THE BYTE

An e-magazine of CSE department from IMSEC,Gzb

APRIL , 2016

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Dr.Awdesh Gupta
Associate Professor, CSE Dept

Two dozen vehicles found to have wireless key-entry systems that are vulnerable to hacking

(German researchers have discovered two dozen vehicles that use wireless key entry systems that are vulnerable and allow the radio signal to be intercepted and used to steal a car.)

On the heels of the federal government's warning about automotive cybersecurity vulnerabilities, a group of German vehicle security researchers has released a study showing many wireless key entry systems are vulnerable to hacking.

Munich-based ADAC (Allgemeine Deutsche Automobil-Club) performed the study on dozens of cars to test a radio "amplification attack" that extends the range of a driver's wireless key fobs to open cars and even start their ignitions. The researchers claimed 24 different vehicles from 19 manufacturers are vulnerable. The vulnerability allows cars to be unlocked and started but leaves no trace of the hack.

All that is needed to unlock and start a vehicle is commercially available wireless technology and the "technical knowledge of electronics or apprentices from the electrical engineering undergraduate studies.

The researchers discovered that the radio connection between wireless key entry systems and the car can easily be extended over several **Hundred meters.**

Researchers show how a radio amplifier can access a car owner's FOB to start a vehicle in the owner's garage. At right, the researcher holds the amplification system while, on the left, another researcher climbs in the car to start it.

Also, immobilizer and alarm systems can be overcome the same way.

They examined since the beginning of 2016 cars with keyless technology has this vulnerability and hundreds of thousands vehicles are affected.

If a car is stolen, it runs without a key as long as fuel is in the tank, or until the engine stalls or is turned off, the researchers said. Even refueling with the engine running is possible.

Owners of cars with keyless locking systems should exercise increased vigilance in the storage of the key, the researchers said.

Vehicles exposed to the wireless entry hack include the Audi A3, A4 and A6, BMW's, Ford's Eco-Sport, Honda's HR-V, Hyundai, Nissan, Maruti and many more.

The automakers have "a duty" to take quick action by offering appropriate retrofits for effected vehicles, the researchers said.

Government Ministries to Enter Pact With IITs to Promote Research

In a major initiative to promote original research, 26 government ministries and departments are set to enter an agreement to collaborate for technology development covering various engineering disciplines along with institutes like the IITs and NITs.

HRD ministry officials said the initiative is part of the IMPRINT initiative of the NDA government which is a multi-disciplinary, multi-partner and multi-goal oriented national programme aimed at technology development involving IITs, IISc, national academies, ministries etc.
Ten technology domains have been identified under IMPRINT including Health care, Energy, Sustainable Habitat, Nano Technology hardware, Water resources and river systems, Advanced materials, Information and Communication Technology, Manufacturing, Security and Defence.
In the field of Health care, Health Ministry, AYUSH and various bodies like ICMR would participate in research initiatives and IIT Kharagpur would be the coordinating institute, officials added.

For technological development in defence the MoU envisages involvement of DRDO, Department of Space, Department of Atomic Energy, while IIT Madras and IIT Delhi would be the coordinating bodies.
For Sustainable Habitat and Swachh Bharat, the MoU envisages a collaboration between Urban Development and Rural Development ministries and IIT Roorkee.
The initiative, IMPRINT aims to create synergy with all the major initiatives of the Government like Make in India, Digital India, Skill India, Namami Gange, Unnat Bharat Abhiyan, Swachh Bharat Mission and other Ministries engaged in research covering these domains, an official said.

For every domain area, there shall be a Domain Expert Committee (DEC), chaired by a subject matter expert of eminence and with such members as decided by the National Coordinator.
The Director IIT Kanpur has been designated as the first National Coordinator for the programme for a period of one year, HRD officials said.
The MoU, which will be signed tomorrow between various ministries with these institutes is a part of the flagship initiative IMPacting Research INnovation and Technology (IMPRINT), which had been launched by President Pranab Mukherjee, Prime Minister Narendra Modi and HRD minister Smriti Irani in November, 2014.

Among other collaborations envisaged under the IMPRINT initiative are collaborations in research on Environment and Climate, involving ministries of Environment and Forest and Earth Sciences and Indian Institute of Science, Bangalore.

Other bodies who are a part of the large scale exercise include ministries of Textiles, Surface Transport, Steel, Railways, New and Renewable Energy, Drinking Water and Sanitation, officials said.

"Imprint initiative is unique as so many government will enter into collaboration to work on common goals in research," a senior official said.

Prof. Vishan kr. Gupta
Assistant Professor, CSE

The Internet of Things (IoT) is an environment in which objects, animals or people are provided with unique identifiers and the ability to transfer data over a network without requiring human-to-human or human-to-computer interaction. IoT has evolved from the convergence of wireless technologies, micro-electromechanical systems (MEMS) and the Internet. The concept may also be referred to as the Internet of Everything. A thing, in the Internet of Things, can be a person with a heart monitor implant, a farm animal with a biochip transponder, an automobile that has built-in sensors to alert the driver when tire pressure is low -- or any other natural or man-made object that can be assigned an IP address and provided with the ability to transfer data over a network. So far, the Internet of Things has been most closely associated with machine-to-machine (M2M) communication in manufacturing and power, oil and gas utilities. Products built with M2M communication capabilities are often referred to as being smart.

"Things," in the IoT sense, can refer to a wide variety of devices such as heart monitoring implants, biochip transponders on farm animals, electric clams in coastal waters, automobiles with built-in sensors, DNA analysis devices for environmental/food/pathogen monitoring or field operation devices that assist fire fighters in search and rescue operations. These devices collect useful data with the help of various existing technologies and then autonomously flow the data between other devices. Current market examples include smart thermostat systems and washer/dryers that use Wi-Fi for remote monitoring.

IoT Architecture

IoT architecture consists of different suite of technologies supporting IoT. It serves to illustrate how various technologies relate to each other and to communicate the scalability, modularity and configuration of IOT deployments in different scenarios. The functionality of each layer is described below:

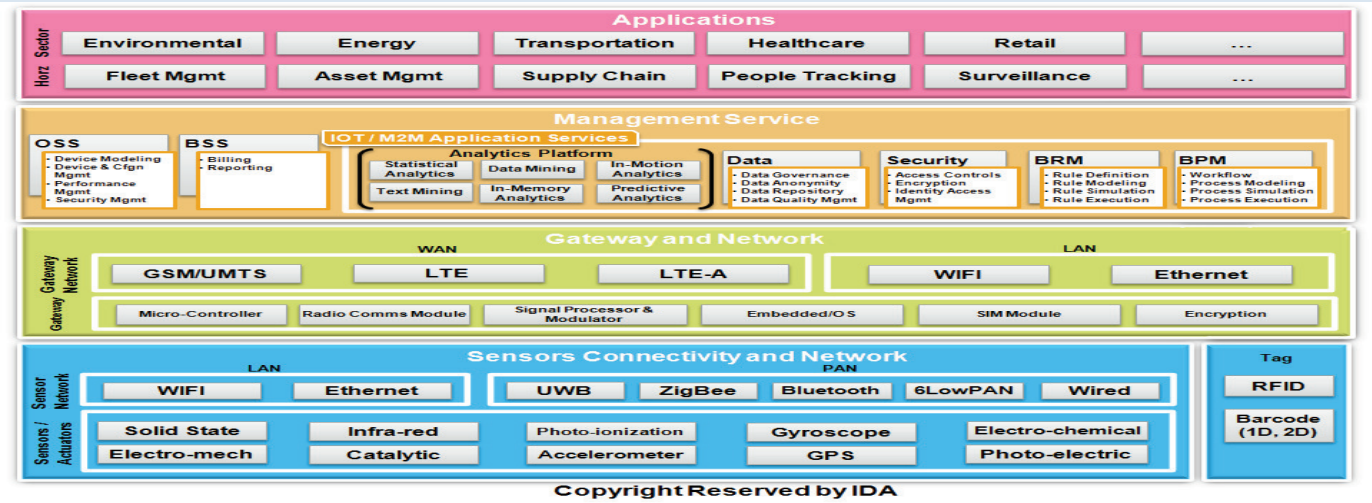

Image: Nasa/ GSFC/ METI/ ERSDAC/ JAROS/ US/ Japan ASTER Science Team

Nasa, Japan Make 2.95 Million Satellite Earth Images Free

All Earth imagery - consisting of more than 2.95 million individual scenes from a prolific Japanese remote sensing instrument operating aboard Nasa's Terra spacecraft since late 1999 has now been made available to users everywhere at no cost , Nasa announced on Friday.

"The public will have unlimited access to the complete 16-plus-year database for Japan's Ministry of Economy, Trade and Industry (METI) Advanced Spaceborne Thermal Emission and Reflection Radiometer (ASTER) instrument, which images Earth to map and monitor the changing surface of our planet," the US space agency said in a statement.

ASTER's database currently consists of more than 2.95 million individual scenes. The content ranges from the devastating aftermath of flooding in Pakistan to volcanic eruptions in Iceland and wildfires in California.

Previously, users could access ASTER's global digital topographic maps of Earth online at no cost, but paid METI a nominal fee to order other ASTER data products.

Launched in 1999, ASTER has far exceeded its five-year design life and will continue to operate for the foreseeable future as part of the suite of five Earth-observing instruments on Terra.

"We anticipate a dramatic increase in the number of users of our data, with new and exciting results to come," said Michael Abrams, ASTER science team leader at Nasa's Jet Propulsion Laboratory in Pasadena, California, home to ASTER's US science team.

ASTER is used to create detailed maps of land surface temperature, reflectance and elevation.

The instrument acquires images in visible and thermal infrared wavelengths, with spatial resolutions ranging from about 15 to 90 meters.

The broad spectral coverage and high spectral resolution of ASTER provide scientists in numerous disciplines with critical information for surface mapping and monitoring of dynamic conditions and changes over time.

Example applications include monitoring glacial advances and retreats, monitoring potentially active volcanoes, identifying crop stress, determining cloud morphology and physical properties, evaluating wetlands, monitoring thermal pollution, monitoring coral reef degradation, mapping surface temperatures of soils and geology, and measuring surface heat balance, Nasa said.

To access the data, users can visit the
https://lpdaac.usgs.gov/dataset_discovery/aster

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SWARM ROBOTICS

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Vipul Kumar,
Assistant Professor, CSE Dept

Swarm robotics is the study of robotic systems consisting of a large group of relatively small and simple robots that interact and cooperate with each other in order to jointly solve tasks that are outside their own individual capabilities. Swarm robotic systems typically exhibit interesting properties such as high degrees of parallelism, redundancy, and robustness. They are also highly adaptive to changes in the environment, and show good scalability to increased problem and/or swarm size. Some applications of swarm robotics are as follows:

Robot Scouts for Precision Agriculture

Smart robotic systems to improve efficiency and yield of farm operations. The goal is to provide specialty crop growers with a data-driven deployment strategy that makes synergistic use of a networked robotic system working interactively with a human scout. First, task is the development of a lightweight and self-contained multi-spectral 3-D imaging system that has been deployed using unmanned aerial vehicles (UAVs), ground vehicles, and carried by a human scout. Acquired data have been used to train statistical models enabling persistent monitoring of crop yield, morphology, and health. Second, task is the development of the framework and algorithms to deploy multiple UAVs that can collaborate with and be controlled by a single human scout. Finally, a decision support system will enable the human scout and the swarm of co-robots to operate in concert over extended periods while accommodating constraints on sensing, navigation speeds, and power consumption.

Cooperative Manipulation and Transport

How can independent, autonomous robots collaborate to perform such manipulation tasks as lifting and transporting large or heavy payloads? There are several examples in nature where individuals cooperate to perform tasks they individually cannot perform. In collaboration with biologists, how ants engage in cooperative prey retrieval carrying large, awkwardly shaped morsels of food back to their nest. Another example is bacteria lifting and swimming with large payloads. Using biological inspiration, develop models, design algorithms and create robotic systems that are able to cooperate both on the ground and in the air.

Work done by CS 4th year students : *RohitChaudhary, PiyushAggarwal, AnmolMaheshwari*
Under the guidance of : *Prof.Anurag Mishra, Asst .Professor, CSE Dept*

RIVER POLLUTION DETECTION USING GOOGLE MAPS

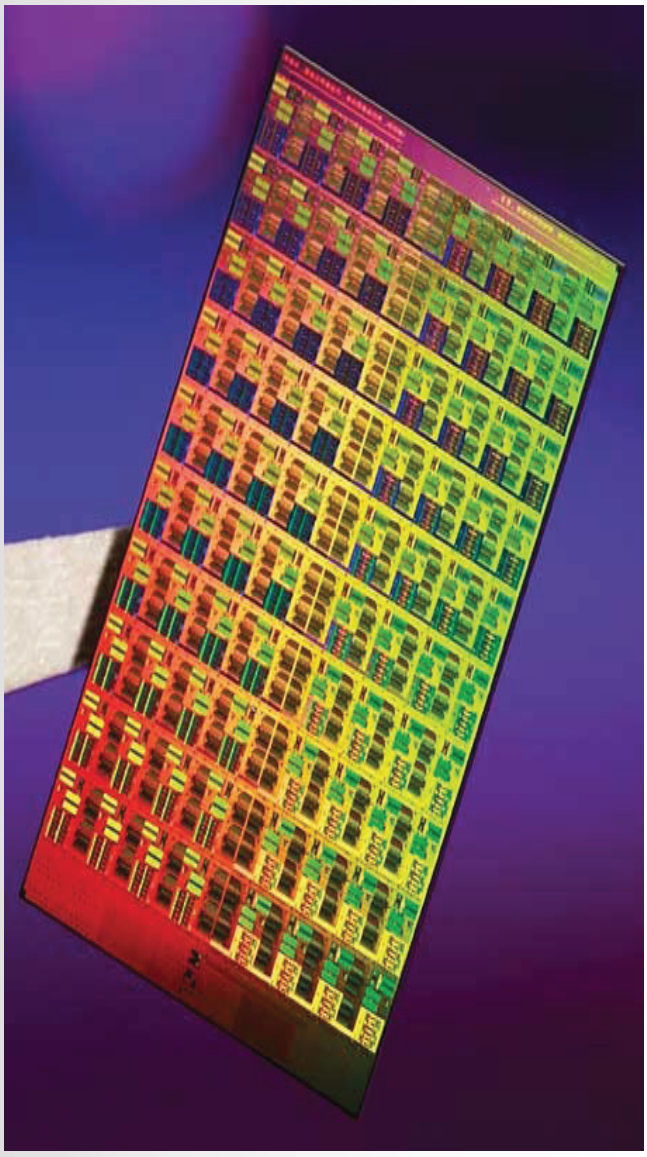
River pollution is a major problem in India in the present time. Google Maps provide us satellite view and terrain view of earth in India for most of the places. But we can't get exact insights of pollution affected areas.

The work is about how we can distinguish and highlight the pollution affected areas on the banks of rivers, what remedies can be taken to check the pollution on that spot, and to help people to know better about the severe river pollution. Google Maps has a lot of information and one can crawl the Google Maps to have very useful results. Our Basic Idea is to make a tool which may be helpful in identifying the causes and more polluted areas of the river and to give the correct remedies and suggestions to control the river-pollution of corresponding areas. This work focuses on the problems that we face and can face in the near future like dangerous diseases, etc.Result shows a detailed methodology of identifying the cities on the river banks along with their status of pollution as severe or moderate.

Information and Data plays a very important role in detection of river pollution. Google maps already provides a lot of information which can be crawled to generate very useful Results, These Results can help government analyze the areas and causes resulting in River Pollution. The current software and tool are well efficient but lack in having useful inputs which tells the status of River Pollution.
As we know that bulk of the water i.e. approximately 97% of the water on the Earth is saline. The remaining 3% of water is mostly frozen in the polar ice-caps.
The distribution of fresh water is such that the rivers, underground stores and lakes have less than 1% of the fresh water. The fresh water is precious and increasing level of pollution of rivers and other water resources indicates an alarm of danger. Such a small amount of water is the only source of fresh water which is needed for the life on the earth.

32-CORE CPUS FROM INTEL AND AMD

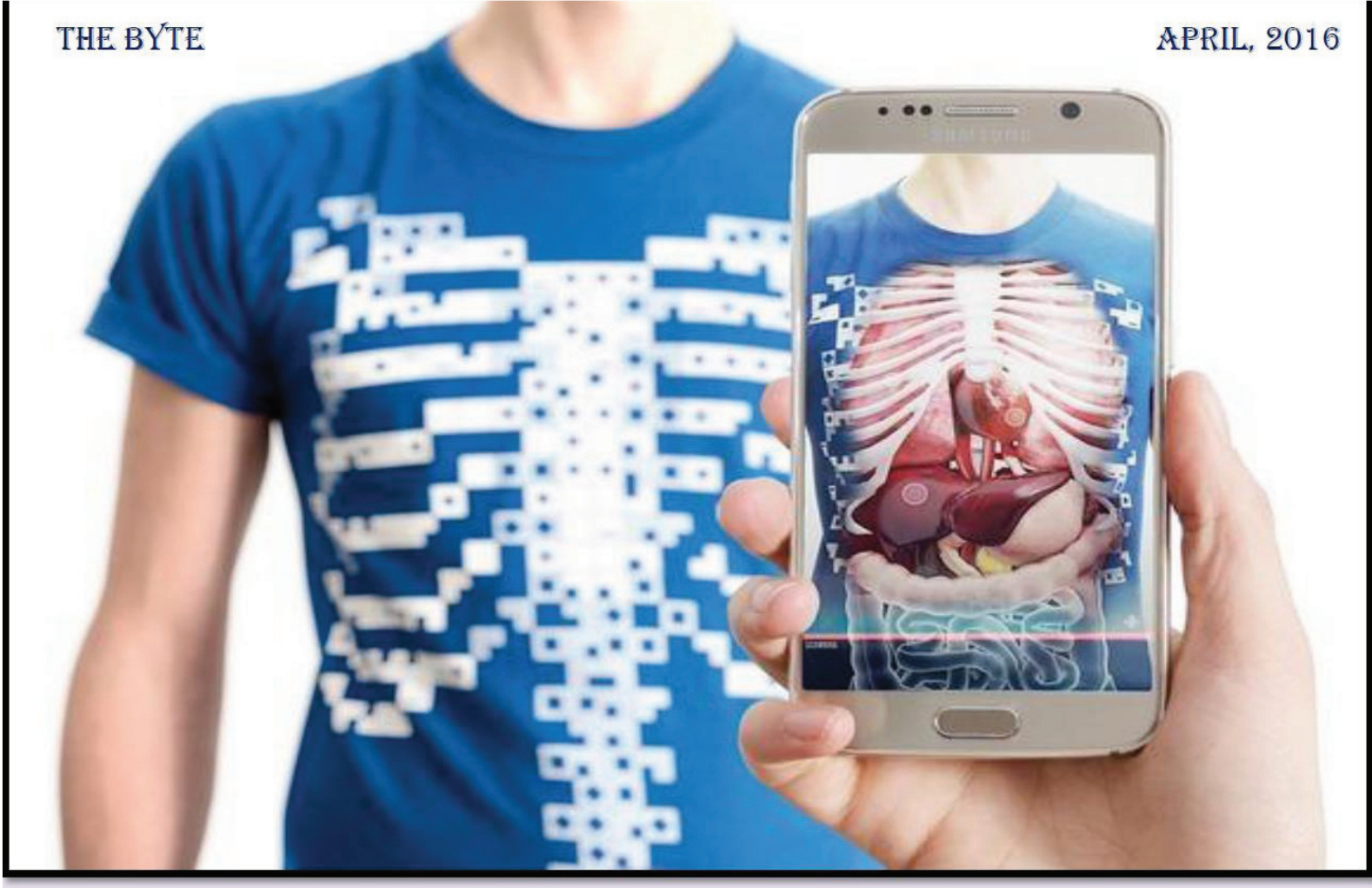
If your CPU has only a single core, it's officially a dinosaur. In fact,quad-core computing is now commonplace; you can even get laptop computers with four cores today. But we're really just at the beginning of the core wars: Leadership in the CPU market will soon be decided by who has the most cores, not who has the fastest clock speed.



What is it? With the gigahertz race largely abandoned, both AMDand Intel are trying to pack more cores onto a die in order to continue to improve processing power and aid with multitasking operations. Miniaturizing chips further will be key to fitting these cores and other components into a limited space. Intel will roll out 32-nanometer processors (down from today's 45nm chips) in 2009.

When is it coming? Intel has been very good about sticking to its road map. A six-core CPU based on the Itanium design should be out imminently, when Intel then shifts focus to a brand-new architecture called Nehalem, to be marketed as Core i7. Core i7 will feature up to eight cores, with eight-core systems available in 2009 or 2010. (And an eight-core AMD project called Montreal is reportedly on tap for 2009.)

After that, the timeline gets fuzzy. Intel reportedly canceled a 32-core project called Keifer, slated for 2010, possibly because of its complexity (the company won't confirm this, though). That many cores requires a new way of dealing with memory; apparently you can't have 32 brains pulling out of one central pool of RAM. But we still expect cores to proliferate when the kinks are ironed out: 16 cores by 2011 or 2012 is plausible (when transistors are predicted to drop again in size to 22nm), with 32 cores by 2013 or 2014 easily within reach. Intel says "hundreds" of cores may come even farther down the line



'X-RAY VISION' T-SHIRT SHOWS INNER WORKINGS OF THE HUMAN BODY

By : Amit Kr. Gautam
Asst. Proff.
Dept. of CSE

A new crowdfunded project aims to create a virtual reality T-shirt that allows users to feel like they are peering inside the shirt-wearer's anatomy using a mobile device or VR headset.

The Kickstarter project, called the Virtuali-Tee, is a T-shirt that gives people an inside peek at the skeletal, digestive and circulatory systems. The animated T-shirt is designed to teach kids about the inner workings of their bodies.

The new product is "like a magic lens combined with a teleportation experience that helps kids unlock their full learning potential," Mária Rakušanová, a product marketing lead at Samsung who works on the company's virtual-reality systems, said in a statement

The garment — which would work in concert with a mobile phone, tablet device or VR headset — is the brainchild of London-based virtual-reality (VR) and augmented-reality (AR) company Curiscope. Whereas VR headsets such as the Oculus Rift, the Samsung Gear VR and Google Cardboard envelop a person's field of vision to display another world, the new T-shirt uses AR to superimpose images of internal anatomy onto the T-shirt to create a mixed reality.

Here's how the see-through vision would work: Virtuali-Tee is covered with quick response (QR) codes, a kind of square bar code often used in ads and signage. When smartphones and other Internet-connected devices scan these QR codes, a free app from Curiscope uses the codes to overlay animated images of human anatomy over the T-shirt. People can use the app to look at someone else with the Virtuali-Tee, or use a mirror or a mobile device's selfie mode to look at themselves wearing the T-shirt.

"We wanted to make learning about the human body into an exciting experience, and it seemed fitting that the perfect way to do this would be through a T-shirt that mimics what it's like to look inside the body," said Ed Barton, CEO of Curiscope.

Using a smartphone or tablet app, you can tap on tags for the circulatory system or the digestive system, for example, which will then trigger videos and text explaining more about that part of the human anatomy. Those using a VR headset can just center their vision on the area they wish to explore.

UPCOMING CONFERENCES

Prof. Vipul Kumar,
Assistant Professor, CSE Dept

DREAM CONFERENCES:

- Thirtieth Annual Conference on Neural Information Processing Systems (NIPS) May 20, 2016
- ICCV: International Conference on Computer Vision
- ICML: International Conference o on Machine Learning

GENERAL CONFERENCES:

- Design Automation Conference
- HiPC 2015 : IEEE International Conference on High Performance Computing
- 2016 International Conference on Advanced Communication Control and Computing Technologies (ICACCCT)
- 2016 International Conference on Inventive Computation Technologies (ICICT)
- International Conference on Computer, Communication and Computational Sciences (ICCCCS- 2016)
- International Conference on Computational Science and Engineering
- WECON2016 - 5th Edition of International Conference on Wireless Networks and Embedded Systems
- 2016 International Conference on Advances in Computing, Communications and Informatics (ICACCI'16)
- International Conference on Advances in Internet of Things and Connected Technologies (ICAITCT 2016)

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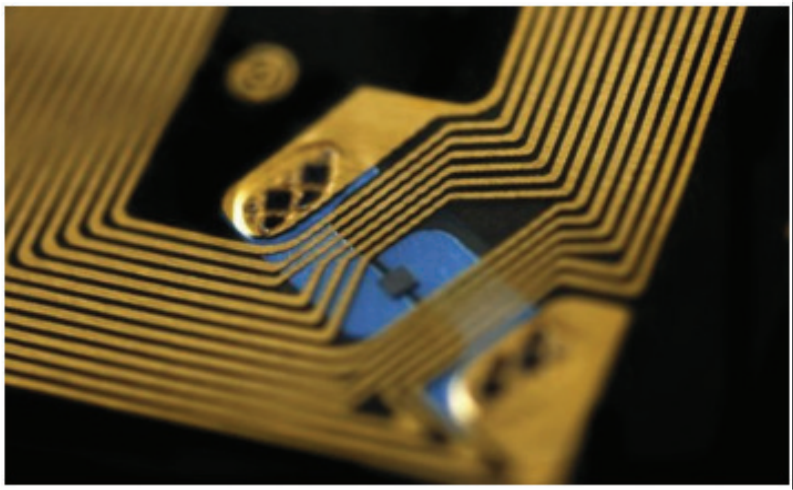
HACK-PROOF RFID CHIPS

Mr. Umesh Gupta(Asst. Professor,CSE dept)
Mr.Kartikey Gupta(CS-2 2nd yr)

Researchers at MIT and Texas Instruments have developed a new type of radio frequency identification (RFID) chip that is virtually impossible to hack.



If such chips were widely adopted, it could mean that an identity thief couldn't steal your credit card number or key card information by sitting next to you at a café, and high-tech burglars couldn't swipe expensive goods from a warehouse and replace them with dummy tags. Texas Instruments has built several prototypes of the new chip, to the researchers' specifications, and in experiments the chips have behaved as expected. The researchers presented their research at the International Solid-State Circuits Conference, in San Francisco. According to Chiraag Juvekar, a graduate student in electrical engineering at MIT and first author on the new paper, the chip is designed to prevent so-called side-channel attacks. Side-channel attacks analyze patterns of memory access or fluctuations in power usage when a device is performing a cryptographic operation, in order to extract its cryptographic key.

"The idea in a side-channel attack is that a given execution of the cryptographic algorithm only leaks a slight amount of information," Juvekar says. "So you need to execute the cryptographic algorithm with the same secret many, many times to get enough leakage to extract a complete secret."

One way to thwart side-channel attacks is to regularly change secret keys. In that case, the RFID chip would run a random-number generator that would spit out a new secret key after each transaction. A central server would run the same generator, and every time an RFID scanner queried the tag, it would relay the results to the server, to see if the current key was valid.

Blackout :

Such a system would still, however, be vulnerable to a "power glitch" attack, in which the RFID chip's power would be repeatedly cut right before it changed its secret key. An attacker could then run the same side-channel attack thousands of times, with the same key. Power-glitch attacks have been used to circumvent limits on the number of incorrect password entries in password-protected devices, but RFID tags are particularly vulnerable to them, since they're charged by tag readers and have no onboard power supplies.

Two design innovations allow the MIT researchers' chip to thwart power-glitch attacks: One is an on-chip power supply whose connection to the chip circuitry would be virtually impossible to cut, and the other is a set of "nonvolatile" memory cells that can store whatever data the chip is working on when it begins to lose power.

For both of these features, the researchers -- Juvekar; Anantha Chandrakasan, who is Juvekar's advisor and the Vannevar Bush Professor of Electrical Engineering and Computer Science; Hyung-Min Lee, who was a postdoc in Chandrakasan's group when the work was done and is now at IBM; and TI's Joyce Kwong, who did her master's degree and PhD with Chandrakasan -- use a special type of material known as a ferroelectric crystals. As a crystal, a ferroelectric material consists of molecules arranged into a regular three-dimensional lattice.

I n every cell of the lattice, positive and negative charges naturally separate, producing electrical polarization. The application of an electric field, however, can align the cells' polarization in either of two directions, which can represent the two possible values of a bit of information. When the electric field is removed, the cells maintain their polarization. Texas Instruments and other chip manufacturers have been using ferroelectric materials to produce nonvolatile memory, or computer memory that retains data when it's powered off.

RFID

Complementary capacitors

A ferroelectric crystal can also be thought of as a capacitor, an electrical component that separates charges and is characterized by the voltage between its negative and positive poles. Texas Instruments' manufacturing process can produce ferroelectric cells with either of two voltages: 1.5 volts or 3.3 volts.

The researchers' new chip uses a bank of 3.3-volt capacitors as an on-chip energy source. But it also features 571 1.5-volt cells that are discretely integrated into the chip's circuitry. When the chip's power source -- the external scanner -- is removed, the chip taps the 3.3-volt capacitors and completes as many operations as it can, then stores the data it's working on in the 1.5-volt cells.

When power returns, before doing anything else the chip recharges the 3.3-volt capacitors, so that if it's interrupted again, it will have enough power to store data. Then it resumes its previous computation. If that computation was an update of the secret key, it will complete the update before responding to a query from the scanner. Power-glitch attacks won't work.

Because the chip has to charge capacitors and complete computations every time it powers on, it's somewhat slower than conventional RFID chips. But in tests, the researchers found that they could get readouts from their chips at a rate of 30 per second, which should be more than fast enough for most RFID applications.

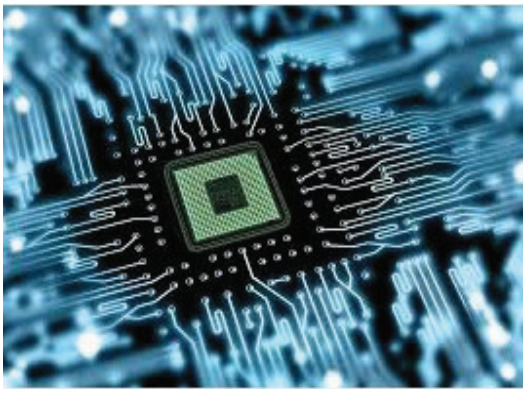
"In the age of ubiquitous connectivity, security is one of the paramount challenges we face," says Ahmad Bahai, chief technology officer at Texas Instruments. "Because of this, Texas Instruments sponsored the authentication tag research at MIT that is being presented at ISSCC. We believe this research is an important step toward the goal of a robust, low-cost, low-power authentication protocol for the industrial Internet."

High-Performance Prototype means Chipmakers could now start building optoelectronic chips

Mr. Kamal Kumar (2nd yr CSE)
Mr. Umesh Gupta (Asst. Professor,CSE)

Using only processes found in existing microchip fabrication facilities, researchers at MIT, the University of California at Berkeley, and the University of Colorado have produced a working optoelectronic microprocessor, which computes electronically but uses light to move information.

Optical communication could dramatically reduce chips' power consumption, which is not only desirable in its own right but essential to maintaining the steady increases in computing power that we've come to expect.



Demonstrating that optical chips can be built with no alteration to existing semiconductor manufacturing processes should make optical communication more attractive to the computer industry. But it also makes an already daunting engineering challenge even more difficult.

"You have to use new physics and new designs to figure out how you take ingredients and process recipes that are used to make transistors, and use those to make photodetectors, light modulators, waveguides, optical filters, and optical interfaces," says MIT professor of electrical engineering Rajeev Ram, referring to the optical components necessary to encode data onto different wavelengths of light, transmit it across a chip, and then decode it. "How do you build all the optics using only the layers out of a transistor? It felt a bit like an episode of 'MacGyver' where he has to build an optical network using only old computer parts."

The project began as a collaboration between Ram, Vladimir Stojanović, and Krste Asanovic, who were then on the MIT Department of Electrical Engineering and Computer Science faculty. Stojanović and Asanovic have since moved to Berkeley, and they, Ram, and Miloš A. Popović, who was a graduate student and postdoc at MIT before becoming

an assistant professor of electrical engineering at Colorado, are the senior authors on a paper in Nature that describes the new chip.

They're joined by 19 co-authors, eight of whom were at MIT when the work was done, including two of the four first authors: graduate students Chen Sun and Jason Orcutt, who has since joined IBM's T. J. Watson Research Center.

Powering down

The chip has 850 optical components and 70 million transistors, which, while significantly less than the billion-odd transistors of a typical microprocessor, is enough to demonstrate all the functionality that a commercial optical chip would require. In tests, the researchers found that the performance of their transistors was virtually indistinguishable from that of all-electronic computing devices built in the same facility.

Computer chips are constantly shipping data back and forth between logic circuits and memory, and today's chips cannot keep the logic circuits supplied with enough data to take advantage of their ever-increasing speed. Boosting the bandwidth of the electrical connections between logic and memory would require more power, and that would raise the chips' operating temperatures to unsustainable levels.

Optical data connections are, in principle, much more energy efficient. And unlike electrical connections, their power requirements don't increase dramatically with distance. So optical connections could link processors that were meters rather than micrometers apart, with little loss in performance.

The researchers' chip was manufactured by GlobalFoundries, a semiconductor manufacturing company that uses a silicon-on-insulator process, meaning that in its products, layers of silicon are insulated by layers of glass. The researchers build their waveguides — the optical components that guide light — atop a thin layer of glass on a silicon wafer. Then they etch away the silicon beneath them. The difference in refractive index — the degree to which a material bends light — between the silicon and the glass helps contain light traveling through the waveguides.

Conflicting needs

One of the difficulties in using transistor-manufacturing processes to produce optical devices is that transistor components are intended to conduct electricity, at least some of the time. But conductivity requires free charge carriers, which tend to absorb light particles, limiting optical transmission.

Computer chips, however, generally use both negative charge carriers — electrons — and positive charge carriers — "holes," or the absence of an electron where one would be expected. "That means that somewhere in there, there should be some way to block every kind of [carrier] implant that they're doing for every layer," Ram explains. "We just had to figure out how we do that."

In an optoelectronic chip, at some point, light signals have to be converted to electricity. But contact with metal also interferes with optical data transmission. The researchers found a way to pattern metal onto the inner ring of a donut-shaped optical component called a ring resonator. The metal doesn't interact with light traveling around the resonator's outer ring, but when a voltage is applied to it, it can either modify the optical properties of the resonator or register changes in a data-carrying light signal, allowing it to translate back and forth between optical and electrical signals.

On the new chip, the researchers demonstrated light detectors built from these ring resonators that are so sensitive that they could get the energy cost of transmitting a bit of information down to about a picojoule, or one-tenth of what all-electronic chips require, even over very short distances.

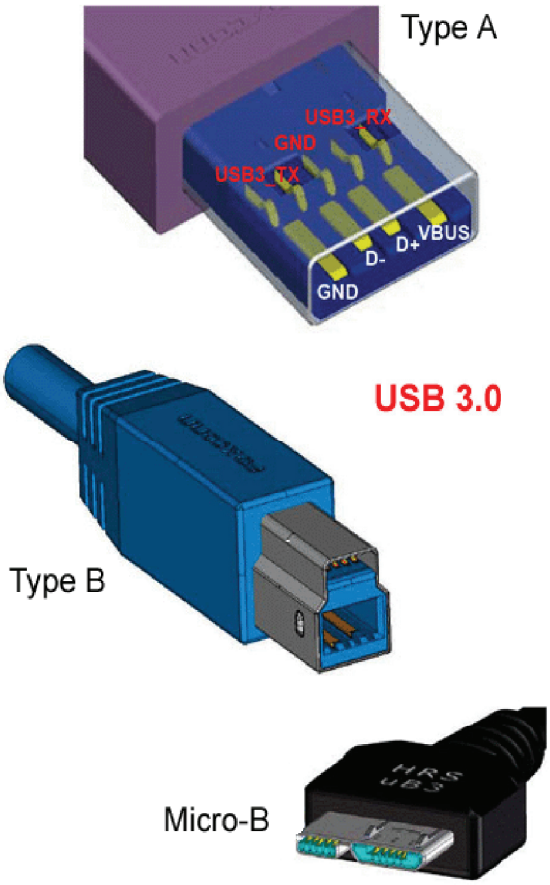
The new paper "certainly is an important result," says Jagdeep Shah, a researcher at the U.S. Department of Defense's Institute for Defense Analyses who, as a program director at the Defense Advanced Research Project Agency, initiated the program that sponsored the researchers' work. "It is not at the megascale yet, and there are steps that need to be taken in order to get there. But this is a good step in that direction."

"I think that the GlobalFoundries process was an industry-standard 45-nanometer design -rule process," Shah adds. "I don't think that there need be any concern that there's any foundry that can't make these things."

USB 3.0 SPEEDS UP PERFORMANCE ON EXTERNAL DEVICES

USB 3.0 Speeds Up Performance on External Devices

The USB connector has been one of the greatest success stories in the history of computing, with more than 2 billion USB-connected devices sold to date. But in an age of terabyte hard drives, the once-cool throughput of 480 megabits per second that a USB 2.0 device can realistically provide just doesn't cut it any longer.



What is it? USB 3.0 (aka "SuperSpeed USB") promises to increase performance by a factor of 10, pushing the theoretical maximum throughput of the connector all the way up to 4.8 gigabits per second, or processing roughly the equivalent of an entire CD-R disc every second. USB 3.0 devices will use a slightly different connector, but USB 3.0 ports are expected to be backward-compatible with current USB plugs, and vice versa. USB 3.0 should also greatly enhance the power efficiency of USB devices, while increasing the juice (nearly one full amp, up from 0.1 amps) available to them. That means faster charging times for your iPod--and probably even more bizarre USB-connected gear like the toy rocket launchers and beverage coolers that have been festooning people's desks.

When is it coming? The USB 3.0 spec is nearly finished, with consumer gear now predicted to come in 2010. Meanwhile, a host of competing high-speed plugs--DisplayPort, eSATA, and HDMI--will soon become commonplace on PCs, driven largely by the onset of high-def video. Even FireWire is looking at an imminent upgrade of up to 3.2 gbps performance. The port proliferation may make for a baffling landscape on the back of a new PC, but you will at least have plenty of high-performance options for hooking up peripherals.

	USB 2.0	USB 3.0
Transfer rates	480 Mbps	4,800 Mbps
Data transfer	1 way	Bi-directional
Release date	2000	2008
Picture	 4 connector lines	 8 connector lines

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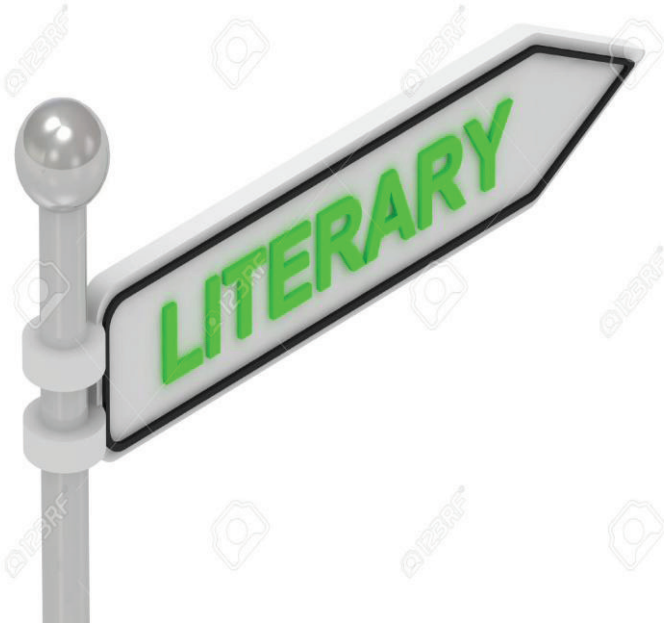

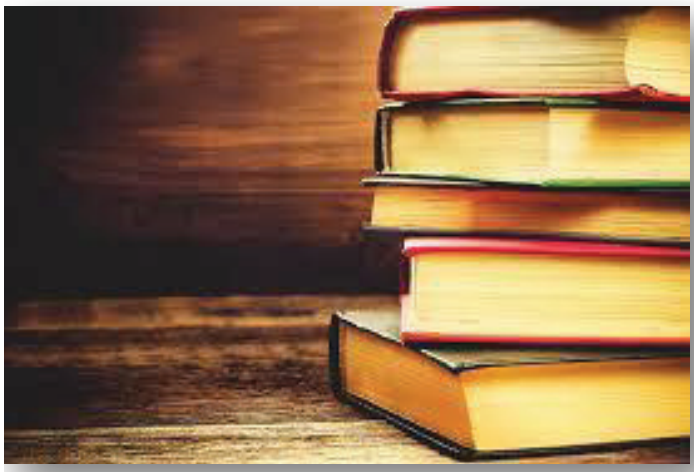

KAHIN KISI ROZ...

Kahi Kisi Roz har man udne ko krta..

Chhone ko koi naya aasmaa har dil machalta h

Kya h us dusre jahan m kya wha bhi koi mujh jaisa basta h..

Kya wha b yha Ki trah insan Ki shakl m shaitan palta h..

udd jau is duniya s bht dur Aur dekhu jha mera khuda rehta h ..

Uski khubsoorat duniya m nanhe panchi Ki tarah pankh faila k m bhi saas Lena chahta Hu..

Bas kch sukoon k pal bina Kisi darr k bina Kisi lalach k m bhi ab jeena chahta Hu..

Thak gya Hu Roz Kisi cheej k darr s

Thak gya hu krte hue har kaam jisme bs fayde aur nuksan Ki baate h

Ab kch pal zindagi jeena chahta Hu..

Priya Maurya
CSE

FLY TO THE MOON

I'm feeling echoed,
Things aren't going as it seems to be,
And I find it rather strange to find myself
In this deep corner of nowhere land.

Feeling exhausted, I am now
As I am searching for a drink of some cool stream,
Green trees,rain drizzling, fresh roses and lilies
And all that is around me,I could find no pleasure,
Nor could I find gratification in them.
Then I finally came to this space amidst the darkness,
I certainly didn't know what to do.

Suddenly,in that calm and still moment ,
Something broke the silence!
A narrow light struck me down,I became as white as snow.
Pleasant and strengthening as it was, I became stronger,
Enriched! Like fair daisies blooming in the summer air.
And every bit of the experience gave me
A realisation of how special I was made,
And that's when I knew the purpose life has enfolded for me.

Enlightened and light as a feather but still feeling echoed,
I turned back and walked and walked and walked,
In that journey of Never Ending Land to a New Beginning.

By : Rohit Singh

Revenge from sarcasm of failures

Revenge from sarcasm of failures
So, where are you living
where are you flying...
Why are you living..!!
in a world which can't be define.

Turn upto there,
your imaginary world ends where
& just drag yourself there....
where your blurred life becomes fair.

You'll have to open the doors,
you'll have to push the strings..
To make your life glorious,
& to open your wings.

Just to fly, In an open blue sky,
Just to dry, the tears of your cry
& just to take..
A revenge from sarcasm of failures.

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Departmental Events

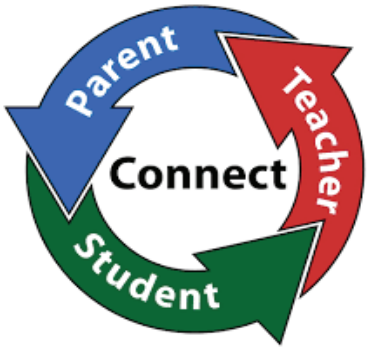
DEPARTMENTAL EVENTS

PARENTS TEACHER MEET

First Parent Teacher Meeting in the current academic year was conducted on 5th March, 2016. Parents were invited over phone and letter was also sent to parents. As an important stake holder of education system, the parent feedback are obtained and analyzed.

The parents' teacher meeting was conducted as per the following schedule:

- Commencement of parent teacher meeting with speech of Dr Pankaj Aggarwal ,HOD
- Question answer session of the parents with Dr. Pankaj Aggarwal
- Vote of thanks to the parents
- Conclusion of meeting at 11 :30 A:M followed by tea and snacks for the parents



parents are not aware of IT field.

- Parents were not aware about attendance on portal Dr Avdhesh demonstrated how parents can monitor attendance of their ward
- Mrs Kanta Suggested that all results should be sent to parents regularly and it should be sent subject wise
- Mrs Kavita Yadav suggested that even if student is placed in one company he should be allowed to sit in all placement drives.
- Parent of 2nd year student said 2nd shift time is very late and college hours should be less so that student gets time for self study
- Distribution of feedback forms to parents
- Analysis of the feedback forms for Department of Computer Science & Engineering is done

Parents expressed their honest opinion on the personality development, overall grooming and overall performance and the same were debated and discussed.

We received following suggestions from the parents.

- Parents suggested that students should be encouraged for positive motivational beliefs and self-esteem

Parents were very positive about such interactions and complimented for the same .By virtue of the composition of college advisory committee, parents are also members of the committee.

INSIDE THIS

Special points of interest:

- Parents were satisfied with the discipline in college
- Wi-Fi should be there in college
- Time to time counselling and guidance source of encouragement and very useful to the students
- College should provide relaxation in attendance to students having medical issues.

FASHION SHOW IN VIBGYOR

The Department of Computer Science & Engineering organized a Fashion Show in the VIBGYOR '16.

The students of the department presented the show with the theme of "WOMEN EMPOWERMENT'

The empowered women is powerful beyond measures and beautiful beyond description"

The list of students participated are:

ANUPAMA CS1 2ND YEAR
MONAMI CS2 2ND YR
SHIVANI CHOUDHARY 2ND YEAR CS3
VIDHI RASTOGI 2ND YEAR CS3
DIVYANSHU 2ND YEAR 2CS
RISHABH SEHGAL 2ND YR 2CS
LAKSHIT CS1TEOTIA 3RD YR 2CS
MANDEEP KAUR 4TH YR CS1
TANYA ARORA 4TH YR CS2
SONAL SHAHI 2ND YR CS3

ALUMNI MEET

Alumni Meet was organized by the Department of Computer Science & Engineering. Many alumni's attended the meet. Many games and cultural activities were organized.

"Let us all meet each other with a smile . For the smile is the beginning of LOVE"

WORKSHOP ON IMAGE & VEDIO PROCESSING

The workshop on image and video processing was conducted by Dr. K.K. BISWAS along with his team on 21st march 2016 under the centre of image processing and computer vision. 31 students and 8 faculties participated in this workshop.

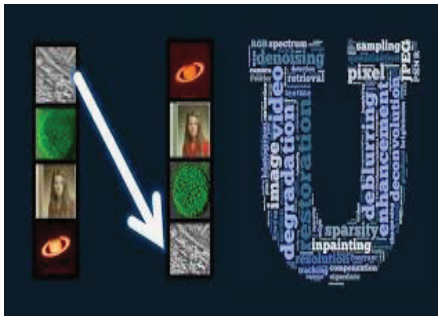
- Prof. K.K.BISWAS is a professor in IIT Delhi. His research interests are:
- Computer Vision
- Image Processing and Fuzzy modeling
- High dynamic range imaging.

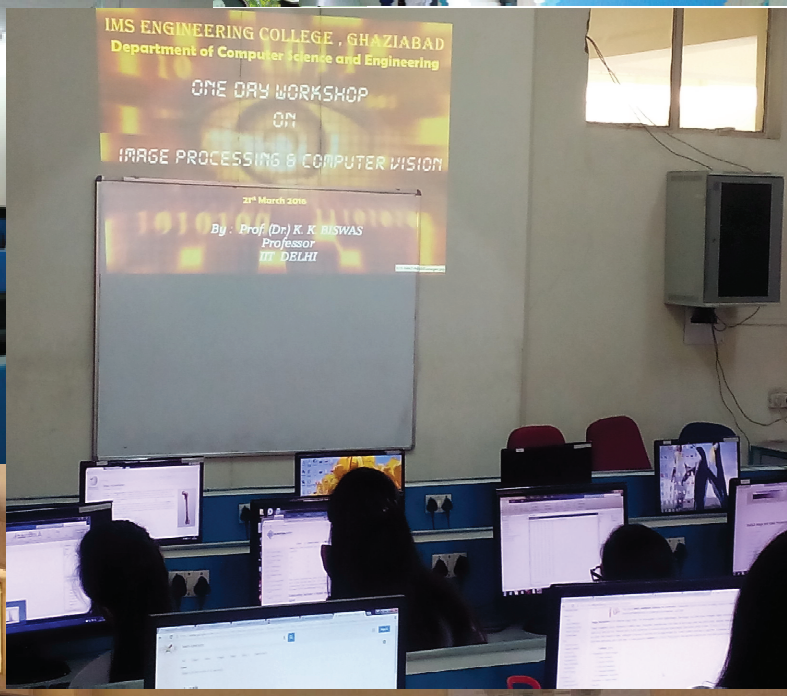
Different sessions were conducted in which the students were told about action recognition as well as its importance at that particular time.

In one of the sessions importance of depth image and skeleton image were told as they are helpful in recognizing the action of a human being. Differentiating between different actions was also a part of this session

In the next session, a detailed description about the KINECT camera was given. The students were told briefly about KINECT camera along with its application in the gaming environment.

At the end, practical session was conducted in which the total working of KINECT camera was described.




IMS ENGINEERING COLLEGE , GHAZIABAD
Department of Computer Science and Engineering
ONE DAY WORKSHOP
ON
IMAGE PROCESSING & COMPUTER VISION
21st March 2016
By : Prof (Dr.) K. K. BISWAS
Professor
IIT DELHI

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Placement NEWS

PLACEMENT NEWS

S.No.	Roll No.	Student Name	Placed Company/Not Place
1	1114310117	Prerana Upadhyay	Not Placed (Eligible)
2	1114310181	VINAY KUMAR OJHA	Not Eligible
3	1214310001	AAISHA ANJUM	TCS
4	1214310002	AARTI VERMA	Eninov
5	1214310003	AASTHA SHARMA	TCS
6	1214310004	Aayush Mittal	TCS
7	1214310005	Aayush Sanjar	Headstrong Genpact/ TCS
8	1214310006	ABDUL AHAD	Not Eligible
9	1214310007	Abhishek	Not Eligible
10	1214310008	ABHISHEK GANGWAR	Global Logic
11	1214310010	ABHISHEK SINGH	Not Placed (Eligible)
12	1214310012	ADITYA KUMAR	Not Placed (Eligible)
13	1214310014	Aishwarya Pratap Singh	TCS
14	1214310016	Ajay Kumar Singh	Global Logic
15	1214310017	Akanksha Porwal	Not Placed (Eligible)
16	1214310018	AKANKSHA RAI	Not Placed (Eligible)
17	1214310019	AKASH DEEP GUPTA	Not Eligible
18	1214310020	AKASH SINGH	Not Placed (Eligible)
19	1214310021	AKSHAY PRATAP SINGH	Not Eligible
20	1214310021	AKSHAY MINHAS	Not Placed (Eligible)
21	1214310023	ALIND	TCS
22	1214310024	ALOK KUMAR RAI	TCS
23	1214310025	AMAN VERMA	TCS
24	1214310028	ANGAD DEEP SINGH JUNEJA	Not Placed (Eligible)
25	1214310029	ANIKET GUPTA	Not Eligible
26	1214310030	Ankit Kumar	Not Placed (Eligible)
27	1214310031	ANKIT RAHI	Not Eligible
28	1214310032	ANKITA KUMARI	Headstrong Genpact/TCS
29	1214310033	AnkuR	TCS
30	1214310034	ANMOL MAHESHWARI	TCS
31	1214310035	Anuj Agarwal	TCS
32	1214310036	anuj srivastava	ESS
33	1214310037	Anukrati Mishra	TCS
34	1214310043	Arpan Srivastava	ESS
35	1214310044	Arpit Shakya	Not Eligible
36	1214310046	ARVIND	TCS
37	1214310048	Ashutosh Kaushik	TCS
38	1214310049	AVANTIKA SRIVASTAVA	Not Placed (Eligible)/TCS
39	1214310051	AYUSHI BANSAL	Global Logic
40	1214310052	AYUSHI SHARMA	Not Placed (Eligible)
41	1214310053	AYUSHI TEWARI	JK Technosoft
42	1214310054	BHARDWAJ CHAUDHARY	TCS
43	1214310055	BHASKAR TRIPATHI	ESS/TCS

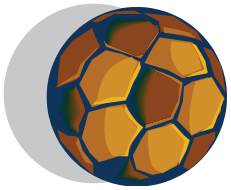
44	1214310056	Chinmai Tyagi	Headstrong Genpact
45	1214310057	Chitransh Agarwal	Headstrong Genpact
46	1214310058	DEEPAK KUMAR	Not Eligible
47	1214310059	DEEPMANI BHARDWAJ	ESS
48	1214310060	deepshikha baghel	TCS
49	1214310061	deepshikha gangwar	Not Placed (Eligible)
50	1214310062	DEV KRISHNA GUPTA	Not Eligible
51	1214310063	DEWAKSH KANSAL	TCS
52	1214310064	DHANANJAY SAINI	Not Placed (Eligible)
53	1214310065	diksha shah	Not Placed (Eligible)
54	1214310066	DIPESH RAI	Not Eligible
55	1214310067	Ekansh Agarwal	Not Eligible
56	1214310068	ESHITA PAWAR	TCS
57	1214310070	Harshit Bhatnagar	Not Eligible
58	1214310071	Harvinder singh	Not Placed (Eligible)
59	1214310073	KAJAL GOEL	TCS
60	1214310074	KANCHAN YADAV	TCS
61	1214310075	Karishma Agarwal	TCS
62	1214310076	Kartik Panwar	TCS
63	1214310077	Karunesh Km Vaiswar	Not Eligible
64	1214310078	kaushal Kishor Gupta	Not Placed (Eligible)
65	1214310079	kirtika agarwal	TCS
66	1214310080	deeksha rai	TCS
67	1214310081	LALIT KUMAR	TCS
68	1214310082	MANAN PURI	TCS
69	1214310083	mandeep Kaur Taneja	TCS
70	1214310084	MANISH KUMAR GUPTA	Grapecity
71	1214310085	manisha kumari	Not Placed (Eligible)
72	1214310086	Mayank Juneja	NEC TI
73	1214310087	MAYANK PAL	Not Eligible
74	1214310088	MAYANK SAXENA	Not Eligible
75	1214310089	MAYUR GUPTA	ESS
76	1214310090	MOHAMMAD AVESH	Not Placed (Eligible)
77	1214310091	MOHD. DANISH USMAN ANSARI	JKT
78	1214310093	MOHD. SHANE AALAM	Not Placed (Eligible)
79	1214310095	Mrigank Sunjiv Tyagi	Genpact Headstrong
80	1214310096	MUKUL AGARWAL	JKT
81	1214310097	NALIN GUPTA	TCS
82	1214310098	NAVEEN KUMAR	Not Placed (Eligible)
83	1214310100	NIDHI MAHESHWARI	TCS
84	1214310101	NIKHIL KUMAR SHARMA	TCS
85	1214310102	NIKHILENDRA KISHORE PANDEY	QA Infotech
86	1214310103	NIPUN GUPTA	Not Placed (Eligible)

87	1214310104	NITIN CHOUDHARY	Not Placed (Eligible)
88	1214310105	PAAWAN MISHRA	Not Placed (Eligible)
89	1214310106	PANKAJ KUMAR PANDEY	Not Placed (Eligible)
90	1214310107	PARAM HANS YADAV	Not Placed (Eligible)
91	1214310109	PAWAN SRIVASTAVA	TCS
92	1214310110	PEEYOOSH KUMAR GUPTA	Not Placed (Eligible)
93	1214310111	PIYUSH AGGARWAL	TCS
94	1214310112	POOJA KUMARI	Not Placed (Eligible)
95	1214310113	PRABHAT KUMAR	Headstrong
96	1214310115	PRASHANT KUMAR	Not Placed (Eligible)
97	1214310117	PRAVEEN KUMAR GAUTAM	Not Eligible
98	1214310118	PREETI KUMARI	TCS
99	1214310119	PRIYANKA YADAV	Headstrong
100	1214310120	PRIYANSHA MISHRA	TCS
101	1214310121	PRIYARANJAN YADAV	TCS
102	1214310122	PULKIT CHAURASIA	TCS
103	1214310123	RAHUL KUMAR GUPTA	Not Eligible
104	1214310124	RAHUL S VERMA	TCS
105	1214310125	RAJ KUMAR VERMA	TCS
106	1214310126	RAM PRATIK JAISWAL	Not Placed (Eligible)
107	1214310127	ROHAN SINHA	Not Placed (Eligible)
108	1214310128	ROHIT CHAUDHARY	Not Placed (Eligible)
109	1214310129	ROHIT KESHWANI	Not Placed (Eligible)
110	1214310130	SAAKSHAT SRIVASTAV	TCS
111	1214310131	SAFAL ARORA	TCS
112	1214310132	SAGAR TOMAR	Transector Trans Pvt. Ltd.
113	1214310133	SAHIBA GUPTA	TCS
114	1214310134	SAKSHI SHARMA	TCS
115	1214310135	SANCHITA GARG	Headstrong
116	1214310136	SANDEEP PANGHAL	TCS
117	1214310137	SANDEEP SINGH	Not Placed (Eligible)
118	1214310138	SANMAY SINGH CHAUHAN	TCS
119	1214310139	SARVANAND PANDEY	TCS
120	1214310140	SATYAM GUPTA	TCS
121	1214310141	SATYAM RAI	Not Placed (Eligible)
122	1214310143	SAUMITRA VATSAL	Global Logic
123	1214310144	SAUMYA AGRAWAL	Not Placed (Eligible)
124	1214310146	SAURABH SINGH	TCS
125	1214310147	SHALABH MISHRA	Not Placed (Eligible)
126	1214310148	SHASHANK AGARWAL	Not Placed (Eligible)
127	1214310149	SHASHANK DIXIT	Not Placed (Eligible)
128	1214310150	SHASHWAT SINGH	Not Placed (Eligible)
129	1214310151	SHIKHAR DIXIT	Innovaccer

130	1214310152	SHIKHAR GUPTA	Not Placed (Eligible)
131	1214310153	SHIVAM JAIN	Headstrong
132	1214310154	SHIVAM SINHA	Not Placed (Eligible)
133	1214310155	SHIVANGI	TCS
134	1214310156	SHIVANI SHARMA	TCS
135	1214310157	SHRADDHA SHRIVASTAV	Headstrong
136	1214310158	SHRESTH JAISWAL	TCS
137	1214310159	SHREYA CHAUHAN	TCS
138	1214310160	SHUBHAM DIXIT	TCS, MAQ
139	1214310161	SHUBHAM KUMAR SINHA	TCS
140	1214310162	SHUBHAM MITTAL	Daffodil s/w Ltd.
141	1214310163	SHUBHAM VARSHNEY	TCS
142	1214310164	SIDDHI SAXENA	Global Logic
143	1214310165	SOMENDRA SINGH	Not Eligible
144	1214310166	SONAL SHALYA	TCS
145	1214310167	SONIYA CHAUHAN	Not Placed (Eligible)
146	1214310168	SONU KUMAR	Not Placed (Eligible)
147	1214310169	SUMIT AWASTHI	Sopra
148	1214310170	SUMIT SINGH	TCS
149	1214310171	SUNIT TIWARI	TCS
150	1214310172	SUNNY SAINI	Not Eligible
151	1214310173	SURAJ GUPTA	TCS
152	1214310174	SURJEET SINGH	Not Placed (Eligible)
153	1214310175	SURYANSH KAUSHIK	Not Placed (Eligible)
154	1214310176	SWETA MALIK	Global Logic/TCS
155	1214310177	TANYA ARORA	TCS
156	1214310178	UTKARSH RAWAT	Not Placed (Eligible)
157	1214310179	UTTAM KATIYAR	Not Placed (Eligible)
158	1214310180	UZMA NIKHAT	TCS
159	1214310181	VEDANT GARG	TCS
160	1214310182	VIJAY KUMAR	Not Eligible
161	1214310183	VIKALP BHATANAGAR	ESS
162	1214310184	VINAY KUMAR PASI	Not Eligible
163	1214310186	VISHESH SAXENA	TCS
164	1214310187	VIVEK KUMAR	Not Placed (Eligible)
165	1214310188	VIVEK KUMAR GIRI	ESS/TCS
166	1214310189	YASH GUPTA	TCS
167	1214310301	SACHIN KUMAR	Not Eligible
168	1214313001	Aarav gotra	QA Infotech
169	1214313016	DIVYA MAHESHWARI	GENPACT Headstrong (OFF CAMPUS)
170	1214313047	SNEHA SINGH	TCS
171	1214313048	surabhi srivastava	TCS
172	1214321097	Pragya Khanna	TCS
173	1214321098	PRAGYA SAHU	TCS

174	1214331017	Akshay Bhasin	Josh/TCS
175	1214331053	Deepanshi Agarwal	TCS
176	1214331109	PRIYANSHI JAIN	TCS
177	1314310901	PRIYA AWASTHI	Eninov
178	1314310902	SHIVANGI SARASWAT	Not Placed (Eligible)

Current Affairs



BY : Mr. Mukesh Kr. Singh , Asst. Proff. ,Dept. Of CSE

PM Narendra Modi unveils Asia's largest optical telescope ARIES at Nainital

Asia's largest and first of its kind optical telescope Aryabhatta Research Institute of Observational Sciences (ARIES) was unveiled at Devasthal in Nainital District, Uttrakahnd. It was remotely activated by Prime Minister Narendra Modi and his Belgian counterpart Charles Michel from Belgium.

India's first indigenously developed sonar dome flagged off

India's first indigenous composites sonar dome, a ship's underwater eyes and ears, was flagged off by Defence Minister Manohar Parrikar. The sonar dome was dedicated to the nation dedicated to the nation and will be delivered to Mazgaon Docks, Mumbai for use in the warships of Indian Navy.

Telangana Government launches M-Wallet Mobile App

Telangana Government has launched M-Wallet, new mobile app to facilitate citizens to get digital copies of documents like driving licence and registration certificate. It was launched by Telangana IT minister KT Rama Rao and Transport Minister P Mahender Reddy in Hyderabad. It is first of its kind application to be launched in any state of India.

China launches 22nd BeiDou navigation satellite

China has successfully launched 22nd new generation satellite into space as part of its domestic BeiDou Navigation System (BDS). It was launched using Long March-3A carrier rocket from Xichang Satellite Launch Center located in the south-western province of Sichuan. It was the 225th launch of the Long March carrier rocket.

Htin Kyaw sworn in as first elected President of Myanmar

Htin Kyaw (69) sworn in as the first elected civilian (non-military) President of Myanmar after 53 years of military rule. Myanmar's Army was in power since 1962 coup. He belongs to National League for Democracy (NLD) Party and succeeds Thein Sein, who had stepped down after end of five years of army-backed rule. Apart from him, Military backed Myint Swe and NLD member Henry Van Thio were sworn in as first vice-president and second vice-president of the country along 18 Cabinet ministers.

Ebola outbreak in West Africa no longer poses global risk: WHO

The World Health Organisation (WHO) has declared that Ebola outbreak in West Africa is no longer constitutes a Public Health Emergency of International Concern. WHO, a specialized agency of the United Nations has officially declared an end to a nearly 20-month Ebola outbreak emergency that has killed about 11,300 people. The declaration was made by WHO Director-General Dr Margaret Chan after accepting the recommendations of a committee of independent experts.

Playback Singer P. Susheela enters Guinness World Records

Renowned playback singer P. Susheela Mohan created a new world record for singing highest number of songs. She has now been recognised by both the Guinness Book of World Records for singing most number of songs in Indian languages. Guinness Book of World Records officially credited her for singing record 17,695 songs (solo, duet and chorus backed songs) in twelve Indian languages.

ISRO set to launch record 22 satellites in single mission

The Indian Space Research Organisation (ISRO) is set to script history by launching a record number of 22 satellites in a single mission in May 2016. These satellites (micro and nano) will be launched using ISRO's workhorse Polar rocket PSLV C34. It will be carrying India's Cartosat 2C along with 21 other satellites from other countries, including US, Canada, Indonesia and Germany as co-passengers.

Sergey Karjakin wins 2016 FIDE World Chess Candidates Tournament

Russian grandmaster Sergey Karjakin has won the prestigious FIDE World Chess Candidates Tournament held in Moscow. In the final Round 14, he defeated American grandmaster Fabiano Caruana scoring 8.5 points. With this victory, he will now play with the incumbent world champion, Norwegian Grandmaster Magnus Carlsen, in a match for the world chess crown in November 2016.

Union Government notifies Aadhaar Act, 2016

The Union Government has notified the Aadhaar (Targeted Delivery of Financial and other Subsidies, benefits and services) Act, 2016. The Act will provide statutory backing for transfer of subsidies and benefits to eligible people having Aadhaar (UID) number.

63rd National Film Awards 2015

The 63rd National Film Awards for year 2015 were announced on 28 March 2016. Baahubali: The Beginning (Tamil, Telugu) directed by S. S. Rajamouli was selected as the Best feature film. Bajrangi Bhaijaan (Hindi) directed by Kabir Khan was selected as the Best Popular film providing wholesome entertainment. The 63rd National Film Awards in the various categories are as follows
Best Actor: Amitabh Bachchan (Piku).
Best Actress: Kangana Ranaut (Tanu Weds Manu Returns).
Best Direction: Sanjay Leela Bhansali (Bajirao Mastani).
Best Film on Social Issues: Niranayakam (Malayalam) directed by V. K. Prakash.

Union Health Ministry launches India's first indigenous rotavirus vaccine Rotavac

The Union Ministry of Health and Family Welfare launched India's first indigenous rotavirus vaccine named Rotavac to combat infant mortality due to diarrhoea. It was launched by Union Health Minister J.P. Nadda as part country's ambitious Universal Immunisation Programme (UIP). The vaccine is being introduced initially in four States Andhra Pradesh, Haryana, Himachal Pradesh (first to launch it) and Odisha. It would be expanded to the entire country in a phased manner.

India-born Surya Deva appointed UN Adviser on Human Rights and Businesses

An India-born academician Surya Deva has been appointed as the United Nations (UN) Adviser on Human Rights and Businesses. He was appointed by the Geneva-based UN Human Rights Council (UNHRC) as the Asia-Pacific representative of the UN Working Group on the issue of human rights and transnational corporations and other business enterprises.

ISRO establishes GIRI Radar System near Tirupati

The Indian Space Research Organisation (ISRO) has installed the Gadanki Ionospheric Radar Interferometer (GIRI) Radar System near Tirupati, Andhra Pradesh. It was installed at the National Atmospheric Research Laboratory (NARL), which is an autonomous research institute of the Department of Space (DoS).

Union Cabinet gives nod to implementation of Pradhan Mantri Awaas Yojana – Gramin

The Union Cabinet has given its approval for the implementation of the rural housing scheme of Pradhan Mantri Awaas Yojana- Gramin. Under the scheme, financial assistance will be provided for construction of pucca houses to all houseless and households living in dilapidated houses.

March 24: World Tuberculosis Day

Every year March 24 is being observed as World Tuberculosis (TB) Day to o build public awareness about the global epidemic of TB and efforts to eliminate the disease. 2016 Theme: "Unite to End TB". It was adopted on the lines of 2030 Sustainable Development Goals (SDGs) by the United Nations.

India's Agasthyamala Biosphere Reserve included in UNESCO's World Network of Biosphere Reserves

India assumes BRICS Chairmanship from Russia for 2016

India has assumed BRICS Chairmanship from the Russian Federation for the year 2016. BRICS is an association of five countries viz. Brazil, Russia, India, China and South Africa. On this occasion, Union External Affairs Minister Sushma Swaraj formally unveiled the BRICS Logo for the duration of India's BRICS Chairmanship and also launched website.

March 22: World Water Day

Every year World Water Day (WWD) is observed globally on 22 March to preserve and ration consumption of water. Significance of the Day: WWD is observed to make a difference for the members of the global population who suffer from water related issues. It marks a day to prepare for how we manage water in the future. 2016 Theme: "Better Water, Better Jobs". It focuses on the central role that water plays in creating and supporting good quality jobs.

India ranks 118th on UN's World Happiness Index 2016

ndia ranked 118th out of 157 countries on the United Nations' World Happiness Index (WHI) 2016. It was revealed by the fourth World Happiness Report 2016 published by the Sustainable Development Solutions Network (SDSN), a global initiative for the UN.

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