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## Entrepreneurship and Information technology

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These days, a lot of trends in the business arena have surfaced. In a year, several business opportunities for entrepreneurs rank as the hottest. Now, the newest and most powerful tool for Entrepreneurs to create extremely profitable businesses is IT which has the greatest source of ideas for businesses that don't even exist yet.

Information technology (IT) is playing a crucial role in contemporary society. It has transformed the whole world into a global village with a global economy, which is increasingly dependent on the creative management and distribution of information. Globalization of world economies has greatly enhanced the values of information to business organizations and has offered new business opportunities.

Today, IT provides the communication and analytical power that organizations need for conducting trade and managing business at global level with much ease. To coordinate their worldwide network of suppliers, distributors and consumers, organizations have developed global information systems that can track orders, deliveries, and payments round the clock. This has been possible because of the development of IT in its present form. In the broadest sense, information technology refers to both the hardware and software that are used to store, retrieve, and manipulate information. At the lowest level you have the servers each with an operating system. Installed on these servers are things like database and web serving software. The servers are connected to each other and to users via a network infrastructure. And the users accessing these servers have their own hardware, operating systems, and software tools.

In the last two decades, the Indian IT/ITES industry has contributed significantly to Indian economic growth in terms of GDP, foreign exchange earnings and employment generation. The industry has been the trigger for many "firsts" and has contributed not only to unleashing the hitherto untapped entrepreneurial potential of the middle class Indian but also taking Indian excellence to the global market.

The combination of Technology, Innovation, and Entrepreneurship is Unique, powerful & Everyone is taking advantage of it, but yet have a huge built-in growing demand. The world's leading Technology which connects your computer with any device without any expense of wires to use internet is WiFi Technology.

### **What is Wi-Fi Technology**

Wireless Fidelity – popularly known as Wi-Fi, developed on IEEE 802.11 standards. It is widely used technology advancement in wireless communication. As the name indicates, WI-FI provides wireless access to applications and data across a radio network. Wi-Fi is a spectrum radio technology and OFDM radio technology therefore it is an alternate of wireless LAN<sup>2</sup>. WI-FI sets up numerous ways to build up a connection between the transmitter and the receiver. Transmitter is normally a wireless router / Hotspot and receiver is normal Wi-Fi enabled device such as Laptop, Mobile, and Tablet etc.

### **Beginning of Wi-Fi Technology**

The development on WI-FI technology began in 1997, when the Institute of Electrical and Electronic Engineers (IEEE) introduced the standard 802.11 technology that carried higher capacities of data across the network. This greatly interested some of major brands across the globe such as the world famous networking giant 'Cisco Systems' or '3COM'. Initially, the price of Wi-Fi technology was very high but around in 2002, the IT market witnessed the arrival of a breakthrough product that worked under the new 802.11g standards. In year 2003, IEEE sanctioned the standard and the world saw the creation of affordable Wi-Fi enabled device in masses.

### **Ease of Wi-Fi Technology**

Wi-Fi technology provides its users with the liberty of connecting to the Internet from any place such as their home, office or a public place without the hassles of plugging in the wires. It is quicker than

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the conventional modem for accessing information over a large network. With the help of different amplifiers, the users can easily change their location without disruption in their network access. Wi-Fi enabled devices are compliant with each other to grant efficient access of information to the user. Wi-Fi location where the users can connect to the wireless network is called a Wi-Fi hotspot. Through the Wi-Fi hotspot, the users can even enhance their home business, as accessing information through Wi-Fi is simple.

### **How Wi-Fi Technology works**

Wi-Fi uses radio networks to transmit data between its nodes. Such networks are made up of cells that provide coverage across the network. The more the number of cells, the greater and stronger is the coverage on the radio network. Radio bands such as 2.4GHz and 5GHz depend on wireless hardware such as Ethernet protocol and CSMA. To connect to a Wi-Fi network an wireless adapter card is essential.

The product used by Wi-Fi Technology are Wireless access points which make possible and fast access to your priorities , Wireless adapters makes it more sufficient for wok, Wireless routers make traffic clean and quick, Wireless network bridges which enable links, allow PC card, Express Card, USB, Card bus, mini PCI and PCI, Handhelds and PDAs and expand range of wireless repeater.

Wi-Fi Technology is the trademark of Wi-Fi Technology Alliance which is speedily achieved the recognition in the world by means of the access point. These devices tested by the “WiFi Technology alliance” are used around the world. WiFi Technology use 2.4 GHz radio spectrum for data transfer WiFi Technology reinstate customary wired networks among two or several computers, it facilitated file transferring wires, hubs, networking cards, and other imperative networking connected hardware. WLAN cards and wireless routers make possible broadcasting. WiFi Technology catch wireless networking signals in specified area yet if they are from dissimilar company. The simple design of WiFi Technology makes it easier and user friendly. WiFi Technology is improved simply since no electric wiring is necessary building it a cheaper and quicker network to squash.

The Wi-Fi users don't have to be concerned with the security issues. The security methods such as MAC ID filtering, Static IP addressing and WEP encryption ensure the user privacy to the maximum.



### **How to make a Wi-Fi connection**

1. To start your connection with a wireless router, ensure that it is plugged into the internet connection point.
2. You should turn on your external modem first before plugging the router into your computer via an Ethernet cable.
3. Switch on your wireless router until it fully starts up and open your internet browser.
4. Enter user IP Address.
5. Then, you can file in your router's username and password.
6. Set the SSID (wireless capability) active.
7. Type in the username and password provided by your ISP and select either WEP or WPA security. Then, choose a new passkey.

### **Scope of Wi-Fi Technology**

With the encouragement for electronics and hardware manufacturing in India and the government's newly announced Make in India initiative, we must also add more value through design. For this, we have to nurture the innovation and entrepreneurial ecosystem in India and also provide the right amount of training and funding to witness real results. Seeing the current entrepreneurial trend today,

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most venture capitalists understand and want to invest in software and infrastructure services and hence there is lack of risk capital. Innovation needs to be encouraged and embraced for hardware design and R&D too in order to build a more comprehensive ecosystem. In addition, the IT industry needs to focus on product development.

Having the ability to connect to the internet anywhere we go is undoubtedly awesome, but it isn't the only gift Wi-Fi technology has given us. Here are our routine uses for Wi-Fi that go beyond accessing the web.

*1. Can operate Smartphone into a Remote Control*

If all the computers in your house are connected to a Wi-Fi network, you can easily connect your Smartphone to the same network and control them.

*2. Can Send Documents to Your Printer from Any Computer or Smartphone to print.*

There's no reason to have five different printers in your house just so you can print in any room. Instead of constantly plugging and unplugging the printer from your laptop, you can print wirelessly from any computer.

*3. You can Forward Notifications from Your Smartphone to Your PC*

If you're using an Android phone you can [send call, SMS, and battery notifications](#) straight to your Windows, Mac with Growl, or Linux PC over Wi-Fi with [Android notifier](#). No more do you have to deal with the ringing and buzzing phone from across the room when you're already sitting at your PC

*4. You can Tether Your Smartphone to Your Computer for Internet Anywhere*

Wherever you go, you can just use your phone as a wireless router and connect to your phone's internet service with your PC.

*5. You can Share Files with Nearby Computers*

If you're sharing something other than video between PCs, [you have a bunch of options](#) for transferring them. While it isn't the absolute fastest method, [sharing files over the same Wi-Fi network](#) (or an [ad-hoc network](#) if you're out and about) is certainly one of the easiest ways to get files from one computer to another. Of course, if the friend with which you're sharing files is a Dropbox enthusiast, you can [transfer files over Wi-Fi with Dropbox as well](#).

*6. You can Transfer photos wirelessly from Your Digital Camera*

If you're sick of plugging your SD card into your PC's card reader to transfer photos (or if your computer doesn't have a card reader), the [previously mentioned Eye-Fi wireless SD card](#) is the perfect companion for your digital camera. You never even need to take it out of your camera—whenever it's connected to the same network as your computer ([or iOS device](#)), it will transfer photos right over for you. And, if you want, you can even have it automatically upload photos to sites like Flickr, Facebook, and Picasa.

## **Wi-Fi Applications**

Wi-Fi hotspots concept is getting popularity among business communities and mobile workers. For this purpose ISPs are incorporating [WiFi](#) routers to many places for the coverage of wide range. The accessibility of internet is somewhere free and somewhere you have to pay for internet connectivity per hour or of the package for which you go. These routers are the access point for internet while attached to the DSL modem or cable modem.

Now-a-days, computers, laptops and mobiles are WiFi oriented so two computers or two laptops are easily connected without access point. This is the most modern [WiFi technology](#). A prospect businessman surely utilizes this Wi-Fi technology to increase the workers' output. You can produce efficient workforce to enhance your business.

A whole city can provide [WiFi](#) connectivity by deploying routers at specific range to access the internet. It seems unbelievable and even inapplicable in the beginning but now in European countries some of the cities are wholly Wi-Fi.

It is now also a very common [application of WiFi](#) that a whole campus is having a single access point at a certain height and all of the student can take benefits from it. For this they have to pay a monthly fee through their monthly fee-bill.

[WiFi](#) is not limited to private users or small-business communities. Its future is predictable as WiFi is applicable in a versatile modes and profitable ways. Everyone whether starting a home-based business

or a world-wide mobile business is heading for the [WiFi technology](#) to prosper their business by leaps and bounds.

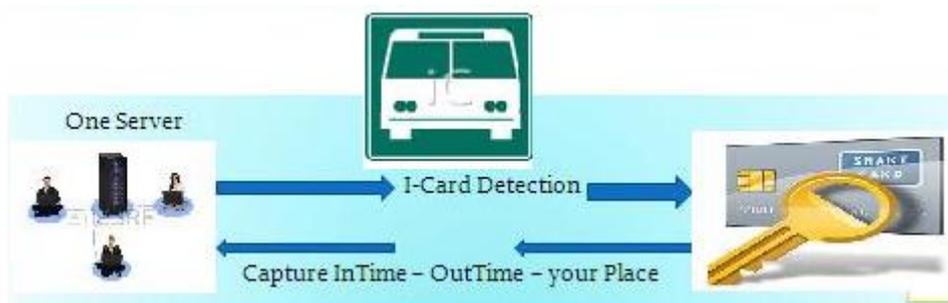
With these emerging trends of Wi-Fi technology I suggest to for Developing wi-fi Products which can Secure our Important Places, Research & Development Areas, corporate offices of Companies, Plants & Manufacturing units. Also to Develop Ease at Working places, reducing Manual Works, Giving Outputs in Fraction of Seconds.

One such Innovation for Entrepreneur that could help for a new Business startup is devising a unique Concept incorporating Software Technology & Wi-Fi Technology to provide security such as below Model:

One such Wi-fi innovative product can be made for School which will require Hardware units such as Server and Smart cards also requires Software's to integrate it. This will help Childrens travelling in Metro cities in which they can be issued with smart card ID's from School bearing Unique SIM number and each bus shall be installed with a Server which are all inter-connected to main server installed at school.

Functioning of Concept:

Once the Smart cards are activated if the Children is entering into the bus, immediately server will capture the Incoming of the Said student and send the Information to School against the Pick-up while same student when gets down of the bus while returning home the server will record the outgoing activity with a SMS dropped to Registered Mobile number of the Students Parent which will intimate them that their child has been dropped at their Bus Point. This will not only help parents but also ease the security of school children's.



This Application can be molded into Several Integrations depending upon the Necessicity and the Scope of the Unit.

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