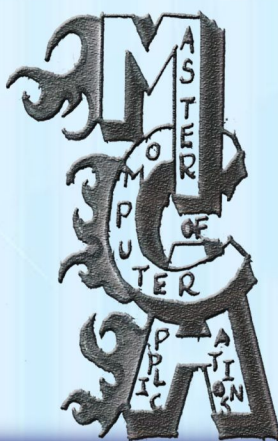




Department of Computer Applications

proudly presents

Talent Avenue



VOLUME - II



THIS EDITION OF TALENT AVENUE ABSTRACTS THE IDEA OF A BUNCH OF THEMATICALLY RELATED STUFF CURATED TOGETHER AS ONE-PACKAGE. MAGAZINES ARE IMPORTANT SOURCE OF INFORMATION IN DAY TO DAY LIFE. IT PROVIDES GENERAL AS WELL AS KNOWLEDGE ABOUT DIFFERENT TOPICS. TALENT AVENUE IS AN EDITION WITH CONTENTS FROM VARIOUS STREAMS SUCH AS LATEST TRENDING TECHNOLOGIES, FINE ARTS, POEMS, MIND BOGGERS.

WITH BEST REGARDS

11th MCA

2015 - 2017

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A simple wireless technology promises to make driving much safer. The technology that warned of the impending collision will start appearing in cars in just a couple of years. Called car-to-car or vehicle-to-vehicle communication, it lets cars broadcast their position, speed, steering-wheel position, brake status, and other data to other vehicles within a few hundred meters.

The other cars can use such information to build a detailed picture of what's unfolding around them, revealing trouble that even the most careful and alert driver, or the best sensor system, would miss or fail to anticipate.

Car-to-car communication should also have a bigger impact than the advanced vehicle automation technologies that have been more widely heralded. Creating a car-to-car network is still a complex challenge. The computers aboard each car process the various readings being broadcast by other vehicles 10 times every second, each time calculating the chance of an impending collision. Transmitters use a dedicated portion of wireless spectrum as well as a new wireless standard, 802.11p, to authenticate each message.

Gayatri.K

LI-FI TECHNOLOGY



The next big thing in wireless connectivity could rely on something as fragile as a light bulb.

A light-based Internet technology known as Li-Fi has been kicking around for a few years. But as reported by the International Business Times, Estonian start-up Vilmenni just recently used a Li-Fi-enabled light bulb to transmit data at speeds up to 1 gigabit per second.

Li-Fi (Light Fidelity) is a bidirectional, high speed and fully networked wireless communication technology similar to Wi-Fi. Coined by Prof. Harald Haas, Li-Fi is a subset of optical wireless communications (OWC) and can be a complement to RF communication (Wi-Fi or Cellular network), or a replacement in contexts of data broadcasting.



1

Anguraj.B



MOTORS

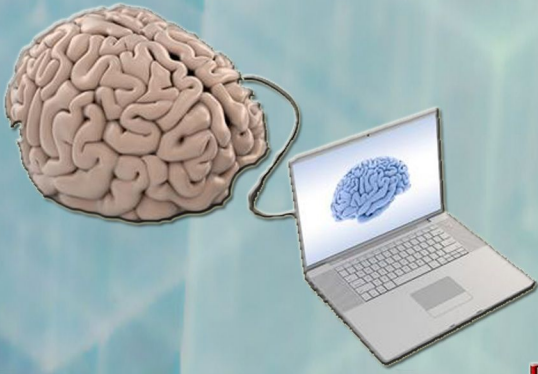


Motors is a Dubai - based car company, established originally in Beirut, Lebanon in 2012 by Ralph R. Debbas. W Motors was the first Lebanese manufacturer of sports cars and is the first Middle -East -based manufacturer of luxury sports cars, or supercars.

The Lykan Hypersport is a limited production sports car by W Motors a United Arab Emirates based company founded in 2012 with the collaboration of Lebanese French and Italian engineers. It is the first supercar to be produced in the Middle East, and is featured in the film Furious 7



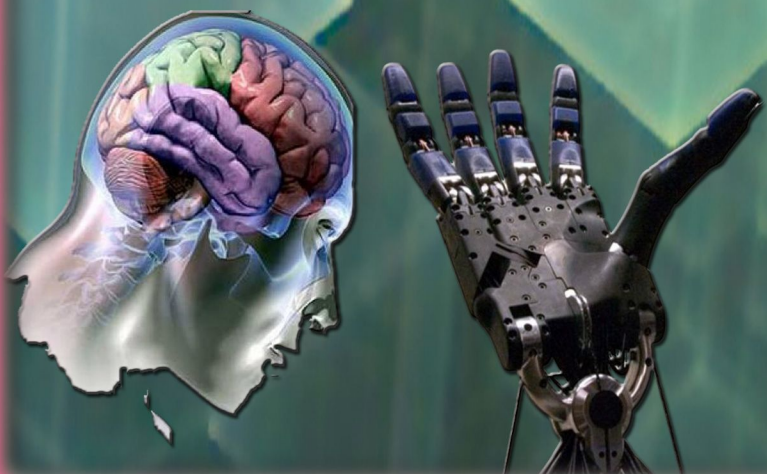
The Lykan HyperSport is powered by a flat 6-cylinder 3.7-litre (3746 cc) twin-turbo mid-rear engine, developing 552 kW (751 PS; 740 bhp) and 960 N•m (708 lb•ft) of torque, claiming 0 to 100 km/h in 2.8 seconds with a maximum speed of 395 km/h (245 mph).



A brain computer interface (BCI), also known as a brain machine interface, is a system that allows a person to control a computer or other electronic device using only his or her brainwaves, with no movement required.

Using sensors that detect brain activity, people can now move virtual cursors, remote controlled helicopters, and robotic arms, just by thinking.

Yoga Durai K



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Sensor insights



Many industrial processes require devices that are able to sense the level or depth of liquids stored within various types of tank, chamber, or container.

The signals from these level sensors can be used to control a production process or to provide feedback and indication of the status.

The level measurement itself can be either continuous or point values. Continuous level sensors measure levels within a specified range and determine the exact amount of liquid in a certain location, while point-level sensors indicate whether the liquid level is above or below the sensing point.

Muthukumar P



Qi inductive power standard

Qi (pronounced "Chee") is an interface standard developed by the Wireless Power Consortium for inductive electrical power transfer over distances of up to 4 cm (1.6 inches). The Qi system comprises a power transmission pad and a compatible receiver in a portable device. To use the system, the mobile device is placed on top of the power transmission pad, which charges it via resonant inductive coupling.

Mobile device manufacturers that are working with the standard include Asus, HTC, Huawei, LG Electronics, Motorola Mobility, Nokia, Samsung, BlackBerry, and Sony. The Wireless Power Consortium was established in 2008, and is an open-membership cooperation of Asian, European, and American companies in various manufacturing industries. Their aim is to create a global standard for inductive charging technology.



Under the Qi specification, "low power" for inductive transfer means a draw of 0 to 5 W. Systems that fall within the scope of this standard are those that use inductive coupling between two planar coils to transfer power from the power transmitter to the power receiver.



In backscatter modulation, the power-receiver coil is loaded, changing the current draw at the power transmitter. These current changes are monitored and demodulated into the information required for the two devices to work together.



Jeeva Shanthini.S

MOTION CAPTURE



Motion capture (Mo-cap for short) is the process of recording the movement of objects or people. It is used in military, entertainment, sports, medical applications, and for validation of computer vision[2] and robotics. In filmmaking and video game development, it refers to recording actions of human actors, and using that information to animate digital character models in 2D or 3D computer animation

This animation data is mapped to a 3D model so that the model performs the same actions as the actor. Camera movements can also be motion captured so that a virtual camera in the scene will pan, tilt, or dolly around the stage driven by a camera operator while the actor is performing.



More rapid, even real time results can be obtained. In entertainment applications this can reduce the costs of key frame-based animation. The Hand Over technique is an example of this.

Naveen Kumar.J.D

MOTIVATIONAL THOUGHTS

"If you want to achieve greatness stop asking for permission."

"To live a creative life, we must lose our fear of being wrong."

"Take up one idea. Make that one idea your life--think of it, dream of it, live on that idea. Let the brain, muscles, nerves, every part of your body, be full of that idea, and just leave every other idea alone. This is the way to success."

"Good things come to people who wait, but better things come to those who go out and get them."

"Opportunities don't happen, you create them."

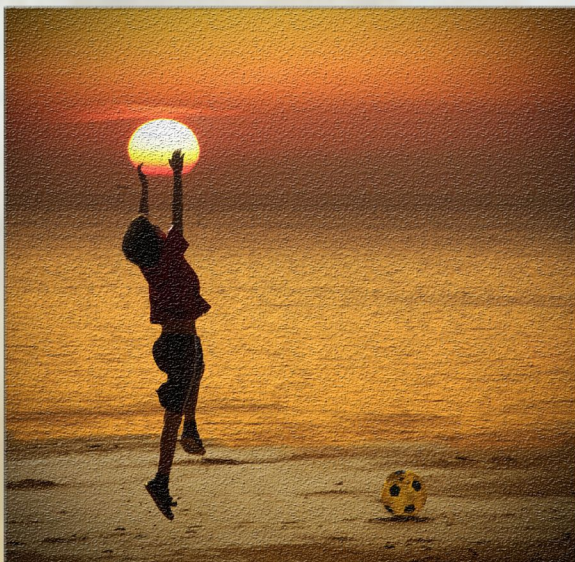
"Try not to become a person of success, but rather try to become a person of value."

"Great minds discuss ideas; average minds discuss events; small minds discuss people."

"When you stop chasing the wrong things, you give the right things a chance to catch you."

"Life is not about finding yourself. Life is about creating yourself."

"You can do anything, but not everything."



"Courage is resistance to fear, mastery of fear--not absence of fear."

"You must expect great things of yourself before you can do them."

"Motivation is what gets you started. Habit is what keeps you going."

NEURAL NETWORK



The basic idea behind a neural network to simulate (copy in a simplified but reasonably faithful way) lots of densely interconnected brain cells inside a computer so you can get it to learn things, recognize patterns, and make decisions in a humanlike way. The amazing thing about a neural network is that you don't have to program it to learn explicitly: it learns all by itself, just like a brain!

The use of neural networks may seem to challenge the physical symbol system hypothesis, which relies on symbols having meaning. Part of the appeal of neural networks is that, although meaning is attached to the input and output units, the designer does not associate a meaning with the hidden units. What the hidden units actually represent is something that is learned. After a neural network has been trained, it is often possible to look inside the network to determine what a particular hidden unit actually represents. Sometimes it is easy to express concisely in language what it represents, but often it is not. However, arguably, the computer has an internal meaning; it can explain its internal meaning by showing how examples map into the values of the hidden unit.

An ability to learn how to do tasks based on the data given for training or initial experience.

An ANN can create its own organisation or representation of the information it receives during learning time.



Deepa.R



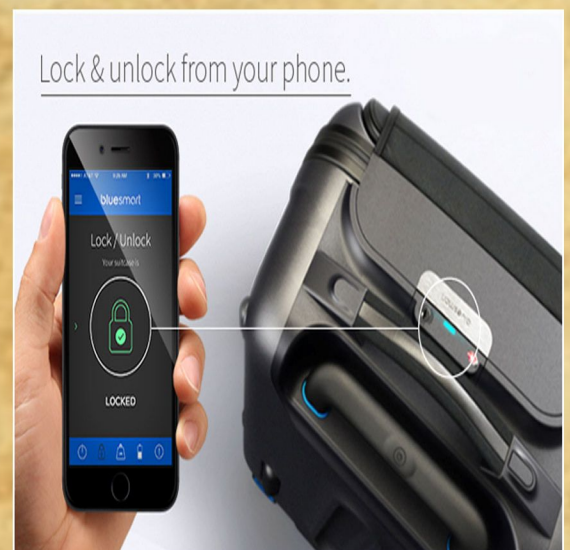
ZUtA Pocket Printer



Now you can print the required material anywhere of any size all you need to have is Wi-Fi. The new ZUtA Pocket Printer which comes with a 1 hour battery life and on a single cartridge can print more than 100 copies. One other thing to take care of before you start printing is that point the corner of the device, insert the paper and the job is done.

Bluesmart Connected Objects

Luggage is one thing that is easily misplaced and tracking it back is an arduous task. Technologies another invention is here to help, with Bluesmart Connected Objects you can track your luggage anywhere in the world and will be able to control locks too. The additional features here are that you can weigh the luggage with the handle and a built in charger to dock station your phones.



Manjula·A

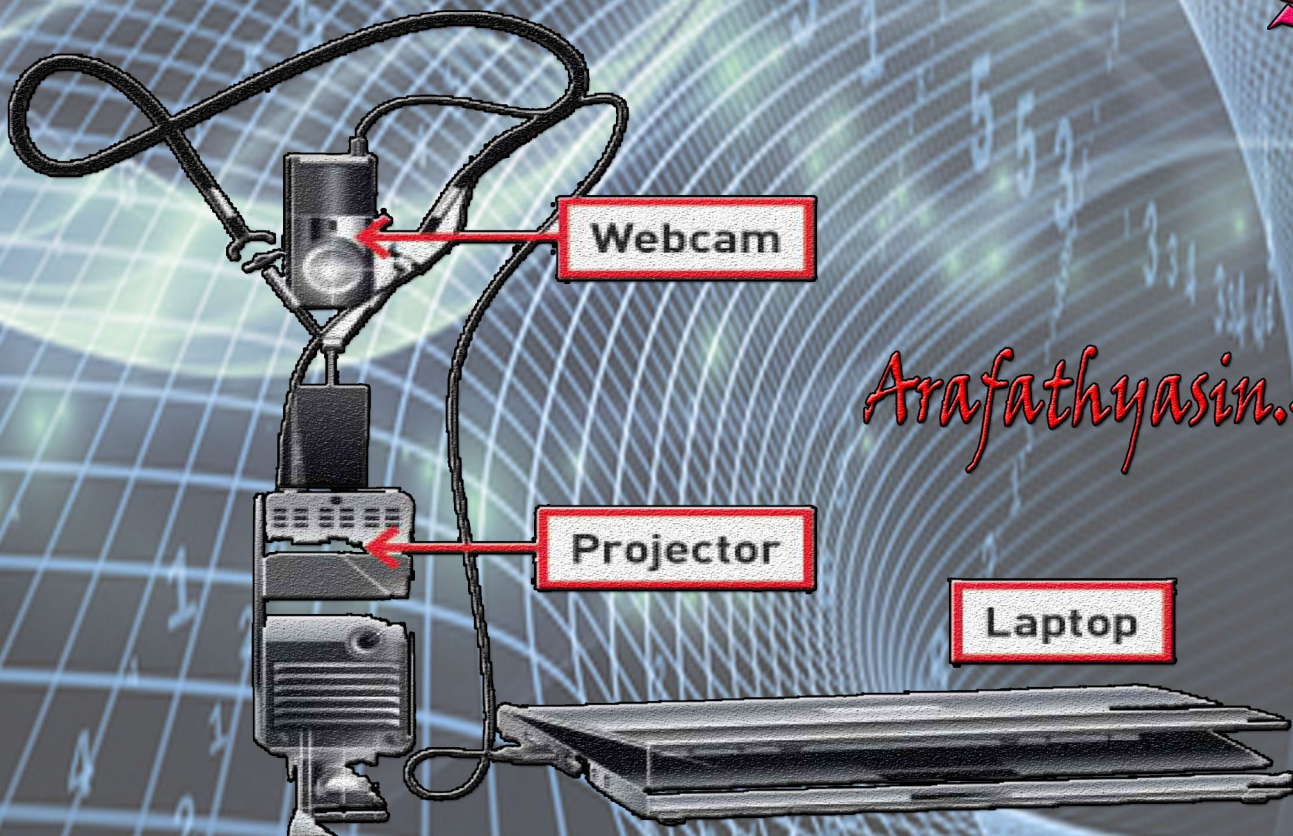
Sixth Sense

T e c h n o l o g y

It's the beginning of a new era of technology where engineering will reach new milestones. Just like in the science fiction movies where display of computer screen appears on walls, commands are given by gestures, the smart digital environment which talks to us to do our work and so on, these all will be possible very soon.

Isn't it futuristic? Now it's time for sci-fi movie directors to think ahead because the technology shown in there fiction movies soon will become household stuff. Before few years back it was considered to be supernatural or tantalizing imagination. But now it has been made possible.

Sixth Sense is a wearable gestural interface that enhances the physical world around us with digital information and lets us use natural hand gestures to interact with that information. It associates technologies like hand gesture recognition, image capturing, processing, and manipulation, etc. It superimposes the digital world on the real world.



Arafathyasir.Z

Canon EOS-1D X DSLR Camera

The Canon EOS-1D X DSLR Camera is designed with the pro shooter in mind, as evidenced by its tough magnesium alloy body, large 3.2" LCD, the Intelligent Viewfinder, and of course the 18.1MP CMOS sensor, among other professional features

The 1D X was built to stand up to the grind of daily shooting. In addition to its large pixel size - for outstanding still images and 1920 x 1080 video - the camera provides the serious photographer with a generous ergonomic design

FEATURES

Working Range EV -2 - 18 (at 23°C & ISO100)

Lcd Type 3.2" (8.11cm) Clear View II TFT, approx.

Shooting Modes Program AE, Shutter priority AE,
Aperture priority AE, Manual

GPS via optional GP-E2 GPS Receiver

Computer Interface Hi-Speed USB

Year Introduced 2012



Vignesh.T

THE LEAD

Monitor Mounds
Cabinet Cackles
Mouse Modulates
Keyboard Knuckles
Hard disk Hankeres
Chip Chases
Finally
Computer Conquers



Shalini.S

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Handcraft in Soap

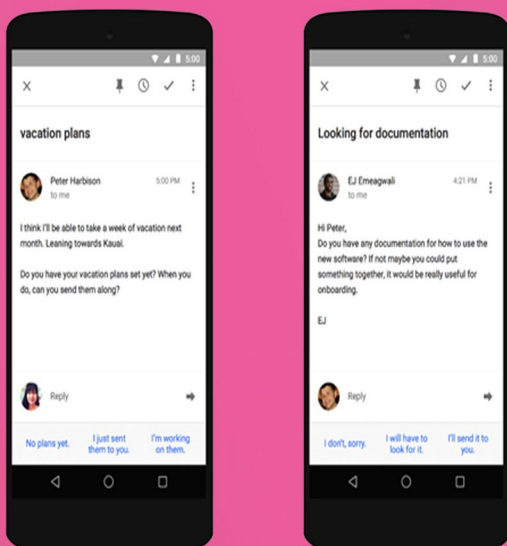
Google's machine learning Inbox can now reply to your emails

A new feature in Google's Inbox app can recognise the content of emails and tailor responses using natural language, without a human being having to do a thing.

Machine learning is used to scan emails and understand if they need replying to or not, before creating three response options. The feature, dubbed Smart Reply, is only available in Google's Inbox app for Android and iOS. It has been designed for emails that can be answered with a short reply such as "I'll send it to you" or 'I don't, sorry'.

Google said the system would enable users to reply to emails in just two taps -- one tap to open it, one tap to select a response and send.

Smart Reply is built on a pair of recurrent networks, one that encodes incoming emails and one that comes up with possible responses. Each word is captured in turn to create a list of numbers, known as a thought vector, that gives the machine learning system the gist of what is being said. From this, the second network builds a grammatically correct response one word at a time.



Another challenge for Google's engineers was working blind. For privacy reasons, and to make a machine learning email system truly useful, no human being has access to the data. That means everything is worked out by a computer.

- 🍏 Unlimited iTunes Music Store downloads at no additional cost.
- 🍏 No bank account necessary
- 🍏 Unlimited withdrawals
- 🍏 Never needs recharging, batteries, ink, or paper
- 🍏 All the functionality of the original iPhone



iphone ATM



MANIKANDAN.A



We Are Now In
Search Of Our
Fish In The World
Of Competency.....!

Raja Priya.S

3D Printing



NASA recently made it possible for a 3D printed spanner to be created aboard the International Space Station. Serving to highlight how far the technology has come, the feat will help propel 3D printing into a development daze. We'll be seeing controversy, regulation and even more success stories with regards to the industry. Hardware and equipment costs will fall, leading to increased access and applications in industrial, health and commercial areas. Perhaps a 3D printer won't be a realistic buy for the home in the next year, but 3D printing services will become more widespread and more accessible as regulations are ironed out.

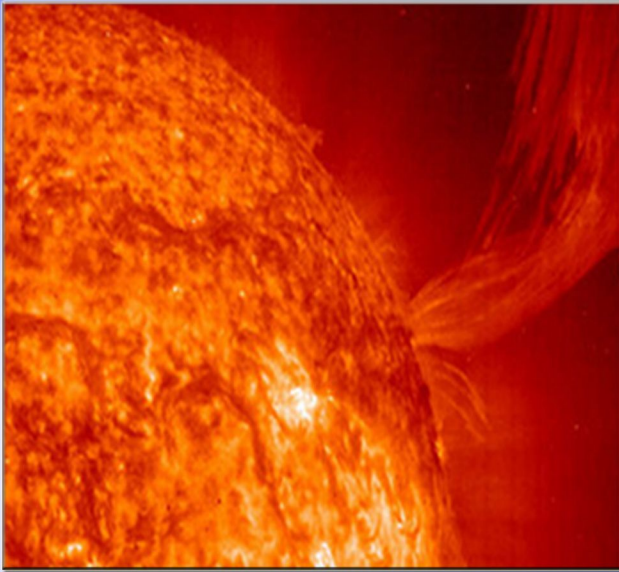
4K's Advent

The successor to HD, 4K (Ultra HD) only become widespread with a drop in price, sensible business models and the proliferation of 4K content and services. 2014 was supposed to be the year for 4K, but without a convincing argument for the standard— and the means by which to easily access it — it didn't really happen. 4K is now 2015's to foster and the options are it either falling away or being turned into an attractive proposition.



Nivetha.S

FACTS ABOUT THE SUN



The sun lies at the heart of the solar system, where it is by far the largest object. It holds 99.8 percent of the solar system's mass and is roughly 109 times the diameter of the Earth — about one million Earths could fit inside the sun. The sun is one of more than 100 billion stars in the Milky Way. The sun is relatively young, part of a generation of stars known as Population I, which are relatively rich in elements heavier than helium.

The sun was born about 4.6 billion years ago. Many scientists think the sun and the rest of the solar system formed from a giant, rotating cloud of gas and dust known as the solar nebula. As the nebula collapsed because of its gravity, it spun faster and flattened into a disk. Most of the material was pulled toward the center to form the sun. After that, it will swell to become a red giant.



The sun and its atmosphere are divided into several zones and layers. The solar interior, from the inside out, is made up of the core, radiative zone and the convective zone. The solar atmosphere above that consists of the photosphere, chromosphere, a transition region and the corona.

Priya.G

BIG DATA



Big Data refers to the massive amounts of data that collect over time that are difficult to analyze and handle using common database management tools.

Giant companies like Amazon and Wal-Mart as well as bodies such as the U.S. government and NASA are using Big Data to meet their business and/or strategic objectives.

Volume:

The size of the data determines the value and potential of the data under consideration.

Variability:

The inconsistency the data can show at times

Veracity:

The quality of captured data, which can vary greatly. Accurate analysis depends on the veracity of source data.

Malathi.M

INDIAN ARMED FORCES

The Indian Armed Forces are the military forces of the Republic of India. The President of India is the Supreme Commander of the Indian Armed Forces. The Indian Armed Forces are under the management of the Ministry of Defence (MoD) which is led by the Union Cabinet Minister of Defence. With strength of over 1.3 million active personnel, it is world's 3rd largest military force and has the world's largest volunteer army.



Indian Air Force

The Indian Air Force is the air arm of the Indian armed forces. It is the World's 4th largest Airforce. Its primary responsibility is to secure Indian airspace and to conduct aerial warfare during a conflict. The President of India Pranab Mukherjee serves as the ex-officio Commander-in-Chief of the IAF. The Chief of Air Staff, an Air Chief Marshal (ACM), is a four-star commander and commands the Air Force.



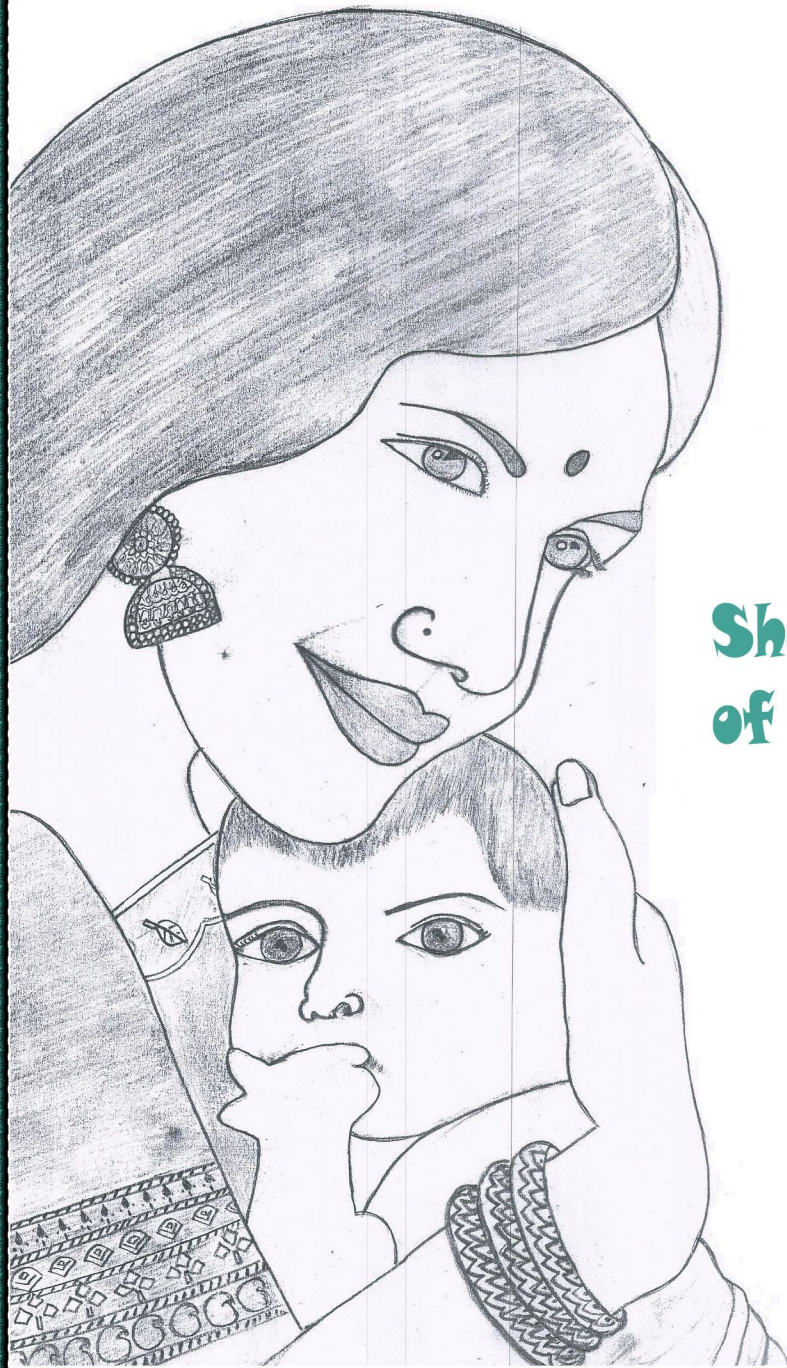
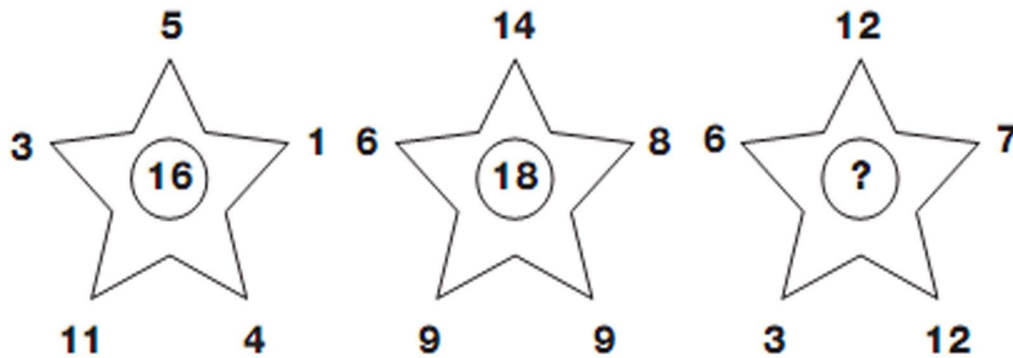
Indian Navy force

The Indian Navy is the naval branch of the forces of India. The President of India serves as the Commander-in-Chief of the Navy. The Chief of Naval Staff (CNS), usually a four-star officer in the rank of Admiral, commands the navy. In recent years, the Indian Navy has undergone rapid modernisation to replace its ageing equipment currently in service, this is often seen as part of "India's drive" to develop bluewater capabilities and enhance its position in the Indian Ocean region.



PUZZLE

Which number replaces the question mark ?



She is the real meaning
of **EVERLASTING LOVE**

7 Hot Technologies To Watch At Interop New York



industry today From SDN and DevOps to containers and the IoT, Interop New York will feature the hottest technology trends in the tech. Technology changes fast, and today it's changing faster than ever. Cloud computing, software define networking, DevOps, and mobile computing are all transforming the enterprise and shaking up the status quo.

There's no escaping these growing trends. For example, even though it's still early days for software-defined networking, The data center and enterprise SDN market grew a whopping 192% from 2012 to 2013, according to Infonetics Research. That includes SDN controllers and SDN-capable Ethernet switches. The growth puts an end to any question of SDN playing a role in data center and enterprise networks, according to Cliff Grossner, directing analyst at Infonetics.

Infonetics predicts the market for SDN Ethernet switches and controllers will reach \$18 billion by 2018, when it expects SDN adoption to go mainstream. Marcia Savage is the managing editor for Network Computing, and has been covering technology for 15 years. She has written and edited for CRN and spent several years covering information security for SC Magazine and TechTarget.



WHICH NUMBER COMPLETES THE PUZZLS ?

PUZZLES



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Microsoft Band

Microsoft made its first entry into wearable computing on Thursday with the Microsoft Band, a \$199 health and fitness tracker that, the company says, will let you "leave your phone in your pocket and miss nothing."

Unlike the upcoming Apple Watch, the Microsoft Band isn't meant to replace your current timepiece. Instead, the matte-black band is meant to monitor your health with an array of sensors. The Band has optical heart rate sensing, accelerometers and a gyroscope to measure movement, GPS (so it can track the route you ran, hiked, or biked, even if your phone isn't nearby), a microphone, light sensors, and even a sensor to gauge skin temperature. Microsoft says the Band should have enough battery life for 48 hours of "normal use," though that number drops somewhat if the GPS is turned on.

The Microsoft Band works in concert with Microsoft Health, a collection of apps and a cloud service that use that data that all those sensors gather to tell you how far you walked each day, how many calories you burned during exercise, and other useful bits of information. Microsoft says, for example, that it could judge how long your body needs to recover before next workout. Or it could use the Band's light sensor to recommend what sunscreen strength you should apply.



Saranya.S



Future Mobile

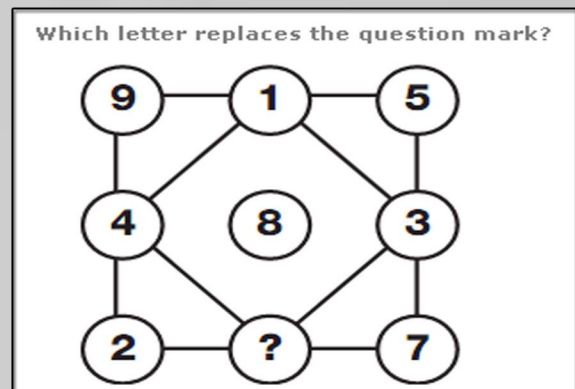
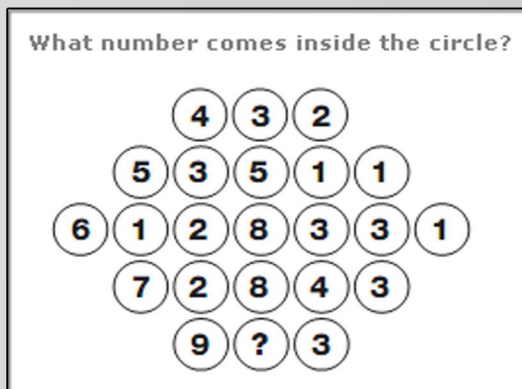


If you have a cell phone, laptop, iPod, iPad, PC, TV, several remotes for your TV, stereo or home entertainment center you'll soon realize how overwhelming it is and how easily these devices can get lost. The solution of course is to put all of these into one small electronic gadget and this is just what future technology devices will do. Future devices will incorporate the best practices and top technology of current day emerging technological devices.

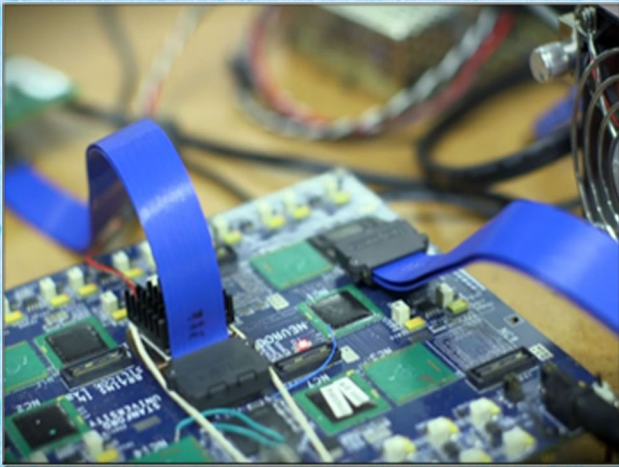
Future devices will also be like today's Bluetooth technology in that you'll be able to speak and command your other electronics to perform as you wish. If we control them manually or automate them manually we will do this with either small hand-held electronic controllers or an earpiece and give the robots commands.

Selva Kumar.C

PUZZLES



Human Brain Microchip Is 9,000 Times Faster Than a PC



Despite advances in computing, today's computers remain far less efficient than the 3-lb. (2.3-kg) hunk of matter in our skulls. But a new microchip modeled on the human brain is much faster and more efficient than a typical computer, researchers report.

The microchip — called "Neurogrid" — could open up windows into understanding the human brain and developing new forms of computing patterned after brain circuits. Researchers are now investigating how these chips could be used to control prosthetic limbs. "From a pure energy perspective, the brain is hard to match," Kwabena Boahen, the bioengineer at Stanford University who led the chip's development, said in a statement. Not only are personal computers slower, they take 40,000 times more power than the brain to run, Boahen said. [Super-Intelligent Machines: 7 Robotic Futures]

Vivek.J

IT'S PUZZLE TIME

If you look at the number on my face you won't find thirteen anyplace.

Ans: A clock.



New Type of Carbon Is Harder and Brighter Than Diamonds



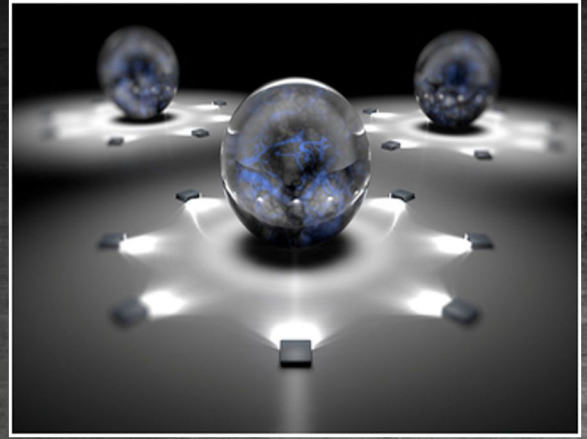
Scientists have designed a new type of carbon that is harder and brighter than naturally formed diamonds.

For those who want to wear a one-of-a-kind sparkler on their fingers, the new material, called Q-carbon, also gives off a soft glow.

This new phase is very unique. For instance, the material can act as either a metal or a semiconductor, and is magnetic at room temperature.

Kasthuri.S

Spooky Action



The world of the very small can get pretty wacky — particles can be in two or more places at once, and even become entangled, wherein actions on one entity can affect its partners across the cosmos. Physicists have broken all kinds of records in proving the existence of so-called quantum entanglement, and now, they have done it again, coupling together thousands of atoms at room temperature.

Previously, these atoms could be paired only at temperatures cold enough to liquefy helium.

Priyadharshini.M
Harini.S

Eye Tribe



Eye tracking is the process of using sensors to locate features of the eyes and estimate where someone is looking (point of gaze). Our technology relies on infrared illumination and uses advanced mathematical models to determine the point of gaze. We've spent a tremendous amount of effort on making it fully automatic and easy to set up so that it works accurately and reliably in a wide range of environments.

It's basically taking the common eye-tracking technology and combining it with a front-facing camera plus some serious computer-vision algorithm, and voila, fruit slicing done with the eyes! A live demo was done in LeWeb this year and we may actually be able to see it in action in mobile devices in 2013. Currently the company is still seeking partnership to bring this sci-fi tech into the consumer market.

Eye tracking can be used in a wide variety of applications typically categorized as active or passive. Active applications involve device control, for example aiming in games, eye activated login or hands-free typing.

Kavitha. L

This touchscreen could mean the end of charging phones daily

LONDON: British scientists have invented a new type of touchscreen material that requires very little power to illuminate, with vivid colours and high visibility in direct sunlight.

Developed by Bodie Technologies, a University of Oxford spin-off company, the new technology could spare the consumers the pains of charging their smartphones daily.

"We can create an entire new market. You have to charge smartwatches every night, which is slowing adoption. But if you had a smartwatch or smart glass that didn't need much power, you could recharge it just once a week.

The researchers claimed that their ultra-thin display material can produce vivid colour displays at very high resolution, even in bright, direct sunlight.

"This makes them potentially useful for 'smart' glasses, foldable screens, windshield displays, and even synthetic retinas that mimic the abilities of photoreceptor cells in the human eye," the team was quoted as saying.

Tharani Selvi·T



3 POWERS OF INDIA RULING GLOBAL IT

SATYA NADELLA



sathyam

Born August 19, 1967) is an Indian-American business executive. He is the current chief executive officer (CEO) of Microsoft.

SUNDAR PICHAJ

Pichai Sundararajan better known as Sundar Pichai, is a technology executive who is Chief Executive Officer of Google Inc.



sundharam

SHIV NADAR

Shiv Nadar (born 14 July 1945) is an Indian industrialist and philanthropist. He is the founder and chairman of HCL and the Shiv Nadar Foundation.



shivam

E-MAGAZINE EXECUTIVES

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Where there is an **INNOVATION,**

There is a **SPARK.**

