KONGU ARTS AND SCIENCE COLLEGE

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DEPARTMENT OF COMPUTER SCIENCE (UG)
IT NEWS WORLD

New technology to make 3D viewing on smart phones easier

BEIJING: Scientists have developed a new display with three-dimensional visual effects, which will enable viewers to watch a 3D movie on their smart phone without getting a headache or feeling nauseous. The device is based on a "super multi-view technique" which works to reduce viewer discomfort, and also greatly decreases the required number of micro displays, which makes a compact design possible. "There are many causes for **3D viewing discomfort**, but the most substantial one is the vergence-accommodation conflict," said Lilin Liu from Sun Yan-Sen University in China. Vergence-accommodation conflict is a mismatch between the point at which the eyes converge on an image and the distance to which they focus when viewing 3D images, researchers said. Human eyes are separated by about six centimetres, which means that when we look at an object, the two eyes see slightly different images. Our brain directs both eyes to the same object and the distance at which the eyes' sight lines cross is technically called "vergence distance." Meanwhile, our brain adjusts the focus of the lens within each eye to make the image sharp and clear on the retina. The distance to which the eye is focused is called "the accommodative distance."

Failure to converge leads to double images, while mis-accommodation results in blurry images. In natural viewing, human's vergence and accommodation responses are correlated with each other and adjust simultaneously. In other words, vergence and accommodation distance are almost always the same -- that is why we can always see an object clearly and comfortably. Conventional 3D displays try to mimic the natural viewing by creating images with varying binocular difference, which simulates vergence changes in the natural 3D landscape. But the accommodative distance remains unchanged at the display distance, resulting in the so-called vergence-accommodation conflict that causes viewer discomfort. "
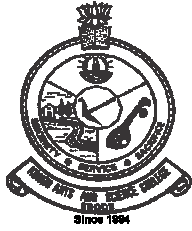
STAFF INCHARGE   **SUBMITTED BY**

K.G.Santhiya   K.Bharath

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Agile Robots

Computer scientists have created machines that have the balance and agility to walk and run across rough and uneven terrain, making them far more useful in navigating human environments. walking is an extraordinary feat of biomechanical engineering. Every step requires balance and the ability to adapt to instability in a split second. It requires quickly adjusting where your foot will land and calculating how much force to apply to change direction suddenly. No wonder, then, that until now robots have not been very good at it. Meet Atlas, a humanoid robot created by Boston Dynamics, a company that Google acquired in December 2013. It can walk across rough terrain and even run on flat ground. Although previous robots such as Honda's ASIMO and Sony's diminutive QRIO are able to walk, they cannot quickly adjust their balance; as a result, they are often awkward, and limited in practical value. Atlas, which has an exceptional sense of balance and can stabilize itself with ease, demonstrates the abilities that robots will need to move around human environments safely and easily.

Robots that walk properly could eventually find far greater use in emergency rescue operations. They could also play a role in routine jobs such as helping elderly or physically disabled people with chores and daily tasks in the home.

Marc Robert, cofounder of Boston Dynamics, pioneered machines with "dynamic balance"—the use of continual motion to stay upright—in the early 1980s. As a professor at Carnegie Mellon University, he built a one-legged robot that leaped around his lab like a pogo stick possessed, calculating with each jump how to reposition its leg and its body, and how aggressively to push itself off the ground with its next bound.

STAFF INCHARGE   **SUBMITTED BY**

K.G.Santhiya   V.Deepan

IT NEWS WORLD\

COMPUTER SECURITY

As with any business asset, hardware, software, networks, and data resources need to be protected and secured to ensure quality, performance, and beneficial use. **Security management** is the accuracy, integrity, and safety of information resources. When effective security measures are in place, they can reduce errors, fraud, and losses.

There are intentional and unintentional threats. **Unintentional threats** are considered to be human error, environmental hazards, and computer failures. Most people don't purposely cause harm. **Intentional threats** refer to purposeful actions resulting in the theft or damage of computer resources, equipment, and data. Intentional threats include viruses, denial of service attacks, theft of data, sabotage, and destruction of computer resources. Most intentional threats are viewed as computer crimes when executed.

Security Threats

Bill has a great deal of knowledge concerning computers and computer networks. He works for a large technology company and has become disillusioned with the organization. He dislikes what they stand for and the way they conduct business. He's tired of his job, and he can't stand his boss. Before Bill quits his job, he decides to cause a bit of mayhem with the computer network. He has all the skills needed to easily hack into his organization's computer network and do all the damage he wants.

The security threats are the thing which causes hazards to us. In our daily basis we suffer a lot due to the security threats. Computer security will enable us to recover from this.

STAFF INCHARGE   **SUBMITTED BY**
K.G.Santhiya   P.Nithya
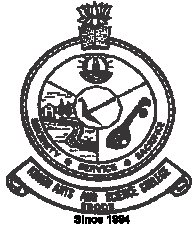
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IT NEWS WORLD

Attackers can turn Microsoft's exploit defense tool EMET against itself

EMET is a free tool used by companies to strengthen their Windows computers and applications against publicly known and unknown software exploits.

Featured Resource

First released in 2009, EMET can enforce modern exploit mitigation mechanisms like Data Execution Prevention (DEP), Address Space Layout Randomization (ASLR) or Export Address Table Access Filtering (EAF) to applications, especially legacy ones, that were built without them. This makes it much harder for attackers to exploit vulnerabilities in those applications in order to compromise computers.

Security researchers have found various ways to bypass particular EMET-enforced mitigations over the years, but they were primarily the result of design and implementation errors, like some modules or APIs being left unprotected. Methods to disable EMET protections completely have also been reported in the past, but they were not always straight-forward and required significant effort.

The Fire Eye researchers believe that their new technique, which essentially uses EMET against itself, is more reliable and easier to use than any previously published bypasses. Furthermore, it works against all supported versions of EMET -- 5.0, 5.1 and 5.2 -- with the exception of EMET 5.5, and also on versions that are no longer supported, like 4.1.

EMET injects some DLLs (Dynamic Link Libraries) into third-party application processes that it's configured to protect. This allows it to monitor calls from those processes to critical system APIs and to determine if they are legitimate or the result of an exploit.

STAFF INCHARGE   **SUBMITTED BY**

K.G.Santhiya   E.Mugundan

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India's software market to grow 12.8 per cent to $5.3 billion in 2016, says Gartner

Country's software market is likely to witness a growth of 12.8 per cent to reach $5.3 billion in 2016, research firm Gartner said on Tuesday.

"The enterprise software marketplace is dynamic and ever-changing. Its growth and structure are being shaped by factors and forces of decentralised purchasing, consumerisation, mobility, influence of other emerging markets, cloud-based implementations, and new consumption models," Gartner Research Director Bhavish Sood said in a statement.

The growth is being driven by trends like increasing adoption of Software as a service (SaaS) and open source software (OSS), changing buying behaviors and purchasing styles associated with digital business and Digital India initiative of the Indian government.

"In 2015, the Indian economy has shown signs of resurgence, with increased efforts by the government toward ease of doing business... It is also evident that the Indian government is serious about leveraging information technology for effective governance," he said.

Corporations also want to know how to use digital technologies, services and disciplines to create new growth opportunities, Sood added. Businesses are getting ready to digitally transform, creating new organisations, and leadership roles.

This transformation is generating varying degrees of adoption, experimentation and spending in the newest technologies, Gartner said.

STAFF INCHARGE   **SUBMITTED BY**

K.G.Santhiya   K.Meikannan