backend database to get to data that was not expected to be shown. It is a code injection and the most generally utilized strategy that could destroy the database. This data might incorporate quite a few things, including delicate organization information, client records, or private client information. It is a code injection and the most generally utilized strategy that could destroy the database. The different types of SQL Injections are:

- **In-band SQLi:** A similar channel of correspondence is used by the attackers to send their attacks and to accumulate their outcomes. In-band SQLi's clarity and productivity make it one of the most widely recognized sorts of SQLi attacks.

- **Inferential (Blind) SQLi:** Information payloads are sent by the attackers to the server then notice the reaction and conduct of the server to find out its structure. This strategy is called blind SQLi

because the information isn't moved from the site database to the attacker, hence the attacker can't see data about the attack in-band.

- **Out-of-band SQLi:** The attacker can complete this type of attack when certain elements are empowered on the database server utilized by the web application. The Out-of-band SQLi strategy is used when the attacker can't utilize a similar channel to send off the attack and accumulate data, or when a server is excessively slow or unstable for these activities to be performed. These methods depend on the limit of the server to make DNS or HTTP solicitations to move information to an attacker.

- **Cross-Site Scripting:** thattacks are a kind of injection, where the malicious content is infused into trusted websites. It is a web security vulnerability that permits an attacker to understand about cooperation that clients have with a weak application. It permits an attacker to evade a similar beginning arrangement, which is intended to isolate various websites from one another. Malicious content can be sent by the attacker utilizing XSS to a clueless client.:

- **Password Leakage:** The third type of loophole is known as leakage of the passwords. This loophole leads to a problem when developers store passwords as plain text in application code scripts. When scripts are put away in a registry and can be accessed by a Web server, there is the possibility of accessing the source code of the script by an external client and gaining access to the password for the database account utilized by the application.

- **Application Authentication:** Authentication is a method of ensuring that only authorized users. A weakness known as cross-site scripting (XSS) permits an attacker to introduce client-side code into a site page. The attacker gets direct access to the user's data.rs to have access of controlling the application. Authentication methods confirm that the user is who they guarantee to be. The most commonly used type of authentication comprises the plain text password that should be introduced when a client uses the application.

- **Application-Level Authorization:** Authorization is a process by which a server decides whether the client has consent to utilize an asset or access a document. Authorization is typically combined with authentication so the server has some idea of who the client is that is mentioning access. Sometimes, there is no authorization; any client might be utilizing an asset or accessing a record basically by requesting it. The majority of the

- website pages on the Internet require no authentication or authorization. Authorization is supported on standard SQL but some special types of authorization are not supported like all employees can see their own salary slip but not the salary slip of anyone else in the company. This type of authorization leads to a problem in SQL and the problems are

- **Less amount of information about end-user:** With the development of the Web, the access of the database comes fundamentally from Web application servers. The end-users commonly try not to have unique client identifiers on the actual database, and for sure there may just be a single client identifier in the database compared to all users of an application server. Accordingly, authorization determination in SQL can't be utilized in the above situation.

- **Absence of fine-grained authorization:** Authorization should be at the degree of individual tuples if it is to be approved that employees can see just their own salary slip. Such authorization is unimaginable in the current SQL standard, which licenses authorization just on a whole connection or view, or on determining attributes of relations or perspectives.

- **Privacy:** Privacy is the part of information technology (IT) that deals with the capacity an association or individual needs to figure out what information in a computer system can be shared with third parties. Applications that access such private information should be built cautiously, remembering the privacy regulations.

**Application Security Risks**

From the large-scale network to centered database altering of web apps the security issues are distributed. There are some security risks below:

- · The first security risk known as cross-site scripting (XSS) permits an attacker to introduce client-side code into a site page. The attacker gets direct access to the user's data.

- Denial-of-service (DoS) and Distributed denial-of-service(DDoS) attacks are used by some isolated attackers to flood a designated server or the framework that upholds it with different sorts of traffic. This traffic in the end keeps real users from getting to the server, making it shut down.

- A strategy called SQL injection (SQLi) is used by hackers to take advantage of database flaws. These hackers, specifically, can uncover user personalities and passwords and can also create, modify and delete data without taking permission of the user.

- When a hacker executes a variety of attacks on an application and ends up accidentally changing some spaces of memory then Memory corruption occurs. As a result, the software can behave normally or shut down at the end.

- The buffer overflow happens when corrupted code is introduced into the system's memory. Overflowing the buffer zone's ability causes a neighboring region of the application's memory to be overwritten with data, representing a security risk.

# Abstraction inObject Oriented Programming Using C++

By Ms. Poonumalli Harshitha,
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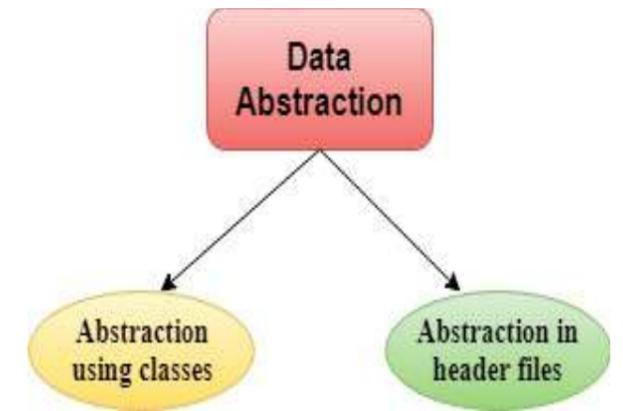


Data Abstraction is a process of providing only the essential details to the outside world and hiding the internal details, i.e., representing only the essential details in the program.Data Abstraction is a programming technique that depends on the seperation of the interface and implementation details of the program.Let's take a real life example of AC, which can be turned ON or OFF, change the temperature, change the mode, and other external components such as fan, swing. But, we don't know the internal details of the AC, i.e., howit works internally. Thus, we can say that AC seperates the implementation details from the external interface.

In C++ program if we implement class with private and public members then it is an example of data abstraction.

**Data Abstraction can be achieved in two ways:**
- Abstraction using classes
- Abstraction in header files.

**Abstraction using classes:** An abstraction can be achieved using classes. A class is used to group all the data members and member functions into a single unit by using the access specifiers. A class has the responsibility to determine which data member is to be visible outside and which is not.

**Abstraction in header files:** An another type of abstraction is header file. For example, pow() function available is used to calculate the power of a number without actually knowing which algorithm function uses to calculate the power. Thus, we can say that header files hides all the implementation details from the user.

**Access Specifiers Implement Abstraction:**
- **Public Specifier:** When the members are declared as public, members can be accessed anywhere from the program.
- **Private Specifier:** When the members are declared as private, members can only be accessed only by the member functions of the class.

**Advantages Of Abstraction:**
- Implementation details of the class are protected from the inadvertent user level errors.
- A programmer does not need to write the low level code.
- Data Abstraction avoids the code duplication, i.e., programmer does not have to undergo the same tasks every time to perform the similar operation.
- The main aim of the data abstraction is to reuse the code and the proper partitioning of the code across the classes.
- Internal implementation can be changed without affecting the user level code.

# CPU Scheduling Algorithms

By Ms. Rayudu Aishwarya,
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A CPU scheduling algorithm is used to determine which process will use CPU for execution and which processes to hold or remove from execution. The main goal or objective of CPU scheduling algorithms is to make sure that the CPU is never in an idle state, meaning that the OS has at least one of the processes ready for execution among the available processes in the ready queue.

**There are two types of scheduling algorithms:**
 1) Preemptive, 2) Non-Preemptive.

**Preemptive Scheduling Algorithms:** In these algorithms, processes are assigned with a priority. Whenever a high-priority process comes in, the lower-priority process which has occupied the CPU is preempted. That is, it releases the CPU, and the high-priority process takes the CPU for its execution.

**Non-Preemptive Scheduling Algorithms:** In these algorithms, we cannot preempt the process. That is, once a process is running in CPU, it will release it either by context switching or terminating. Often, these are the types of algorithms that can be used because of the limitation of the hardware.

**There are some important terminologies to know for understanding the scheduling algorithms:**
**Arrival Time:** This is the time at which a process arrives in the ready queue.

**Completion Time:** This is the time at which a process completes its execution.

**Burst Time:** This is the time required by a process for CPU execution.

**Turn-Around Time:** This is the difference in time between completion time and arrival time. This can be calculated as:

Turn Around Time = Completion Time – Arrival Time.

**Waiting Time:** This is the difference in time between turnaround time and burst time. This can be calculated as:

Waiting Time = Turn Around Time – Burst Time

**Throughput:** It is the number of processes that are completing their execution per unit time.

**First Come First Serve (FCFS) Scheduling Algorithm:** First Come First Serve is the easiest and simplest CPU scheduling algorithm to implement. In this type of scheduling algorithm, the CPU is first allocated to the process which requests the CPU first. That means the process with minimal arrival time will be executed first by the CPU. It is a non-preemptive scheduling algorithm as the priority of processes does not matter, and they are executed in the manner they arrive in front of the CPU. This scheduling algorithm is implemented with a FIFO (First In First Out) queue. As the process is ready to be executed, its Process Control Block (PCB) is linked with the tail of this FIFO queue. Now when the CPU becomes free, it is assigned to the process at the beginning of the queue.

**Advantages:**
- Involves no complex logic and just picks processes from the ready queue one by one.
- Easy to implement and understand.
- Every process will eventually get a chance to run so no starvation occurs.

**Disadvantages:**
- Waiting time for processes with less execution time is often very long.
- It favors CPU-bound processes then I/O processes.
- Leads to convoy effect.
- Causes lower device and CPU utilization.
- Poor performance as the average wait time is high.

**Shortest Job First (SJF) Scheduling Algorithm:** Shortest Job First is a non-preemptive scheduling algorithm in which the process with the shortest burst or completion time is executed first by the CPU. That means the lesser the execution time, the sooner the process will get the CPU. In this scheduling algorithm, the arrival time of the processes must be the same, and the processor must be aware of the burst time of all the processes in advance. If two processes have the same



burst time, then First Come First Serve (FCFS) scheduling is used to break the tie. The preemptive mode of SJF scheduling is known as the Shortest Remaining Time First scheduling algorithm.

**Advantages:**
- Results in increased Throughput by executing shorter jobs first, which mostly have a shorter turnaround time.
- Gives the minimum average waiting time for a given set of processes.
- Best approach to minimize waiting time for other processes awaiting execution.
- Useful for batch-type processing where CPU time is known in advance and waiting for jobs to complete is not critical.

**Disadvantages:**
- May lead to starvation as if shorter processes keep on coming, then longer processes will never get a chance to run.
- Time taken by a process must be known to the CPU beforehand, which is not always possible.

**RoundRobin Scheduling Algorithm:** The Round Robin algorithm is related to the First Come First Serve (FCFS) technique but implemented using a preemptive policy. In this scheduling algorithm, processes are executed cyclically, and each process is allocated a small amount of time called time slice or time quantum. The ready queue of the processes is implemented using the circular queue technique in which the CPU is allocated to each process for the given time quantum and then added back to the ready queue to wait for its next turn. If the process completes its execution within the given quantum of time, then it will be preempted, and other processes will execute for the given period of time. But if the process is not completely executed within the given time quantum, then it will again be added to the ready queue and will wait for its turn to complete its execution. The round-robin scheduling is the oldest and simplest scheduling algorithm that derives its name from the round-robin principle. In this principle, each person will take an equal share of something in turn. This algorithm is mostly used for multitasking in time-sharing systems and operating systems having multiple clients so that they can make efficient use of resources.

**Advantages:**
- All processes are given the same priority; hence all processes get an equal share of the CPU.
- Since it is cyclic in nature, no process is left behind, and starvation doesn't exist.

**Disadvantages:**
- The performance of Throughput depends on the length of the time quantum. Setting it too short increases the overhead and lowers the CPU efficiency, but if we set it too long, it gives a poor response to short processes and tends to exhibit

- the same behavior as FCFS.
- Average waiting time of the Round Robin algorithm is often long.
- Context switching is done a lot more times and adds to the more overhead time.

**Priority Scheduling:**
In Priority scheduling, there is a priority number assigned to each process. In some systems, the lower the number, the higher the priority. While, in the others, the higher the number, the higher will be the priority. The Process with the higher priority among the available processes is given the CPU. There are two types of priority scheduling algorithm exists. Oneis Preemptive priority scheduling while the other is Non Preemptive Priority scheduling.The priority number assigned to each of the process may or may not vary. If the priority number doesn't change itself throughout the process, it is called static priority, while if it keeps changing itself at the regular intervals, it is called dynamic priority.In the Non Preemptive Priority scheduling, The Processes are scheduled according to the priority number assigned to them. Once the process gets scheduled, it will run till the completion. Generally, the lower the priority number, the higher is the priority of the process. The people might get confused with the priority numbers, hence in the GATE, there clearly mention which one is the highest priority and which one is the lowest one.In Preemptive Priority Scheduling, at the time of arrival of a process in the ready queue, its Priority is compared with the priority of the other processes present in the ready queue as well as with the one which is being executed by the CPU at that point of time. The One with the highest priority among all the available processes will be given the CPU next.The difference between preemptive priority scheduling and non preemptive priority scheduling is that, in the preemptive priority scheduling, the job which is being executed can be stopped at the arrival of a higher priority job.Once all the jobs get available in the ready queue, the algorithm will behave as non-preemptive priority scheduling, which means the job scheduled will run till the completion and no preemption will be done.

**Advantages:**
- Easy to use scheduling method
- Processes are executed on the basis of priority so high priority does not need to wait for long which saves time
- This method provides a good mechanism where the relative important of each process may be precisely defined.

- Suitable for applications with fluctuating time and resource requirements.

**Disadvantages:**
- If the system eventually crashes, all low priority processes get lost.
- If high priority processes take lots of CPU time, then the lower priority processes may starve and will be postponed for an indefinite time.
- This scheduling algorithm may leave some low priority processes waiting indefinitely.
- A process will be blocked when it is ready to run but has to wait for the CPU because some other process is running currently.
- If a new higher priority process keeps on coming in the ready queue, then the process which is in the waiting state may need to wait for a long duration of time.

**Multilevel Queue Scheduling:**
Multilevel queue scheduling is used when processes in the ready queue can be divided into different classes where each class has its own scheduling needs.
For instance, foreground or interactive processes and background or batch processes are commonly divided. Foreground and background processes have different time requirements and hence will have different scheduling needs. In this case, multilevel queue scheduling will be used. For each class of processes, the ready queue is divided into separate queues.
For example, there are five processes:
1. System Processes,      2. Interactive Processes,
3. Interactive Editing Processes,   4. Batch Processes,
5. Student Process.

Every queue will have an absolute priority over low priority queues. No process can run until the high priority queues are empty. For the above example, until and unless the queues for system processes, interactive processes, and interactive editing processes are all empty, no other process can run.

**Advantages:**
- Multilevel queue scheduling helps us apply different scheduling algorithms for different processes.
- It will have a low scheduling overhead.

**Disadvantages:**
- There are chances of starving for the lower priority processes.
- It is inflexible in nature.

# Cloud Computing

By Ms. B. Siva Naga Sai Saranya,
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Cloud computing is a virtualization-based technology that allows us to create, configure, and customize applications via an internet connection. The cloud technology includes a development platform, hard disk, software application, and database.

The term cloud refers to a network or the internet. It is a technology that uses remote servers on the internet to store, manage, and access data online rather than local drives. The data can be anything such as files, images, documents, audio, video, and more.

Small as well as large IT companies, follow the traditional methods to provide the IT infrastructure. That means for any IT company, we need a Server Room that is the basic need of IT companies. In that server room, there should be a database server, mail server, networking, firewalls, routers, modem, switches, QPS (Query Per Second means how much queries or load will be handled by the server), configurable system, high net speed, and the maintenance engineers.

To establish such IT infrastructure, we need to spend lots of money. To overcome all these problems and to reduce the IT infrastructure cost, Cloud Computing comes into existence.

There are the following operations that we can do using cloud computing:
- Developing new applications and services
- Storage, back up, and recovery of data
- Hosting blogs and websites
- Delivery of software on demand
- Analysis of data
- Streaming videos and audios

**Characteristics of Cloud Computing**
The characteristics of cloud computing are given below:

**1) Agility:** The cloud works in a distributed computing environment. It shares resources among users and works very fast.

**2) High availability and reliability:** The availability of servers is high and more reliable because the chances of infrastructure failure are minimum.

**3) High Scalability:** Cloud offers "on-demand" provisioning of resources on a large scale, without having engineers for peak loads.

**4) Multi-Sharing:** With the help of cloud computing, multiple users and applications can work moreefficiently with cost reductions by sharing common infrastructure.

**5) Device and Location Independence:** Cloud computing enables the users to access systems using a web browser regardless of their location or what device they use e.g. PC, mobile phone, etc. As infrastructure is off-site (typically provided by a third-party) and accessed via the Internet, users can connect from anywhere.

**6) Maintenance:** Maintenance of cloud computing applications is easier, since they do not need to be installed on each user's computer and can be accessed from different places. So, it reduces the cost also.

**7) Low Cost:** By using cloud computing, the cost will be reduced because to take the services of cloud computing, IT company need not to set its own infrastructure and pay-as-per usage of resources.

**8) Services in the pay-per-use mode:** Application Programming Interfaces (APIs) are provided to the users so that they can access services on the cloud by using these APIs and pay the charges as per the usage of services.

## Cloud Service Models

There are the following three types of cloud service models

1. Infrastructure as a Service (IaaS)
2. Platform as a Service (PaaS)
3. Software as a Service (Saas)

### Infrastructure as a Service (IaaS):

IaaS is also known as Hardware as a Service (HaaS). It is a computing infrastructure managed over the internet. The main advantage of using IaaS is that it helps users to avoid the cost and complexity of purchasing and managing the physical servers.

**Characteristics of IaaS:**
- Resources are available as a service
- Services are highly scalable
- Dynamic and flexible
- GUI and API-based access
- Automated administrative tasks

Example: DigitalOcean, Linode, Amazon Web Services (AWS), Microsoft Azure, Google Compute Engine (GCE), Rackspace, and Cisco Metacloud.

### Platform as a Service (PaaS):

PaaS cloud computing platform is created for the programmer to develop, test, run, and manage the applications.

**Characteristics of PaaS:**
- Accessible to various users via the same development application.
- Integrates with web services and databases.
- Builds on virtualization technology, so resources can easily be scaled up or down as per the organization's need.

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- Support multiple languages and frameworks.
- Provides an ability to "Auto-scale".

Example: AWS Elastic Beanstalk, Windows Azure, Heroku, Force.com, Google App Engine, Apache Stratos, Magento Commerce Cloud, and OpenShift.

### Software as a Service (SaaS):

SaaS is also known as "on-demand software". It is a software in which the applications are hosted by a cloud service provider. Users can access these applications with the help of internet connection and web browser.

**Characteristics of SaaS:**
- Managed from a central location
- Hosted on a remote server
- Accessible over the internet
- Users are not responsible for hardware and software updates. Updates are applied automatically.
- The services are purchased on the pay-as-per-use basis

Example: BigCommerce, Google Apps, Salesforce, Dropbox, ZenDesk, Cisco WebEx, ZenDesk, Slack, and GoToMeeting.



Advantages of cloud computing

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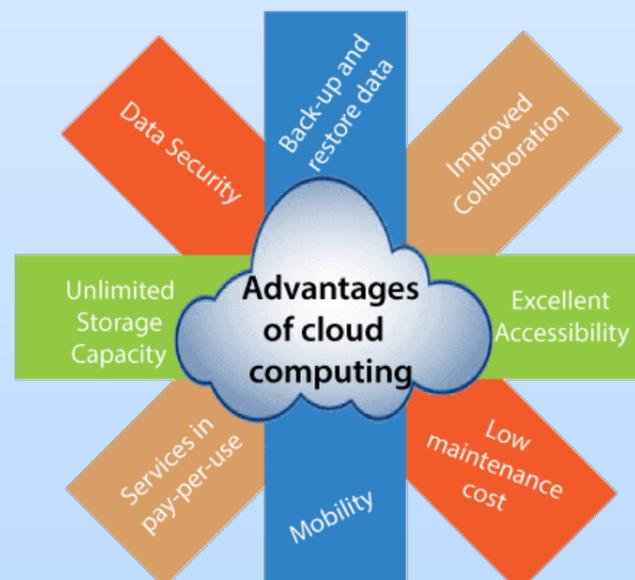
**Advantages of Cloud Computing:**
As we all know that Cloud computing is trending technology. Almost every company switched their services on the cloud to rise the company growth.Here, we are going to discuss some important advantages of Cloud Computing.

**1) Back-up and restore data:** Once the data is stored in the cloud, it is easier to get back-up and restore that data using the cloud.

**2) Improved collaboration:** Cloud applications improve collaboration by allowing groups of people to quickly and easily share information in the cloud via shared storage.

**3) Excellent accessibility:** Cloud allows us to quickly and easily access store information anywhere, anytime in the wholeworld, using an internet connection. An internet cloud infrastructure increases organizationproductivity and efficiency by ensuring that our data is always accessible.

**4) Low maintenance cost:** Cloud computing reduces both hardware and software maintenance costs for organizations.

**5) Mobility:** Cloud computing allows us to easily access all cloud data via mobile.

**6) IServices in the pay-per-use model:** Cloud computing offers Application Programming Interfaces (APIs) to the users for access services on the cloud and pays the charges as per the usage of service.

**7) Unlimited storage capacity:** Cloud offers us a huge amount of storing capacity for storing our important data such as documents, images, audio, video, etc. in one place.

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**Disadvantages of Cloud Computing:**
**1) Internet Connectivity:** As you know, in cloud computing, every data (image, audio, video, etc.) is stored on the cloud, and we access these data through the cloud by using the internet connection. If you do not have good internet connectivity, you cannot access these data. However, we have no any other way to access data from the cloud.

**2) Security:** Although cloud service providers implement the best security standards to store important information. But, before adopting cloud technology, you should be aware that you will be sending all your organization's sensitive information to a third party, i.e., a cloud computing service provider. While sending the data on the cloud, there may be a chance that your organization's information is hacked by Hackers.

**3) Limited Control:** As we know, cloud infrastructure is completely owned, managed, and monitored by the service provider, so the cloud users have less control over the function and execution of services within a cloud infrastructure.

**4) Vendor lock-in:** Vendor lock-in is the biggest disadvantage of cloud computing. Organizations may face problems when transferring their services from one vendor to another. As different vendors provide different platforms, that can cause difficulty moving from one cloud to another.

KALAAKRITHI
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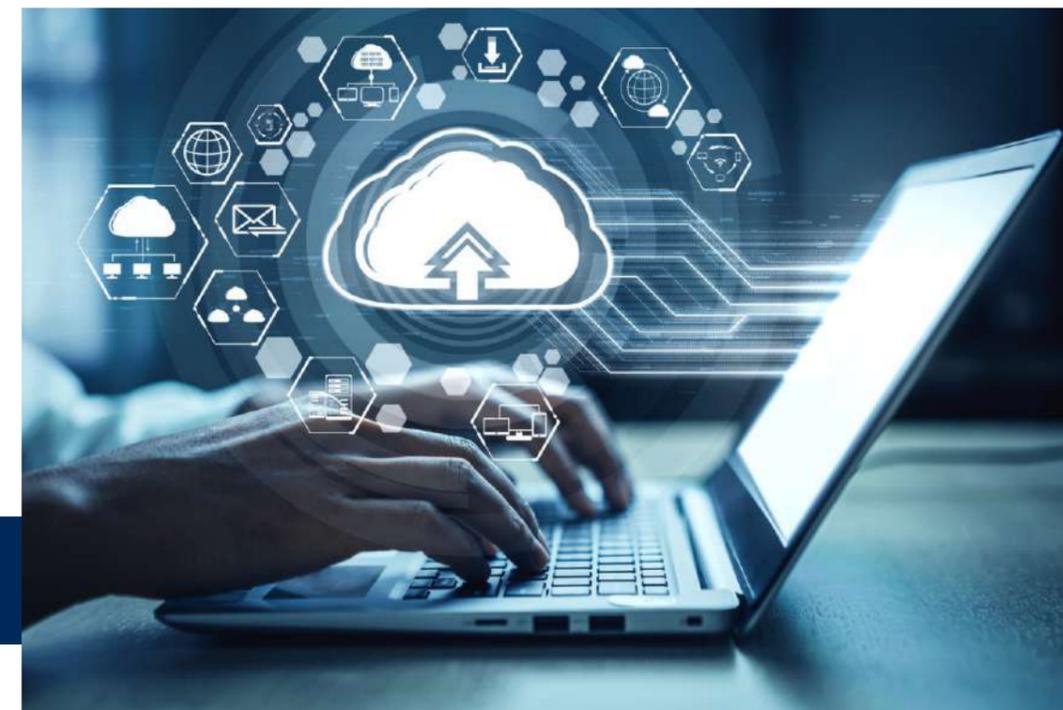
# World Cancer Day

It takes place every year on 4 February. World Cancer Day aims to prevent millions of deaths each year by raising awareness and education about cancer and pressing governments and individuals across the world to take action against the disease. VMTW believes that every individual has the right to proper health so our students have visited cancer patients in collaboration with Samskruthi Foundation and donated previously collected amounts.

# World Heritage Day

This day is observed every year on 18 April to preserve the human heritage and recognise the efforts of all the relevant organisations in the field. This day was announced by the International Council on Monuments and Sites (ICOMOS) in 1982 and was approved by the General Assembly of UNESCO in 1983.

The theme for 2021 world heritage day is **"Complex Pasts: Diverse Futures"**

# Women's Day Celebrations

Women from various cultural and ethnic groups come together crossing all the boundaries to remember their struggle of many decade for peace, justice, equality and development. The day allows women to raise her voice for an equal opportunity in whatever field she wants to participate in; same a man is provided with.

Celebrating Woman is a way of feeling gratitude to the each and every woman in one's life, be it in the professional or the personal life. International Women's day is observed every year on 8th of March and it is observed around the world to celebrate the velour of women. In most of the country the day has been observed as a national holiday.

# Rabindranath Tagore Jayanthi

*"The highest education is that which does not merely give us information but makes our life in harmony with all existence"*

Rabindranath Tagore - the poet, novelist, essayist, philosopher and musician is part of the everyday life of an average Bengali. He is one of those great masters of literature whose works hardly left any human emotion untouched. In the introduction to 'Gitanjali', for which Rabindranath Tagore won the Nobel Prize in 1913, WB Yeats wrote, "We write long books where no page perhaps has any quality to make writing a pleasure, being confident in some general design, just as we fight and make money and fill our heads with politics - all dull things in the doing - while Mr Tagore, like the Indian civilization itself, has been content to discover the soul and surrender himself to its spontaneity." He was born on 7th May 1861 this year we are celebrating his 161st birth anniversary. He was one of the greatest poet's of all times. So the students of vmtw have participated in the online poetry competition which was conducted as a tribute to his birth anniversary.
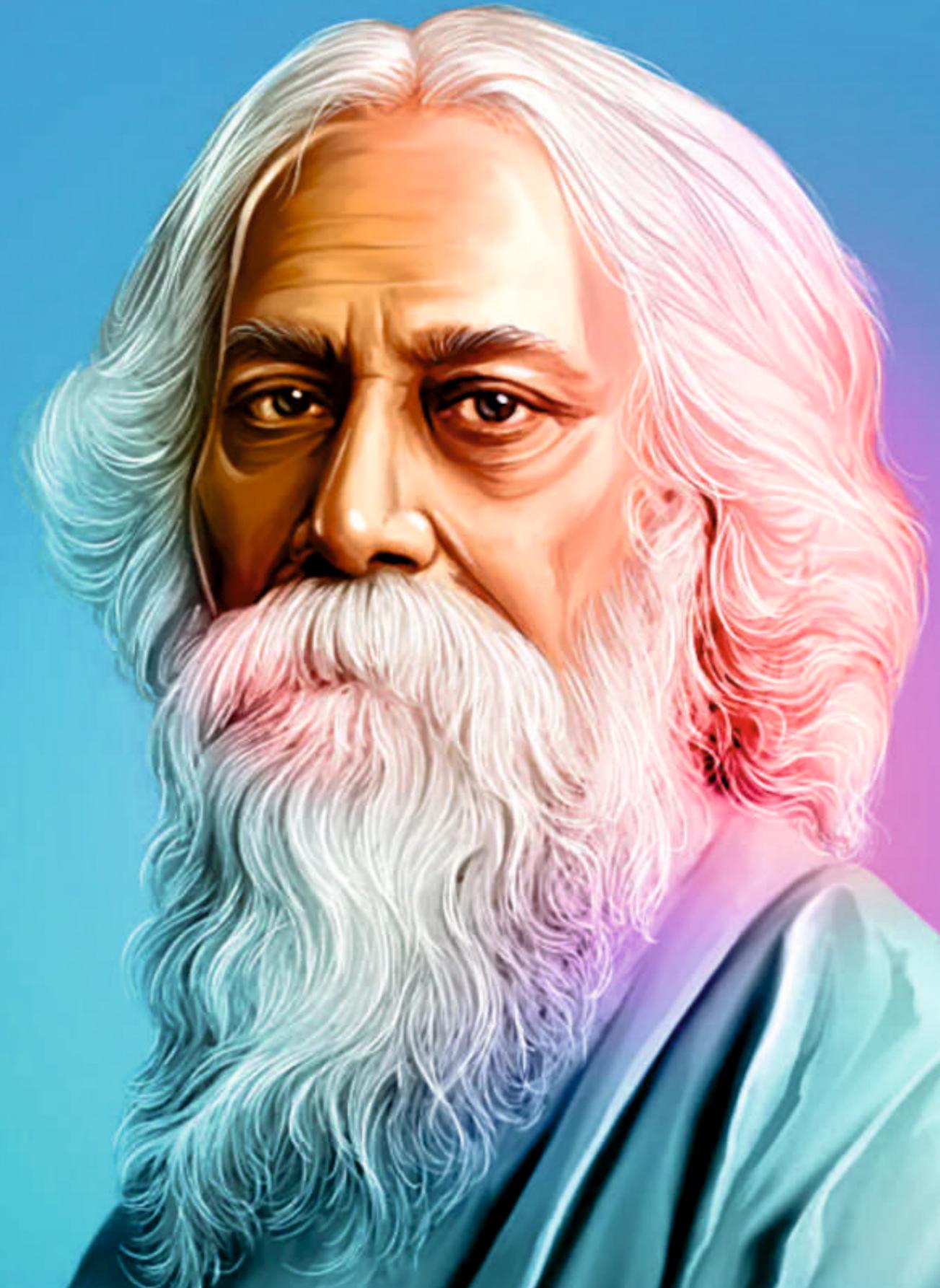
# Online Learning: Benefits, Challenges, and Opportunities.

By Ms. V.L. Vasundhara,
B. Tech (ECE)- 19UP1A0441

Online learning is an alternative way to study at university, and instead of going to classrooms, you study at home, or wherever you choose, via the internet. Classes, teaching materials, support, and assessments are all delivered online. Often, these are also recorded so they can be re-watched. Due to this pandemic situation many educational institutions have been closed for almost a year and half, so due to this reason the institutions have started taking online classes for the students. And not only educational institutes many MNC's have declared work from home for their employees and even the newly acquired employees were given training online. So Covid-19 could be one of the reasons to start the online learning. Education is the most important part of our life.

Today there is such an easy way to get an education that we do not need to go anywhere to get an education. To take education, we can get education from the teacher just sitting at home from the online mood.

In today's time, facilities like the internet are available in all the homes. Online education is proving to be very effective in the time of Corona. Nowadays online education is becoming very prevalent everywhere whether it is village or city.

We can join online education anywhere in the country or abroad. Today online education is proving to be very beneficial for students.

The pandemic has severely affected education and educational systems across the world. Educational institutions around the world were temporarily closed in an attempt to reduce the impact of Corona. 1.077 billion learners have been affected due to school closures. Now the biggest question arises that how students get an education?

Many big organizations have found only one solution for this, which is online education. The effect of which can be seen everywhere.

**The Benefits of Online Learning:**
Even traditional universities and colleges have started following online teaching/learning practices. Those who are new to the concept of online learning might be a little confused about whether to opt for it or not. Well, here we have listed a few points describing the benefits and challenges of online learning to help you develop a better understanding of this form of education.

- With online learning, faculty and students enjoy enhanced convenience, access, and flexibility to the courses. As these courses can be taken and delivered from anywhere, at any time, trainers and learners do not need to travel to specific locations in bad weather conditions.

- Online education creates an engaging and interactive environment for all participants in classrooms and it is more beneficial for students that are not comfortable with raising hands. Many teachers have reported that students tend to do more meaningful discussions on important course topics at the end of online courses. Those who are not able to speak up due to shyness are also able to highlight their doubts in writing.

- When run successfully, online courses also tend to increase student retention and satisfaction rates. They can pursue their interests from home or while doing a regular job as well. Online learning opens doors for several opportunities where students can boost their skills in multiple directions with ease.

- There are several incentives available for teachers as well. They can use new-age technologies, such as casting, to make lectures more interactive for students. Online learning can also be supported by multimedia content, virtual reality, and augmented reality.

- Online learning also extends reach to an extensive range of audiences. These courses are not limited to students that can reach a college or a university campus; instead, they are equally beneficial for students in another corner of the world. This is the main reason behind the increasing popularity of online learning.

**Challenges of Online Learning:**
- For teachers or trainers that had been following traditional means of teaching for the past several years, it may be a little challenging and complicated to be familiar with online learning practices. On one side, where campus-oriented courses are limited to specific time duration and specific days in the week, online teaching opens doors for keeping courses open 24/7.

- It is a little challenging for teachers to understand the learning abilities of individual students during online classes. As teachers and students hardly get to know each other, it is difficult to set up an interactive environment in classes.

# Covid-19 and its impact on World Economy

By Ms. L. Prasanna Laxmi Reddy,
B. Tech (ECE)- 19UP1A0465

The Covid-19 pandemic is a social and an economic crisis just as much as it is a health one its repercussions, severe and far-reaching, are being felt across the world.

From school closures to devastated industries and millions of jobs lost – the social and economic costs of the pandemic are many and varied. Covid-19 is threatening to widen inequalities everywhere, undermine progress on global poverty and clean energy, and more. The best solution is to stop this damage from happening, through the use of tests, treatments and vaccines everywhere they're needed. This will cost only a fraction of the huge economic loss the pandemic is causing every week.

**The pandemic impacts all aspects of Society:**
To slow the spread of the virus, schools closed across the world. One year into the pandemic, almost half of the world's students were affected by school closures. Millions of girls in some countries might not be going back at all, putting them at risk of adolescent pregnancy, child marriage and violence.

- Businesses closed too, leading to the equivalent of 255 million full-time jobs lost, in terms of working hours, in 2020. Among the worst hit are workers in the informal economy, young people and women.

Any economic recovery will likely be uneven, leading to greater inequality in the coming years.

- Women have been harder hit economically by the pandemic because they are a large proportion of the workers in sectors severely affected by Covid-19, including accommodation and food services, and in front-line occupations, such as the health and social care sectors.

- With the closures of schools, they have also had to take on more care responsibilities at home. Whether through job losses or school closures, the pandemic threatens to undo decades of progress on gender equality.

- Covid-19 has been slowing down progress on clean energy too, at least temporarily, by curbing investments and delaying the expansion of clean energy technologies.

- There has been some positive climate news: global energy-related $CO_2$ emissions fell by 5.8% in 2020, the largest ever decline in global $CO_2$ emissions in history. But that's only a short-term effect of lockdowns, not a sustained change. In fact, emissions are expected to rise by 4.8% in 2021, the second highest rate in history, as the demand for coal, oil and gas rebounds with the economy.

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- Students that are new to online technologies may find them confusing. In this case, teachers need to make additional efforts to communicate deadlines and help students complete their assignments.

- Although online learning doesn't require advanced technical skills, involved people need to be comfortable with using a computer and accessing the internet. In rural areas, slow internet connections and missing materials can cause frustration.

There is no doubt that every technology and advancement comes with some pros, cons, and has challenges in implementation as well.

**Opportunities:**
With the number of internet users increasing rapidly in India, online learning can emerge as a potential alternative to traditional education but only through proper planning and execution by the government. With the numerous opportunities available with online education, many educationists have found it to become the preferred mode of learning in the future. Some of the opportunities brought forward by online learning in the present pandemic situation include:

- Students can avail learning resources from anywhere in the world

- Virtual classrooms can impart quality education while avoiding the risk of the spread of Covid-19, which is of utmost importance in the present

- Students from rural areas do not need to travel long distances within the country or abroad in order to study in a good institution if they can avail online learning opportunities, thus cutting down costs. But, to do the same, they would require a good network connection as well as access to proper educational technology.

Covid-19 impacts all aspects of society

**Education** — 1.6bn students out of school

**Climate** — −30% investment in clean energy transition

**Poverty** — +251m people pushed into poverty by 2030

# Advances in Technology in Today's World

By Ms. Rangaraju Keerthana,
B. Tech (CSE)- 19UP1A05E0

Over the years, technology has revolutionized our world and daily lives. Additionally, technology for seniors has created amazing tools and resources, putting useful information at our fingertips.

- It is evident that technology is the backbone of the industrial revolution process that has occurred over the years and leads to a total overhaul from crude systems to modern efficient machinery. With this in mind, we cannot overlook the role that technology has played on the social and economic fronts of many societies hence the need to have a deeper insight and research on this particular topic. The transformation brought about by technological advancement has helped many societies in Africa and the world at large to alleviate poverty and improve their standards of living through the increased food supply and significant growth in the economy and this integrates with the research question: Is technology liberating?

- The three academic disciplines from which this research has drawn insight from include: agriculture, sociology and communication sectors.

## Agricultural Sector:

In the ancient world, the main source of power was human labor obtained mainly from slaves. In North America for example, during the early 17th century, most whites purchased slaves as a chief source of labor to work on their farms but with the emancipation proclamation by President Abraham Lincoln during the civil war of 1863 that declared all slaves to be set free from bondage, their masters had no choice but to source for another alternative source of labor.

This act spearheaded the advancement of the agricultural revolution, which was also boosted by the industrial revolution that led to the development of more efficient agricultural machinery that required very few workers and resulted in higher farm production. Examples of some of the medieval technologies used in the ancient world included: water wheel, four-field crop rotation system, the horse collar and selective breeding of livestock with good traits.

## Social Aspects:

These developments made it easier for people to move around hence positively impacting on their social lives by enhancing communication, trade, and farming. This indirectly led to improved living standards as a result of the increased food supply by farmers and the development of business firms. Farmers could now effectively carry their farm inputs and fertilizers to the farm and farm products to the market without difficulties. Businesses also thrived because of the efficient transport system and in no time firms began proliferating from every sector of the economy. This enabled them to diversify their economic activities as they no longer depended on the agricultural sector for their daily provision but also ventured into the business sector within the community.

With the recent development in infrastructure, it paved the way to the development of social amenities as schools, hospitals, public toilets, shops and market centers that increased in number as more and more investors joined the market. These amenities played a critical role in the development of the economy and elevating the living standards of the people in the community as they could now easily access all the essential resources. Hence technology played a vital role in liberating the lives of many from the bondage of hunger and scarcity to a point of abundance and stable food supply.

## Communication Sector:

During the ancient period, people used to communicate through messages carved on stone pillars but this type of communication had limitations as the recipients had to travel miles to receive them and the message could only be read within a certain reading range. Others like the American Indians used smoke to convey a particular message to the community while others used bonfires lit on hilltops but such signals were limited to conveying specific information like looming danger, war or victory.

# Thinking Out of the Box

By Ms. G. Pranitha Reddy, B. Tech (CSE)- 20UP1A05C2

Communication then developed to more elaborate form which included writing on portable materials like reeds and papyrus. This medium of communication was much more reliable than the earlier archaic communication system. With the emergence of technological advancement and innovations, the transmission of signals from one person to another through a more sophisticated medium like communication cables took center stage. In the early 1830s, the electrical communication system made significant progress in this industry as people could now get in touch through electronic devices like a telephone.

Technology has also given us brand new devices in recent decades, like smartwatches, tablets, and voice assistant devices. With these devices, we can do things like transfer money instantly and make purchases for everything from clothes, food delivery, groceries, furniture, and more. Technology has changed how we entertain ourselves, meet each other, and consume all types of media. It's made fun advancements, but it's also made important advancements in safety when it comes to home security and medical devices.Those struggling with hearing loss can now benefit from hearing aids, or tv listening devices that allow them to comfortably listen to their favorite programs with ease.Especially for seniors, these devices are providing the freedom to age in place, to live independently, and to continue moving through everyday life with peace of mind. It opens up new opportunities by helping with safety, mobility and connectivity. Medical advancements have made it so you can stay proactive with conditions like diabetes and arthritis. With new medical alert devices, seniors can also get help at the push of a button and keep in touch with loved ones no matter where they are in the world.

In a small Italian town, hundreds of years ago, a small business owner owed a large sum of money to a loan-shark. The loan-shark was a very old, unattractive looking guy that just so happened to fancy the business owner's daughter.

He decided to offer the businessman a deal that would completely wipe out the debt he owed him. However, the catch was that we would only wipe out the debt if he could marry the businessman's daughter.Needless to say, this proposal was met with a look of disgust.

The loan-shark said that he would place two pebbles into a bag, one white and one black.

The daughter would then have to reach into the bag and pick out a pebble. If it was black, the debt would be wiped, but the loan-shark would then marry her. If it was white, the debt would also be wiped, but the daughter wouldn't have to marry the loan-shark.Standing on a pebble-strewn path in the businessman's garden, the loan-shark bentover and picked up two pebbles.While he was picking them up, the daughter noticed that he'd picked up two black pebbles and placed them both into the bag.He then asked the daughter to reach into the bag and pick one.

The daughter naturally had three choices as to what she could have done:

1.  Refuse to pick a pebble from the bag.

2.  Take both pebbles out of the bag and expose the loan-shark for cheating.

3.  Pick a pebble from the bag fully well knowing it was black and sacrifice herself for her father's freedom.

She drew out a pebble from the bag, and before looking at it accidentally dropped it into the midst of the other pebbles. She said to the loan-shark"Oh, how clumsy of me. Never mind, if you look into the bag for the one that is left, you will be able to tell which pebble I picked."The pebble left in the bag is obviously black, and seeing as the loan-shark didn't want to be exposed, he had to play along as if the pebble the daughter dropped was white, and clear her father's debt.

# The Three Questions

By Ms. Bommagani Uma, B. Tech (CSE)- 20UP1A05B7

King John was the King of England. He did not like anyone else to look richer than himself. The Abbot of Canterbury was rich. He was enjoying luxurious life. The King did not like the Abbot. He was in great anger. He sent his soldiers to bring the Abbot. The soldiers brought him before the King. The King asked, "Who is greater? The King or an Abbot? Then how bold of you to enjoy much better than the king? You are plotting to become the King of England. It is a crime. Therefore you must die.

"The Abbot was greatly frightened. He said very humbly. "Your Majesty, I have never used others' money for my use. Is it a crime to spend my own money for my needs?" "Yes," replied the King. Then he added, "It is a crime to live grander than the King." The Abbot trembled in fear. The King continued. "But I shall give you a chance to get pardon. Answer my three questions correctly to my satisfaction." Then he gave out the three questions.

1. Tell me how much I am worth?
2. How long will it take for me to go around the world?
3. What I am thinking now?

The Abbot listened. His confusion and fear increased rapidly. He could not speak. Finally he begged for time to answer. Three weeks were given. The Abbot left the palace in a dejected mood.

On the way, he went into Oxford University and Cambridge University. He met great professors and learned men. He asked them for answers to these three questions. They were not able to find the suitable answers. He was returning home safely.

On the way he met his shepherd boy. The shepherd asked the Abbot, "Why are you looking so sad, my master?" "My dear shepherd, the King has set three questions for me. I have to find answers to his satisfaction, or else die for plotting against the King. The questions are difficult. I have only three days more," replied the Abbot.

The shepherd said, "My Lord, let me go in your place. I shall meet the King. I shall answer the three questions to his satisfaction." Then he added, "People say I look very much like you. Therefore permit me to wear your dress. The king will not be able to find out."The Abbot agreed. Immediately the shepherd put on the Abbot's dress. He exactly looked like the Abbot. He then went to meet the King. The King had not expected the Abbot so soon. He was not able to find the difference. He said, "I am happy, Abbot. You have kept your promises. Now he are ready with the answers?" The shepherd in the Abbot's dress replied, "Yes, Your Majesty. I shall try to answer to the best of my ability."

The King asked, "What am I worth? I am the King of England." "Your Majesty," replied the shepherd, "according to the Bible, Jesus, the King of Heaven and Earth, was sold for thirty pence. Your worth must be one pence less. It should be twenty nine pence. "The King had a sense of humor. He started laughing. After some time, he gave out second question. "How soon can I ride around the world?" The shepherd said, "Your Majesty, you must rise with the Sun, ride with it the whole night. In this way, you will be able to go round the world in twenty four hours." Again the King had a merry laugh.

Then he looks seriously at the shepherd. He said, "Tell me quickly. What am I thinking now?" "Sire, you are thinking I am the Abbot. But I am not the Abbot. I am only his poor shepherd. I have come to ask pardon for the Abbot and for myself." Then he quickly removed the Abbot's dress. Now he looked like a shepherd. He knelt down before the King for pardon.

The King was not at all angry. He started laughing. And he laughed for a long time. Finally he said, "I am pleased with your intelligence. I shall make you the Abbot." But the shepherd said, "Your Majesty. I can not read and write. I can not become an Abbot." The King said, "Then you shall receive a pound a week as long as you live. Go home and tell the Abbot. I have forgiven him.

# Do You Remember

Somewhere in a dream, Serene and blissful from the start It comes to me again The two of us in love, and eagerly alone Breathlessly naive', and blissfully assured that we would be as one ...that nothing in the world outside, could ever be compared...

Two bikes took rest against a tree We climbed the nearest hill, Through foxtails, deep and thickets, high Along a creek bed, far and wide, wading through warm granite stones Slick and wet, with velvet moss littered deep with autumn leaves, and the urgent tender years ....

My darling...do you remember...? We were like children, we marveled and swooned at the shapes of the clouds in the lavender sky changing their forms in a wink of the eye We were wild with love, that stirred the stones Discovering firsts, and thirsts unknown .....

Layers of years, now whisper here, Imprisoned in this hidden place, with every breath of air.

Not a fluent time that bends or moves ...but time fully reasoned, with ancient eyes Unwound of it's youthful eyes and loves Where dulcet words plucked out of space Have not been tinged by autumn's breath And innocence is scattered like leaves upon the breeze And lingers, ...with a sweet wistful sigh ..

We who once made love, ...a thousand skies ago Have slept with tossing shadows and lilting cries Still tremble with the memory

Oh, ...I know the subtle ways of empty dreams And I shall go by silent lanes and leave this day....and you....

By Ms. M. Sneha Harshitha,
B. Tech (CSE)- 19UP1A0529

# They walk amongst us

They walk amongst us, but in silent ways, spreading peace and love without any praise. When thunder roars and lightning strikes in rain they watch over us, healing bleeding pain.

Yet we do not see their celestial light, nor do they shed feathers within our sight. Happy to hide behind unknown faces, empathy guides them to deprived places.

Heal and soothe, they prevent tears from flowing, touch our hearts to leave our spirits glowing. From Sydney to London, Rome to Bombay, provide moments that take our breath away

Their acts of grace form a ripple effect, kind gestures that help people to connect.

By Ms. M. Mounika,
B. Tech (CSE)- 19UP1A0528

# Waiting to be free

I am dying, but not like anybody who died. I am living, but in the rainbow, I do reside.

How much longer will I go until secrets unveil? My mind cannot comprehend but my heart will decide.

My problems are too simple, my remedy complex; Love is my medicine, which I have identified.

Destination is unknown; the journey is too short, My vehicle is broken, our driver is mystified.

My body is a cage, my soul is shackled inside. Speak not of troubles, my pain will be justified.

The door is half open; I can see the ray of love, My heart will take over until we're all unified.

Tomorrow, I will fly with swallows, they know the path. Who can you trust "Haloo"? There is no one to confide.

By Ms. Vanchi Sathvika,
B. Tech (CSE)- 20UP1A0554

# My Eternal Friend

My lifelong friend,

Thousands of times have we said good morning to each other and As many times have, we said goodnight

You have wakened me up with the caresses of the sun's rays and put me To sleep with the lullabies of sunset's myriad hues.

Many a time, you were calm as a harbor's waters, and others you were Turbulent as the stormy sea

But,

I loved you the same, so we Inseparable have remained.

How many times have I waited for your coming, you will never know. Neither will you know how much I have prayed to see you faster go When so unkind you were to me

However,

You kept your pace unchanged, obeying only the will of mighty time.

All these years you have brought to me:

Joys and sorrows,

Laughter and tears,

Successes and failures,

Health and sickness,

Life and death.

You were the best of my friends and the worst of my enemies but United, side by side, we stood. How could it be otherwise when we Both wished our destiny to fulfill?

Now, my eternal friend, the circle of my life is almost complete. The days for me are numbered.

How many more times are we going to salute each other is unknown to all but to God,

So Before we say our final goodnight, let me thank you for every sunrise and every sunset,

For all the sunshine and all the storms you have brought to my life For Without them, an empty vessel, without any experiences would I have been,

Useless to everybody and worthless to myself Thus When tomorrow you, my wise friend,come and unable you will be, me to awake, Be not disturbed Since Another dawn, brighter than yours, will have taken me into its arms to Console me with her everlastingly divine love!

By Ms. Ravula Hiranmai,
B. Tech (ECE)- 19UP1A0473



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TECHNICAL MAGAZINE

Orientation programme is held on 29th September, 2021, the institute grounds to greet newly enrolled B.Tech students and aid them in beginning their academic journey. The main goal of the programme is to make parents and students aware of the academic components of the course, the Institute's rules and regulations, and to ensure parental participation in monitoring the students' performance and growth. You will also get the opportunity to meet and connect with department heads, faculty, and fellow students.

# VIGNAN'S INSTITUTE OF MANAGEMENT AND TECHNOLOGY FOR WOMEN

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