IT-UNLIMITED MAGAZINE

A BI-MONTHLY BONANZA BY STUDENTS

CYBERCREWS

DEC - JAN (2013 - 2014)

48th ISSUE

KONGU ARTS AND SCIENCE COLLEGE

NANJANAPURAM, ERODE

DEPARTMENT OF COMPUTER SCIECNCE (UG)

CYBER CREWS ASSOCIATION

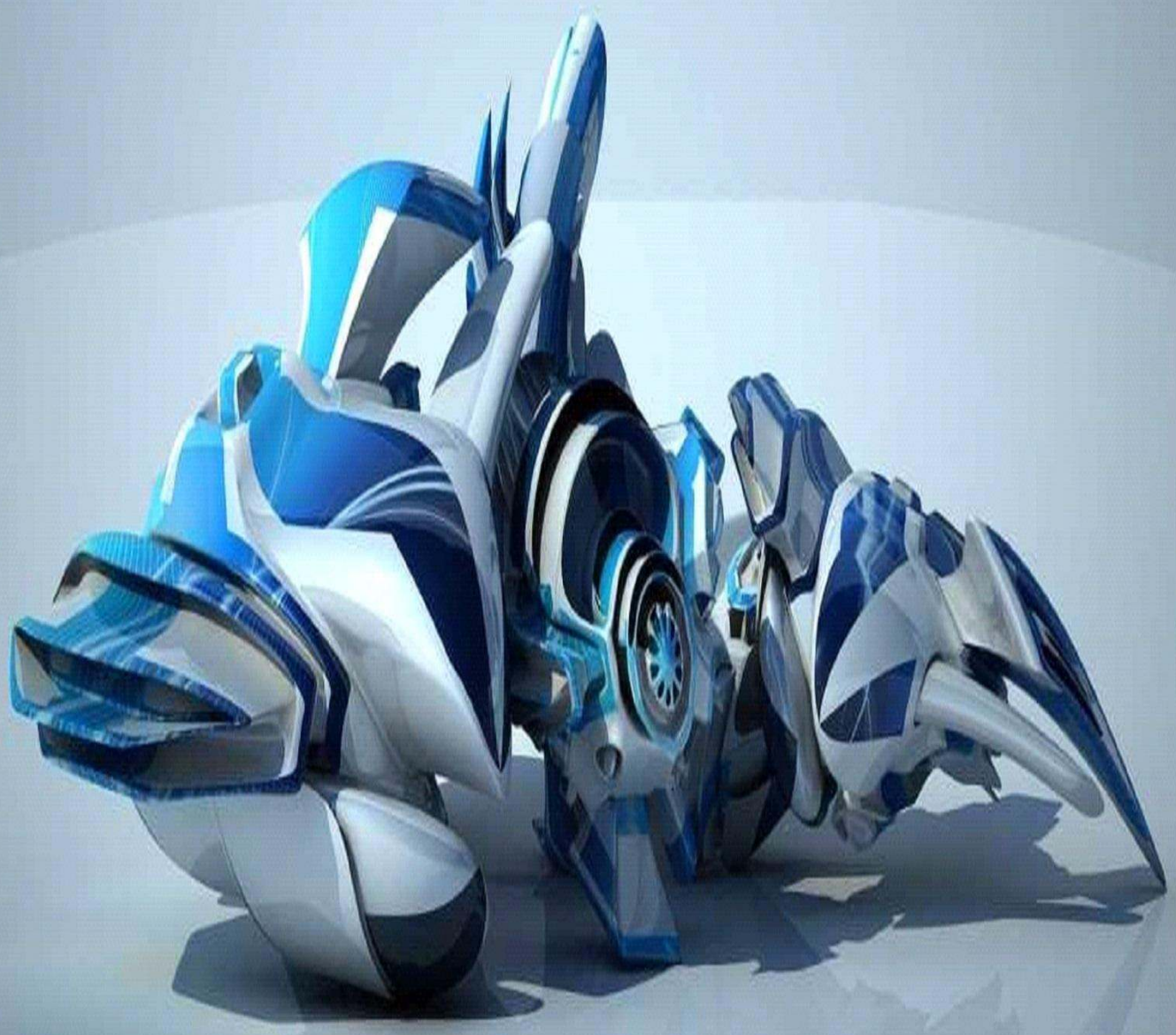
Since 1994

KONGU Assuring the Best

Email : itunlimitedmagazine@gmail.com

Website : www.kasc.ac.in

48th ISSUE



EDITORIAL BOARD

PATRON

Thiru.P.Sachithanandan, Avl., — **Correspondent**

EDITORIAL IN CHIEF

Dr. N. Raman, M.B.A., M.Com., M.Phil., B.Ed., P.G.D.C.A., Ph.D., — **Principal**

STAFF ADVISOR

Prof. P. Ramesh, M.Sc., M.Phil., — **HOD**

STAFF EDITOR

Mr.R.Sundar Raj, M.C.A., — **Assistant Professor**

STUDENT EDTITORS

G.Balaji	**III - B.Sc (CS)-A.**
C.Raja	**III - B.Sc (CS)-B.**
S.Kulanthaivel	**III - B.Sc (CS)-A.**
R.Kavithra	**III - B.Sc (CS)-A.**
S.Praveen Kumar	**III - B.Sc (CS)-B.**
S.Manibharathi	**II -B.Sc (CS)-A.**
D.Boobalan	**II -B.Sc (CS)-B.**
P.W.Joe Alfred	**II -B.Sc (CS)-C.**
S.Santhosh kumar	**II -B.Sc (CS)-C.**
D.Hari Krishnan	**I - B.Sc (CS)-A.**
A.Nandhini	**I -B.Sc (CS)-B.**
S.DineshBalaji	**I -B.Sc (CS)-C.**

CONTENT

TOP FIVE PRODUCTS FROM MICROSOFT

#1: Windows Live Writer

Any blogger not using Windows Live Writer (WLW) is wasting time and being unproductive. Looking for a better alternative? There is none.

WLW makes blogging a breeze on popular platforms like WordPress, Blogger, Windows Live, LiveJournal and Typepad. Easily upload/embed photos/videos with borders, effects, alignment, and resizing. WLW also has an extensible framework of plugins that let you customize and extend its functionality.

#2: Photosynth

Microsoft Photosynth is a jaw-dropping technology that automatically stitches together your photos to create an immersive 3D view. This can even be used for multiple people uploading pictures of an event. For example, the Photosynth of Obama's presidential inauguration made with hundreds of photographs contributed by multiple people.Asnapshot of a popular synth of the Statue of Liberty. From NASA to National Geographic, you can explore fascinating 3D views of places all over the world. Photosynth uses the Seadragon technology that we've covered previously on MakeUseOf.

Photosynth is also integrated with Bing Maps. Over 14,000 geo-tagged photosynths comprising 1.4 million photos uploaded by users like you and me can be explored via the Photosynth Bing Maps application – easily one of the best free Microsoft software products.

The Apple Lisa (1983) was the first successful computer with a graphical User interface (GUI) and a mouse. It cost $10,000.

#3: World Wide Telescope

Microsoft World-wide Telescope (WWT) brings terabytes of imagery from the best ground telescopes and the Hubble Space Telescope to your desktop. It seamlessly combines the data from these multiple sources into a rich immersive world that you can explore from your home. Use the native Windows client for all features, or the web client for a smaller subset. Guided tours from experts are a great way to introduce the stars and galaxies to youngsters. Exploration is possible not only in the visible light spectrum, but also in non-visible wavelengths such as x-ray and infrared.

#4: Windows Live SkyDrive

Windows Live SkyDrive offers 25 GB of free space to anyone with a free Live ID for uploading, storing, and sharing files and photos. Most online storage services do not provide anything above 2 GB for free, and SkyDrive's 25 GB remains unparalleled. You can choose to keep files private, share them with contacts, or make them public. People are uploading 4 million photos to SkyDrive every day. With Office 2010, you'll be able to directly save a document on your PC to SkyDrive. Check out MakeUseOf's coverage of Windows Live to get the most out of SkyDrive.

#5: Bing

Bing is one of the best free Microsoft software products. For starters, Bing is better than Google for certain kinds of queries. Natural language searches seem to be better in Bing.The categories and suggestions offered by Bing on the left are unique and not matched by Google.

The GRiD 1101 is the grand-daddy of all modern-day laptops. It cost over $8000 in 1982

SENCHA TOUCH BUILD MOBILE WEB APPS WITH HTML5

Feature-rich, Mobile HTML5 Platform

The most comprehensive mobile app features out of the box

Sencha Touch allows your web apps to look and feel like native apps. Beautiful user interface components and rich data management, all powered by the latest HTML5 and CSS3 web standards. Keep them web-based or wrap them for distribution on mobile app stores.

- Overview
- Features
- Samples & Demos
- Testimonials
- Licensing
- Resources

Built on HTML5 Technology

Sencha Touch, a high-performance HTML5 mobile application framework, is the cornerstone of the Sencha HTML5 platform. Built for enabling world-class user experiences.

Their new VIC-20 (1980) was so embarrassing to parent company Commodore, that they considered giving them away.

Sencha Touch is the only framework that enables developers to build fast and impressive apps that work on iOS, Android, BlackBerry, Windows Phone, and more.

Smoother Scrolling and Animations

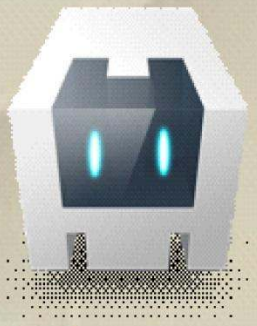
Sencha Touch provides a user experience unparalleled in HTML5. Fluid animations and smooth scrolling make Sencha Touch apps come alive, rivaling native technology. Lists, carousels, and other components scroll smoothly and naturally, with a high frame rate across a wide range of devices. The framework automatically uses the best scrolling mechanism for each device, resulting in a great experience everywhere.

Adaptive Layouts

Sencha Touch's novel layout engine leverages HTML5 in powerful ways to let developers build complex applications that respond, load, and layout in a snap. Switching from landscape to portrait happens nearly instantaneously, and applications load in fractions of a second as Sencha Touch's advanced layout engine ensures pixel perfection.

Native Packaging

But there are still a few features uniquely available to native apps that are essential to app developers. Sencha Touch now supports Apache Cordova APIs for Accelerometer, Camera, Capture, Compass, Connection, Contacts, Device, Events, File, Geolocation, Globalization, InAppBrowser, Media, Notification, Splashscreen, and Storage. Sencha Touch also supports the Adobe PhoneGap Build from within Sencha Command which can package your application for multiple devices with a single command.



Sencha SDK Tools give you the best of both worlds, providing a way to seamlessly "wrap" your web app in a native shell and utilize all the device features. Whether you're on Mac or Windows, you're one command away from deploying to the Apple App Store or Android Market.

The first portable Macintosh computer, the Macintosh Portable (1989)

Weighs 16 pounds and had a 16MHz processor.

APPLE MAKES OS X MAVERICKS FREE

Apple also introduced an improved iPad, dubbed iPad Air, along with a revised iPad mini and MacBook Pro. It debuted new versions of its iLife creative apps and iWork productivity apps for both iOS and OS X. Like OS X Mavericks, the iLife and iWork apps are offered for free, with the purchase of a Mac, iPad or iPhone or as updates for existing customers.

The company also provided more detail about its redesigned Mac Pro desktop workstation, which will be made in the U.S. and is scheduled to ship in December, starting at $2,999.

CEO Tim Cook opened the event by reviewing the company's successful iPhone 5S and 5C launch last month. He said that more than 60 billion apps have been downloaded from the iTunes App Store, resulting in more than $13 billion in revenue for developers.

Federighi presented an overview of OS X Mavericks, an update that he characterized as a release that extends battery life and accelerates your system. Beyond technical enhancements like Timer Coalescing, App Nap, Compressed Memory and OpenCL support, the operating system update adds some 200 new features, including iBooks and Maps, borrowed from iOS, an updated Safari browser, iCloud Keychain, better multi-display support and improved Notifications.

It may be tempting to see Apple's decision to offer OS X Mavericks for free as a consequence of the apparent lack of must-have features -- the operating system's major improvements deal with memory, performance and battery life.

The first-ever handheld/palmtop MS-DOS "PC" was the Portfolio,

sold by --- Atari, in 1989

But the move should be viewed as a strategic decision to defend against Google's growing line of popular free apps, to make its hardware more appealing, to encourage adoption of its cloud-iOS-OS X ecosystem and to build customer loyalty. Apple dramatically altered the pricing of software several years ago when it introduced its iTunes App Store and Mac App Store and dropped the price of pro-oriented apps like Final Cut Pro from $999 to $299.

INFRASTUCTURE

Apple's hardware, as with every generation, is thinner, lighter, faster and more energy efficient. The iPad Air is 20% thinner and 28% lighter than the fourth generation iPad. The iPad mini gains a high-resolution Retina display. Both boast an Apple-designed A7 64-bit processor and Multiple-In-Multiple-Out (MIMO) technology for improved Wi-Fi performance. iPad Air pricing ranges from $499 (16 GB) to $799 (128 GB). The iPad mini is priced from $399 (16 GB) to $699 (128 GB). Cellular support adds $30.

The updated 13-inch MacBook Pro, available now, features a dual-core Intel Core i5 processor running at up to 2.6 GHz (3.1 GHz using Turbo Boost) or a dual-core Intel Core i7 processor running at up to 2.8 GHz (3.3 GHZ using Turbo Boost). The 15-inch model comes with quad-core Intel Core i7 processors rated at 2.3 GHz (3.5 GHz) or 2.6 GHz (3.8 GHz). Prices range from $1,299 to $2,599, or more with custom configurations.

The first "IBM" computer to run on batteries was the

IBM Convertible PC from 1986

'JAHNABI' ASSAMESE CLONE OF MICROSOFT WORD SOFTWARE LAUNCHED

The Assamese version of the Microsoft Word which also features a spell checker and word suggestions to boot. The word processor was designed by a group of Assamese people from different parts of the state.

The application is called 'Jahnabi' and is suitable for those who need help in writing the language. The Unicode compliant software with a size of 7 mega bytes has at present nearly 2.5 lakh Assamese words and 108 ready made Assamese phrases in its dictionary and counting. It was reportedly said that the beta version of the software took almost 25 days to complete. While the final software was designed in 4 months.

A group of volunteers from different parts of Assam have made an innovation of sorts by designing an Assamese word processor similar to the Microsoft Word with a spell checker and word suggestions to boot.

Named Jahnabi, the word processor has came as a boon for those who need help in writing the language and can be easily used by those with a rudimentary knowledge of Assamese.

The software contains automatic suggestions for words. Just type the alphabet K and all the words beginning with Ka would appear like Kalam and Kamal. There are also 600 Assamese idioms. The user has the option to create a shortcut for frequently used idioms.

There is also a facility to add words to the user's dictionary.

With more and more people using the computer on an everyday basis, writing mails and other articles in English is favoured.This advanced software tool, which also has aspell check in Assamese, was a long-felt need and we hope it will help in the learning of the Assamese.Which ranges from people aged between 25 and 42 years, we have a doctor, a teacher, a businessman, an engineer, an administrator, a student and others who worked in their free time with us.

The Assamese clone of Microsoft word is developed in dotnet platform and C# language and final output is an Unicode complaint Software. This Assamese word processor has currently approximate 2.5 laks Assamese words and 108 phrases. They are currently adding more and more words and phrases which will make Jahnabi a great tool to use for Assamese. Jahnabi was launched within a shot period of time, it's getting more and more popularity.

The new word processor software meant for Assamese writers could probably be a motivation to many other native language word processor softwares, which the Indians do need.

MICROSOFT ADDS BACKUP AND RECOVERY TO AZURE PUBLIC CLOUD

Microsoft recently unveiled a series of updates to its Windows Azure public cloud, including new data backup and disaster recovery services, as well as expanded cloud development tools.

"This release is now live in production, backed by an enterprise SLA, supported by Microsoft Support, and is ready to use for production scenarios," said Scott Guthrie, Corporate Vice President, Windows Azure, Microsoft, in a blog post.

Microsoft's Windows Azure Backup Service stores data from Windows Servers in the Azure cloud for backup and recovery purposes. It also backs up data from System Center Data Protection Manager and Windows Server Essentials and encrypts it onsite before sending it to the cloud, Guthrie informed in his blog.

Microsoft is charging customers based on the amount of data they store on the Azure cloud. It's offering pay-as-you-go and pre-paid options, both of which let customers store up to 5 GB per month for free.

For pay-as-you-go, Microsoft is charging 25 cents per GB per month as part of a promotion that runs through the end of November. Starting December 1, Azure storage will cost 50 cents per GB monthly.

For a 6-month or 12-month commitment, Microsoft is charging 17 cents to 20 cents per GB per month until November 30, and 34 cents to 40 cents per GB per month after that.

The Commodore 64 (1982) retains the record as the most successful single computer model ever, selling over 10 million units.

Meanwhile, Microsoft also released the public preview of Windows Azure Hyper-V Recovery Manager (HRM), a new service that handles offsite replication of data from System Center Virtual Machine Manager 2012 SP1 and System Center Virtual Machine Manager 2012 R2 private clouds.

Guthrie noted that application data in HRM remains in the customer's on-premise replication channel, with only encrypted metadata being sent back and forth to Azure. Data security is one of the biggest obstacles keeping enterprises from using the public cloud, and Microsoft is trying to show that it has put a lot of thought into this aspect of Azure.

Microsoft is also providing Windows Azure Active Directory, its cloud-hosted user management service, to every Windows Azure account. Customers can keep Azure Active Directory in the cloud or sync it with their on-premise Active Directory, Guthrie wrote.

Developers are also getting a bunch of new tools on the Windows Azure SDK 2.2, including support for Visual Studio 2013—which can also be used to remotely debug cloud services and includes integrated Azure sign-in support, among other new features.

The Coleco Adam (1983) will not run without the printer attached and plugged-in.

The computer's power supply is in the printer.

MICROSOFT SUSPENDS WINDOWS RT 8.1 UPDATE

Microsoft suspended downloads of its Windows 8.1 update for RT devices after some users reported seeing a "blue screen of death" when they attempted to install the upgrade.

Microsoft began a staged rollout of the Windows 8.1 update -- including updates for Windows 8 as well as Windows RT, which is a more lightweight version of the OS. But in short order, some users began experiencing installation errors that left their RT devices bricked. In response, Microsoft pulled the RT upgrade from the Windows Store.

The update problem was confirmed by Microsoft Friday via its support forums. "Microsoft is investigating a situation affecting a limited number of users updating their Windows RT devices to Windows RT 8.1," a Microsoft employee posted in response to user queries about why the update was no longer available. "As a result, we have temporarily removed the Windows RT 8.1 update from the Windows Store. We are working to resolve the situation as quickly as possible and apologize for any inconvenience. We will provide updates as they become available."

While Microsoft has yet to release any troubleshooting instructions for affected Windows RT users, help arrived in the form of a post from "Kick That Computer" blog owner Scott Williams, who said he owns two Surface RT tablets. The first tablet updated without a problem, he reported, but the second one crashed, displaying the following blue-screen error message:"Recovery: Your PC needs to be repaired. The Boot Configuration Data file is missing some required information."

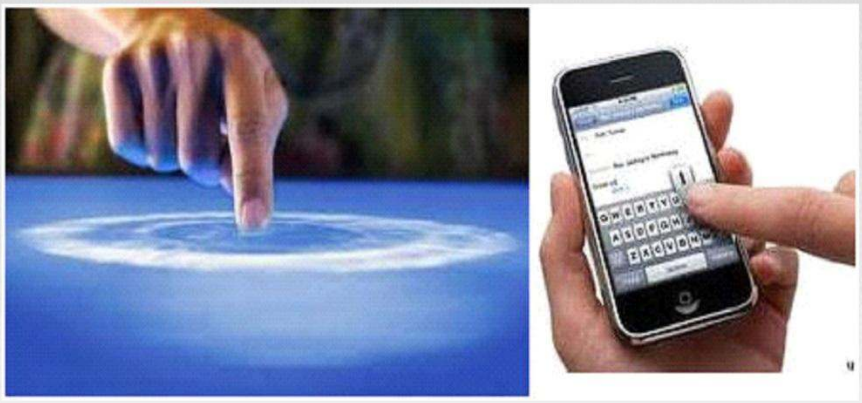
"Windows RT 8.1 upgrade fails with Boot Configuration error" , found a solution to the problem that will retain people's stored data as well as device settings. "Although it takes a while, and might be a bit tricky, it does seem to be fairly easy to recover from," "Update: now received multiple confirmations that this works, and no data is lost, recovery technique involves creating a bootable USB recovery drive from any Windows PC -- and that any PC running an operating system later than Windows XP will do; it doesn't have to be an RT device. This recovery key can then be used to boot the bricked RT device and launch tools to repair the disk.

One takeaway for RT users from the botched Windows RT 8.1 update: Always back up your device before attempting to upgrade. Also create a recovery USB key, which will also enable you to recover a BitLocker encryption key, if necessary.

The Windows RT 8.1 update snafu marks a further setback for Microsoft, which has been looking to Windows 8.1 to help save its lightweight Windows RT operating system. To date, consumer demand for products based on RT has been weak, and HTC scrapped its 12-inch Windows RT tablet.Undeterred, Microsoft announced the Surface 2 tablet, which offers an improved processor and screen, as well as more refined design.

TOUCHSCREENS OR HUMAN MACHINE INTERFACE (HMI)

Touchscreen technology is the direct manipulation type gesture based technology. Direct manipulation is the ability to manipulate digital world inside a screen without the use of command-line-commands. A device which works on touchscreen technology is coined as Touchscreen. A touchscreen is an electronic visual display capable of 'detecting' and effectively 'locating' a touch over its display area. It is sensitive to the touch of a human finger, hand, pointed finger nail and passive objects like stylus. Users can simply move things on the screen,scroll them, make them bigger and many more.



The first ever touchscreen was developed by E.A Johnson at the Royal Radar Establishment, Malvern, UK in the late 1960s. Evidently, the first touchscreen was a capacitive type; the one widely used in smart phones nowadays. In 1971, a milestone to touchscreen technology was developed by Doctor Sam Hurst, an instructor at the University of Kentucky Research Foundation. It was a touch sensor named 'Elograph'. Later in 1974, Hurst in association with his company Elographics came up with the first real touchscreen featuring a transparent surface. In 1977, Elographics developed and patented a resistive touchscreen technology, one of the most popular touchscreen technologies in use today.

Types of Touchscreen Technology

Let us now give an engineer's eye to this revolutionary technology. A touchscreen is a 2 dimensional sensing device made of 2 sheets of material separated by spacers. There are four main touchscreen technologies:

1) Resistive

2) Capacitive

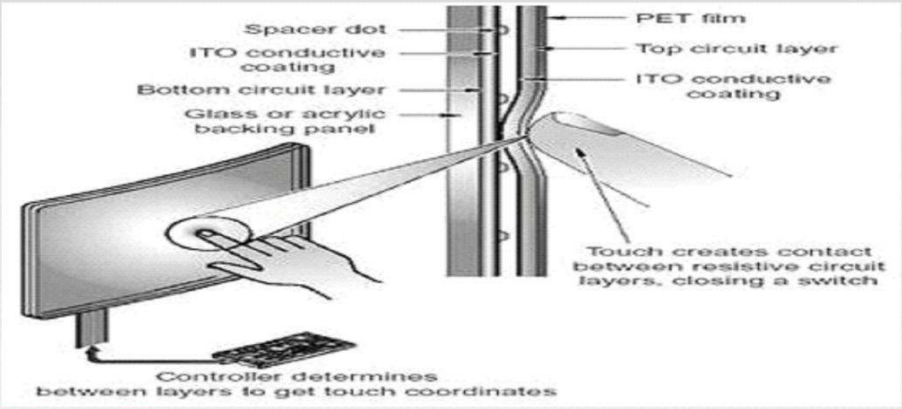
3) Surface Acoustic Wave

4) Infrared

In 1981, prior to the famous PC, IBM sold a desktop computer called the Datamaster

Resistive Touchscreen Technology

The resistive touchscreen consists of a flexible top layer made of Polyethylene (PET) and a rigid bottom layer made of glass. Both the layers are coated with a conducting compound called Indium Tin Oxide (ITO) and then spaced with spacers. While the monitor is operational, an electric current flows between the two layers. When a touch is made, the flexible screen presses down and touches the bottom layer. A change in electrical current is hence detected and the coordinates of the point of touch is calculated by the controller and parsed into readable signals for the operating system to react accordingly.



Four-wire Resistive Touchscreen

Ituses both the layers to calculate the axes information of the touch. Touch measurement in the 4-wire is a 2 step process. The x-coordinate of the touch point is calculated by creating a voltage gradient on the flexible layer, and the y-coordinate is determined by creating a voltage gradient along the bottom layer.

Eight-wire Resistive Touchscreen

It is simply a variation of the 4-wire one with the addition of 4 sense wires, two for each layer. The sensing points aid in reducing the environmental drift to increase the stability of the system.
The 8-wire systems are employed in sizes of 10.4” or larger where the drift can be significant.

Five-wire Resistive Touchscreen

Itdo not uses the coversheet (flexible layer) in determining the touch coordinate. All the position sensing is employed on the stable glass layer. In this design, one wire goes to the coversheet and four wires are deployed to the four corners of the bottom sheet. The coversheet only acts as a voltage measuring probe. The functioning of the touchscreen remains unscathed even with changes in the uniformity of the conductive coating over the coversheet.

The Osborne 1 (1981) is considered to be the first practical and useful "portable" computer. It weighs 25 pounds.

INDIA IT SPENDING TO REACH USD 71.3 BILLION IN 2014: GARTNER

IT spending in India is projected to total USD 71.3 billion in 2014, a 5.9 percent increase from the USD 67.4 billion forecast for 2013, according to Gartner, Inc. IT services will record the strongest revenue growth at 12.1 percent, software revenue will grow 10 percent and the telecommunication services segment, that accounts for 42.1 percent of the Indian ICT market, is set to grow 2 percent in 2014.

Peter Sondergaard, Senior Vice President at Gartner and Global Head of Research, provided the latest outlook for the IT industry to an audience of more than 900 CIOs and IT leaders at Gartner Symposium/ITxpo.

The IT market in India is the third-largest among emerging economies and the fourth-largest among developing and mature Asia/Pacific countries.

The telecommunications services market which includes fixed and mobile, data and voice services will continue to be the largest IT segment in India with IT spending forecast to reach USD 30 billion in 2014. The devices market, which includes mobile phones, PCs, tablets and printers is expected to total USD 23.5 billion in 2014, a 6 percent increase from 2013. IT services will record the fastest growth amongst the various segments, and it is projected to grow 13 percent to reach USD 11.2 billion in 2014. Software will account for USD 4.1 billion in revenue.

The Indian devices market will emerge as the largest segment of IT spend in India by 2017. Growth within this segment will be driven by the sale of mobile phones which will be amongst the fastest growing sub segments within the Indian IT industry.

Mobile phone revenue will total USD 26 billion in 2017 and will account for 76.4 percent of device revenue and 28 percent of overall IT spend in India in the year 2017.

Mobile smart devices have taken over the technology world. By 2017, new device categories: mobile phones, tablets, and ultra-mobile PCs will represent more than 80 percent of device spending. Gartner also forecasts that by 2017, nearly half of first-time computer purchases will be a tablet. Mobile is the destination platform for all applications.

Future of IT Suppliers

The digital world runs faster for many traditional IT suppliers. In the past, the top technology companies reigned over the industry for long periods of time. However, now the leaders in areas such as cloud and mobile were not on many CIO's radar five years ago.What many traditional IT vendors sold you in the past is often not what you need for the digital future. Their channel strategy, sales force, partner ecosystem is challenged by different competitors, new buying centers, and changed customer business model. Digitalization creates an accelerated technology-driven start up environment across the globe.

Big Data and Security

All of these "things" connected to the Internet generate data. People and their activities create data. Smart machines consumer and produce data, and mobile devices are the windows into data. Sondergaard said the effective digital enterprises harness that data to change their business.

With all of this valuable data within the IT organization, cyber security will be an ongoing concern, both inside and outside the enterprise. Sondergaard said IT leaders should anticipate events and headlines that continuously raise public awareness.

BLACKBERRY UPGRADES BES TO IMPROVE ANDROID, IOS MANAGEMENT

BlackBerry has upgraded its management platform Enterprise Server 10 (BES10) with more features for managing Android and iOS smartphones and has also improved scalability to lower overall costs.

BlackBerry's problems are well documented, but the company is soldiering on. The company posted an open letter from CEO John Chen that emphasized its renewed focus on the enterprise market.

One of the key products in this effort is BES10, with version 10.2 released on Tuesday. To make it more competitive in a cutthroat sector, BlackBerry has extended its cross-platform support.

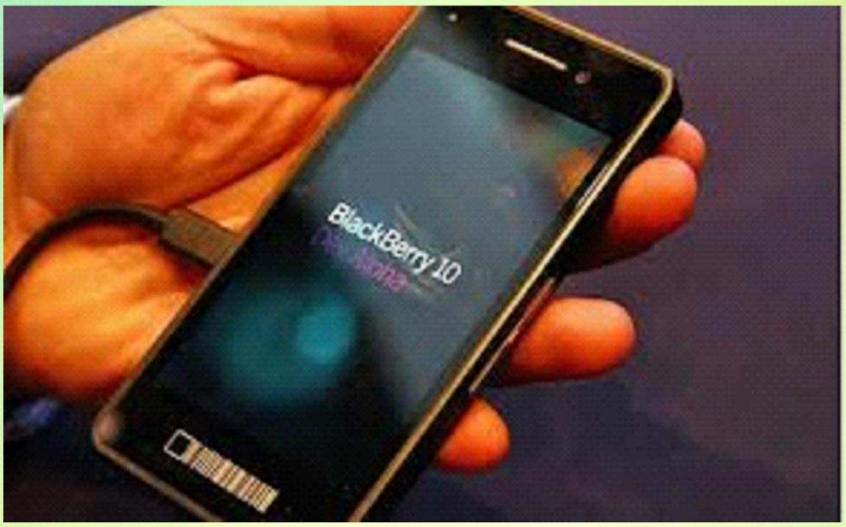
Enterprises can now activate iOS and Android-based devices using what the company calls "true BYOD mode," where management is confined to the Secure Work Space container only. This feature is a good fit for environments where full mobile device management control for iOS and Android devices is not preferred, according to BlackBerry.

Secure Work Space started shipping in June and adds a managed container to protect corporate data and applications. It now works with smartphones running iOS7 and Android 4.3.

Possibly the heaviest desktop computer ever may have been the IBM 5120 from 1980 - it weighed 105 pounds, not including the 130 pound external floppy drive.

Management of iOS and Android devices can also be automated using BlackBerry Web Services (BWS). By exposing BWS APIs, Blackberry will enable others to develop applications that automate and combine various administrative tasks for the management of iOS and Android devices.

BlackBerry has also worked to improve BES scalability: the new version can support 100,000 devices per domain, with any mix of BlackBerry, iOS and Android devices. That reduces the number of servers and resources required for large scale deployments, which, in turn, lowers costs, according to the company.



BlackBerry has also added a self-service portal that allows users to perform device management tasks on their own, which could result in fewer calls to IT. Users can view and manage all their devices, view device details, and set activation passwords, according to BlackBerry.

Morgan Stanley, Boeing, Aneurin Bevan University Health Board and Secusmart are participating in the early adopter and beta programs, and are running version 10.2 in a test environment, according to BlackBerry.

NEW ARTIFICIAL, BIONIC HANDS START TO GET REAL FEELINGS

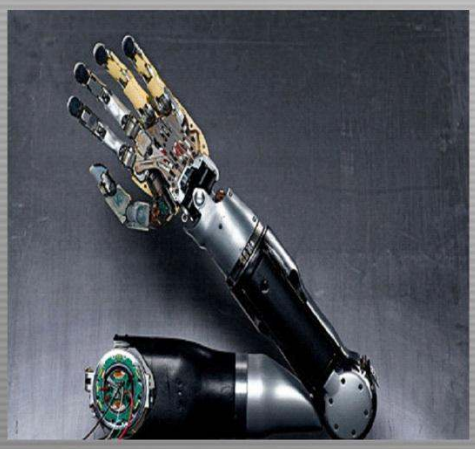
Simple tasks, like plucking the stem off a cherry, are still monumental challenges for artificial hands. With a bill of materials perhaps a few hundred components long, it is not surprising that their functionality is low compared with one assembled from trillions of components. A new prosthetic bionic hand, designed and built by researchers at Case Western University is now capable of using measurements from 20 sensor points to control the grip force of its digits. Incredibly, the sensor data is linked directly to the sensory nerves in the patient's forearm. The control for the grip closure is then extracted myoelectrically from the normal biological return loop to the muscles in the forearm.

The key to making this device work is an instrument known as a cuff electrode. While these electrodes have been under development for decades for use as stimulators for the optic nerve, it has been difficult to get them to reliably stimulate axons for extended periods of time. The new cuffs used here are able to target individual groups of axons without actually penetrating the protective sheaths that segregate particular groups of them.

A nerve has a complex cross section where individual channels exchange members continuously along their length. When multiple cuffs are eventually used on the same nerve, this particular feature of nerve bundles will come in handy because it provides a way to target different axons at different points in the nerve.

If for example, the first cuff stimulates more axons than is actually desired, the second cuff could, at least in theory, provide sub-threshold current to shunt particular axons that can be better targeted at the second cuff — in effect acting as firefighters do when they intentionally burn select areas to preempt the advance of an out-of-control forest fire, only a lot faster. In the forearm, there are three major nerves, the median, radial, and ulnar, which connect both motor and sensory axons within various funiculi. Just to clarify here, a nerve bundle, or funiculus, is inturn composed of several smaller nerve fasciculi. For now, the researchers use just one cuff per nerve, with the data from the 20 sensor points shared between them.

The key to targeting axons deep in the interior of the nerve is to filet them out like the header on a ribbon connector by using a flat cuff, instead of the traditional round design. It appears that the nerves can handle this seeming trauma because the two patients outfitted with these devices have shown good performance now for 18 months. We just heard that the world's first official cyborg, Neil Harbisson, had his cybernaut status minted with a government seal of approval. He is even permitted to have his passport photo taken with head-mounted hardware. Provided this new bionic hand continues to function for the long haul, it seems that at least two more names might soon be added to that list.



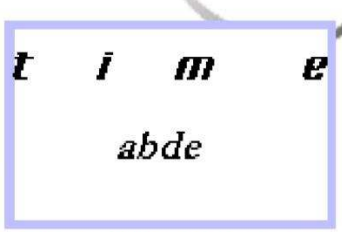
Sir Timothy John Tim Berners-Lee

Sir Timothy John Tim Berners-Lee (born 8 June 1955), also known as "**TimBL,**" is a British computer scientist, best known as the inventor of the World Wide Web. He made a proposal for an information management system in March 1989, and he implemented the first successful communication between a Hypertext Transfer Protocol (HTTP) client and server via the Internet.

Berners-Lee is the director of the World Wide Web Consortium (W3C), which oversees the Web's continued development. He is also the founder of the World Wide Web Foundation, and is a senior researcher and holder of the Founders Chair at the MIT Computer Science and Artificial Intelligence Laboratory (CSAIL). He is a director of the Web Science Research Initiative (WSRI) and a member of the advisory board of the MIT Center for Collective Intelligence.

In 2004, Berners-Lee was knighted by Queen Elizabeth II for his pioneering work. In April 2009, he was elected a foreign associate of the United States National Academy of Sciences. He was honoured as the "Inventor of the World Wide Web" during the 2012 Summer Olympics opening ceremony, in which he appeared in person, working with a vintage NeXT Computer at the London Olympic Stadium.

1. What does this picture say?

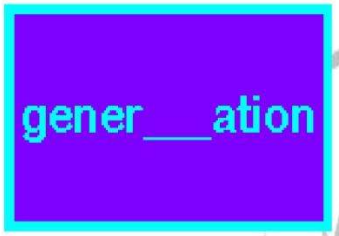


2. What does this picture say?

3.What does this picture say?

4.What does this picture say?

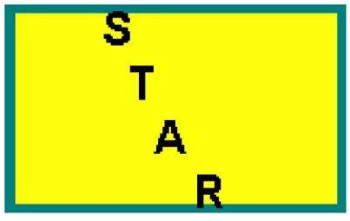
5. What does this picture say?



6. What does this picture say?

7. What does this picture say?

8. What does this picture say?



9. What does this picture say?

10. What does this picture say?

IT-VITA

1. The first unix operating system , as it was in development stage was written in the_____

2. Analog computer works on the supply of_____

3. In a disk, each block of data is written into _____

4. A mouse is connected to the _____

5. Where is the headquarters of Intel located?

6. A computer virus that actively attacks an anti-virus program or programs in an effort to prevent detection is _____

7. When was the first e-mail sent?

8. window's settings are recorded in _____

9. Which was the first Intel processor ?

10. The first commerically available computer was _____

11. Who invented microprocessor ?

12. What is VCM?

13. Who co - founded Hotmail in 1996 and then sold the company to Microsoft?

14. Where are the headquarters of Microsoft located ?

15. Which Graphics interfaces were first used in a Xerox product?

SOLUTIONS

MIND PUNCH

1. Water under the bridge
2. Long Time No See
3. Two in one
4. Bad Influence
5. Once Upon a Time
6. Generation gap
7. Neon light
8. Vitamin A deficiency
9. Falling Star
10. Coffee break

VITA

1. B Language
2. Continuous electrical pulses
3. Two or more sectors
4. The Serial port
5. Santa clara,California
6. Retrovirus
7. 1971
8. WIN.INI
9. 4004
10. Univac-1
11. Marcian E Huff
12. Virtual Channel Memory
13. Sabeer Bhatia
14. Santa Clara
15. Ethernet

Sense of gratitude

The Editorial Board expresses its sincere gratitude to all those who are responsible, either by being on the stage or behind the screen for the successful launch of the souvenir...