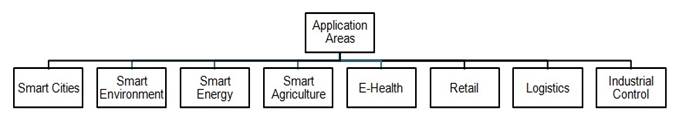
**INTRODCTION TO INTERNET OF THINGS (IoT)**  
Anyone who says that the Internet has fundamentally changed society may be right, but at the same time, the greatest transformation actually still lies ahead of us. Several new technologies are now converging in a way that means the Internet is on the brink of a substantial expansion as ob­jects large and small get connected and assume their own web identity.  
Following on from the Internet of computers, when our servers and personal computers were connected to a global network, and the Internet of mobile telephones, when it was the turn of telephones and other mobile units, the next phase of development is the Internet of things, when more or less anything will be connected and managed in the virtual world. This revolution will be the Net’s largest enlargement ever and will have sweeping effects on every industry — and all of our everyday lives.  
A radical evolution of the current Internet into a Network of interconnected objects that not only harvests information from the environment (sensing) and interacts with the physical world (actuation/ command/control), but also uses existing Internet standards to provide services for information transfer, analytics, applications, and communications. Fueled by the prevalence of devices enabled by open wireless technology such as Bluetooth, radio frequency identification (RFID), Wi-Fi, and telephonic data services as well asembedded sensor and actuator nodes, IoT has stepped out of its infancyand is on the verge of transforming the current static Internet into a fully integrated Future Internet.

**DEFITNITION OF INTERNET OF THINGS (IoT)**  
“Today computers and the Internet are almost wholly dependent on human beings for information. Nearly all of the roughly 50 petabyte (1 petabyte=1015 bytes) of data available on the Internet were first captured and created by human beings by typing, pressing a record button, taking a digital picture, or scanning a bar code. Conventional diagrams of the Internet leave out the most numerous and important routers of all - people. The problem is, people have limited time, attention and accuracy all of which means they are not very good at capturing data about things in the real world. And that's a big deal. We're physical, and so is our environment … You can't eat bits, burn them to stay warm or put them in your gas tank. Ideas and information are important, but things matter much more. Yet today's information technology is so dependent on data originated by people that our computers know more about ideas than things. If we had computers that knew everything there was to know about things using data they gathered without any help from us we would be able to track and count everything, and greatly reduce waste, loss and cost. We would know when things needed replacing, repairing or recalling, and whether they were fresh or past their best. The Internet of Things has the potential to change the world, just as the Internet did or even more.

**APPLICATIONS:**  
There are several application domains which will be impacted by the emerging Internet of Things. The applications can be classified based on the type of network availability, coverage, scale, heterogeneity, repeatability, user involvement and impact.  
We categorize the applications into four application domains:  
(1) Personal and Home  
(2) Enterprise  
(3) Utilities  
(4) Mobile.  
There is a huge crossover in applications and the use of data between domains. For instance, the Personal and Home IoT produces electricity usage data in the house and makes it available to the electricity (utility) company which can in turn optimize the supply and demand in the Utility IoT. The internet enables sharing of data between different serviceproviders in a seamless manner creating multiple business opportunities.

  
**BENEFITS OF INTERNET OF THINGS**

* Improved citizen's quality of life

Healthcare from anywhere  
Better safety, security and productivity

* New business opportunities

IoT can be used in every vertical for improving the efficiency  
Creates new businesses, and new and better jobs

* Economical growth

Billions of dollars in savings and new services

* Better environment

Saves natural resources and trees  
Helps in creating a smart, greener and sustainable planet

* Improved competitiveness

Competitive in providing cutting edge products/services

**CONCLUSION:**

The proliferation of devices with communicating–actuating capabilities is bringing closer the vision of an Internet of Things, where the sensing and actuation functions seamlessly blend into the background and new capabilities are made possible through access of rich new information sources. The evolution of the next generation mobile system will depend on the creativity of the users in designing new applications. IoT is an ideal emerging technology to influence this domain by providing new evolving data and the required computational resources for creating revolutionary apps.