

DO YOU KNOW THEM ?



BHASKAR PRAMANIK

Bhaskar Pramanik is the Chairman of Microsoft India. He will look after the company's overall sales, marketing and all other transactions across India. Pramanik has resigned from Oracle India to join Microsoft India. Before Oracle, he was the Corporate Vice President and President, India GEM of Sun Microsystems India.

SACHIN BANSAL

Sachin Bansal is an Indian Software Engineer and Internet Entrepreneur, known for co-founding India's largest e-commerce platform Flipkart. Sachin is from Chandigarh and has graduated from the Indian Institute of Technology Delhi with a degree in Computer Engineering. Sachin Bansal was previously employed by Amazon.



SUNDAR PICHAI

Pichai Sundararajan, is an Indian businessman and a Senior Vice President at Google, where he oversees Android, Chrome and Google Apps. Born in Chennai, he received his Bachelors in Technology of Metallurgical and Materials Engineering in IIT Kharagpur. Pichai joined Google in 2004, where he led the product management, including Google Chrome and Chrome OS, as well as being largely responsible for Google Drive. He went on to oversee the development of apps like Gmail and Google Maps. He was rumored to be one of the contenders for the CEO position of Microsoft in 2014.



SHANTANU NARAYEN

Shantanu Narayen is the CEO of Adobe Systems. Prior to this post, he held the role as the President and Chief Operating Officer since 2005. He is also the President of the board of the Adobe Foundation. He started his career at Apple. After Apple, Narayen serves as director of desktop and collaboration products for Silicon Graphics, then co-founded Picta Inc., a company that pioneered the concept of digital photo sharing over the Internet. Shantanu Narayen is paid an annual salary of \$875,000 for his role as chief executive.



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CRUX MAGAZINE

OCTOBER EDITION 5.1 2014

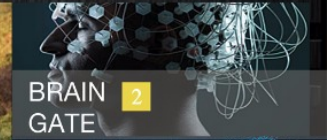
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READERS AVENUE



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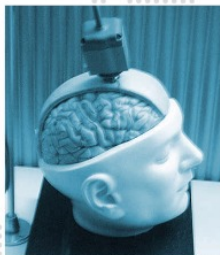
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Featured Items

MAGNETS MAY SOON COOL FUTURE LAPTOPS 1

Magnets can act as wireless cooling agents and may one day be used to cool refrigerators and laptops. A new theory describes the motion of magnons — quasi-particles in magnets that are collective rotations of magnetic moments, or 'spins' which also conduct heat. The researchers found that when exposed to a magnetic field gradient, magnons may be driven to move from one end of a magnet to another, carrying heat with them and producing a cooling effect. They found that while the effect was small, the material was able to generate a cooling effect in response to a moderate magnetic field gradient. The effect was more pronounced at cryogenic temperatures.

- Priyadarshini K M.Sc (5th yr)



2 BRAIN GATE

- Hari Govindhan M.Sc (2nd yr)

BrainGate is a brain implant system, designed to help those who have lost control of their limbs, or other bodily functions, such as patients with amyotrophic lateral sclerosis (ALS) or spinal cord injury. The sensor, which is implanted into the brain, monitors brain activity in the patient and converts the intention of the user into computer commands. BrainGate consists of a sensor implanted in the brain and an external decoder device, which connects to some kind of prosthetic or other external object. The sensor uses 100 hair-thin electrodes that sense the electromagnetic signature of neurons firing in specific areas of the brain, Eg : arm movement.

SMARTPHONES SOON POWERED BY WATER 3

Imagine if the humidity in the air could power your smartphone or laptop. It may soon become a reality! Water droplets jumping from a highly repelling surface can be harnessed to produce electricity that could be used to power electronic devices. Water droplets spontaneously jump away from superhydrophobic surfaces during condensation and they can gain electric charge in the process which produce small amount of electricity. There are some constraints because the process relies on condensation, it requires a humid environment, as well as a source of temperature colder than the surrounding air, such as a cave or river.

- U Krishna M.Sc (2nd yr)



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4 LI-FI DATA TRANSMISSION

- Gokul Raj M.Sc (2nd yr)

A Mexican company has managed to transmit audio, video across the spectrum of light emitted by LED lamps — at a data transfer rate of 10 gigabytes per second. The technology, called Li-Fi or light fidelity, is presented as an alternative to Wi-Fi, which circulates data via LEDs that emit an intermittent flicker at a speed imperceptible to the human eye and there is no way to hack the signal since the internet is transmitted by light. Also known as visible light communications (VLC), this technology began with an internet speed of two Gigabits per second.



GLASS BRAIN 5

- Rajkumar S M.Sc (3rd yr)

It is now possible to bridge the worlds of neuroscience and high-tech virtual reality. The system, called Glass Brain, initiated by Philip Rosedale, creator of famous game Second Life, and Adam Gazzaley, a neuroscientist at the University of California San Francisco, combines brain scanning, brain recording and virtual reality to allow users to journey through a person's brain in real-time. It is provided with a cap studded with electroencephalogram (EEG) electrodes that measure differences in electric potential in order to record brain activity, and a virtual reality headset to explore the brain activity from EEG. Its like colored glass-like image of a brain.



6 REALITY OF LIFE !!!

- Vijaya lakshmi M.Sc (3rd yr)

The word LIFE could be abbreviated as Lots In Fates Eyes. Yup! It's the most puzzling game played by fate on each of us. To manage all those peaks and pitfalls in life we just need to have acceptance. The eternal truth of life is "Expectations always lead to disappointments and disappointments hurt". So better don't expect anything from anyone. Live life to the fullest and cherish it with what you have, rather than expecting what you don't have. We don't know what is going to happen the next moment in our life, enjoy this thrill and playback fate with courage. For all these you have to come out of your "comfort zone" and get exposed to all kinds of environments. "Beauty lies in the eyes of the beholder", so it's only you, who decides how to see and visualize your life. Come on dudes, cheer up! Life is so simple.





GOOGLE CARS DRIVES ITSELF

No steering wheel? Not so fast. It ferries two people from one place to another without any user interaction. The car is summoned by a smartphone for pick up at the user's location with the destination set. There is no steering wheel or manual control, simply a start button and a big red emergency stop button. In front of the passengers there is a small screen showing the weather, the current speed and a small countdown animation to launch.

Once the journey is done, the small screen displays a message to remind you to take your personal belongings – reinforcing that this is not aiming to be a substitute for your personal car at the moment, but more as a replacement for the taxi without the human driver.

Powered by an electric motor with around a 100 mile range, the car uses a combination of sensors and software to locate itself in the real world combined with highly accurate digital maps. A GPS is used, just like the satellite navigation systems in most cars, to get a rough location of the

car, at which point radar, lasers and cameras take over to monitor the world around the car, 360-degrees. The software can recognise objects, people, cars, road marking, signs and traffic lights, obeying the rules of the road and allowing for multiple unpredictable hazards, including cyclists. It can even detect road works and safely navigate around them.

- Madhan Ram R M.Sc(5th yr)

GOOGLE CARS

THE AUTONOMOUS CAR OF
THE FUTURE IS HERE

HACKING EARTH

IF YOU CONTROL THE CODE,
YOU CONTROL THE WORLD

A team of researchers, at the University of California, have identified a weakness believed to exist in Android, Windows and iOS mobile operating systems that could be used to obtain personal information from unsuspecting users. Amazon, with a 48 percent success rate, was the only app they tested that was difficult to penetrate. The researchers started working on the method because they believed there was a security risk with so many apps being created by some

many developers. Once a user downloads a bunch of apps to his or her smart phone (malicious app) they are all running on the same shared infrastructure, or operating system. Once that app is installed, the researchers are able to exploit a newly discovered public side channel—the shared memory statistics of a process, which can be accessed without any privileges. (Shared memory is a common operating system feature to efficiently allow processes share data). The researchers monitor changes in shared memory and are able to correlate changes to what they call an "activity transition event," which includes such things as a user logging into Gmail or H&R Block or a user taking a picture of a check so it can be deposited online, without going to a physical CHASE Bank. There are two keys to the attack. One, the attack needs to take place at the exact moment the user is logging into the app or taking the picture. Two, the attack needs to be done in an inconspicuous way.

Google



THE ART OF
EXPLOITATION

- Kesavan A G M.Sc(5th yr)

INSPIRING



WORD LENS

An augmented reality application that recognizes printed words using optical character recognition capabilities and instantly translates these words into design language. This application does not require connection to Internet in its default mode. Word lens performs real time translation but can be passed to display a single frame or to lookup alternative translations of each specific word in that frame. It is also possible to use built-in dictionary to manually type in words that need to be translated.

- Abhinaya R.M.Sc(3rd yr)

BOOM

INTERNET OF THINGS (IOT)

The IOT is the subject of hype, and of vast projections. It is here today in the devices, sensors, cloud infrastructure and data and business intelligence tools. In IOT you can stop just running your business and start making it thrive.



INNOVATION

SCREENLESS DISPLAYS

- Kovalan R.M.Sc(5th yr)

One of the more frustrating aspects of modern communication technology is that, as devices have miniaturized, they have become more difficult to interact. Screenless display is achieved by projecting images directly onto a person's retina, not only avoiding the need for weighty hardware, but also promising to safeguard privacy by allowing people to interact with computers without others sharing the same view. The lack of space on screen-based displays provides a clear opportunity for screenless displays to fill the gap. Various companies have made significant break through in the field including virtual reality headsets, bionic contact lens etc.

TREND

OCULUS RIFT

An incredibly exciting trend is the return of the head-mounted displays. Although head-mounted virtual reality consoles have seen little success in the past, the Oculus rift aims to change that by offering 110 degree field of view in ultra low latency head tracking system and immersive stereoscopic 3D rendering capabilities creating intriguing displays with responsive head-turning motion control.

- Gopal M.Sc(3rd yr)



WATCH

APPLE WATCH

A device you wear is vastly different from one you carry in your pocket. It is a multifunctional input device that lets you zoom, scroll, and select without covering the screen. It's as integral to Apple Watch as the Click Wheel is to iPod. Apple Watch also allows you to connect with your favorite people in some new, spontaneous ways, not possible with any other device.



ROBOTIC CHECK-UPS

The RP-VITA Remote presence robot is the first autonomous navigation remote presence robot to receive FDA clearance for hospital use. The device is a mobile cart with a two-way video screen and medical monitoring equipment, programmed to maneuver through the busy halls of a hospital.

COOL

ELECTRIC

BODY WEARABLE ELECTRONICS

Wearable technology has generated significant attention over the past year with most existing devices helping people to understand their personal health and fitness by monitoring exercise, heart rate, sleep patterns and so on. The sector is shifting beyond external wearable like wrist bands or clip-on-devices to body adapted electronics that further push the ever shifting boundary between humans and technology.

- Savitriya S.M.Sc(5th yr)



- * The Vice-Chancellor Prof. Dr. M. RAJARAM, Anna University, discussed future collaborations with the delegates from the University in UNITED KINGDOM.
- * He interacted with the students from Shibaura Institute of Technology, Japan undergoing two week internship programme.
- * He visited Electrical Drives Laboratory in the National Research University Moscow Power Engineering Institute.
- * He inaugurated the Training and Awareness Programme on JGate@UGC-INFONET a Regional Workshop for University Library.