



THE FIRST EVER TECH MAGAZINE OF DPS BANGALORE SOUTH

18 AUG 2021 | ISSUE 01

# TECH BYTES

**DIPS TECHSPRINT  
2021 COMING  
SOON**

Page 0

- ➔ Importance of Cyber Security
- ➔ Wireless Comm Tech
- ➔ Brain Chip Interface

**6**

**Where & How do I start programming? Tips from a Pro**

**C/C++ OR PYTHON?**

**TECH NEWS  
PAGE 1**

**THE NEWLY  
FORMED  
IT CLUB**

PAGE 0

**EXCLUSIVE!**

**THE  
BIGGEST  
INTER-DPS  
CODING  
JAM**

PAGE 0

18 AUGUST 2021 | FREE



DiPS Tech Bytes

IT COUNCIL | DPS BANGALORE SOUTH

IT COUNCIL

# UPCOMING EVENTS

## DiPS Code Jam 2021 :

The IT Council is delighted to announce the first edition of **DiPS Code Jam**, a one-of-a-kind coding contest for all you coders out there. This competition will be held on the **21st of August (Saturday)** for 2hrs from **11am to 1pm**. Participate to stand a chance to **win prizes worth Rs4500**.

Please click on the link given below to register:

<https://dpsitcouncil.tech/dipscodejam2021>



## DiPS IT Club:

To all the tech lovers out there, the IT council has decided to form an IT club that cherishes the tech loving community in DPS.

This club is open to all who share the same amount of interest in tech as we do. This active and diverse platform can enable people to learn all things related to tech, collaborate with fellow enthusiasts and share tech knowledge and resources.

To join the IT Club, please visit:

<https://dpsitcouncil.tech/#ITClub>



## DiPS TechSprint 2021:

DiPS TechSprint is DPS Bangalore's **biggest Tech & Gaming Fest**, hosted by the IT Council. Overwhelmed with your response last year, DiPS TechSprint is now **BIGGER than EVER!!** Consisting of **5 major events** ranging from Hackathons to Gaming! Get Ready!!



# **Tech News**

## **Zoom accords to settle \$85 million lawsuit :**

Popular video conferencing application zoom, agreed to settle a privacy lawsuit worth \$85 million. The cloud meeting app was demanded to pay to remunerate the administration costs, the claims and notice. In the lawsuit, Zoom was charged with sharing personal user data with Facebook, LinkedIn and Google. Though it denied privacy breach, it admitted that there was a need to surge the security in the company

## **Infosys and many other top IT companies hiring about 60,000 women:**

In an aim to seek gender neutrality at their workspaces, TCS, Wipro, Infosys and HCL might hire about 60,000 women this year. While Wipro and Infosys are looking at hiring about 45% to 50% women, HCL plans to hire 60% of women candidates via campus selections. At TCS however, this is likely to be 38% to 45%.

## **The 3,600 mics at the Tokyo Olympics:**

The olympics is one of the largest sporting events in the world. As most of the people would watch it from their homes, a lot of microphones were used over the years, to give the viewers a better feel. However this year, as the stands were empty in the Tokyo olympics, the sounds in the stadium echoed, causing the mics to catch every slight detail, including camera shutter clicks. This was hence addressed by fake crowd noise recordings and an audio carpet, which was the audio of the stadium with no action taking place.

## **The touchdown of the Pegasus Malware:**

The Pegasus was created by an Israeli surveillance company, NSO Group Technologies, unlike other spyware which are created by unknown hackers in the dark web. Pegasus has been around since 2016, infecting devices, through rancorous links. However currently the Pegasus malware is being dropped into devices through missed calls, which you cannot protect yourself from, after which it can access the device camera and audio.



# THE IMPORTANCE OF CYBER SECURITY

In the past six months, we have seen numerous data breaches from big corporations across the globe making it to the prime time news. Breaking news headlines such as

**“Massive data leak exposes 700 million LinkedIn users’ information”,  
“Microsoft security shocker as 250 million customer records exposed online”,**

**“45 Lakh affected in massive Air India data breach including credit cards”.**

These data breaches captured headlines all over the world in newspapers and news channels. It occupied the front pages of major dailies and data breach became the new ‘buzz’. Moreover, it managed to do so amidst a raging pandemic. The world came to a standstill when this news came out. It led to people losing confidence in corporations and raised issues on privacy and data security.

The term ‘data breach’ refers to any information that is accessed without authorization. It can hurt businesses and consumers in a variety of ways. They are a



costly expense that can damage lives and reputations and take time to repair. As technology progresses, more and more of our information has been moving to the digital world. As a result, cyber attacks have become increasingly common, costly and sophisticated. Globally, on an average, it costs a whopping 3.6 million dollars to deal with a data breach, according to a study conducted by the Ponemon Institute. This brings it down to about \$148 per stolen record!

In this digital age, data is a valuable commodity. Corporations and businesses are extremely attractive targets to cybercriminals as they are a storehouse of data and huge amounts of data can be accessed in one go. To this day and age, cybercrime continues to be a profitable industry for attackers and shows a positive growth trajectory. These targeted attacks are carried out by crime syndicates which usually result in direct loss of

resources, commercial interests, and intellectual property. Personally identifiable information is used to steal money, compromise identities, or sell over the dark web.

Now that the major problems have been expressed, a plausible solution to this is an effective cybersecurity programme. Organizations have been striving to prevent leakage of sensitive information and ensure data integrity by adopting stringent cybersecurity measures. Wikipedia defines Cybersecurity as *“the protection of computer systems and networks from information disclosure, theft of or damage to their hardware, software, or electronic data, as well as from the disruption or misdirection of the services they provide”*.

Cybersecurity is essential and plays a significant role in our daily lives. With our increased reliance on computer systems, social media, the Internet, Bluetooth and Wi-Fi, and ever increasing usage of "smart" devices, including smartphones, televisions, and the various devices connected to the internet, it has started to gain wider recognition worldwide. Cybersecurity enables us to safeguard data from malware, virtual attacks, and unauthorized usage. Recent developments in the field of cybersecurity involve utilising Artificial Intelligence (AI) to increase safety. However, improvements in security methods are simultaneously followed by the development of sophisticated programs that manage to compromise even the most secure systems. Thus, it is absolutely necessary to keep systems up to date in terms of security patches that provide access to the latest cybersecurity measures. This will not only help in reducing data breaches but will also help make the internet a safer place.



**-Yasasvat**

# THE WIRELESS COMMUNICATION

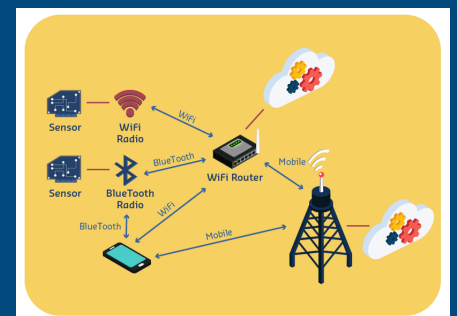
## TECHNOLOGY HYSTERIA

Don't we all talk to somebody over the phone? How do these conversations pass from one place to the other? Ever wondered how Bluetooth works? Well, wireless communication technology is what helps with such transmission.

Communication systems can be wired or wireless. In wired communication, the transmission happens through a physical path, such as twisted pair cables, Co axial cables or Optical fiber links. In wireless communication however, information is transmitted from a transmitter to a receiver. Through wireless communication, information can be transmitted to any distance, from as close as a few metres to thousands of kilometres. WiFi, Bluetooth, Airdrop, GPS etc... all work through wireless communication.

The transmission of information in wireless communication happens through antennas. Antennas transform electrical signals into radio signal in the form of Electromagnetic waves. Electromagnetic waves carry electromagnetic energy of electromagnetic field through space.

Wireless communication systems are easy to install and use. They can be carried around easily unlike wired communication systems. They also come at a very cheap price due to competition. Wireless communication has enabled the connection of billions of people to the internet, so that they can reap the benefits of today's digital economy. It also provides global reach by providing networking in places such as rural areas where wiring is not practical.



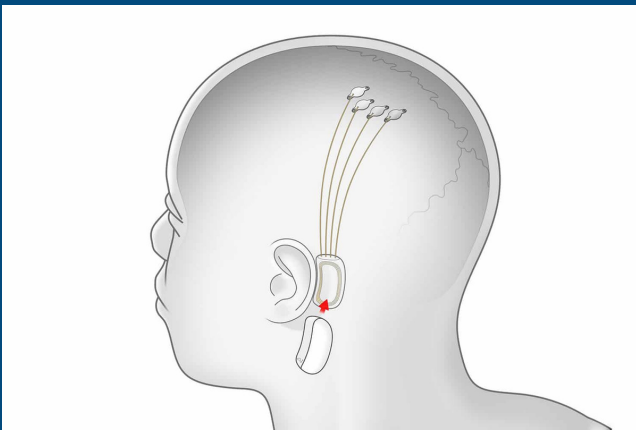
There are however, a few points that hold wireless communication technology back. Security of data is one of the main concerns. Wireless networks can be accessed by any computer within range of the networks signal, thus information transmitted by the networks may be intercepted by unethical users. Other concerns also include health, as radiation can be hazardous.

But as almost every sector of the economy now relies upon it from banking to healthcare, and also new technologies such as Ai, 5G and IoT, Wireless Communication Technology continues to hold it's significance.

**-Niyati**

## **BRAIN CHIP INTERFACE**

Brain-Chip-Interfaces (BCHIs) are real? Yes! It's crazy how far we've come along in technology now. So, what are BCHIs? They are hybrid entities where chips and nerve cells are connected allowing the transfer of information. Brain chips can do miracles in the field of technology. Humans daily process information without realizing it via social media, reading books, etc. Humans need BCHIs which will enhance the cognitive ability of the brain and can also be used to resolve neurological health issues like paralysis, stroke, and epilepsy. This innovation of new technology has opened up new possibilities for a better future.



Brain chips are built using nanotechnology. It has miraculous applications in the field of neuroscience, engineering and speech recognition. It is also intended for military purposes. The tech billionaire Elon Musk recently received an investment of \$205 million to accelerate the launch of his company

NeuraLink's first product, the N1 Link. The device is expected to be used for patients with paralysis and health-related issues and slowly will be scaled up to everyone in the future. The device has been FDA approved as well which just shows how close we are to the "next big thing". The NeuraLink app would allow you to directly control your smartphone, keyboard, and mouse directly with the activity of the brain just by thinking about it.

However, there are concerns about these chips. Individuals have argued that hackers could potentially control soldier's thoughts or their equipment and maybe even hijack elections, although hypothetically. Therefore, BCHIs can also bring the world to ruin if misused. Let's hope its development and applications are carefully exercised and bring no harm to anyone. The technological process will always be fundamental to human progress no matter what, and BCHIs hold tremendous potential for good. However, technological progress must be done thoughtfully, keeping in mind one critical aspect of the 'human element' of security - ethics.

**-Raakesh**

## **STARTING YOUR PROGRAMMING JOURNEY**

In the contemporary world, technology has made its place in everyone's life. From doing manual labour to solving complex problems, technology has been dominating. There is more requirement of people who can program/code such technology in order to advance forward in the development of humanity. Computers are playing a major role in this field. They compute mathematical problems very fast and can store information for a very long period, which makes them really useful for all sorts of complex tasks

### **Where to start?**

Learning to code from online platforms is one of the best ways to start coding. There are many sites which provide courses and share knowledge for free. So utilizing these resources is an excellent way to get into this industry. A successful path in programming requires concentration, commitment, passion and patience.





## What Programming language to learn first?

This depends on what you want to do. Most of the tasks can be done in almost any language however, each language has its own ups and downs. Some languages provide very good support for making websites, while others make the job tedious. So depending on your interests you can start from different languages. For example, if you like making websites you can start by learning **HTML, CSS and JS**, whereas if you want to get into artificial intelligence/Data Science learning **Python(or R)** will be better. If you want to make games, learning **C++ or C#** might help you. If you want to make Android Apps, learning **Java/Kotlin** is helpful. Based on your needs you might want to choose your language. In terms of difficulty, usually python is beginner friendly whereas C/C++ or Java would be hard. However with proper commitment and willingness to learn, you can learn anything in time.

## How to research?

This is one of the most basic things you will need to know to become a good programmer. Many beginners often skip this step and get stuck at a problem and start getting frustrated. Researching is a simple thing to do but often forgotten as mentioned above. Researching involves steps like scavenging through the internet. Reading discussions in online forums from those who faced similar problems and the solution to their problem, joining programming communities in social media platforms and asking your doubts is the quickest and simplest way to clear doubts. Reading thoroughly through the documentation pages is another way to learn faster. These are the one of the best ways to research efficiently as well. Just make sure to not lose interest and keep researching. Take small breaks when tired but don't give up in between.

## Conclusion

From my experience, Coding is a fun thing, you will learn a lot as you keep moving forward. Programming is a vast subject, it's not something we can master at one point. As time keeps progressing new languages, new concepts and new technologies will be created and you will have to keep yourself updated with it. Sticking to one thing will push you behind. Keep learning and have fun!!

**-Kushal Sai**



**For any suggestions please  
contact us at  
[dps.it.council@gmail.com](mailto:dps.it.council@gmail.com)**