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jims
Sector-5, Rohini, Delhi

"Technology in Glimpse"

IT FLASH 2016

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"If you can't make it good
At least Make it look good" -Bill Gates

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On the cover: "Technology in Glimpse", courtesy of JIMS
Faculty Incharge: Ms. Chandni Kohli

Editors: Dr. Praveen Arora, Ms C.Komalavalli, Dr. Latika Kharb, Ms Chandni Kohli

Article: Nitin Jain, Navneet Kaur of MCA Department

News/ Innovations: Ravi Pandey, Gunjan Aggarwal, Raghav Johar of MCA Department and Harshit Bansal of BCA Department

Designer: Raghav Johar, Ravi Pandey

For more updates:
Visit: www.jimsindia.org

Address:
Jagan Institute of Management Studies; 3 Institutional Area, Sector-5, Rohini, Delhi-110085

Overview

JIMS IT Flash
Newsletter
September 2k16

Jagan Institute of Management Studies (JIMS) imparts professional education at post graduate and graduate levels in the fields of Management and Information Technology. Our MCA, BCA and BBA programmes are affiliated to Guru Gobind Singh Indraprastha University, Delhi. Our MCA programme is accredited by National Board of Accreditation (NBA) for both the shifts.

The IT department-JIMS is introducing "**IT Flash"** to share the knowledge to its users, about the latest products/ technology/ events etc... We provide our readers ample knowledge about the content we deliver. IT Flash will be published monthly by the students of IT Department-JIMS with the help of faculty coordinator of JIMS. You can send your suggestions, thoughts and comments at itflash@jimsindia.org

NEWS WHAT'S TRENDING:

Become a certified Cisco engineer with this training bundle

Friday, 23rd September 2016

Cisco is the leading company in the field of networking, manufacturing and design industry. It's the right time to have networking certifications.

The Cisco Associate Certification Training Bundle helps in preparing to pass several Cisco networking certification exams for just $80. Various courses are offered which gives you comprehensive training in network installation, security, maintenance, and more. You'll learn how to design networks that fit for business: both big and small; training on how to detect network weaknesses before hackers exploit them. After completion of the course bundle, you'll be ready to tackle 11 certification exams and pursue a career in networking environments.

For more info, visit www.cisco.com

Apple's New IOS 10

Wednesday, 7th September 2016, 9:30 pm;

Apple's latest mobile OS (operating system) software for iPad & iPhone which was announced at WWDC (Worldwide Developers Conference) 2016 in San Francisco on 13th June, 2016. Since then Apple has released a series of beta versions of iOS 10, and the final public version was released on 13th September, 2016 to iPhone 5 and later and the iPad mini 2, iPad 4, iPad Air and later generations. Apple's iPhone 7 has been shipped from 16th September, 2016, and which comes with pre-loaded iOS 10. Existing iPhones and iPads got the update on 13th September, 2016.

The Science Behind the Samsung Galaxy Note 7's Battery Fires

Sunday,18thSeptember 2016,8:45 pm;

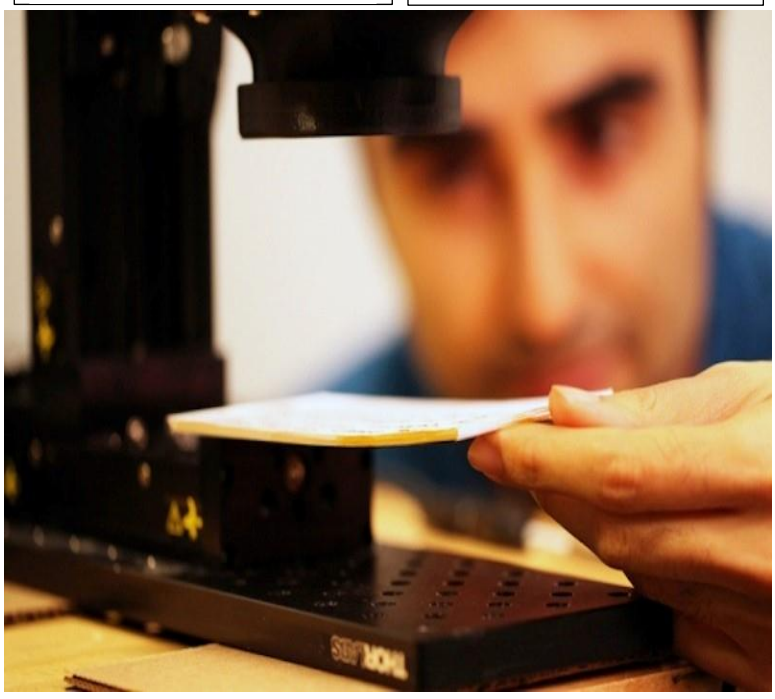
Three weeks ago, it was discovered that a battery defect was responsible for a number of Samsung Galaxy Note 7's catching fire while on charge. It's unclear exactly what's causing the problem in some Samsung Galaxy Note 7 devices, but one user showcased the result on YouTube that when he removed the phone from its official Samsung charger the phone exploded. The company (Samsung) announced that it would recall the handset and issue their mobile owners a replacement.

DO YOU KNOW?

New Tech Could Read Books Without Opening Them

At MIT, Scientist named Mr. Heshmat- an Indian scientist have developed a technology with which a closed book can be read. It will help the archaeologists for looking in the books without opening them. Using technology akin to X-ray vision, scientists can read closed books, identifying letters printed on stacks of paper up to nine sheets thick.

This could lead to office machines that scan the reams of paper at once, or help the researchers to scan ancient books that are too fragile to open. The system uses the terahertz radiation, it is the band of electromagnetic radiation between the microwaves and the infrared light, which has advantages over other types of waves that can penetrate surfaces, such as X-rays or sound waves.



Handheld Device Tells You If Fruit Is Ripe

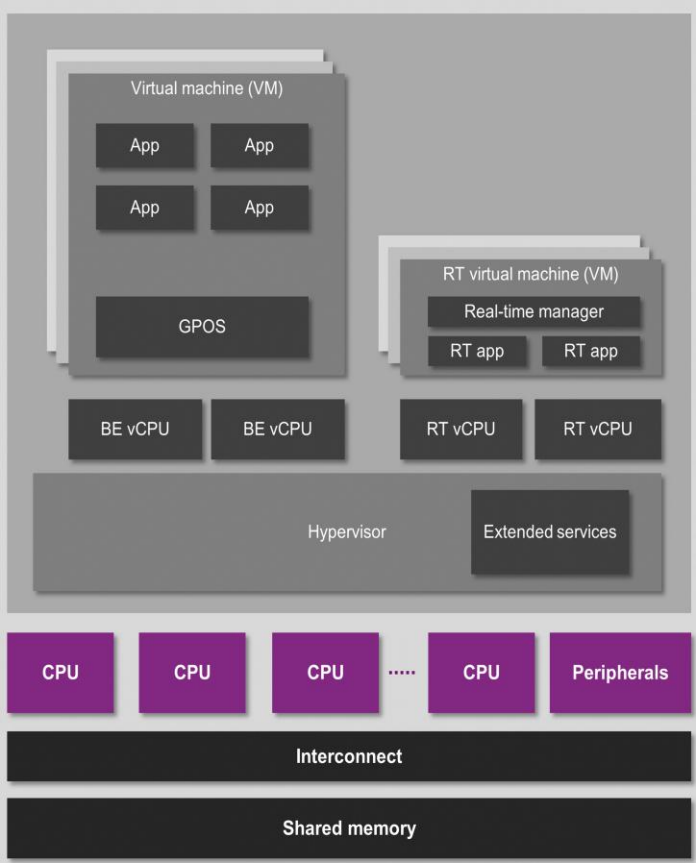
It can be difficult just by looking at apples to know when they have reached to their ripest point. At (Massachusetts Institute of Technology), Scientists of MIT have developed a handheld device that can even evaluate ripening of an apple by measuring glow of chlorophyll in the fruit skin under UV light.

Now, technology may have a solution soon enough. Testing the apple's ripeness can help farmers decide the right time to harvest their crops. One solution could be When spectrometer picks up the light from the apple, it sends the data to an Android phone app via Bluetooth that compares it to a previous database of what an apple should be like at given stages of ripeness. The user can then see how many days the apple has been ripening from the baseline. Example, the spectrometer can say an apple has been ripening for 10 days, and that means that a batch of 10-day-old apples should be shipped out before the 3-day-old ones do, and ideally, they should be sent to stores nearby. Such a gadget could make a big difference for the apple distributors, who sometimes have to guess while deciding where to send their stock.

Virtualization in Cloud Computing

Computer Science is no less than a piece of art. A developer is an artist who fills the canvas with his ideas.
Let's take a lump of clay that one can mould and customise it. Computer Science can be referred to this piece of clay. Different colours of clay are different modules of IT. The clay can be moulded individually, but when clay of different colours is brought together, another piece of art is created. In a similar fashion, Virtualization in Cloud Computing is introduced.

Virtualization software makes it possible to run multiple operating systems and several applications on the same server at the same very time, which reduces the cost and increases the efficiency. The most important component in virtualization is VMM (Virtual Machine Monitor) also known as hypervisor. It separates computer environment from the physical infrastructure.
Virtualization differs from cloud computing, as Virtualization is a software that manipulates hardware while cloud computing refers to a service that results from the manipulation but since these are also connected: - **"Virtualization is a foundational element of cloud computing and helps deliver on the value of cloud computing"-Adams.**



The true cloud provides self service capability, elasticity, automated management, scalability and pay as you demand service that is most inherent in Virtualization.

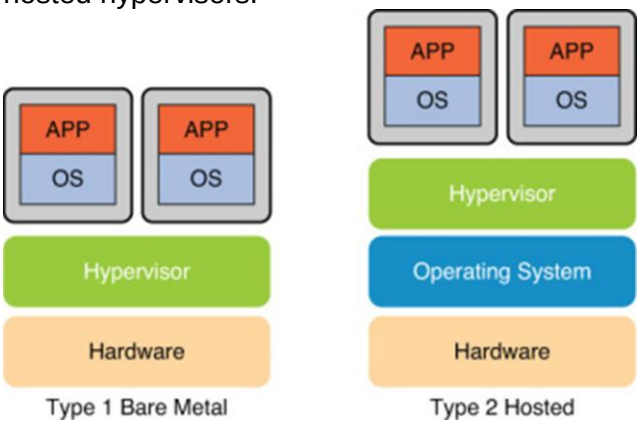
There exist two type of hypervisors.

Type 1 Hypervisor (native or bare-metal hypervisor)

These hypervisors don't need interface OS for virtualization as they run directly on the host's hardware system. Virtualization achieved through these hypervisors is called full or total virtualization. To communicate with hardware, type 1 hypervisors are pre-loaded with device drivers for communicating with system hardware.

Type 2 Hypervisor (Hosted hypervisor)

Instead of directly running on host's hardware, these type of hypervisors run on top of the host Operating System. Thus, they rely on host operating system for access of physical hardware resources. Host OS provides drivers to the type 2 hypervisors for communicating with system hardware. Thus, it is also known as hosted hypervisors.



Virtualization can achieve above said types and cloud computing that helps in achieving the total virtualisation of type 1. In cloud computing, the required infrastructure is gathered at a distant location, all together. One can remotely access the virtual infrastructure from a remote location. Each user acts like a virtual machine for that infrastructure i.e. cloud is a service which provides an infrastructure that is required which is not physically present and yet is being utilized by the user, wholly and solely and total virtualization is achieved. This provides us with benefits like maximization of resources and multiple system working, IT budget integration, last but not the least, helps in achieving green computing by reducing the CO_2 emission.

DIGITAL INNOVATIONS

"A Tiny Computer That Powered Wirelessly from Radio Waves!!"

Researchers at the University of Washington (UW) have developed a new type of computer system that derives its power not from a battery or any other external power sources but from radio waves that are around the device and it collects that energy and converts it into the electricity by which the device is able to run. The device name is "WISP" which is known as (Wireless Identification and Sensing Platform). This new device is the result of a combination of computing and sensor technologies that make use of Radio Frequency Identification "RFID" reader to gather the radio waves around it in order to turn them into electric power.

"Microsoft Will Use DNA to Store Large Data."

Do you know — 1 Gram of DNA Can Store 1,000,000,000 Terabyte of Data for 1000+ Years.

DNA is a good storage medium because data can be written into molecules more densely the basic elements of conventional storages technologies can pack it. This technology uses artificial DNA made using commercially available oligonucleotide synthesis machines for storage and DNA sequencing machines for retrieval. This type of storage system is more compact than current magnetic tape or hard drive storage systems. It also has the capability for longevity, as long as the DNA is held in cold, dry and dark conditions, as is shown by the study of woolly mammoth DNA from up to 60,000 years ago. DNA is a universal and fundamental data storage mechanism in biology for resistance to obsolescence. 1 gram of DNA able to represent close to 1 billion terabytes (1 zettabyte) of data. DNA is also remarkably robust; DNA fragments thousands of years old have been successfully sequenced. The big difficulty with DNA storage is reading and writing. Storing data in DNA requires translating the 1s and 0s of binary digital files into long Strings of four different nucleotides, or bases, that make up DNA strands and write out the genetic code. It is predicted that worldwide total of stored digital data will hit 16 trillion gigabytes next year, most of it housed in huge data centers. This technique is expensive, but the companies hope to piggyback on the plunging costs of tools for creating and reading out of DNA driven by biotech industry. DNA is seen as a potential replacement for magnetic tape, which is the standard mechanism for long-term data stores today. The costs of this have dropped substantially over the last 20 years. The human genome project, which ran from 1990 to 2003, cost about $3 billion.

Unknown Facts !!!