### **TEQZONE**

2019-2020

### **Institute Vision**

To be a Global Leader in imparting Quality Technical Education to produce Competent, Technically Innovative Engineers imbibed with Research Aptitude, Entrepreneurship and Social Responsibility.

### **Institute Mission**

- 1.To nurture the Students with Fundamental Engineering Knowledge enriched with Technical Skills.
- 2.To create Conducive Environment to nurture Innovation and Interdisciplinary Research.
- 3.To develop Professionals through Innovative Pedagogy focusing on Individual Growth, Discipline, Integrity, Ethics and Social Responsibility.
- 4.To foster Industry-Institution Partnerships Leading to Skill Development and Entrepreneurship.

#### **DEPARTMENT VISION**

To be a center for academic Excellence in Computer Science and engineering Education, Research and Consultancy

Contributing Effectively to meet industrial and social needs



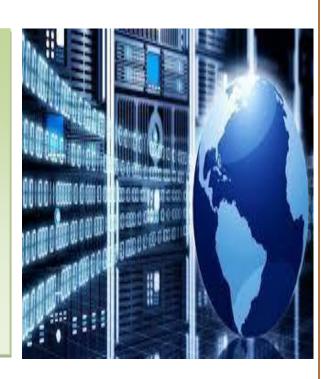
#### **DEPARTMENT MISSION**

- i. To Impart quality technical education with global standards.
- ii. To Provide a platform for harnessing Industry oriented technical skills with inter disciplinary research awareness.
- iii. To Promote entrepreneurship and leadership qualities imbibed with professional ethics



#### ABOUT DEPART MENT

The Department of Computer Science and Engineering offers 4-year Degree which is established in the year 2007 with intake of 60 seats in CSE. It is approved by AICTE and Affiliated to JNTUA, Anantapur. In 2011 post graduate programe (M.Tech) in Computer Science & Engineering is introduced with an intake 18 seats. An additional intake of 6 seats was incorporated in 2013, total intake of M.tech program reaches to 24 seats. The course is flexible and has been structured to meet the evolving needs of the IT industry. Since the Management of this college includes the highly educated persons, it understands the value of the latest applications. employees or to turn as employers by taking up some entrepreneurial steps.



### **Program Educational Objectives (PEO)**

**PEO1:** Graduates of the Program will have Strong fundamental knowledge in Computer Science & Engineering, technical competency and problem-solving skills to develop innovative solutions.

**PEO2:** Graduates of the Program will have Necessary domain knowledge and successful professional career in IT and allied fields of Computer Science & Engineering.

**PEO3:** Graduates of the Program will have Ability to pursue higher education and Entrepreneurship.

**PEO4:** Graduates of the Program will have Necessary skills for lifelong learning, teamwork and research to cater for real time needs of industry and society.

### **Programme Specific Outcomes (PSOs)**

**PSO1:** Apply Software Engineering Principles and Practices to provide software solutions.

**PSO2:** Design and Develop Network and Mobile based applications.

**PSO3:** Design innovative algorithms and develop effective code for business applications.

### **ACKNOWLEDGEMENT**

We extend our sincere thanks to .......

Honorable Chairman

Dr. K.V. Subba Reddy

Secretary & correspondent

Smt. S. VijayaLakshmamma

**Principal** 

Dr. L. Thimmaiah

**HOD** 

Dr. C.Md Gulzar

All our staff members for their humble

Co- operation and involvement in their creation of bytes,

For the year 2019-2020



### Message from the Chair man

It's been a real pleasure to know that the Department of CSE is hosting their first ever National Level Technical Symposium "TEQZONE", AND I' am glad to hear that it is being organized wholly for the students with guidance of the staff members. Such combined effort is always encouraged and bring out good results.

The Department of computer Science and Engineering has always conducting activities which helps in Development of students into leaders, I hope TEQZONE2019 is a huge success and adds a new star in the history of the department

With Regards

Dr. K.V. Subba Reddy,

Founder – Chairman,

Dr. K.V. Subba Reddy Institute of Technology,

Kurnool- 518218,



### Message from the Correspondent

I feel very proud that the Department of CSE is Organizing a national level technical symposium "TEQZONE" on 2019.

The 21st century is advancing rapidly by multipronged scientific inventions and discoveries in that the Computer Science and Engineering is playing the vital role in all scientific developments. The has Com that without Computer Science Engineering nothing is going to move I this universe. In this perspective the contribution the development of society by this department is vital in all sphere of life.

I heartily wish the staff and students of the department in their endeavor to bring in a house magazine which will otherwise contribute to the highest learning of this magnificent engineering.

With Regards

Secretary & Correspondent

Smt. S. VijayaLakshmamma,

Dr. K.V. Subba Reddy Institute of Technology,

Kurnool- 518218,



### Message from the Principal

In the ever-changing field of technical education, technology is moving at a very fast pace. What was break through yesterday is obsolete today. This has made it improve that future technocrats must be familiar not only with technical skills but also with the technology of tomorrow. I hope young engineers passing from this instigation will create difference in Indian and global scenario.

I expect my students to be sincere in their work. They should have never given up attitude and unquenchable thirst of know ledge. I am sure that this magazine will provide platform to students to sharpen their skills.

With Regards

Dr. L. Thimmaiah,

Principal

Dr. K.V. Subba Reddy Institute of Technology,

Kurnool- 518218,



### Message from the HOD

I wish that this seminar provides an opportunistic forum and vibrant platform for the engineers to share their original research work and practical development experiences and emerging issues.

With Regards

Dr . C. Md Gulzar, CSE-HOD

Dr. K.V. Subba reddy Institute of Technology, kurnool- 518218,

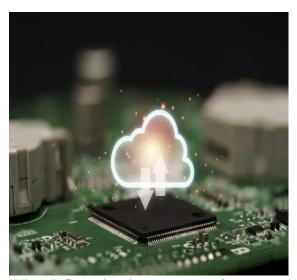
### **ABOUT COLLEGE**

This institution was established in the year 2007 by Dr. K.V. Subba Reddy, Chairman, Dr. K.V. Subba Reddy, Chairman, Group of institutions and his wife Smt. S. Vijaya Lakshmamma correspondent K.V. Subba Reddy group of institutions with an altruistic motive of providing deserved technical education to the students with humble education background Dr. K V SRIT is located at Dupadu Village, On highway NH-44 to words Kurnool to Bangalore, in a sprawling area spreading over 40 acres admist lush green fields the scenic landscape and the serene environment is absolutely conductive for academic pursuits. The institute which is 9km away from Kurnool city can be reached by bus or auto The institute offers 5 UG Programs in CSE, ECE, EEE, ME and CE and five PG Programs in MBA, MTech (ECE), MTech (EEE) MTech (CE) MTech (CSE) The Institution Has registered considerable growth in terms of infrastructure with untiring efforts of management, the departments are accommodated with highly qualified and experienced faculty members. The institute is marching a head by imparting quality technical education with an objective of producing young engineers and managers endowed with dynamic skills and prudence to meet their future challenges For more details visit WWW.drkvsrit.in.



### Best Cheap Cloud Hosting Options Available in Collaboration Techniques

Cloud hosting refers to a type of web hosting service that utilizes a network of remote servers to store, manage, and process data, rather than relying on a single server. In terms of cost, the price of cloud hosting varies widely, depending on the provider, the resources required, and the level of service offered. That being said, some of the best cheap cloud hosting services in the world can be found from providers like DigitalOcean, Vultr, Linode, and AWS LightSail. These providers offer low-cost packages that are suitable for small websites and applications, making it easier and more for individuals affordable and businesses to take advantage of cloud technology. Read more on Cloud Computing.



What defines the cheapest server? When searching for the cheapest server, there are several factors to consider:

Provider: The cost of servers can vary greatly depending on the provider. Some providers may offer low-cost options for basic servers, while others may have more expensive options with additional features and resources.

Location: The location of the server can also impact the cost. Servers in countries with lower labor and electricity costs may be cheaper than those in more expensive regions.

Resources: The number of resources you need, such as storage, RAM, and CPU, will impact the cost of your server. Choosing a server with only the resources you need can help keep costs low.

Type of server: Different types of servers, such as shared, VPS, and dedicated servers, have varying costs. Shared servers are typically the cheapest, while dedicated servers can be more expensive due to the exclusive use of resources.

Service level: Finally, the level of support and services offered by the provider can impact the cost of a server. Some providers may offer lower-cost options with limited support, while others may have more expensive options with 24/7 support and managed services.

Who is cheaper AWS or Azure?

Comparing the cost of AWS and Azure can be complex, as the price of each service depends on a variety of factors such as usage, storage, data transfer, and more. Additionally, both AWS and Azure offer a range of pricing options and discounts, making it difficult to determine which provider is cheaper without conducting a thorough evaluation.

Generally speaking, AWS is known for its flexible pricing options and can be more cost-effective for organizations that have varying or unpredictable workloads. On the other hand, Azure is known for its cost-effective offerings for Windows-based workloads and can be a more cost-effective option for organizations that use Microsoft technologies.

It's important to note that while cost is a

major consideration, it should not be the only factor in selecting a cloud provider. Other factors, such as performance, reliability, security, and support, are also critical to the success of any cloud implementation.

In conclusion, determining which provider is cheaper between AWS and Azure requires a detailed evaluation of each provider's pricing options, discounts, and the specific needs and requirements of an organization. It's recommended to consult with a cloud expert or conduct a cost analysis to make an informed decision.

Is AWS still free after 12 months?

No, AWS is not free after 12 months. The AWS Free Tier offers a limited amount of free resources for a period of 12 months, after which you will be charged for any additional usage.

Limited Resources: The AWS Free Tier provides access to a limited amount of resources, including EC2 instances, S3 storage, and other services. Once you exceed the free tier limits, you will be charged for additional usage.

Time limit: The AWS Free Tier is available for the first 12 months after signing up for an AWS account. After that, you will be charged for any additional usage of AWS services.

Ongoing charges: Even if you stay within the free tier limits, you may still incur charges for other AWS services, such as data transfer, Amazon RDS, and Amazon S3.

Upgrade options: If you need additional resources or services beyond the free tier limits, you can upgrade to a paid AWS service plan. The cost of these plans will depend on your usage patterns and the services you need.

While the AWS Free Tier provides a great way to get started with AWS services, it is

important to understand the limitations and costs associated with using AWS after the 12-month free period completes.

Related Cloud Computing Articles:

Snowflake and Other Top Cloud Computing Service Providers

Cloud Computing vs. Distributed Computing: Know the Differences

What is Serverless Edge Computing? Features | Benefits

Which cloud is cheaper in the USA?

Comparing the cost of cloud services in the USA can be challenging as the cost depends on a variety of factors, such as the services used, the number of resources consumed, and the region in which the services are being run.

In general, AWS and Azure are considered to be two of the leading cloud service providers in the USA, and both offer a variety of pricing options and cost optimization tools to help control costs.

It is essential to carefully evaluate your specific needs and usage patterns to determine which provider offers the best cost-effectiveness for your organization. You can use the pricing tools such as AWS Pricing Calculator and Azure Pricing Calculator to estimate the prices based on your business needs.

However, there are other providers, such as Google Cloud and OVHcloud, that are also worth considering when looking for a low-cost cloud solution in the USA. OVHcloud, in particular, is often mentioned as a low-cost alternative to AWS and Azure, and by using the discounts provided by OVHcloud, you can further reduce the cost of their services. They offer a wide range of hosting solutions, including cloud hosting, dedicated servers, and VPS hosting. Additionally, they

provide 24/7 support, reliable uptime, and a user-friendly control panel.

### **Conclusion**

Finding the best cheap cloud hosting provider can be a challenging task as it depends on a variety of factors, including the services needed, the number of resources consumed, and the region in which the services are being run. The leading cloud hosting providers, such as AWS, Azure, and Google Cloud, offer various pricing options and cost optimization tools to help control costs. Additionally, other providers, such as OVHcloud, and Alibaba cloud may offer more cost-effective solutions. It is important to carefully evaluate your specific needs and usage patterns to determine which provider offers the best cost-effectiveness for your organization.

R. Krishna Bhargav (17FH1A0501) II-II SEM (CSE)

### 7 Benefits Of Email Trackers Every Parent Should Know

# J. Somesheker (Assistant Professor)

Email tracking refers to the practice of monitoring and recording the activity of emails. It lets you see the recipient's email box vividly from spam mail, viewing senders' addresses to many other features. Email tracking is becoming increasingly popular among parents who want to monitor their kids' email communications. Sometimes, it threatens privacy and security hackers can use email tracking technology to access sensitive information. As such, it's vital to be cautious using email trackers from reputable, secure services. For parents, it is a must to have an ema----il tracker to understand the emails on their child's account. You can reap the benefits of email tracking with a reputable app that is sensitive to your needs and doesn't threaten your privacy.

following will exhibit more on the benefits of email trackers for kids.



1. Easily Track Spam Emails
Email trackers can help parents protect their kids from online dangers by easily tracking spam emails. With these tools, parents can filter out unwanted emails and ensure their

kids only receive safe and appropriate emails. This feature can give parents peace of mind, knowing their kids' protection from cyber threats.

#### 2. Track All Sent And Received Mail

The advantage of an email tracker is that parents can monitor all the emails their kids send and receive. This feature provides a complete overview of email activities, including each email's time, date, and sender/recipient. This information is for parents who want to ensure their kids communicate with the right people and do not engage in suspicious or dangerous online activities.



3. View Email Addresses For The Sender and Receiver

An email tracker also allows parents to view the email addresses of both the sender and the recipient. This information can be valuable in ensuring their kids communicate with people they know and trust. For instance, if a parent notices an email from an unfamiliar address, they can take steps to verify the source and ensure their kids' safety online.



4. Set An Unlimited Number Of Safe/Unsafe Areas

With email tracking, parents can set up an unlimited number of safe and unsafe areas for their kids. For example, they can block their kids from accessing certain types of emails, such as those that contain explicit content, while allowing them to receive emails from trusted sources. This feature protects kids and gives parents more control over online experiences. In addition, this feature can also help parents set boundaries and encourage responsible email behavior in their kids.

### 5. Get Email Alerts Each Time They Enter/Leave Geofences

A reputable email tracker for kids can send email alerts to parents each time their kids enter or leave a designated "geofence." A geofence is a virtual boundary around a specific location, such as a school or home. When kids cross the border, parents receive an alert, allowing them to keep track of their movements and ensure their safety.



### 6. Check The Date And Time Stamp Of Geofence Location Areas

The advantage of an email tracker is that it allows parents to check the date and time stamp of when their kids enter or leave a geofenced area. This information can provide a detailed history of movements and activities. For instance, if a parent wants to confirm that their kids arrived at school on time or if they left school at the expected time, they can use this feature to check the time stamp of when their kids entered or left the school geofence. This information can provide valuable insights into their routines and help parents make informed decisions to ensure their safety and well-being.

### 7. View History And Get All The Area Details On Email

With an email tracker, parents can view a complete history of their kids' email activities, geofence entries, and exits. This information is organized and stored in an easy-to-access manner, allowing parents to quickly find the information they need. For example, if a parent wants to check on their kids' email communication over the past

week, they can view the history and see all the emails their kids have sent and received, including the time and date, sender/recipient email addresses, and any geofence alerts. This feature provides a comprehensive overview of their kids' online activities and helps parents stay informed and involved in their digital lives.

More Interesting Articles on CyberSecurity:

Causes of CyberCrime and Preventive Measures

How Cyber Security is Changing in the World of Digital Technology

Best Browser Security Guide to Protect your Privacy from Hackers

A complete guide to detect and prevent Phishing Scams

How To Use A Parental Control App for Mail Tracking?

As a parent, ensuring your child's safe and responsible use of technology is crucial. One tool that can help in this effort is the TiSPY parental control app. It enhances email tracking and promotes safe internet browsing for kids.

To Conclude

### **Conclusion**

In conclusion, email trackers for kids can be a valuable tool for parents in today's digital world. By tracking mail on android, parents can ensure their children's online safety. monitor their online activities communication, and teach them responsible use of technology. Parents must educate their children about online security and provide them with the tools and resources necessary to navigate the digital landscape. Another useful article to protect kids from the internet is – What is the Dark Web? How to Protect Your Kids from the Dark Web?

# Causes of Cybercrime and Preventive Measures

## Deena Divya Nayomi (Assistant Professor)

Rapid technological growth developments have provided vast areas of new opportunities and efficient sources for organizations of all sizes. Technological growth is majorly backed by the internet. The internet has brought distant objects closer, in other words, it makes the world small. The internet has now become a national asset, the whole national security is also dependent on it. But these new technologies have also brought unprecedented threats with them i.e. cybercrime. Cybercrime is a crime in which a computer is used for a crime like hacking, spamming, phishing, etc.

### Introduction to Cybercrime:

Cybercriminals use the internet computer technology to hack users' personal computers, smartphone data, personal details from social media, business secrets, national secrets, etc. Criminals who perform these illegal activities through the internet are called - Hackers. Though law enforcement agencies are trying to tackle this problem, it is growing regularly and many people have become victims of identity theft, hacking, and malicious software. One of the best ways to stop these criminals and protect sensitive information is by making use of inscrutable security that uses a unified system of software and hardware to authenticate any information that is accessed over the Internet. Let's find out more about cybercrimes.



Causes of Cybercrime

Cybercriminals always opt for an easy way to make big money. They target rich people or rich organizations like banks, casinos, and financial firms where a huge amount of money flows daily and hack sensitive information. Catching such criminals is difficult. Hence, that increases the number of cybercrimes across the globe. Computers are vulnerable, so laws are required to protect and safeguard them against cyber criminals. We could list the following reasons for the vulnerability of computers:

Easy to access – The problem behind safeguarding a computer system from unauthorized access is that there are many possibilities of breach due to the complex technology. Hackers can steal access codes, retina images, advanced voice recorders, etc. that can fool biometric systems easily and bypass firewalls can be utilized to get past many security systems.

Capacity to store data in comparatively small space – The computer has the unique characteristic of storing data in a very small space. This makes it a lot easier for people to steal data from any other storage and use it for their own profit.

Complex – The computers run on operating systems and these operating systems are programmed with millions of codes. The human mind is imperfect, so it can do mistakes at any stage. Cybercriminals take

advantage of these gaps.

Negligence – Negligence is one of the characteristics of human conduct. So, there may be a possibility that in protecting the computer system we may make any negligence that provides cyber-criminal access and control over the computer system.

Loss of evidence – The data related to the crime can be easily destroyed. So, Loss of evidence has become a very common & obvious problem that paralyzes the system behind the investigation of cybercrime.

Types of CyberCrimes

There are many types of cyber-crimes and the most common ones are explained below:

Hacking: It is a simple term that defines sending illegal instructions to any other computer or network. In this case, a person's computer is hacked so that his personal or sensitive information can be accessed. The criminal uses a variety of software to crack a person's computer and the person may not be aware that his computer has been accessed from a remote location. Often, government websites are a hot target for hackers because it helps them gain notoriety which is further fuelled by aggressive media coverage. This is different from ethical is used hacking which bv organizations to check their Internet security protection.

Child pornography and Abuse: The internet is being highly used to abuse children sexually worldwide. This is also a type of cybercrime wherein criminals solicit minors via chat rooms for the purpose of child pornography. The Cybersecurity department of every nation is spending a lot of time monitoring chat rooms frequented by children with the hopes of reducing and preventing child abuse and soliciting.

Piracy or Theft: This crime occurs when a person violates copyrights and downloads music, movies, games, and software. There are even peer-sharing websites that encourage software piracy and many of these websites are now being targeted by the FBI. Today, the judicial system is addressing this cyber crime and there are laws that prevent people from illegally downloading. Film producers and directors often become victims of this crime.

Cyber Stalking: This is a kind of online harassment wherein the victim is subjected to a barrage of online messages and emails. Typically, these stalkers know their victims and instead of resorting to offline stalking, they use the Internet to stalk. However, if they notice that cyberstalking is not having the desired effect, they begin offline stalking along with cyberstalking to make the victims' lives more miserable.

Cyber Terrorism: Cyber terrorism, also known as information wars, can be defined as an act of Internet terrorism that includes deliberate and large-scale attacks and disruptions of computer networks using computer viruses, or physical attacks using malware, to attack individuals, governments, and organizations. The goal of terrorism is to create a feeling of terror in the minds of the victims. Keeping this concept in mind, it becomes easier to differentiate cyber-attacks from a financial, or egotistical, gain from acts of cyberterrorism. Cyber terrorists operate with the goal of damage and destruction at the forefront of their activities. Identity Theft: This has become a major problem with people using the Internet for cash transactions and banking services. In this cybercrime, a criminal accesses data about a person's bank account, credit cards, Social Security, debit card, and other sensitive information to siphon money or to buy things online in the victim's name. It can result in major financial losses for the victim and even spoil the victim's credit history.

Computer Vandalism: Computer vandalism is a type of malicious behavior that involves

damaging computers and data in various ways and potentially disrupting businesses. Typical computer vandalism involves the creation of malicious programs designed to perform harmful tasks such as erasing hard drive data or extracting login credentials. Computer vandalism differs from viruses, which attach themselves to existing programs.

Malicious Software: These are Internet-based software or programs that are used to disrupt a network. The software is used to gain access to a system to steal sensitive information or data or cause damage to software present in the system.

Fraud Calls/eMails: You must have heard a lot about this crime and you may have also received such a fraud call. It is called vishing, also known as voice phishing. In this type of crime, the criminal contacts you through fake messages, calls, or emails in which he declares himself to be an employee of a bank and he has called related to your bank account or cards. He asks for personal details like ATM card information, OTP, password, etc. or asks to click on the link sent by himself. If you mistakenly trust them and give them the details, you will lose the money kept in your account. Keep in mind that no information is ever asked from any bank that is sensitive and never shares any information related to your account on the internet or to an unknown person. Read about Phishing in detail.



Fake news sharing in social media: Some

cybercriminals simply work on social networking sites to spread social, religious, and political rumors. Impressed by this, common people inadvertently share links or posts shared by unknown people on their social media. This causes the user to face legal actions, keep in mind that sharing any illegal link or post on social media also comes under the category of cybercrime. So, avoid these things and do not do any work on social media under the pretext of someone, which may ruin your whole life. Online illegal selling (Dark Web): In this crime, a criminal sells illegal weapons, drugs, smuggled goods, or personal

crime, a criminal sells illegal weapons, drugs, smuggled information to the person on an illegal online shopping platform and the transaction is also done via cryptocurrency. It promotes terrorism and black marketing. For example, such as the Dark web, is content from the World Wide Web that exists on Darknets, and networks but requires specific software, configuration, or authorization to access. Everything illegal is transacted on this web search. Now, you must be thinking that if it is illegal then very few people would be using it, then you are wrong, there are millions of users all over the world and the number is increasing daily.

How to tackle CyberCrime?

To tackle cybercrime effectively, establish multidimensional public-private collaborations between law enforcement technology agencies, the information industry, information security organizations, companies. internet and financial institutions. Unlike the real world, Cybercriminals do not fight one another for supremacy or control. Instead, they work together to improve their skills and even help out each other with new opportunities. Hence, the usual methods of fighting crime cannot be used against cyber criminals.

The best way to go about this is by using the solutions provided by Cross-

Domain Solutions. This allows organizations to use a unified system comprising of software and hardware that authenticates both manual and automatic transfer and access to information when it takes place between different security classification levels. This allows seamless sharing and access of information within a specific security classification, but cannot be intercepted by or advertently revealed to the user who is not part of the security classification. This helps to keep the network and the systems using the network safe.

Use Strong Passwords: Maintain different password and username combinations for each account and resist the temptation to write them down. Weak passwords can be easily cracked using certain attacking methods like Brute force attacks, Rainbow table attack,s etc. The following precautions can be taken to avoid your password getting hacked.

Using keyboard patterns for passwords. e.g. – qwertyui

Using easy combinations. e.g. – Raju1990, Feb1990

Using Default passwords. e.g. - Welcome 123, Ravi 123

Keeping the password the same as the username. e.g. – Raju/Raju

Be social media savvy: Be sure to keep your social networking profiles (Facebook, Twitter, YouTube, etc.) set to private. Be sure to check your security settings. Be careful of what information you post online. Once it is on the Internet it is there forever.

Secure your Mobile Devices: Many people are not aware that their mobile devices are also vulnerable to malicious software, such as computer viruses and hackers. Be sure to download applications only from trusted sources. It is also crucial that you keep your operating system up-to-date. Be sure to install anti-virus software and use a secure

lock screen as well. Otherwise, anyone can access all your personal information on your phone if you misplace it or even set it down for a few moments. Someone could even install malicious software that could track your every movement through your GPS.

Protect your data: Protect your data by using encryption for your most sensitive files such as financial records and tax returns. A person can stay one step ahead of the hacker by getting information about the scams and hacking styles on the Internet. Fishing is a famous hacking method, but a person can get rid of all the frauds by taking information from the Internet about the latest fishing attacks. So, stay safe and tell your neighbors about these scams and make them aware.

Protect your identity online: When it comes to protecting your identity online it is better to be too cautious than not cautious enough. It is critical that you be cautious when giving out personal ID such as your name, address, phone number, and/or financial information on the Internet. Be certain to make sure websites are secure when making online purchases, etc. This includes enabling your privacy settings when using/accessing social networking sites.

Keep your computer current with the latest patches and updates: One of the best ways to keep attackers away from your computer is to apply patches and other software fixes when they become available. By regularly updating your computer, you block attackers from being able to take advantage of software flaws (vulnerabilities) that they could otherwise use to break into your system.

Protect your computer with security software: Several types of security software are necessary for basic online security. Security software essentials include firewalls and antivirus programs. A firewall is usually your computer's first line of defense. It controls who and what can

communicate with your computer online. You could think of a firewall as a sort of "policeman" that watches all the data attempting to flow in and out of your computer on the Internet, allowing communications that it knows are safe and blocking "bad" traffic such as attacks from ever reaching your computer.

Parental Control: In the era of online technology, parents should monitor all the activities of their children online. Giving adequate privacy to children would be problematic. Parents need to be cautious and should keep an eye on browser history and email accounts regularly. A better way of handling this is by enabling parental control in mobile apps, browsers, and at the router level so that they will be able to access only the secured sites. This will keep the children safe from online fraud. Many apps like Netflix, Amazon Prime, and youtube offer kids-only personalized content to protect children from wrongdoings.



Call the right person for help: Try not to panic if you are a victim. If you encounter

illegal online content, such as child exploitation, or if you suspect a cybercrime, identity theft, or a commercial scam, just like any other crime report this to your local police. There are many websites to get help on cybercrime. To name a few https://staysafeonline.org,

https://digitalpolice.gov.in, www.usa.gov, https://cybercrime.gov.in

Other Interesting Articles on CyberSecurity

A complete guide to detect and prevent Phishing Scams in 2021

How Cyber Security is Changing in the World of Digital Technology

What is the Dark Web? How to Protect Your Kids from the Dark Web?

#### Conclusion

Today hackers are spread across the world in large quantities. Many government and private agencies like the FBI, CIA, and state police are working to detect these hackers, but we also have some duty to protect ourselves and our private data from online fraud. Apart from this, people who are illiterate should be given information about debit cards, credit cards, the internet, and computer. We know it is a bit difficult to catch these hackers because they sit in one country and hack the computer from another country, so the best way to avoid these things is that we have to be careful and alert and all IDs and Passwords on the Internet should always be unique and strong. Finally, I would like to say that if you use the internet properly and use secure websites, then it will be difficult for hackers to hack your data.

# Recent Advances in Solar Energy Technology

Solar power has come a long way since the first photovoltaic cell was invented in 1954. With the increasing demand for clean and renewable energy sources, solar power has been experiencing rapid growth and advancement in technology. Before we dive into the most exciting advances in renewable energy, let's take a look at why it's so important.

#### Importance of Solar Technology

Renewable Energy Source: Solar energy is a renewable energy source that is available abundantly and will not run out as long as the sun exists. Unlike fossil fuels, which are finite resources, solar energy provides an infinite and sustainable source of energy.

Environmentally Friendly: Solar energy is clean and does not produce harmful emissions, making it an environmentally friendly alternative to traditional energy sources. Using solar energy reduces our reliance on fossil fuels, which contributes to reducing greenhouse gas emissions and combating climate change.

Cost-Effective: While the initial investment in solar technology may be expensive, the long-term cost savings are significant. Once the system is installed, the energy it produces is essentially free, and the system will pay for itself over time.

Energy Security: Solar energy provides energy security, reducing our dependence on foreign sources of energy. By producing our own energy domestically, we can increase our energy independence and reduce the risk of disruptions in the energy supply.



Accessible: Solar technology can be installed in remote areas where access to traditional power grids is limited, providing access to electricity for people who would otherwise be without it.

In summary, solar technology is important for its role in promoting a sustainable and environmentally friendly future, reducing our dependence on fossil fuels, and increasing energy security. The benefits of solar technology extend beyond financial savings to provide a cleaner and more secure energy future for all.

There have been many advances in Solar Energy Technology from Perovskite Cells to Solar-Powered Homes in recent times. Now, let's look at five recent advances helping us realize this future.

#### Solar in the Home

Some of the most visible advances in solar power have been in residential renewable tech. Solar-powered homes have become increasingly popular as the cost of photovoltaic panels has decreased, and their efficiency continues to increase. Homeowners can install solar panels on their roofs to generate electricity from the sun, thus reducing their dependency on traditional power sources.

Photovoltaic panels and distribution systems have become so efficient that homeowners

can reliably use them to power everything in their homes, including large appliances. Yes, you can even use solar power to run a refrigerator! It cuts electricity bills and reduces your carbon footprint, making it a sustainable energy source.

#### Perovskite Cells

Perovskite cells are a promising new type of photovoltaic cell that uses a perovskite material instead of traditional silicon. Perovskite cells have the potential to be cheaper and more efficient than traditional PV cells. Researchers have achieved efficiencies of over twenty-five percent with these cells and continue to work on improving them.

#### **Solar Paint**

Researchers are developing solar paint, which can be applied to surfaces to create photovoltaic panels. This technology could be used to turn entire buildings into renewable energy generators. While still in the early stages of development, solar paint has the potential to make renewable energy solutions much more accessible. The paint could also reduce the number of resources used to manufacture photovoltaic cells, thereby reducing waste overall.

#### Solar-Powered Cars

Solar-powered cars have been around for a while, but recent advances in vehicle technology have made them much more practical. The Lightyear One, for example, is a solar-powered car that uses photovoltaic cells on the roof and hood to run its battery. The car has a range of over 450 miles and can be charged by the sun or a charging station.

#### Floating Solar Farms

Floating farms are a new type of renewable energy installation that can be used on bodies of water. These farms have several advantages over traditional solar farms, including increased efficiency due to cooler temperatures from the water. They also don't require land usage, which is ideal for cities or places with hilly terrain.

Floating solar farms are already used in several countries, including Japan, China, and the United States.

More Articles on Solar Power:

Solar Powered Speakers Solar Impulse – Solar-Powered Flight Final Thoughts

#### Conclusion

Thanks to environmental education efforts, more consumers are demanding clean and renewable energy, and solar power has come a long way in the past 70 years. With new materials, designs, and storage technologies, solar power is becoming more practical and accessible to a broader audience. As it grows and develops, it will likely become a primary energy source for many sectors and industries. We aren't too far off from living in a sun-powered world!

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# The Role of Artificial Intelligence in Healthcare Industry

The healthcare business is widely recognized as one of the most important and difficult to operate on the whole wide planet. It is a sector that has a considerable influence on society as a whole and is constantly undergoing a change in response to the requirements posed by patients. In this article, we will discuss the Role of Artificial Intelligence in healthcare industry.

Artificial intelligence (AI) and machine learning are quickly becoming one of the most game- changing technologies in the healthcare sector. Read more about Artificial Intelligence.



Image Source: Shutterstock

There are a wide variety of applications that may be developed using Artificial Intelligence in healthcare sector, and these applications have the potential to significantly disrupt the business. In this article, we will discuss some of the ways that AI is changing the landscape of the healthcare sector.

Disease detection and diagnosis

The improvement in illness identification and diagnosis is one of the most important ways that AI is having an influence on the healthcare industry.

X-rays, CT scans, and MRIs are just some of the medical pictures that may be analyzed more precisely and rapidly with the use of artificial intelligence (AI). Artificial intelligence Software is able to spot irregularities that human observers would overlook, which can lead to earlier discovery and more successful treatment.

AI may also be used to examine patients' medical histories and recognize trends, which can lead to a more accurate diagnosis of illnesses.

For instance, AI may be used to do retinal image analysis in order to identify early warning signals of diabetic retinopathy, a disease that, if left untreated, can lead to blindness in diabetic patients.

Artificial Intelligence algorithms are able to identify changes in the retina that the human eye may not be able to see since they analyze photographs of the retina. Because of this, medical professionals may be able to recognize the problem sooner, which may lead to more successful treatment and better results.

Another illustration of this would be the use of AI to screen for breast cancer. Artificial intelligence algorithms are capable of analyzing mammograms and locating possible malignancies with a higher degree of accuracy than human observers.

This may assist medical professionals in detecting breast cancer at an earlier stage, which can lead to more successful treatment and better results.

#### Personalized treatment plans

Also, AI is assisting in the development of individualized treatment programs for individuals. AI systems are able to recognize patterns in large volumes of medical data and make educated guesses about how a patient will react to a certain therapy by using this knowledge.

This information may assist medical professionals in the development of individualized treatment programs that are more likely to be successful and include a lower risk of adverse effects. You can also integrate your healthcare software with AI to smoothly run things.

For instance, artificial intelligence may be used to evaluate the genetic information of a patient and anticipate how that patient would react to a certain medication. This may assist medical professionals in selecting the most appropriate therapy for their patients, which can ultimately result in better results with fewer adverse effects.

Moreover, AI may be used to monitor a patient's reaction to therapy and modify the treatment plan appropriately. AI algorithms may identify changes in a patient's health by analyzing data from wearable devices.

They can then warn healthcare practitioners about any changes in the patient's health that may be cause for worry. Because of this, medical professionals may be able to act earlier and so avoid more significant consequences.

#### Remote patient monitoring

AI is also being used to remotely monitor individuals in order to identify possible health concerns before they become more severe. Artificial intelligence algorithms may monitor a patient's vital signs and warn healthcare personnel if there are any alarming changes.

This monitoring can take place with the use of wearable gadgets. Because of this, medical professionals may be able to act earlier and so avoid more significant consequences.

For instance, AI may be used in the monitoring of individuals who suffer from cardiovascular disease. Artificial intelligence systems may identify changes in a patient's heart rate by evaluating data from wearable devices.

These algorithms can then inform medical professionals if the detected changes are alarming. Because of this, medical professionals may be able to act earlier and so avoid more catastrophic consequences, such as heart attacks.

#### Drug discovery and development

AI is also playing an essential part in the process of discovering and developing new drugs. AI systems can find possible therapeutic targets and anticipate how particular substances will interact with the human body by evaluating massive volumes of data.

This is accomplished via the use of data mining. The process of developing new drugs might be sped up and made more effective with the aid of this.

For instance, artificial intelligence may be used to evaluate genetic data and locate possible medication targets.

AI algorithms may assist researchers in developing pharmaceuticals that target the genetic abnormalities that cause particular illnesses. This will ultimately lead to more effective therapies being designed.

AI may also be used to make predictions about the effects that medications will have on the human body. AI algorithms may make accurate predictions about the effects that medications would have on diverse populations by examining data from clinical trials.

One example of this would be patients who have particular genetic mutations. This may assist the physician in selecting the appropriate therapy for the patient, resulting in.

Other Articles on Artificial Intelligence:

Is Artificial Intelligence a Threat or a Benefit?

Top 10 Ways Artificial Intelligence Future will Change the World

Artificial Intelligence: Technology that Hosts Race between Enterprises Summary

AI is rapidly becoming a game-changing technology in the healthcare sector, with applications such as disease detection and diagnosis, retinal image analysis, and breast cancer screening.

AI is able to spot irregularities that human observers would overlook, which can lead to earlier discovery and more successful treatment. It can also be used to identify changes in the retina that the human eye may not be able to see, leading to more successful treatment and better results.

AI is being used to develop individualized treatment plans for individuals, evaluate genetic information, and monitor a patient's reaction to therapy. It can also identify changes in a patient's health by analyzing data from wearable devices, allowing medical professionals to act earlier and

avoid more professionals to act earlier and avoid more significant consequences.

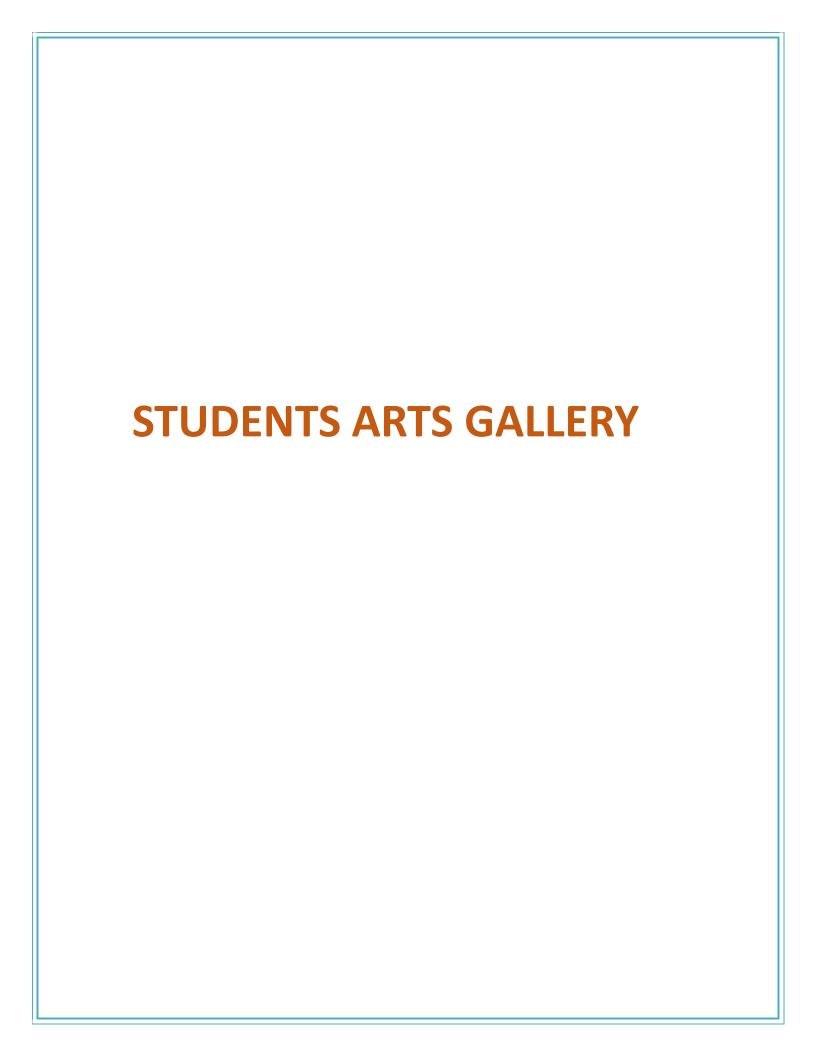
Remote patient monitoring is also being used to identify possible health concerns before they become more severe. AI is being used in the monitoring of individuals who suffer from cardiovascular disease and drug discovery and development.

#### **Conclusion:**

It can identify changes in a patient's heart rate by evaluating data from wearable devices and inform medical professionals if the detected changes are alarming. AI can also be used to evaluate genetic data and locate possible medication targets.

It can also make predictions about the effects of medications on diverse populations, such as patients with particular genetic mutations. This can help physicians select the appropriate therapy for the patient. We can expect a revolution by Artificial Intelligence in healthcare industry in time to come.

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