THE BYTE

MAY 2016

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THE BYTE

ISSUE XXI , MAY 2016

LOOK UP INSIDE

THE BYTE

ISSUE XXI , MAY 2016

Articles

Mobile App
for students of IMS Engineering college

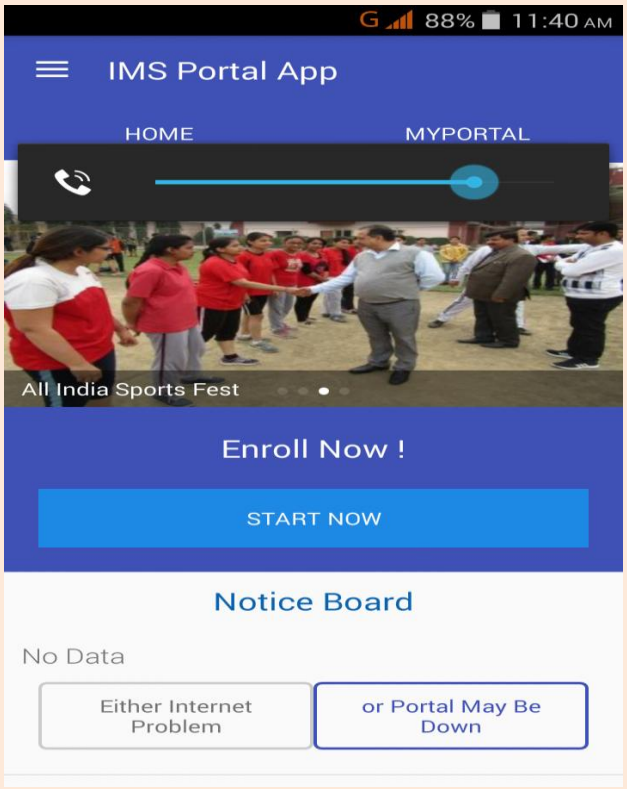
Three students of IMS Engineering College **Mr. Akshay Singh**, **Mr. Shashwat Singh** and, **Ms. Sakshi Sharma** from B.Tech Final year of Computer Science & Engineering Department have developed an android app for the students of the college.

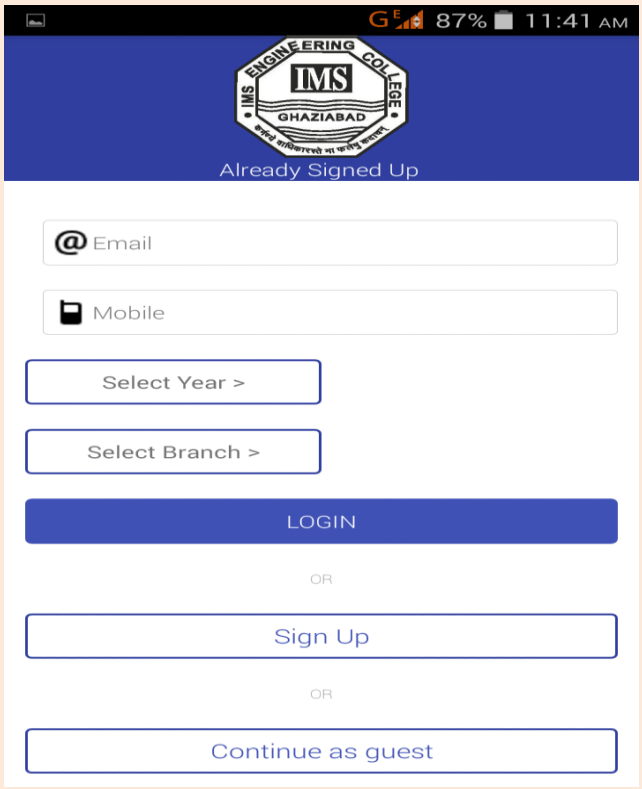
Using this app students can easily check their attendance, marks, assignment and many other information provided on our college website(www.imsec.ac.in) & portal. Students do not require to login, enter their roll no. or other details each time the app is used.

It also keeps one updated about various upcoming /organized events, general notices, placement news and many other useful information available on college website.

This app will soon be made live and will be available for download on play store of android mobile platform.

On behalf of the college, department of computer science congratulates all the students members of the development team for their efforts & achievement.





Dr. Pankaj Agarwal
HOD-CSE

By : Dr. Awdhesh Gupta
Associate Proff.
Dept. Of CSE

Tips to handle IT job search rejection

Even in the booming IT industry with unemployment at historic lows, landing a tech job isn't a given. Making it through several rounds of interviews and technical screenings can make you feel as though you're a shoe-in for the role, only to discover the company's decided you're not the right fit. In the IT industry, demand is incredibly high right now, and with that many other candidates, competition is fierce and the pressure is high. It can be devastating if you're passed over for a role, but there are ways to cope and handle rejection gracefully. The following eight tips for dealing with rejection and moving on with your job search.

1. Depersonalize the rejection

Companies make hiring decisions based on many factors. They may have really liked you personally, but you might be lacking critical experience, a certain technical skill or the right culture fit to fill a role.

It's quite possible it really is them and not you. The human factor is so important in hiring, and first impressions are of the utmost importance. Even a single awkward moment at the beginning of an interview can color people's perceptions and influence the hiring process -- and there's nothing you can do about that except take a 'big picture' view and remember that it's not personal.

2. Do a reality check

As candidates sell themselves to a company, sometimes they over-sell themselves on how great a role would be. That can make rejection doubly disappointing, says Barnett, so you need to be realistic about the pros and cons of a company and a role.

Identify factors that were likely not to be a good fit, including parts of the job you wouldn't have enjoyed or elements of the culture that would have been annoying. Ask yourself if you were really a good fit for the roles and responsibilities of the position, or if you'd just convinced yourself of that. Make sure you're looking at the reality, not the fantasy.

3. Realize it's their loss

As with anyone who misses out on your talents and abilities, it's best to realize that it's the company who's probably lost the most in this situation. It may sound cheesy, and it may seem difficult to convince yourself of this fact, but you'll go on to get another position. They'll miss out on having you in their organization.

Companies make bad hiring decisions all the time. It's quite possible they made a mistake in not hiring you. If you really feel you were 100 percent the perfect person for the role and they declined to hire you, well, maybe that says something about the company, and you're better off.

4. Follow up

While not all companies will respond to candidates they reject, they are often willing to share feedback with candidates who came close to getting the job.

Follow up with your key contacts, thank them again for the opportunity to interview and learn about the position, and let them know how much you desire a similar role. Then, ask for feedback on why you didn't get the job. In some cases, you might not hear anything; sometimes you'll get lucky, though, and someone on the company side will be willing to engage with you this way.

5. Stay on their radar

Just because you were rejected from a specific role, doesn't mean the company didn't think you were impressive. After all, only one person can be hired for one role at a time. Make sure you're staying in touch with the recruiter or hiring manager you worked with, but don't appear desperate.

This can be a very casual, 'just touching base from time to time' kind of thing, just to stay connected. If something else comes up, this will help you stay top-of-mind for the company, and it also shows that you're not bitter, you're resilient, you have a positive response to stress and that you're an optimist who's moving on.

6. Be graceful

Nobody likes a sore loser, so make sure you're staying positive and friendly, even in defeat. Thank everyone for their time, and make sure you offer your help in any future endeavors if there's an opportunity.

Some of the best hires come from referrals, so even if they didn't hire you, they may know someone who is looking for a candidate with similar skills and experience. You're showing that you respect their company and that you're an advocate for them, even if you're not working there.

7. Keep moving forward

Rejection is part of the interviewing process and something we've all felt. Don't give up. If you need to take a little time to lick your wounds, that's understandable, but don't let rejection crush you.

Channel that negative energy into reinvigorating your job search. Take a look at your resume, start networking aggressively and work on scheduling more interviews.

8. Find the positives in your current world

So you didn't land the new job, and now you're faced with going back to an unfavorable work scenario. While it's much easier said than done, try not to become angry, depressed and bitter, Barnett says. Sometimes, you have to accept that you'll be stuck where you are for a bit longer, and make the best of it.

What you don't want to do is make desperate, poorly-thought-out decisions based on anger or frustration. Don't rage-quit your current job, for example -- that'll land you in a much worse position. If you have a toxic manager or an unhealthy work environment, well, that's all the more reason to try and stay positive and patient -- something amazing will come along for you if you keep trying.

Prof. Vishan kr. Gupta
Assistant Professor, CSE

Arduino is an open-source prototyping platform based on easy-to-use hardware and software. Arduino boards are able to read inputs - light on a sensor, a finger on a button, or a Twitter message - and turn it into an output - activating a motor, turning on an LED, publishing something online. You can tell your board what to do by sending a set of instructions to the microcontroller on the board. To do so you use the Arduino programming language (based on Wiring), and the Arduino Software (IDE), based on Processing.

Over the years Arduino has been the brain of thousands of projects, from everyday objects to complex scientific instruments. A worldwide community of makers - students, hobbyists, artists, programmers, and professionals - has gathered around this open-source platform, their contributions have added up to an incredible amount of accessible knowledge that can be of great help to novices and experts alike.

Arduino was born at the Ivrea Interaction Design Institute as an easy tool for fast prototyping, aimed at students without a background in electronics and programming. As soon as it reached a wider community, the Arduino board started changing to adapt to new needs and challenges, differentiating its offer from simple 8-bit boards to products for IoT applications, wearable, 3D printing, and embedded environments. All Arduino boards are completely open-source, empowering users to build them independently and eventually adapt them to their particular needs. The software, too, is open-source, and it is growing through the contributions of users worldwide.

Why Arduino?

Thanks to its simple and accessible user experience, Arduino has been used in thousands of different projects and applications. The Arduino software is easy-to-use for beginners, yet flexible enough for advanced users. It runs on Mac, Windows, and Linux. Teachers and students use it to build low cost scientific instruments, to prove chemistry and physics principles, or to get started with programming

and robotics. Designers and architects build interactive prototypes, musicians and artists use it for installations and to experiment with new musical instruments. Makers, of course, use it to build many of the projects exhibited at the Maker Faire, for example. Arduino is a key tool to learn new things. Anyone - children, hobbyists, artists, programmers - can start tinkering just following the step by step instructions of a kit, or sharing ideas online with other members of the Arduino community.

There are many other microcontrollers and microcontroller platforms available for physical computing. Parallax Basic Stamp, Netmedia's BX-24, Phidgets, MIT's Handyboard, and many others offer similar functionality. All of these tools take the messy details of microcontroller programming and wrap it up in an easy-to-use package. Arduino also simplifies the process of working with microcontrollers, but it offers some advantage for teachers, students, and interested amateurs over other systems:

- **Inexpensive -** Arduino boards are relatively inexpensive compared to other microcontroller platforms. The least expensive version of the Arduino module can be assembled by hand, and even the pre-assembled Arduino modules cost less than $50
- **Cross-platform** - The Arduino Software (IDE) runs on Windows, Macintosh OSX, and Linux operating systems. Most microcontroller systems are limited to Windows.
- Simple, clear programming environment - The Arduino Software (IDE) is easy-to-use for beginners, yet flexible enough for advanced users to take advantage of as well. For teachers, it's conveniently based on the Processing programming environment, so students learning to program in that environment will be familiar with how the Arduino IDE works.
- **Open source and extensible software** - The Arduino software is published as open source tools, available for extension by experienced programmers. The language can be expanded through C++ libraries, and people wanting to understand the technical details can make the leap from Arduino to the AVR C programming language on which it's based. Similarly, you can add AVR-C code directly into your Arduino programs if you want to.
- **Open source and extensible hardware -** The plans of the Arduino boards are published under a Creative Commons license, so experienced circuit designers can make their own version of the module, extending it and improving it. Even relatively inexperienced users can build the breadboard version of the module in order to understand how it works and save money.

First Human Tests of Memory Boosting Brain Implant—a Big Leap Forward

"You have to begin to lose your memory, if only bits and pieces, to realize that memory is what makes our lives. Life without memory is no life at all." — Luis Buñuel Portolés, Filmmaker

Every year, hundreds of millions of people experience the pain of a failing memory.

The reasons are many: traumatic brain injury, which haunts a disturbingly high number of veterans and football players; stroke or Alzheimer's disease, which often plagues the elderly; or even normal brain aging, which inevitably touches us all.

Memory loss seems to be inescapable. But one maverick neuroscientist is working hard on an electronic cure. Funded by DARPA, Dr. Theodore Berger, a biomedical engineer at the University of Southern California, is testing a memory-boosting implant that mimics the kind of signal processing that occurs when neurons are laying down new long-term memories.

The revolutionary implant, already shown to help memory encoding in rats and monkeys, is now being tested in human patients with epilepsy — an exciting first that may blow the field of memory prosthetics wide open.

To get here, however, the team first had to crack the memory code.

Deciphering Memory

From the very onset, Berger knew he was facing a behemoth of a problem.

We weren't looking to match everything the brain does when it processes memory, but to at least come up with a decent mimic, said Berger.

"Of course people asked: can you model it and put it into a device? Can you get that device to work in any brain? It's those things that lead people to think I'm crazy. They think it's too hard," he said.

But the team had a solid place to start.

The hippocampus, a region buried deep within the folds and grooves of the brain, is the critical gatekeeper that transforms memories from short-lived to long-term. In dogged pursuit, Berger spent most of the last 35 years trying to understand how neurons in the hippocampus accomplish this complicated feat.

At its heart, a memory is a series of electrical pulses that occur over time that are generated by a given number of neurons, said Berger. This is important — it suggests that we can reduce it to mathematical equations and put it into a computational framework, he said.

Berger hasn't been alone in his quest.

By listening to the chatter of neurons as an animal learns, teams of neuroscientists have begun to decipher the flow of information within the hippocampus that supports memory encoding. Key to this process is a strong electrical signal that travels from CA3, the "input" part of the hippocampus, to CA1, the "output" node.

This signal is impaired in people with memory disabilities, said Berger, so of course we thought if we could recreate it using silicon, we might be able to restore — or even boost — memory.

Bridging the Gap

Yet this brain's memory code proved to be extremely tough to crack.

The problem lies in the non-linear nature of neural networks: signals are often noisy and constantly overlap in

time, which leads to some inputs being suppressed or accentuated. In a network of hundreds and thousands of neurons, any small change could be greatly amplified and lead to vastly different outputs.

It's a chaotic black box, laughed Berger.

With the help of modern computing techniques, however, Berger believes he may have a crude solution in hand. His proof?

Use his mathematical theorems to program a chip, and then see if the brain accepts the chip as a replacement — or additional — memory module.

Berger and his team began with a simple task using rats. They trained the animals to push one of two levers to get a tasty treat, and recorded the series of CA3 to CA1 electronic pulses in the hippocampus as the animals learned to pick the correct lever. The team carefully captured the way the signals were transformed as the session was laid down into long-term memory, and used that information — the electrical "essence" of the memory — to program an external memory chip.

They then injected the animals with a drug that temporarily disrupted their ability to form and access long-term memories, causing the animals to forget the reward-associated lever. Next, implanting microelectrodes into the hippocampus, the team pulsed CA1, the output region, with their memory code.

The results were striking — powered by an external memory module, the animals regained their ability to pick the right lever.

Encouraged by the results, Berger next tried his memory implant in monkeys, this time focusing on a brain region called the prefrontal cortex, which receives and modulates memories encoded by the hippocampus.

Placing electrodes into the monkey's brains, the team showed the animals a series of semi-repeated images, and captured the prefrontal cortex's activity when the animals recognized an image they had seen earlier. Then with a hefty dose of cocaine, the team inhibited that particular brain region, which disrupted the animal's recall.

Next, using electrodes programmed with the "memory code," the researchers guided the brain's signal processing back on track — and the animal's performance improved significantly.

A year later, the team further validated their memory implant by showing it could also rescue memory deficits due to hippocampal malfunction in the monkey brain.

A Human Memory Implant

Last year, the team cautiously began testing their memory implant prototype in human volunteers.

Because of the risks associated with brain surgery, the team recruited 12 patients with epilepsy, who already have electrodes implanted into their brain to track down the source of their seizures.

Repeated seizures steadily destroy critical parts of the hippocampus needed for long-term memory formation, explained Berger. So if the implant works, it could benefit these patients as well.

The team asked the volunteers to look through a series of pictures, and then recall which ones they had seen 90 seconds later. As the participants learned, the team recorded the firing patterns in both CA1 and CA3 — that is, the input and output nodes.

Using these data, the team extracted an algorithm — a specific human "memory code" — that could predict the pattern of activity in CA1 cells based on CA3 input. Compared to the brain's actual firing patterns, the algorithm generated correct predictions roughly 80% of the time.

It's not perfect, said Berger, but it's a good start.

Using this algorithm, the researchers have begun to stimulate the output cells with an approximation of the transformed input signal.

We have already used the pattern to zap the brain of one woman with epilepsy, said Dr. Dong Song, an associate professor working with Berger. But he remained coy about the result, only saying that although promising, it's still too early to tell.

Song's caution is warranted. Unlike the motor cortex, with its clear structured representation of different body parts, the hippocampus is not organized in any obvious way.

It's hard to understand why stimulating input locations can lead to predictable results, said Dr. Thoman McHugh, a neuroscientist at the RIKEN Brain Science Institute. It's also difficult to tell whether such an implant could save the memory of those who suffer from damage to the output node of the hippocampus.

"That said, the data is convincing," McHugh acknowledged.

Berger, on the other hand, is ecstatic. "I never thought I'd see this go into humans," he said.

But the work is far from done. Within the next few years, Berger wants to see whether the chip can help build long-term memories in a variety of different situations. After all, the algorithm was based on the team's recordings of one specific task — what if the so-called memory code is not generalizable, instead varying based on the type of input that it receives?

Berger acknowledges that it's a possibility, but he remains hopeful.

I do think that we will find a model that's a pretty good fit for most conditions, he said. After all, the brain is restricted by its own biophysics — there's only so many ways that electrical signals in the hippocampus can be processed, he said.

"The goal is to improve the quality of life for somebody who has a severe memory deficit," said Berger. "If I can give them the ability to form new long-term memories for half the conditions that most people live in, I'll be happy as hell, and so will be most patients.

Android Auto expands to 18 new countries, including Brazil, India and Russia

A number of vehicle manufacturers have been unveiling support for Android Auto this year, and Android developers have now announced that the software will be heading out to 18 new countries in various continents across the globe. Which is a rather large roll-out for the platform.

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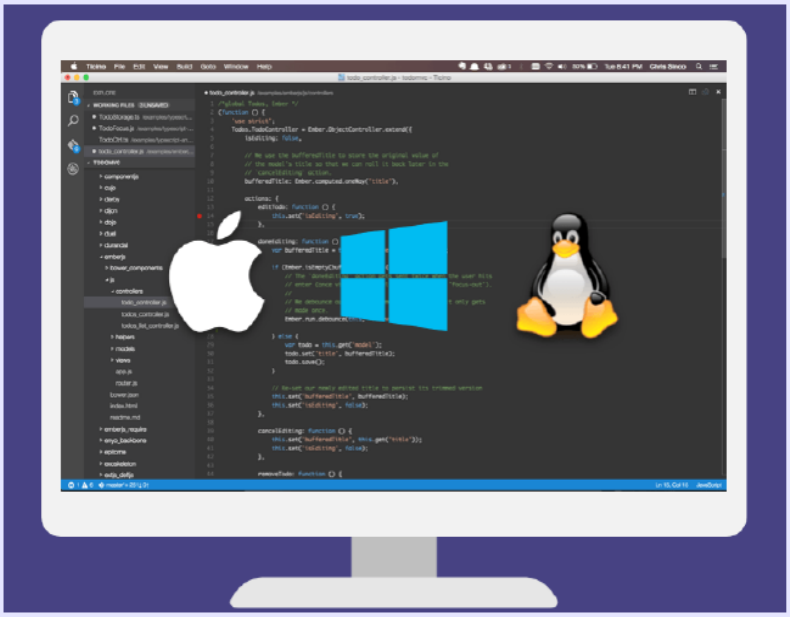
The new countries now with Android Auto support are: Argentina, Austria, Bolivia, Brazil, Chile, Colombia, Costa Rica, Dominican Republic, Ecuador, Guatemala, India, Panama, Paraguay, Peru, Puerto Rico, Russia, Switzerland, Uruguay, and Venezuela. As an added bonus, the territory of Puerto Rico has also been added to the list.

This latest roll-out includes some notably large markets, such as Brazil, India and Russia, as well as marking a major expansion into South America. Combined with availability already online in Australia, Canada, France, Germany, Ireland, Italy, New Zealand, Spain, the UK, and the US, Google's automotive system is now available in a good portion of the world. This in turn should help to bring additional vehicle manufacturers and ranges on board.

Microsoft Releases Open Source Visual Studio Code 1.0 For Windows, OS X, And Linux

After polishing it about a year in beta, Microsoft has finally released version 1.0 of its Visual Studio Code text editor for developers.

In the announcement blog post, Microsoft said that since its initial launch about one year ago, 2 million developers have installed VS Code. Out of those, more than 500,000 developers actively use VS code each month.



This cross-platform text editor was launched at Microsoft's Build 2015 developer conference and it came as a surprise to many. If you ask me about the surprise element, it was a code editor for Linux and OS X — the first ever from the house of Microsoft.

After the launch, Microsoft went one step further and open sourced the software, making the code available on GitHub.

Visual Studio Code was initially made for developers who created web apps in JavaScript and TypeScript. However, over a short period of six months, the VS community has made more than 1000 extensions that enabled the support forNode.js, Go, C++, PHP, Python and more. This was made possible as Microsoft opened the APIs to allow developers write extensions for the editor.

Now, Microsoft's open source Visual Studio Code is available in 9 additional languages including Simplified Chinese, Traditional Chinese, French, German, Italian, Japanese, Korean, Russian and Spanish.

Sharing its future vision, the VS Code Team writes, "of course, we will continue to focus on the fundamentals. Performance, stability, accessibility, and compatibility are of utmost importance to our users, and they are to us as well.

THE BYTE

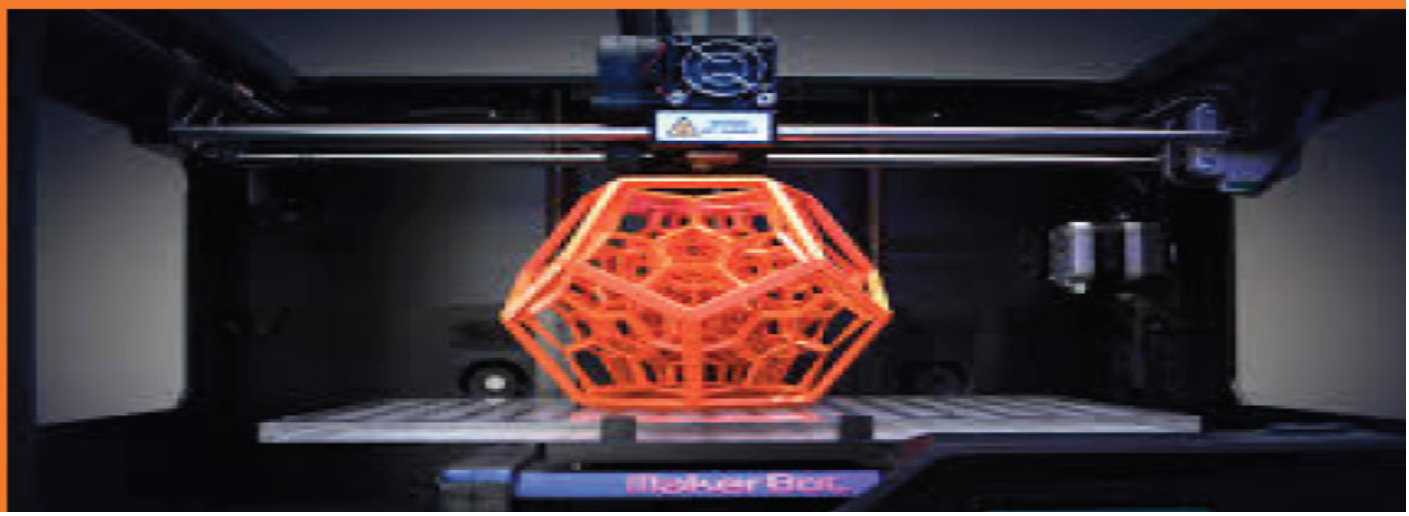
ISSUE XXI , MAY 2016

Latest Technology & research

THE BYTE, MAY 2016

3D PRINTING

Prof. VIPUL KUMAR Asst.Prof, CSE



What is 3D printing

3D printing or additive manufacturing is a process of making three dimensional solid objects from a digital file.The creation of a 3D printed object is achieved using additive processes. In an additive process an object is created by laying down successive layers of material until the entire object is created. Each of these layers can be seen as a thinly sliced horizontal cross-section of the eventual object.

How does 3D printing work?

It all starts with making a virtual design of the object you want to create. This virtual design is made in a CAD (Computer Aided Design) file using a 3D modeling program (for the creation of a totally new object) or with the use of a 3D scanner (to copy an existing object). A 3D scanner makes a 3D digital copy of an object.

3D printing industry

The worldwide 3D printing industry is expected to grow from $3.07B in revenue in 2013 to $12.8B by 2018, and exceed $21B in worldwide revenue by 2020. For example: Medical industry, Aerospace & aviation industries, automotive industry etc.

Future

It is predicted by some additive manufacturing advocates that this technological development will change the nature of commerce, because end users will be able to do much of their own manufacturing rather than engaging in trade to buy products from other people and corporations.

3D printers capable of outputting in color and multiple materials already exist and will continue to improve to a point where functional products will be able to be output. With effects on energy use, waste reduction, customization, product availability, medicine, art, construction and sciences, 3D printing will change the manufacturing world as we know it.

AI BASED COMPUTER CHIPS

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

MIT scientists, including one of Indian-origin, have developed a new highly efficient chip that may enable mobile devices to run powerful artificial intelligence algorithms, and help usher in the "Internet of things".

MIT scientists, including one of Indian-origin, have developed a new highly efficient chip that may enable mobile devices to run powerful artificial intelligence algorithms, and help usher in the "Internet of things".

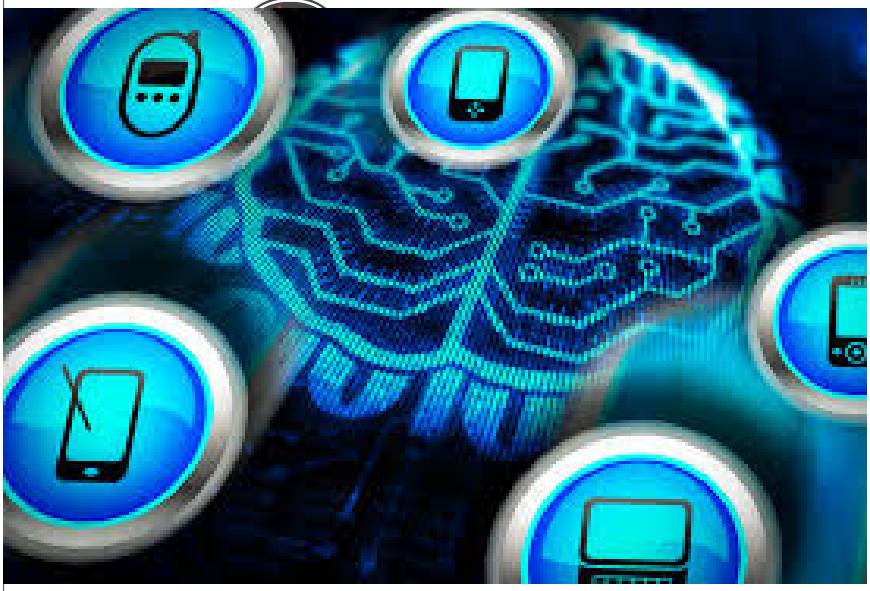
Neural networks, large virtual networks of simple information-processing units, which are loosely modelled on the anatomy of the human brain are typically implemented using graphics processing units (GPUs), special-purpose graphics chips found in all computing devices with screens. A mobile GPU, of the type found in a cell phone, might have almost 200 cores, or processing units, making it well suited to simulating a network of distributed processors.

Researchers at Massachusetts Institute of Technology (MIT), including Tushar Krishna, designed a new chip specifically to implement neural networks. It is 10 times as efficient as a mobile GPU, so it could enable mobile devices to run powerful artificial-intelligence (AI) or 'deep learning' algorithms locally, rather than uploading data to the internet for processing. "Deep learning is useful for many applications, such as object recognition, speech, face detection," said Vivienne Sze from MIT. "You can imagine that if you can bring that functionality to your cell phone or embedded devices, you could still operate even if you don't have a Wi-Fi connection," Sze said.

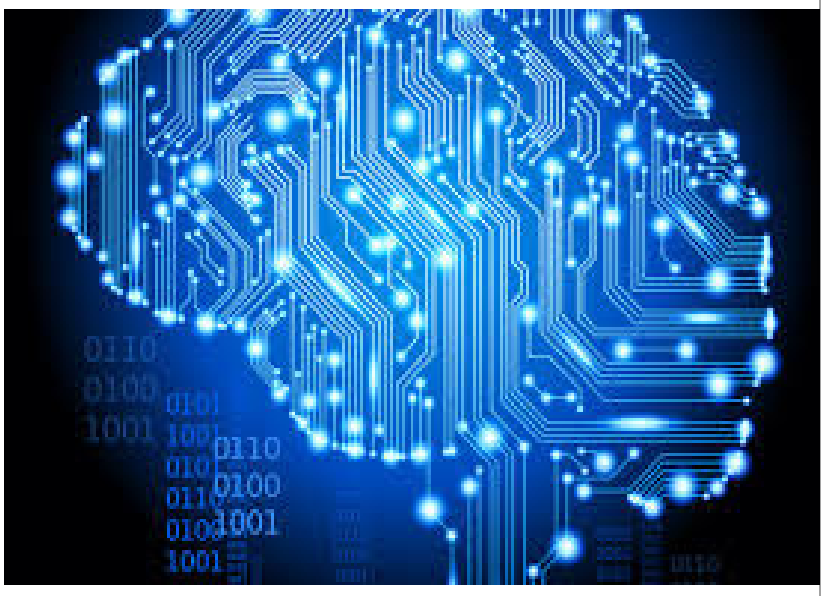
The new chip, called 'Eyeriss', could also help usher in the "Internet of things" the idea that vehicles, appliances, civil-engineering structures, manufacturing equipment, and even livestock would have sensors that report information directly to networked servers, aiding with maintenance and task coordination. With powerful AI algorithms on board, networked devices could make important decisions locally, entrusting only their conclusions, rather than raw personal data, to the internet.

The chip has 168 cores, roughly as many as a mobile GPU has. The key to Eyeriss's efficiency is to minimise the frequency with which cores need to exchange data with distant memory banks, an operation that consumes a good deal of time and energy. Whereas many of the cores in a GPU share a single, large memory bank, each of the Eyeriss cores has its own memory.

AI CHIPS

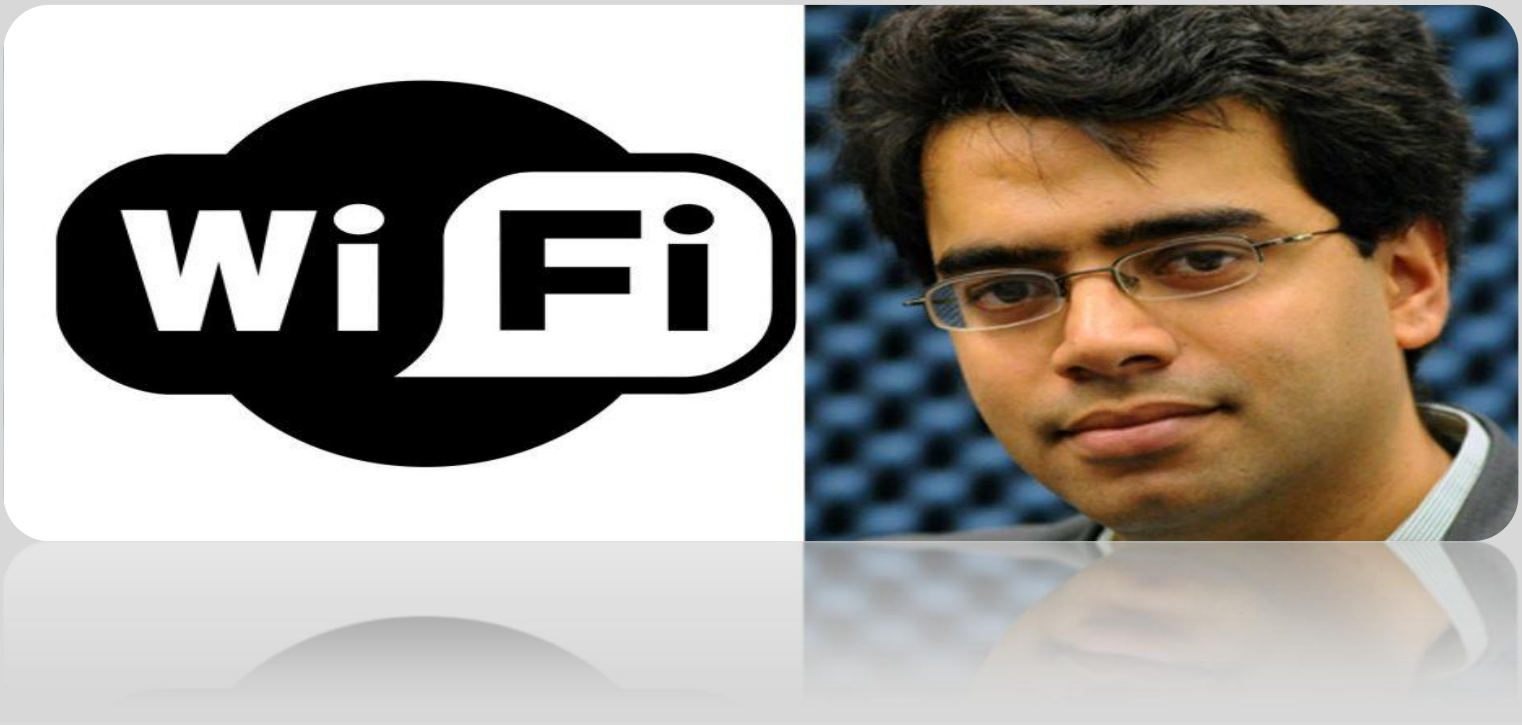


The chip has 168 cores, roughly as many as a mobile GPU has. The key to Eyeriss's efficiency is to minimise the frequency with which cores need to exchange data with distant memory banks, an operation that consumes a good deal of time and energy. Whereas many of the cores in a GPU share a single, large memory bank, each of the Eyeriss cores has its own memory. Moreover, the chip has a circuit that compresses data before sending it to individual cores. Each core is also able to communicate directly with its immediate neighbours, so that if they need to share data, they do not have to route it through main memory. The final key to the chip's efficiency is special-purpose circuitry that allocates tasks across cores.



"A Indian-origin researcher, Harish Krishnaswamy, develops technology to double WiFi speeds."

BY: ANNU KUMARI
B.Tech CS-1,2nd year



Indian-origin researcher, Harish Krishnaswamy, develops technology to double WiFi speeds

According to Krishnaswamy, the technology has "enormous implications for devices like smartphones and tablets".
Researchers, headed by an Indian-origin engineer in US, Harish Krishnaswamy, have developed an original technology that can double Wi-Fi speeds with a single antenna, a breakthrough that could transform the field of telecommunications.
This is reportedly the first time researchers at the Columbia University School of Engineering and Applied Science, led by Associate Professor Harish, have developed a technology that needs only one antenna, thus allowing an even smaller overall system.
"This technology could revolutionize the field of telecommunications," said Krishnaswamy, Director of the Columbia High-Speed and Mm-wave IC (CoSMIC) Lab. He added that their circulator, a component that enables full-duplex communications, was the first to be put on a silicon chip and that can provide greater performance.
Full-duplex communications, where the transmitter and the receiver operate at the same time and frequency, has become a critical research area as the Wi-Fi capacity can be doubled on the silicon chip with a single antenna. "This has enormous implications for devices like smartphones and tablets," he said.
Krishnaswamy's crew has been working on silicon radio chips for full duplex communications for several years and became predominantly involved in the role of the circulator.
The team was able to design an exceedingly miniaturised circulator that uses switches to rotate the signal and successfully assembled a prototype of their full-duplex system as well.

Harish Krishnaswamy is an Indian Institute of Technology-Madras alumni with a B.Tech degree in Electrical Engineering. He graduated in the year 2001 and received his MS and PhD degrees in Electrical Engineering from the University of South California in 2003 and 2009 respectively. He received the IEEE International Solid State Circuits Conference (ISSCC) Lewis Winner Award for Outstanding Paper in 2007, the Best Thesis in Experimental Research Award from the USC Viterbi School of Engineering in 2009, and the DARPA Young Faculty Award in 2011. He currently lives in New York

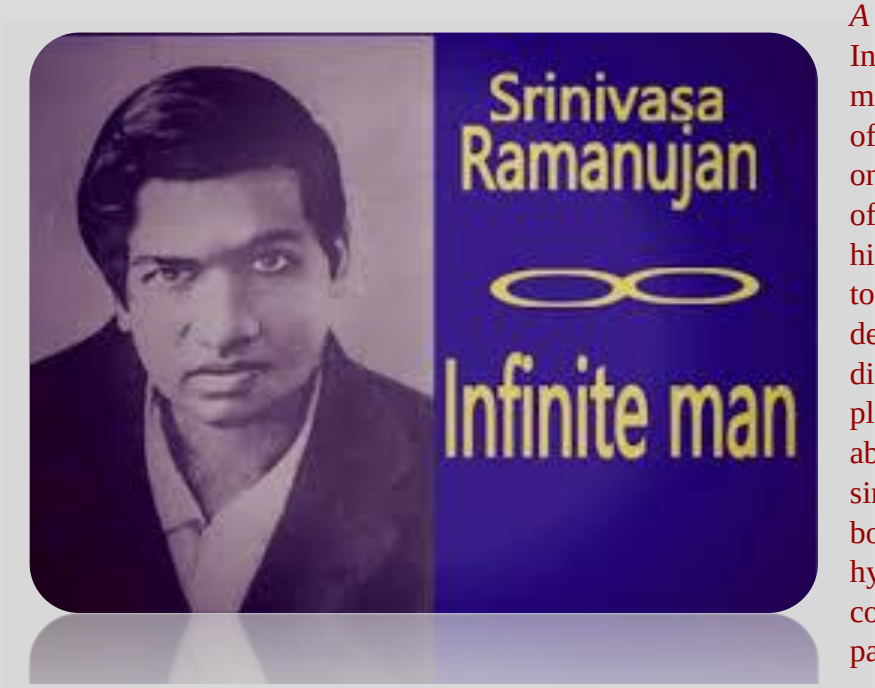
THE BYTE

ISSUE XXI , MAY 2016

LITERARY

"A peculiar green ink....."

BY: Dr. K.V.V.N.S.Sundari Kameswari
Asst . Proff.



A peculiar green ink was the name given to an Indian Mathematician Sri Ramanujan by British mathematician Prof G.H. Hardy in the Note Books of Ramanujan. This article series is to remember once the distinguished and gifted mathematician of our country. It is also to recall a very few of his contributions to mathematics. He had been a tough researcher, progressive analyst without any determination, picking any rational problem and discovers a solution with his natural aptitude, playing with the numbers and creating new facts about the number. He was not concerned with a single topic and master in it. He had no boundaries and partitions of mathematics. He hypothesized startling theorems from Algebra, computational techniques, number theory, partition functions and many on Infinite series..

I begin this article series with the birth and childhood of Sri Ramanujan. Srinivasa Ramanujan Iyengar was born on 22nd December, 1887 in the village Erode, a town in southern India and near to Coimbatore district. He was born in highly conventional Brahmin family and his birth took place at his maternal grand parent's house. He grew up at Kumbakonam where his father K. Srinivasa Iyengar, was accountant at a cloth merchant. His mother Komalatammal was a house wife and used to sing at a temple. His mother gave birth to many children after Ramanujan was born. But none of them survived the infancy. Most of his childhood spent in maternal grand parents home. After two years of his birth he was suffered from chicken pox. He was one among those less survived with chicken pox in that year. On October 1st 1897 he joined in a tamil medium school at Kanchipuram. When his maternal grand father lost his job, he then was sent back to kumbakonam. He then was enrolled at Kangayan Primary School. After the death of his grand parents he was then sent back to his maternal grand parent's home, then it was at Madras. Then he was enrolled at Town Higher Secondary School in 1897 at kumbakonam. An example in an incident the school teacher recalled after Ramanujan's death: she was telling the students if three mangoes are distributed to three students then each will get one. Then she started generalizing the fact. Then spontaneously Ramanujan stopped her with his question if no mangoes are distributed to no one then do each one get one? The teacher stood dumb. At the age of 12 he borrowed a trigonometry book authored S.L.Loney from his friend and he was completely master in that book. S.L.Loney's book many mathematicians use. It also contains several other topics than the name of the book indicates. With his inquisitive and initiative, interrogative approach towards mathematics he successfully completed his schooling and laid foundation to his own mathematical world..

I wish this article series would share little information about the gifted mathematician and few of his interesting number theoretical results came out under complex orthodox, poor finance and cactus circumstances.

"The mountain and the Squirrel"

By : Himanshu Kr. Varshney
B.Tech CS1 2nd year

The mountain and the squirrel
Had a quarrel
And the former called the latter
"Little prig".
Bun replied ,
You are doubtless very big ;
But all sorts of things and weather
Must be taken in together
To make up a year
And a sphere ,
And I think it no disgrace
To occupy my place
If I'm not so large as you ,
You are not so small as I ,
And not half so spry :
I'll not deny you make
A very pretty squirrel track .
Talent differ ; all is welk and wisely put
If I cannot carry forests on my back ,
Neither can you crack a nut .

DEPARTMENTAL EVENTS

A LOOK UP INSIDE…..

- CODECHEF
- WORKSHOP
- BUDDING ENGINEERS AWARD
- FAREWELL
- RTFEM-2016

BUDDING ENGINEERS AWARD

- **OVERALL TOPPER IN UNIVERSITY EXAM**

2nd Year

-ROHIT CHAUDHARY for scoring 88.3 % in ODD Semester 2015-16
- NISHIKA CHAUDHARY for scoring 88.3 % in ODD Semester 2015-16
- ANUJ UPADHYAY for scoring 84.2 % in ODD Semester 2015-16

3rd Year

- MOHD KAMRAN for scoring 83.5 % in ODD Semester 2015-16
- DISHIKA GARG for scoring 82.7 % in ODD Semester 2015-16
- SUHA KHAN for scoring 82.1 % in ODD Semester 2015-16

4th Year

- SHIVANI SHARMA for scoring 88 % in ODD Semester 2015-16
- PULKIT CHAUSIA for scoring 86 % in ODD Semester 2015-16
- UZMA NIKAT for scoring 85.2 % in ODD Semester 2015-16

- **Best Project Award**

a. 'River Pollution Detection using Google Maps' – [
b. 'Leaf Disease Detection by Image Processing' [Spark-15]
   { Priyansha , Sharradha, Yash & Shivani}
c. 'Home décor using virtual reality' – {Aviral, Ajay, Akshay Bhasin, Aman } [Spark-15]
d. 'Fun Survey App' [Codechef-2016]
   {Akshay Pratap singh, Shawshwat Singh & Saakshi Sharma}
e. Open source tool for remote sensing data set processing [Codechef-2016]
   { Priyaranjan Yadav, Vishesh Saxena, Lalit Kr.}

❖ Award for outstanding achievements at state/national/international level

a. Piyush Aggarwal
b. Shivam Gupta (3rd yr): for best research paper with project award of Rs 3000/- at IMS Lal Kuan
c. Sudhir Sahani (3rd Yr): Secured 221 rank in PCS game on idea
d. Anuska Sharma(2nd yr): 2nd prize at ACM CODES BLITTZ at ABES

❖ Most active Technical Club Award

THE BYTE TECHNICAL CLUB

❖ Outstanding performance in sports

a. Shreya chauhan (4th yr) - 1st Position in Badminton at zonal level
b. Chaitnya bhardwaj (3rd yr)- 2nd prize at state level basketball, winner of national level football competition, chrakravyu, IMSEC
c. Abhimanyu (2nd yr)-

❖ Most Active participation award at department level

Shubham Dixit (4th yr)

❖ Recognition in competitive exams at National Level

a. Rohit Chaudhary(4th yr)- GATE AIR-879
b. Saurabh Singh (4th yr)- GATE AIR-557
c. Pulkit Chaurasia(4th yr)-E-litmus 98 percentile, MCAT-98 Percentile
d. Peyoosh Gupta (4th yr)- GATE AIR-599

❖ Best attendance in Current Semester

a. Ramji (2nd yr)-94%
b. Anuj Garg (3rd Yr)-94%
c. Aishwarya Pratap Singh & Shresth Jaiswal(4th Yr)-93 %
d.

CODECHEF

CSE-IMSEC ACM Student Chapter under Department of Computer Sciences & Engineering organized "CodeChef – The Project Competition" dated on 2nd April 2016. The purpose of the competition was to provide a platform for the final year students to showcase their creativity, expertise in technology and presentation skill. The following projects had been exhibited during the events:

Group No.	Participant's Name	Project Name
1	Chinmai Tyagi Karishma Agarwal Ayushi Bansal	Medical Health Application Usinggps Based On Android At College Level
2	Chitransh Agarwal Priyanshi Jain Sneha Singh	Sentiment Anlaysis Of Tweets Using Apache Hadoop To Predict Success Of Movie
3	Pragya Khanna Kirtika Agarwal Mayank Juneja	Real World Object Identification And Classification Using Machine Learning
4	Aishwarya Pratap Singh Akshay Minhas Eshita Pawar	Vehicle Routing And Scheduling With Dynamic Routing
5	Akansha Porwal Ankita Kumari Ankur	Offline Signature Verification Using Pattern Recognition
6	Kartik Panwar Harshit Bhatnagar Mrigank Sunjiv Tyagi	IOT Based Home Automation System
7	Akshay Pratap Singh Shashwat Singh Sakshi Sharma	Fun Survey App
8	Aman Verma Akshay Bhasin Rohit Keshwani Suryansh Kaushik	Machine Learning Toolbox
9	Ankit Kumar Abhishek Singh	Anti Theft And Spy
10	Rohit Chaudhary Piyush Aggarwal Anmol Maheshwari	River Pollution Detection Using Google Maps
11	Pawan Srivastava Peeyoosh Kumar Gupta Shubham Kumar Sinha	Auto Evaluation Of Omr Answer Sheets Using Mobile Application
12	Prabhat Kumar Priyanka Yadav Pulkit Chaurasia	Trade E-Away, Online Barter System
13	Priyaranjan Yadav Vishesh Saxena Lalit	Open Source Tool For Remote Sensing Dataset Processing
14	Shivani Sharma Tanya Arora	A Medical Aid To Foster Immediate Requirement

	Yash Gupta	
15	Shivam Sinha Shubham Dixit Shubham Varshney	Twitter Opinion Mining
16	Pooja Kumari Saurabh Singh Vinay Kumar Pasi	Mouse Pointer Control Using Hand Gestures
17	Priyansha Mishra Shraddha Shrivastav	Leaf Disease Detection By Image Processing
18	Rahul S Verma Satyam Gupta Shivangi	Element Blue - A Niche Content Aggregation And Generation Platform
19	Sarvanand Pandey Sunit Tiwari Surjeet Singh	Emotion Recognition Using Artificial Neural Network
20	Safal Arora	Tracking And Surveillence Using Iot
21	Arvind Vivek Kumar Nitin Choudhary	Opensource Tool For Remote Sensing Datasets Postprocessing
22	Shresth Jaiswal	Performance Evaluation Of Continuous Hindi Speech Recognition
23	Sumit Singh Manan Puri Shashank Agarwal	Employee Tracking System
24	Ayushi Uzma Sweta	Image Based Handwritten Equation Solver

Akshay Pratap Singh, Shashwat Singh and Sakshi Sharma (Group 7) secured first prize due to usefulness and creativity of the “Fun Survey APP” while Priyaranjan Yadav, Vishesh Saxena and Lalit Kumar (Group 13) received the second prize for reason of real life implementation of Open Source Tool For Remote Sensing Dataset Processing for IIRS. Sarvanand Pandey, Sunit Tiwari and Surjit Singh (Group 19) secured the third prize for Emotion Recognition Using Artificial Neural Network for a research based project.

We congratulate all of the winners for their success. We also encourage other project teams for their excessive effort s and hard work.

Entrepreneurship Awareness Camp

Dr. S.N Rajan had organized an Entrepreneurship Awareness Camp on 9th to 11th April, 2016. This program was in collaboration with Entrepreneurship Development Institute of India, Ahmedabad (Under DST-NIMAT Project, Govt. of India).

The objective of this camp was to create techno entrepreneurs and resource persons through entrepreneurship Development program strategy. A total of 31 students have participated in the program.

S. No	Student name	Gender (M/F)
1	CHITRANSH AGARWAL	M
2	SHRESTH JAISWAL	M
3	SAGAR TOMAR	M
4	SHIKHAR DIXIT	M
5	SAAKSHAT SRIVASTAV	M
6	MANDEEP KAUR	F
7	ANKUR	M
8	AKANKSHA PORWAL	F
9	SNEHA SINGH	F
10	ANKITA KUMARI	F
11	SHASHWAT SINGH	M
12	AKSHAY PRATAP SINGH	M
13	ANIKET GUPTA	M
14	VEDANT GARG	M
15	AISHWARYA PRATAP SINGH	M
16	PRAGYA SAHU	F
17	PRIYANSHI JAIN	F
18	DEEPANSHI AGARWAL	F
19	DIVYA MAHESHWARI	F
20	SURABHI SRIVASTAVA	F
21	PRAGYA KHANNA	F
22	MAYANK JUNEJA	M
23	ANKIT KUMAR	M
24	AARAV GOTRA	M
25	ALOK KUMAR RAI	M
26	DEV KRISHNA GUPTA	M
27	ANUJ AGARWAL	M
28	KAUSHAL KISHOR GUPTA	M
29	HARVINDER SINGH	M
30	DEEPMANI BHARDWAJ	M
31	AAYUSH SANJAR	M

FAREWELL 2016

On Friday 23nd April 2016, Computer Science and Engineering department has organized farewell ceremony for final year students' batch (2012-16). The gathering witnessed spectacular cultural events including singing and dance performances. The poring emotions of saying Good bye left many hearts heavy. The department wished the students good luck and success in their current and future endeavors.

Recent Trends in Future Prospective in Engineering & Management Technology 2016 (RTFEM-2016)

Department of Computer Science & Engineering, IMS Engineering College (IMSEC) Ghaziabad organized a symposium on "Recent Trends in Future Prospective in Engineering & Management Technology 2016" (RTFEM-2016) on 22nd April 2016.

Total 41 presentations were held on this day. Students from 2nd year, 3rd year and 4th year have presented their survey papers, research articles and projects on this occasion. We have collaborated International Journal of Computer Application (IJCA) as publication partner. The papers have been forwarded to IJCA for publication. The issue will be bestowed with all the regular IJCA indexing privileges in academic databases including Google Scholar, Informatics, ProQuest CSA Technology Research Database, NASA ADS (Harvard Univ.), CiteSeer, UlrichWeb, ScientificCommons (Univ. of St Gallens), University of Karlsruhe, Germany, Georgetown University Library, University of Washington.

S. No.	Article Title	Author name 1	Author name 2	Author name 3	Author name 4
1	A Medical Aid to Foster Immediate Requirement	Yash Gupta	Shivani Sharma	Tanya Arora	
2	VOICE BASED AUTOMATED TRANSPORT ENQUIRY SYSTEM	Shubham Mittal	Shivam Jain	Siddhi Saxena	Abhay Agarwal
3	TWITTER OPINION MINING	Shubham Dixit	Shivam Sinha	Shubham Varshney	Anurag Mishra
4	TRADE AWAY - A NEW AGE OF BARTERING	PULKIT CHAURASIA	PRABHAT KUMAR	PRIYANKA YADAV	AMIT KUMAR GAUTAM
5	Plant Disease Detection Using Image Processing	Shraddha Shrivastav	Priyansha Mishra	Vijai Singh	
6	DESIGN AND DEVELOPING A FRAMEWORK FOR EMPLOYEE TRACKING SYSTEM USING SMARTPHONES	Manan Puri	Sumit Singh	Shashank Agarwal	Swati Singh
7	Text, Image and video Encryption-Decryption Tool Using Advanced Encryption Standard-512 bit	Kaushal Kishor Gupta	Harvinder Singh	Karunesh Vaiswar	Swati Singh
8	ENHANCED SECURITY OF DATA USING IMAGE STEGANOGRAPHY AND AES ENCRYPTION TECHNIQUE	Sandeep Panghal	Sachin Kumar	Naveen Kumar	
9	Android Application Development Using Android Studio and PHP Framework	Akshay Singh	Sakshi Sharma	Shashwat Singh	
10	Network Based Real Time Smart Alarming Video Surveillance System for Threat Detection	Preeti Jain	Avdhesh Gupta		
11	Skeleton based Human Action Recognition using Kinect	Ayushi Gahlot	Purvi Agarwal	Akshya Agarwal	Vijai Singh
12	Gaze-Based Authentication in Cloud Computing	Ayushi Gahlot	Umesh Gupta		
13	IMAGE BASED HANDWRITTEN EQUATION SOLVER	Ayushi Tewari	Sweta Malik	Uzma Nikhat	Amit Kumar Gautam
14	An Approach to tackle Road Traffic Using Number Plate	Danish Usman Ansari	Abdul Ahad	Avdhesh Gupta	

15	Cost Estimation of Functional Requirements of Institute Examination System	Nikita Garg	Shadab Khan	Pankaj Agarwal	
16	A Monitoring Framework of Tracking Bug to Upsurge Software Quality	Vedant Garg	Sonu Kumar	Aniket Gupta	LipikaGoel
17	Review on Coexistence of WiFi and LiFi towards 5G: opportunities and challenges	UtkarshRastogi	Shivani Aggarwal		
18	A State of Art Review on Offline Signature Verification	Akshma Mittal	Arti Singh	Ayushi Tomar	Deepak Kumar Singh
19	CURSOR CONTROL USING HAND GESTURES	POOJA KUMARI	SAURABH SINGH	VINAY Kr. PASI	
20	A Review: Analysis of Facial Micro-Expressions	Divya Bhatnagar	Drashti Pathak	Garima Saini	Amit Kumar Gautam
21	STATE OF ART OF MEDICAL IMAGE SEGMENTATION TECHNIQUES	Shreya Chauhan	Kanchan Yadav	Anukrati Mishra	
22	Auto Evaluation of OMR Answer Sheets Using Mobile Application	Pawan Srivastava	Shubham Kr. Sinha	Peeyoosh Kr. Gupta	Amit Kumar Gautam
23	Scheduling of Flexible Manufacturing System using Genetic Algorithm	Saumya Agrawal	Ayushi Sharma	Satyam Rai	
24	EMOTION RECOGNITION USING ARTIFICIAL NEURAL NETWORK	SUNIT TIWARI	SARVANAND PANDEY	SURJEET SINGH	
25	DETECTION OF FAKE CURRENCY USING IMAGE PROCESSING	Nishika Chaudhary	Shashank Shekhar Mishra	Abhishek Singh	Vikash Tiwari
26	Security of Transaction in DBMS by using Intrusion Detection and Intrusion Prevention System	Aarti Verma	Lipika Goel	Akanksha Rai	Priya Awasthi
27	A SURVEY: MULTI-USER VIDEO CHAT APPLICATION	Nipun Gupta	Sumit Awasthi	Paawan Mishra	

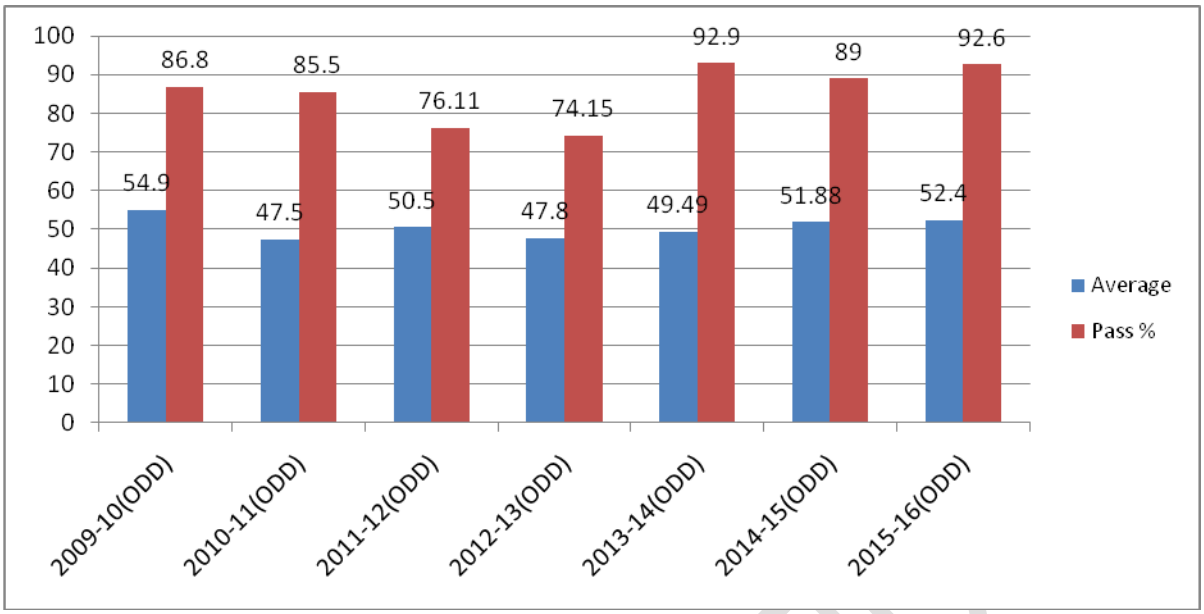
28	MERA LEKH'- A HANDWRITING SPECIALIST	Nishat Ahmad	Ayush Singhal	Anurag Mishra	
29	MOBILE CODE EXECUTER	Alok Kumar Rai	Deepmani Bhardwaj	Arpan Srivastava	
30	MEDICAL HEALTH APP BASED ON GPS USING ANDROID	Ayushi Bansal	Chinmai Tyagi	Karishma Agrawal	Dinesh Kumar
31	POACH TRACKER: AN ONLINE PLAGIARISM DETECTION TOOL	Aaisha Anjum	Avantika Srivastava	Kajal Goel	Sonal Shalya
32	TRAFFIC CONGESTION ANALYSIS IN VARYING SCENARIOS	Aastha Sharma	Preeti Kumari	Sahiba Gupta	Sapna Yadav
33	VEHICLE ROUTING WITH DYNAMIC ROUTING	Aishwarya Pratap Singh	Akshay Minhas	Eshita Pawar	
34	PERFORMANCE ANALYSIS OF DIFFERENT INTERCONNECTION NETWORKS	Sapna Yadav	Aastha Sharma	Preeti Kumari	Sahiba Gupta
35	Wireless Power Transmission by Using "TESLA TOWER"	Divyang Agarwal	Apoorv Srivastava		
36	MARKET BASKET ANALYSIS USING ASSOCIATION RULE LEARNING	Nidhi Maheshwari	Nikhilendra K. Pandey	Pankaj Agarwal	
37	WebRTC based Android Application	Rohan Sinha	Dhananjay Saini		
38	Content management system for traveling and booking	Shivangi Saraswat	Soniya Chauhan		
39	News Aggregation in Python using Hierarchical Clustering	Rahul S Verma	Satyam Gupta	Shivangi	
40	Web Based CollegeHub	Mukul Agarwal	Shane Aalam	Mohd. Avesh	
41	UNIVERSAL E-TICKETING USING BARCODE	Saumitra Vatsal	Suraj Gupta	Prashant Kumar	Amit Kumar

List of Toppers in University Exams for ODD semester 2015-16 (B.Tech)

TOPPERS OF 2ND YEAR

Rank	University Roll	Name	TOTAL	%
1	1414310161	ROHIT CHAUDHARY	883	**88.3**
2	1414310123	NISHIKA CHAUDHARY	883	**88.3**
3	1414310044	ANUJ UPADHYAY	842	**84.2**
4	1414310069	DIKSHA SRIVASTAVA	842	**84.2**
5	1414310082	ISHA SONI	841	**84.1**
6	1414310120	NIKUNJ AGARWAL	838	**83.8**
7	1414310105	MOHIT SINGH	832	**83.2**
8	1414310013	ABHISHEK SINGH	832	**83.2**
9	1414310229	VISHAL SINGH	831	**83.1**
10	1414310174	SAPNA	827	**82.7**
11	1414310028	AKSHMA MITTAL	818	**81.8**
12	1414310076	GARIMA SAINI	818	**81.8**
13	1414310141	PRIYA BAJAJ	818	**81.8**
14	1414310081	HIMANSHU KUMAR VARSHNEY	816	**81.6**
15	1414310192	SHIVANI CHAUDHRY	815	**81.5**
16	1414310145	RAJAT GARG	813	**81.3**
17	1414310214	TUSHAR BANSAL	812	**81.2**
18	1414310063	AYUSHI TOMAR	808	**80.8**
19	1414310070	DIVYA BHATNAGAR	806	**80.6**
20	1414310186	SHASHANK SHEKHAR MISHRA	804	**80.4**
21	1414310195	SHREYA CHAURASIA	802	**80.2**
22	1414310158	RITIKA SAXENA	801	**80.1**

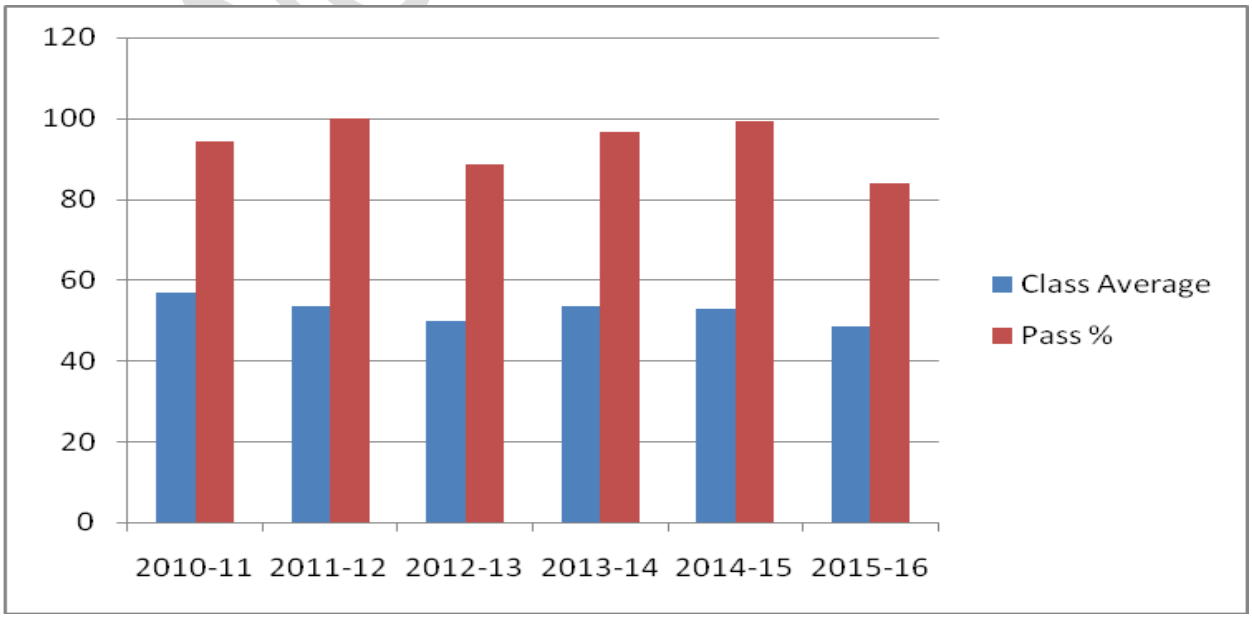
Comparative Evaluation of 2nd Yr Result



Toppers of B.Tech 3rd Year

Rank	University Roll	Name	%
1	1314310040	HARSHITA AGARWAL	83.6
2	1314310048	MOHD KAMRAN	83.5
3	1314310035	DISHIKA GARG	82.7
4	1314310047	MOHD MOIN KHAN	81.7
5	1314310016	ANJALI PATHAK	81.4
6	1314310026	AVIRAL MODI	81.1
7	1314310067	PURVI AGARWAL	80.9
8	1314310063	PRANJALI AGGARWAL	80

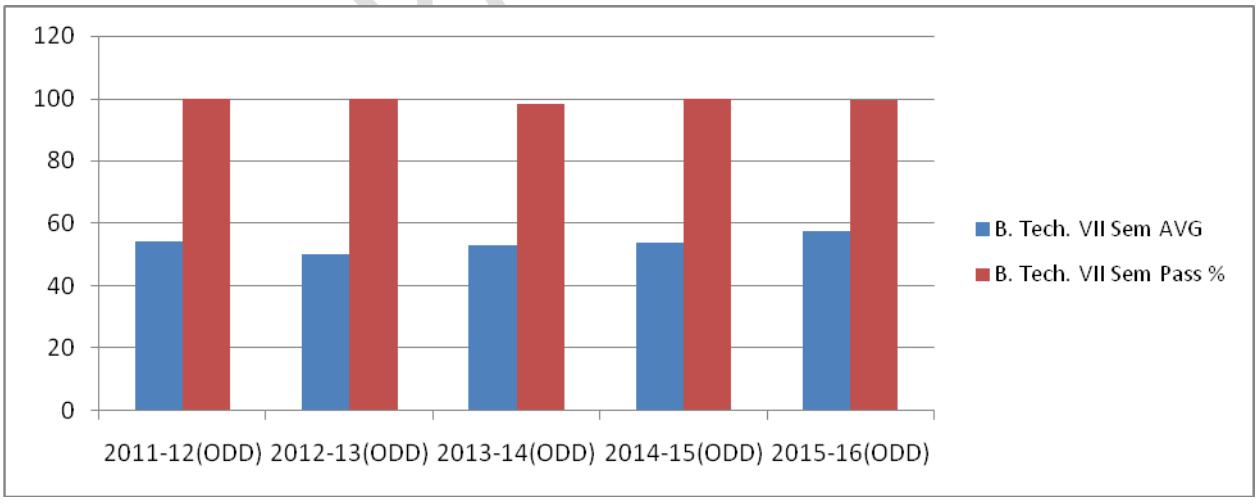
Comparative Evaluation of 3rd Yr Result



Toppers of B.Tech 4th Year

S.N	University Roll	Name	%
1	1214310156	SHIVANI SHARMA	88
2	1214310122	PULKIT CHAURASIA	86.2
3	1214310180	UZMA NIKHAT	85.2
4	1214310074	KANCHAN YADAV	84.9
5	1214310128	ROHIT CHAUDHARY	84.8
6	1214310160	SHUBHAM DIXIT	84.6
7	1214310037	ANUKRATI MISHRA	84.1
8	1214331017	AKSHAY BHASIN	83.9
9	1214310120	PRIYANSHA MISHRA	83.1
10	1214310112	POOJA KUMARI	82.7
11	1214310176	SWETA MALIK	82.3
12	1214310134	SAKSHI SHARMA	81.7
13	1214310157	SHRADDHA SHRIVASTAV	81.3
14	1214310189	YASH GUPTA	81.1
15	1214310158	SHRESTH JAISWAL	80.6
16	1214310051	AYUSHI BANSAL	80.4
17	1214310125	RAJ KUMAR VERMA	80.3
18	1214310111	PIYUSH AGGARWAL	80.2

Comparative Evaluation of 4th Yr Result



Congratulations

TO

SURJEET SINGH

PRASHANT KUMAR

SHASHANK DIXIT

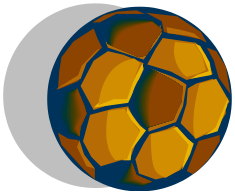
FOR GETTING PLACED

IN

VINCULUM SOLUTIONS, NOIDA

Vinculum
Enabling Multi Channel Retailing

Current Affairs



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

Deepika Kumari equals world record in recurve event at Archery World Cup

India's Deepika Kumari has equalled the world record in Women's Recurve event at the qualifying stage of Archery World Cup held in Shanghai, China. Deepika recorded a score of 686 out of 720 to finish 1st in qualifiers and equal the world.

Lobsang Sangey re-elected as PM of Tibetan Government-in-exile

The Tibetan government-in-exile has re-elected Lobsang Sangey (48) as the Prime Minister for a second consecutive term. The election result was announced by the Tibetan election officials in the northern Indian town of Dharmsala which is the headquarters of the government-in-exile.

Union Government makes panic button, GPS compulsory in all mobiles

The Union Government has made mandatory for mobile manufacturers to add in-built panic button and global positioning system (GPS) in all phones from January 1, 2017 and 2018 respectively. In this regard, Department of Telecommunications has notified the Panic Button and Global Positioning System in Mobile Phone Handsets Rules, 2016 under section 10 of the Indian Wireless Telegraph Act, 1933.

Heart of Asia conference begins in New Delhi

The Heart of Asia (HoA) conference began in New Delhi with the objective of bringing peace and stability to Afghanistan. The conference was attended by officials of a number of countries and is likely to deliberate on a host of issues like combating challenge of extremism and terrorism.

26 April: World Intellectual Property Day

Every year World Intellectual Property Day (WIPD) is being observed on 26 April to highlight importance of intellectual property rights (patents, trademarks, industrial designs, copyright) in encouraging innovation and creativity. 2016 Theme: "Digital Creativity: Culture Reimagined".

Indian rower Dattu Bhokanal qualifies for Rio Olympics

Indian rower Dattu Baban Bhokanal qualified for the 2016 Rio Olympics scheduled to be held in August 2016 in Rio de Janeiro, Brazil. He qualified Rio Olympics after winning a silver medal in the men's single sculls event at the FISA Asian and Oceania Olympic Qualification Regatta held at Chung-ju in South Korea.

India to host 2018 Commonwealth Judo Championships

India is going to host the 2018 Commonwealth Judo Championships in Jaipur, Rajasthan. It was announced by the Judo Federation of India (JFI). The announcement came after the Commonwealth Judo Congress allotted the Championships to India at its meeting held at Port Elizabeth in South Africa.

Mairaj Ahmed Khan wins silver medal at ISSF World Cup of shooting

India's Mairaj Ahmed Khan has won the silver medal in the men's skeet event at ISSF World Cup held in Rio de Janeiro, Brazil. In the final, Mairaj lost gold medal to Sweden's Marcus Svensson and the bronze medal was won by Tamarro Casandro of Italy.

25 April: World Malaria Day

World Malaria Day (WMD) is being observed annually on 25 April across the world to recognise the global efforts to control preventable vector borne disease malaria. It also seeks to highlight the need for continued investment and sustained political commitment for elimination and control of malaria. 2016 Theme: "End Malaria For Good". It reflects the vision of a malaria-free world set out in the Global technical strategy for malaria 2016-2030.

India's first online interactive heritage portal Sahapedia launched

The Union Government has launched India's first online interactive heritage portal named Sahapedia was in New Delhi. The web portal is a collaborative knowledge resource on the arts, culture and heritage of India.

23 April: World Book and Copyright Day

Every year World Book and Copyright Day is being observed on 23 April to promote reading, publishing and copyright. The day seeks to encourage everyone and in particular young people, to discover the pleasure of reading. It also wants them to gain a renewed respect for the irreplaceable contributions of those, who have furthered the social and cultural progress

of humanity.

Salman Khan named as Indian contingent's Goodwill Ambassador for 2016 Rio Olympics

Bollywood actor Salman Khan was named as the goodwill ambassador of the Indian contingent for the upcoming Olympics to be held in August 2016 in Rio de Janeiro, Brazil. This is the first time when a Bollywood superstar has been chosen as a goodwill ambassador for the Indian contingent at the Olympics.

India replaces China as top FDI destination in 2015: FDI Intelligence Report

According to FDI Intelligence Report India has replaced China as the top Foreign Direct Investment (FDI) destination by attracting $63 billion worth FDI projects in 2015. FDI Intelligence is a division of international media company – The Financial Times Limited.

ISRO Scientists develop world's lightest material Silica Aerogel

Scientists from Indian Space Research Organisation (ISRO) have indigenously developed world's lightest synthetic material called 'silica aerogel' or 'blue air'. It was developed by the team of scientist from ISRO's e Vikram Sarabhai Space Centre, Thiruvananthapuram. Silica Aerogel is the lightest synthetic material ever made by man.

Europe becomes world's first region to end malaria: WHO

Europe has become the world's first region to wipe out Malaria, a mosquito-borne vetor disease with zero cases reported in the year 2015. It was revealed by the World Health Organization (WHO) in its World Malaria Report 2015. Particular region or country is declared Malaria free by WHO after it has zero locally acquired malaria cases for at least three consecutive years.

India ranks 133 in 2016 World Press Freedom Index

In recently released 2016 World Press Freedom Index (WPFI), India ranked 133rd out of 180 nations surveyed worldwide in terms of press freedom in 2015. In this edition, India with a score of 43.17 has jumped three spots from the 136th position it had in 2015. The Index was published by Reporters Without Borders (RSF).

Indian-American Geeta Pasi nominated as US envoy to Chad

United States (US) President Barack Obama has nominated Indian-American Geeta Pasi as the country's next envoy to central African nation Chad. Ms. Pasi is a career member of the US Foreign Service, Class of Minister-Counsellor. She had served as the United States Ambassador to Djibouti from 2011 to 2014.

Rafael Nadal wins 2016 Monte Carlo Masters title of Tennis

Ace tennis player Rafael Nadal (World No 5) from Spain has won the 2016 Monte Carlo Rolex Masters title of Tennis. In the final match he defeated Gael Monfils of France by 7-5, 5-7, 6-0

score. It was his overall 9th Monte Carlo Masters title and his 68th win from 100 finals on the Association of Tennis Professionals (ATP) World Tour.

Australia wins 2016 Sultan Azlan Shah Hockey Tournament

Australia has won the 25th edition of Sultan Azlan Shah Hockey Tournament 2016 for record ninth time. In the final match played at Ipoh, Australia defeated India by 4-0 goals. With this India settled at the second position and was followed by New Zealand (defending champion) at the third position. This was the second time India had finished with the silver medal in seven final appearances.

Dipa Karmakar became first Indian woman gymnast to qualify for Olympics

Indian artistic gymnast Dipa Karmakar has created history by becoming the first Indian woman gymnast to qualify for Olympics. She achieved this feat after her strong performance at the final qualifying which helped her to book 2016 Rio Olympics Games berth to be held in August 2016. In the test event, she earned a total score of 52.698 points in the artistic gymnastics event. She has been listed as the 79th gymnast in the list of women's artistic gymnasts who have qualified for the Rio Olympics.

Indian Army conducts Shatrujeet battle exercise in Rajasthan

The Indian Army conducted major battle exercise named as 'Shatrujeet' in the Thar Desert of Rajasthan near to the border with Pakistan. The sole purpose of the exercise was to evaluate the capability of the Indian Army and fine tune its proactive war strategy to respond swiftly to any threat to nation's security.

Supercomputer Param Kanchenjunga unveiled at NIT Sikkim

Supercomputer Param Kanchenjunga was unveiled at the National Institute of Technology (NIT) Sikkim. It has been named after Kangchenjunga mountain (8,586 m), the third highest mountain in the world which lies partly in Nepal and partly in Sikkim. It was formally unveiled by Sikkim Governor Shrinvas Patil at the NIT Sikkim campus at Ravangla in South Sikkim District.

Google extends free internet service through WiFi to 10 railway stations

The search engine giant Google has extended free internet service through WiFi to 10 railway stations across the country to provide internet to over 1.5 million people. The free internet service was extended as part of Google's tie up with Railtel, the internet provider arm of Indian Railways.

PM Narendra Modi launches Gram Uday Se Bharat Uday Abhiyan

Prime Minister Narendra Modi launched 'Gram Uday Se Bharat Uday Abhiyan' (Village Self Governance Campaign) to strengthen Panchayati Raj in villages and ensure social harmony in villages. It was launched on the occasion of 125th birth anniversary of Dr. Babasaheb Ambedkar at his birthplace at Mhow, Madhya Pradesh.

Nuclear-capable K-4 ballistic missile successfully tested from INS Arihant

Nuclear capable submarine-launched ballistic missile (SLMB) code named K-4, was successfully test fired from an undisclosed location in the Bay of Bengal. Test: It was conducted by the Strategic Forces Command (SFC) along with Defence Research and Development Organisation (DRDO) which provided all logistics. The missile was fired from 20-meter deep from onboard silos of the Ship Submersible Ballistic, Nuclear (SSBN) submarine. During the test it successfully hit with high accuracy after covering more than 700 km distance.

India world's largest remittance recipient in 2015: World Bank

As per recently report of World Bank, India remained the world's largest remittance recipient in 2015. It was revealed by the World Bank's annual report Migration and Development Brief. In 2015, India attracted about 69 billion US dollars in remittances, down from 70 billion in 2014

The BYTE

Chief Editors

Prof. Amit Kr. Gautam
Dept of CSE

Prof. Lipika Goel
Dept of CSE

TEAM LEADERS

Mr. Shubham Dix
B.Tech CS,4th yr

Mr. Shubham Kr. Sinha
B.Tech CS,4th yr

3rd YR COORDINATORS

Anmol

Akshay

Aman

Purvi

Ayushi

Aayushi

Akanksha

Arohi

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Apeksha

Ankita

2nd yr COORDINATORS