
Good Luck!
Rio2016
the byte
An E- Magazine of CSE department of
JMS Engineering College, Ghaziabad
ARTICLES , LATEST TECHNOLOGIES , LITERARY, Q & A , CURRENT AFFAIRS
august - 2016
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I am Proud To Be Indian
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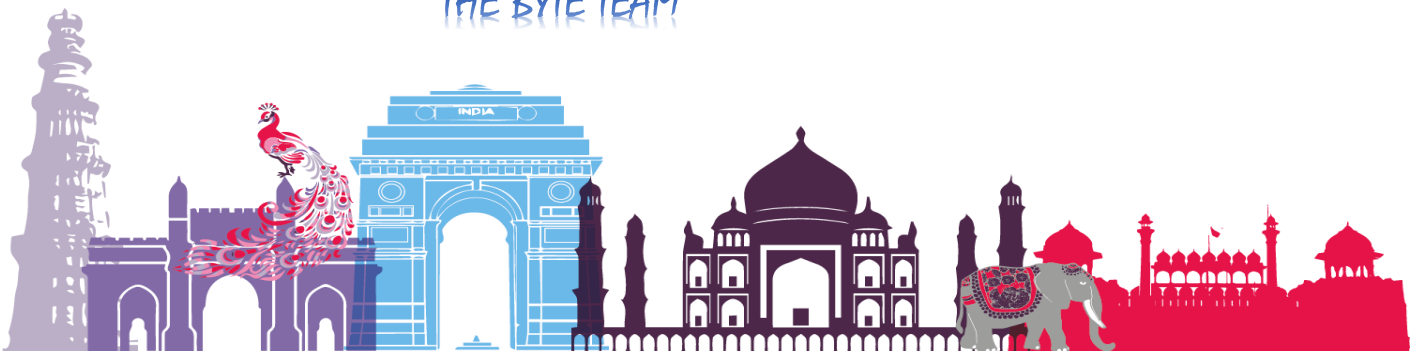

Vision of the Institution

Vision

Our vision is to impart vibrant, innovative and global education and to make IMS the world leader in terms of excellence of education, research and to serve the nation in the 21st century.

Mission of the Institution

Mission

- To develop IMSEC as a centre of Excellence in Technical and Management education.
- To inculcate in its students the qualities of Leadership, Professionalism, Executive competence and corporate understanding.
- To imbibe and enhance Human Values, Ethics and Morals in our students.
- To transform students into Globally Competitive professionals.

The vision and mission of the college are available at the college website. These statements are communicated to stakeholders through Information Brochure and have also been displayed at Reception and in each Department and other prominent location of the college.

Vision (Department)

To be recognized as a Centre of Excellence imparting quality education and creating new opportunities for students to meet the challenges of technological development in Computer Science & Engineering.

Mission (Department)

To promote technical proficiency by adopting effective teaching learning processes.¬

To provide environment¬ & opportunity for students to bring out their inherent talents for all round development.

To promote latest technologies in Computer Science¬ & Engineering and across disciplines in order to serve the needs of Industry, Government, Society, and the Scientific community.

To educate students to be Successful, Ethical and Effective problem-solvers and Life-Long learners¬ who will contribute positively to the society

Program Educational Objectives

PEO1. Graduates of the program will be able to apply fundamental principles of mathematics, engineering, management, basic programming languages in problem understanding & formulating its solutions. They will be aware of the role of computing in multiple disciplines.

PEO2. Graduates will learn to apply the principles of advanced computer programming & approaches, software engineering, project management, emerging techniques & tools while developing real world computational solutions and projects. Graduates should also learn to collaborate & apply innovative aspects in problem solving.

PEO3. Graduates will enhance their technical, aptitude, communication & professional skills through value addition programs, project based learning, engineering events, self learning, research, interaction with industry & alumni. Help our graduates to establish a productive Computer Science and Engineering career in Industry, Government or Academia;

PEO4. To promote the understanding of professionalism, ethics, social responsibilities among graduates. They will contribute to the society through active engagement with professional societies, schools, civic organizations or other community activities. To promote professional capabilities through lifelong learning.

PROGRAM SPECIFIC OUTCOMES (PSOs)

A. Student is able to apply fundamental principles of mathematics, engineering, management, basic programming languages in problem understanding & formulating its solutions. They are aware of the role of computing in multiple disciplines

B. Students have learned to develop small software projects /applications by applying the principles of software Engineering & project management. Students have developed the desire of using emerging techniques & tools for problem solving. Few students have demonstrated their skills by developing innovative & live projects

C. A number of initiatives were taken to enhance the technical, aptitude, & professional skills of students by offering value addition programs, project based learning, engineering events, self learning, interaction with industry. This has helped to enhance their technical skills & all round development. Our graduates are doing fairly well in their professional careers.

D. Students have learnt the importance of lifelong learning, professionalism, ethics & their social responsibilities.

PROGRAM OUTCOMES (POs)

Engineering Graduates will be able to:

1. **Engineering knowledge**: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.

2. **Problem analysis**: Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.

3. **Design/development of solutions**: Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.

4. **Conduct investigations of complex problems**: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.

5. **Modern tool usage**: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.

6. **The engineer and society**: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.

7. **Environment and sustainability**: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.

8. **Ethics**: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

9. **Individual and team work**: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

10. **Communication**: Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.
11. **Project management and finance**: Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.

12. Life-long learning: Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

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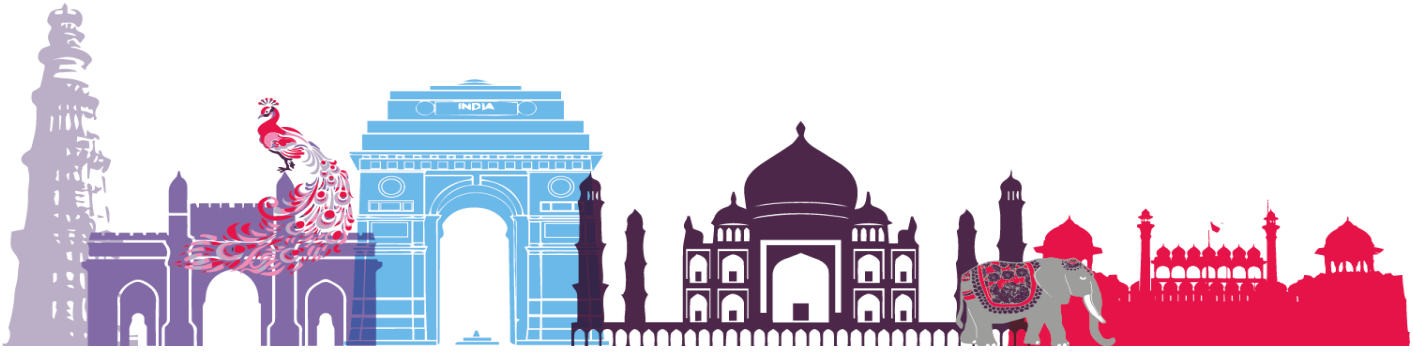
articles



Android App Updates Get Smarter, Smaller

- Google Play continues to grow rapidly, as Android users installed over 65 billion apps in the last year from the Google Play Store.
- We recently rolled out a delta algorithm, bsdiff, that further reduces patches by up to 50% or more compared to the previous algorithm.

Google wants you to use as little data as possible to keep your Android apps updated to their latest versions. Android typically does this on your behalf by downloading updates for installed apps when you're on a Wi-Fi connection. If you're an update-a-holic, though, you can also allow Google Play to install updates whenever it wants—which might not be very fun for your monthly data quota.

"Google Play continues to grow rapidly, as Android users installed over 65 billion apps in the last year from the Google Play Store. We're also seeing developers move to update their apps more frequently to push great new content, patch security vulnerabilities, and iterate quickly on user feedback," reads a post on Google's Android Developers blog.
"However, many users are sensitive to the amount of data they use, especially if they are not on Wi-Fi. Google Play is investing in improvements to reduce the data that needs to be transferred for app installs and updates, while making data cost more transparent to users."

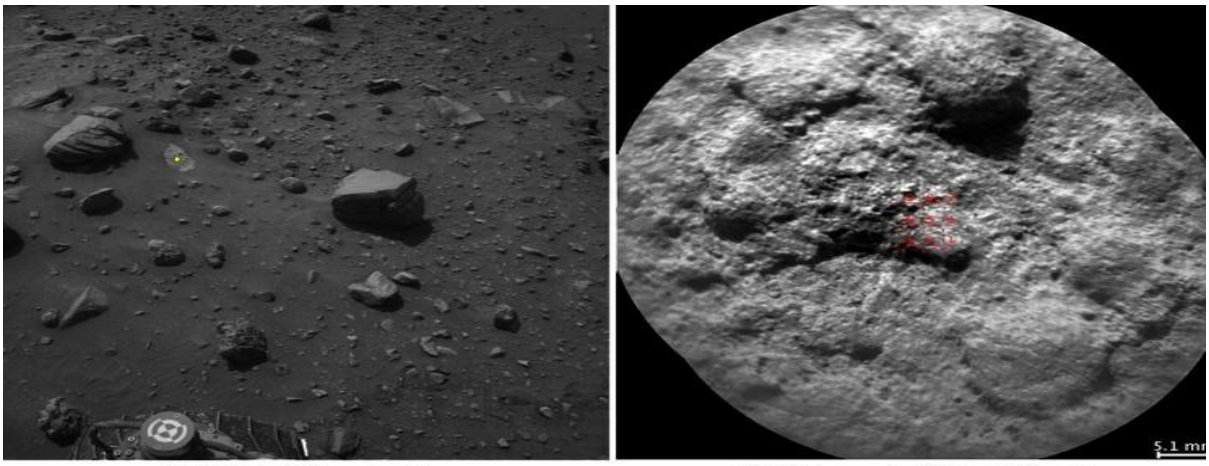
Google previously introduced what it calls "delta" updates in 2012, which allow Android owners to download portions of an app—only the bits that developers have updated—rather than the entirety of the app itself each time a new version

hits. These "smart" updates can save a considerable amount of data for those updating their apps over their cellular connections, but it's not good eough for Google.

"For approximately 98% of app updates from the Play Store, only changes (deltas) to APK files are downloaded and merged with the existing files, reducing the size of updates. We recently rolled out a delta algorithm, bsdiff, that further reduces patches by up to 50% or more compared to the previous algorithm. Bsdiff is specifically targeted to produce more efficient deltas of native libraries by taking advantage of the specific ways in which compiled native code changes between versions. To be most effective, native libraries should be stored uncompressed (compression interferes with delta algorithms)," reads Google's blog post.

Google's tweak also applies to the the APK expansion files that developers are allowed to pack along with their apps. These files, which can be up to 2GB in size, can include things like HD graphics for mobile games or supplemental media files. With Google's new compression algorithms employed, the company claims that download sizes for these expansion files have decreased 12 percent for initial installs and 65 percent, on average, for expansion file updates.

"Alongside the improvements to reduce download size, we also made information displayed about data used and download sizes in the Play Store clearer. You can now see actual download sizes, not the APK file size, in the Play Store. If you already have an app, you will only see the update size. These changes are rolling out now," Google notes.



Mars Curiosity Rover Now Fires its Laser Autonomously

By : Aman Kumar, 4th year CS1

NASA's Mars Curiosity Rover has some new responsibilities: choosing laser targets.

Yes, that's right. The rover can now autonomously "pulse zap" a target with its laser, which lets scientists back on Earth identify its chemical composition. NASA says this is the first time an instrument of this kind has autonomously selected its own targets on a planetary mission.

To complete this task, Curiosity uses AEGIS [Autonomous Exploration for Gathering Increased Science] software developed at NASA's Jet Propulsion Laboratory in Pasadena, Calif. The software analyzes images snapped by the rover's Navigation Camera, or Navcam, and identifies rocks to target for additional study, based on their size or brightness, using criteria specified by scientists.

The rover is now selecting multiple targets per week for further laser and telescopic analysis with the space vehicle's ChemCam instrument. Scientists still select most ChemCam targets, but they say this new autonomous targeting feature is handy in certain situations.

"This autonomy is particularly useful at times when getting the science team in the loop is difficult or impossible — in the middle of a long drive, perhaps, or when the schedules of Earth, Mars, and spacecraft activities lead to delays in sharing information between the planets," robotics engineer Tara Estlin, who leads AEGIS development, said in a statement.

The software also helps scientists hone in on fine-scale targets, a feature that saves them a lot of time and effort. "For example, scientists might select a threadlike vein or a small concretion in a rock, based on images received on Earth," NASA explained. "AEGIS then controls the laser sharpshooting."

In the past, hitting these small targets was a painstaking task, requiring that the rover "stay in place while ground operators fine tune pointing parameters," Estlin said. Now, with the help of AEGIS, Curiosity can automatically hit them on the first try. During Curiosity's nearly four years on the Red Planet, the ChemCam instrument has inspected more than 1,400 targets, enabling scientists to identify their chemical compositions. The robot vehicle is studying whether Mars could have supported small life forms in the past, and if humans might one day be able to survive there.

PonoMusic Takes a Break as it (Frantically) Switches Providers

By : Purvi , 4th yr CS1

Poor PonoMusic. The digital music service is taking an extended, unanticipated nap thanks to the recent acquisition of Omnifone, the exclusive content provider for PonoMusic.

Omnifone's cloud platform powered a number of different companies' streaming services and, without it, PonoMusic doesn't really have much to offer. It's unclear who acquired it—reports initially pointed to Apple, but that has since refuted by Apple sleuth Jim Dalrymple.

"One of our key infrastructure partners—Omnifone—has recently been acquired by a large company. An impact of this purchase is that all Omnifone's supply relationships are being terminated, effectively immediately," reads a new message posted to PonoMusic's website.

"In early anticipation of this change, some time ago we began, and subsequently concluded, negotiations to move our content provision to 7 Digital, the leading independent music content/services platform. This process of transition is now well underway, but not yet complete. Please rest assured that our contractual relationships with all the major music labels remain fully intact and will transition to our new platform."

According to the site, PonoMusic's store will be unavailable for an undetermined amount of time. PonoMusic is hopeful to complete the transition over to 7 Digital within a time period of "several weeks," but PonoMusic didn't have a more specific date available as of when we wrote this article. The site suspended purchases on its music library on July 20, though you can still listen to anything you previously purchased while PonoMusic goes through its transition.

On a positive note, this partnership brings fresh opportunities to improve our overall service. We look forward to having new titles to offer you."

The FLAC-friendly PonoMusic offers songs that are admittedly higher quality than what you'd pick up from, say, the Apple Store. However, that only really matters if you'd be able to tell the difference between a high-bitrate AAC track and a lossless FLAC file. Songs and albums on PonoMusic can also cost quite a bit more than other online stores offering "lossier" music, and the standalone PonoMusic player you can buy to listen them will set you back around $400.

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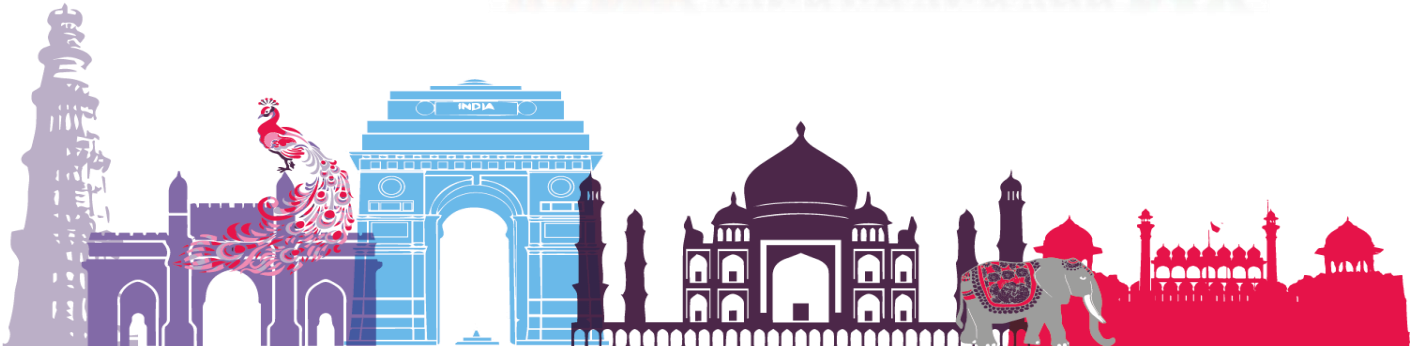

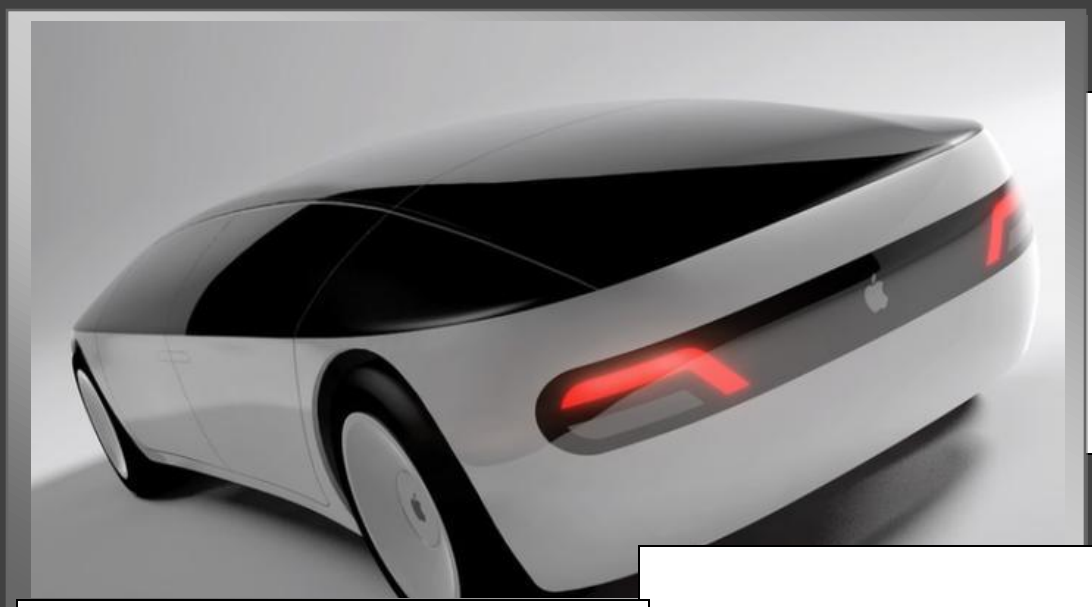

Apple Car Project Cruises Ahead With Help of Bob Mansfield

By: Akashay , 4th yr CS1

Apple's car project is cruising along with the help of someone who knows a thing or two about bringing products to market: Bob Mansfield.The former Apple Senior Vice President of technologies, who stepped down from his post on Cupertino's executive team three years ago, is now "running the company's secret autonomous, electric-vehicle initiative," internally known as "Project Titan," according to *The Wall Street Journal*, citing unnamed people familiar with the matter.Mansfield joined Apple in 1999 after Cupertino acquired Raycer Graphics, where he served as vice president of engineering. During his tenure, Mansfield was in charge of the Mac hardware team, iPhone and iPad hardware engineering, and the iPad hardware team.

In June 2012, Mansfield decided to leave the tech game, but two months later, it was announced that Mansfield would remain at Apple, to "work on future products" and report directly to CEO Tim Cook. The following year, he officially exited Cupertino's executive team in favor of a smaller role working on "special projects" like the Apple Watch$699.99 at Apple Store.

"Until recently, Mr. Mansfield… had all but retreated from the company aside from the occasional visit," theJournal's sources said. "Earlier this month, employees at Apple noticed in the company directory that all the senior managers on the car project were now reporting to Mr. Mansfield."

Meanwhile, don't get too excited about the Apple Car just yet, because word has it the vehicle is still at least five years away. The Information last week reported that Apple has pushed back its expected car launch to 2021. Cupertino was previously aiming for a 2020 launch, though it has yet to even confirm that it's working on a car project, so take release date news with a grain of salt.

MIT Researchers Resurrect Glasses-Free 3D Movie Viewing .....

Anmoal , 4th year CS1

Manufacturers have been showing off 3D screens that don't require dorky glasses for a few years, but the technology is cumbersome: a Toshiba laptop from 2011had a red, rectangular-shaped box mounted to the back of the LCD that made it look vaguely like an Iron Man suit.

Now, MIT researchers are paving the way for a resurrection of glasses-free 3D technology. Their design, called Cinema 3D and unveiled today in a research paper, is no less bulky and cumbersome than Toshiba's 5-year-old laptop, but it could overcome another key limitation of the technology: narrow viewing angles.

Cinema 3D—designed by a team from MIT's Computer Science and Artificial Intelligence Lab and Israel's Weizmann Institute of Science—uses a special array of lenses and mirrors to enable viewers to watch a 3D movie from any seat in a theater. Instead of the parallax

barrier found in other glasses-free 3D technology, their design uses physical projectors that can create a 3D experience calibrated for each seat.

"With a 3D TV, you have to account for people moving around to watch from different angles, which means that you have to divide up a limited number of pixels to be projected so that the viewer sees the image from wherever they are," Gordon Wetzstein, a Stanford electrical engineering professor who was not involved in the research, said in a statement.

"The authors [of Cinema 3D] cleverly exploited the fact that theaters have a unique setup in which every person sits in a more or less fixed position the whole time.

That unique theater setup is also the key limitation of Cinema 3D: its elaborate system of 50 sets of mirrors and lenses has to be calibrated for each seat in a movie theater. So if the technology were ever to find its way into your living room, you'd have to anticipate and adjust it for every angle from which you might want to watch TV.

Still, its creators, including MIT professor WojciechMatusik, are "optimistic that this is an important next step in developing glasses-free 3D for large spaces like movie theaters and auditoriums."

TWITTER TO LIVE STREAM PRO HOCKEY, BASEBALL GAMES

Twitter is getting serious about sports.

Less than a week after expanding its partnership with the NBA, Twitter on Mondayannounced plans to live stream weekly out-of-market games from Major League Baseball and the National Hockey League. The streams will be available for free for everyone in the US, even those who are not logged in to Twitter. A schedule of the games will be released at a later date.

"Twitter has become a crucial forum and engagement tool for hockey fans to enhance their NHL viewing experience and stay connected to the game on and off the ice," NHL Executive Vice President of digital media and strategic planning-Stephen McArdle said in a statement. "We are excited that fans will now be able to enjoy live NHL games through our partnership with Twitter."

On top of that, Twitter has arranged for digital broadcast network 120 Sports to produce a new, multi-sports highlights show for the microblogging platform. Dubbed The Rally, the show will stream every night, exclusively on Twitter for US users.

The Rally will cover everything from college and professional to action and Olympic sports. It's been designed to "integrate with Twitter's platform, using Twitter-based data to determine live trending topics." It will also boast "interactive elements for instant conversation and analysis of the moments that matter most to sports fans," Twitter said in a news release.

Twitter last week announced plans to air a free, liveNBA pregame show each week. The NBA is also planning one other exclusive Twitter show ahead of the 2016-17 season, but has not yet revealed any details about that one.

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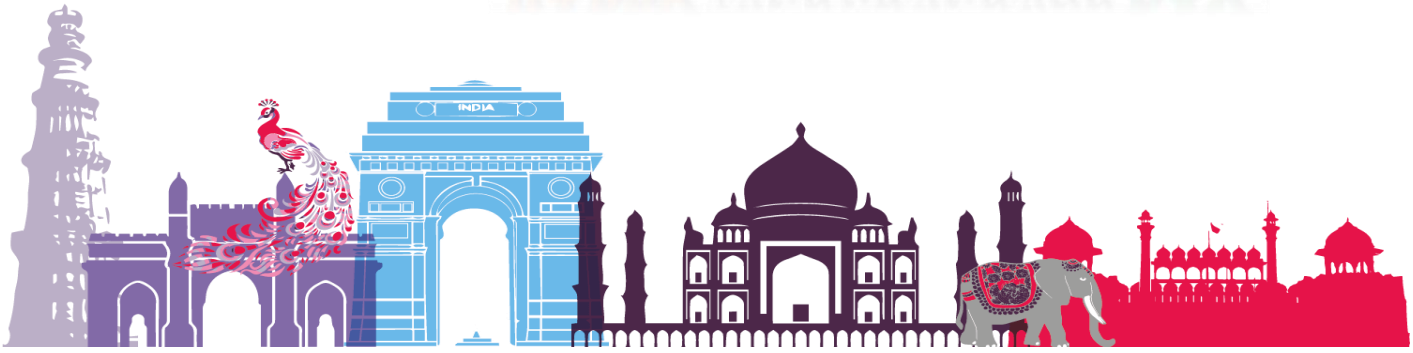

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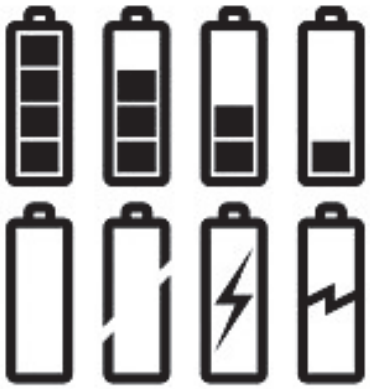
WHAT'S USING UP MY LAPTOP BATTERY?

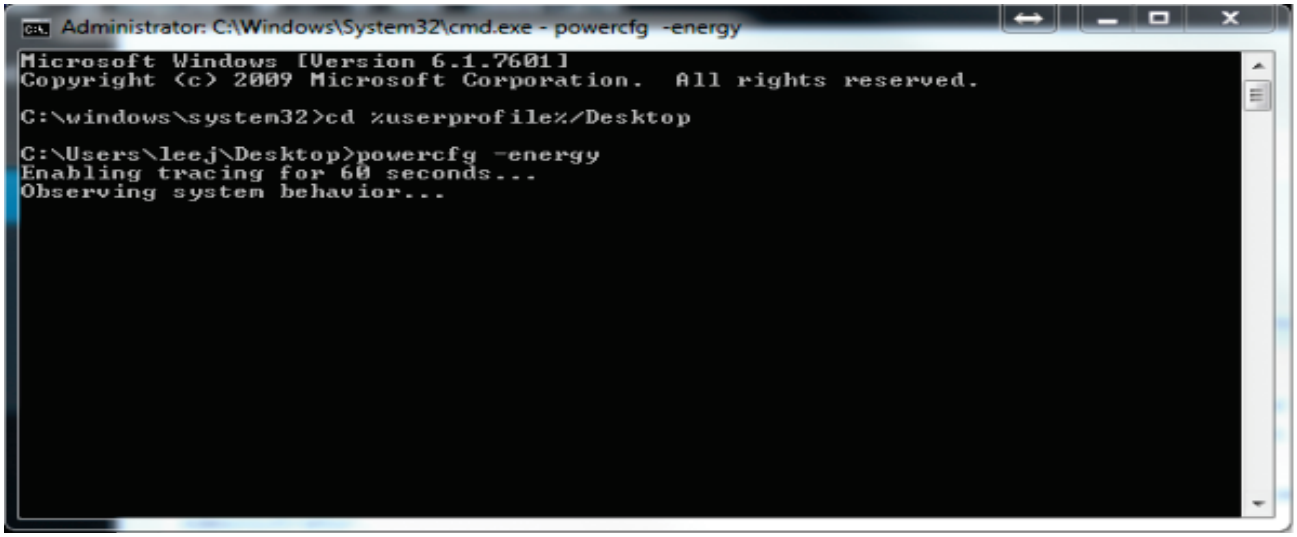
Q. Is there a way to check how my laptop is utilizing the battery? I know I have something that must be chewing through most of my charge and I want to figure out what it might be.



A. Interestingly enough, there is a built in battery health tool in Windows 7 and Windows 8. It is not very well known and, unfortunately, not very intuitive to use. But if you want to dig into how your laptop is interacting with your battery, this may be the tool for you.

To access it, click Start and type cmd in the search box. This will locate the command prompt icon. When it shows up, right click it and select Run As Administrator.

In the prompt that opens, type ***cd %userprofile%/Desktop*** and press Enter. Then type ***powercfg -energy*** in the command prompt and press Enter.



This will kick off a process that will observe your system behavior for 60 seconds. When it is complete it will create a file called energy-report.html and place it on your desktop.

Now you just need to find the file and double click it. This will open the file in your Web browser. This file has a ton of data about your battery, your power settings and gives insight into what is consuming your battery charge.

As I mentioned, it's not overly intuitive. But it can shed a little light on battery issues if you know how to interpret the data.

COMPUTER PROGRAMMING: SYSTEM AUTOMATICALLY FINDS COMMON TYPE OF PROGRAMMING BUG

Integer overflows are one of the most common bugs in computer programs -- not only causing programs to crash but, even worse, potentially offering points of attack for malicious hackers. Computer scientists have devised a battery of techniques to identify them, but all have drawbacks.

This month, at the Association for Computing Machinery's International Conference on Architectural Support for Programming Languages and Operating Systems, researchers from MIT's Computer Science and Artificial Intelligence Laboratory (CSAIL) will present a new algorithm for identifying integer-overflow bugs. The researchers tested the algorithm on five common open-source programs, in which previous analyses had found three bugs. The new algorithm found all three known bugs -- and 11 new ones.

The variables used by computer programs come in a few standard types, such as floating-point numbers, which can contain decimals; characters, like the letters of this sentence; or integers, which are whole numbers. Every time the program creates a new variable, it assigns it a fixed amount of space in memory.

If a program tries to store too large a number at a memory address reserved for an integer, the operating system will simply lop off the bits that don't fit. "It's like a car odometer," says Stelios Sidiroglou-Douskos, a research scientist at CSAIL and first author on the new paper. "You go over a certain number of miles, you go back to zero."
In itself, an integer overflow won't crash a program; in fact, many programmers use integer overflows to perform certain types of computations more efficiently. But if a program tries to do something with an integer that has overflowed, havoc can ensue. Say, for instance, that the integer represents the number of pixels in an image the program is processing. If the program allocates memory to store the image, but its estimate of the image's size is off by several orders of magnitude, the program will crash.

Charting a course
Any program can be represented as a flow chart -- or, more technically, a graph, with boxes that represent operations connected by line segments that represent the flow of data between operations. Any given program input will trace a single route through the graph. Prior techniques for finding integer-overflow bugs would start at the top of the graph and begin working through it, operation by operation.

For even a moderately complex program, however, that graph is enormous; exhaustive exploration of the entire thing would be prohibitively time-consuming. "What this means is that you can find a lot of errors in the early input-processing code," says Martin Rinard, an MIT professor of computer science and engineering and a co-author on the new paper. "But you haven't gotten past that part of the code before the whole thing poops out. And then there are all these errors deep in the program, and how do you find them?"

Rinard, Sidiroglou-Douskos, and several other members of Rinard's group -- researchers Eric Lahtinen and Paolo Piselli and graduate students Fan Long, Doekhwan Kim, and Nathan Rittenhouse -- take a different approach. Their system, dubbed DIODE (for Directed Integer Overflow Detection), begins by feeding the program a single sample input. As that input is processed, however -- as it traces a path through the graph -- the system records each of the operations performed on it by adding new terms to what's known as a "symbolic expression.""These symbolic expressions are complicated like crazy," Rinard explains. "They're bubbling up through the very lowest levels of the system into the program. This 32-bit integer has been built up of all these complicated bit-level operations that the lower-level parts of your system do to take this out of your input file and construct those integers for you. So if you look at them, they're pages long."

Trigger warning:
When the program reaches a point at which an integer is involved in a potentially dangerous operation -- like a memory allocation -- DIODE records the current state of the symbolic expression. The initial test input won't trigger an overflow, but DIODE can analyze the symbolic expression to calculate an input that will.

The process still isn't over, however: Well-written programs frequently include input checks specifically designed to prevent problems like integer overflows, and the new input, unlike the initial input, might fail those checks. So DIODE seeds the program with its new input, and if it fails such a check, it imposes a new constraint on the symbolic expression and computes a new overflow-triggering input. This process continues until the system either finds an input that can pass the checks but still trigger an overflow, or it concludes that triggering an overflow is impossible.

If DIODE does find a trigger value, it reports it, providing developers with a valuable debugging tool. Indeed, since DIODE doesn't require access to a program's source code but works on its "binary" -- the executable version of the program -- a program's users could run it and then send developers the trigger inputs as graphic evidence that they may have missed security vulnerabilities.

"DIODE provides an effective mechanism for finding dangerous integer overflows that affect memory allocation sites, the source of many critical security vulnerabilities," says Cristian Cadar, a senior lecturer in computing at Imperial College London.

"DIODE is based on symbolic execution, a state-of-the-art technique that provides the ability to automatically explore and analyze paths through a program by modeling these paths as mathematical formulas. In DIODE, symbolic execution is specifically optimized to find integer overflows that affect memory allocation sites, by enhancing it with a novel exploration mechanism that enables it to synthesize dangerous inputs that reach the overflow target. On the practical side, DIODE operates directly on binaries, making it easy to find critical bugs and security vulnerabilities."

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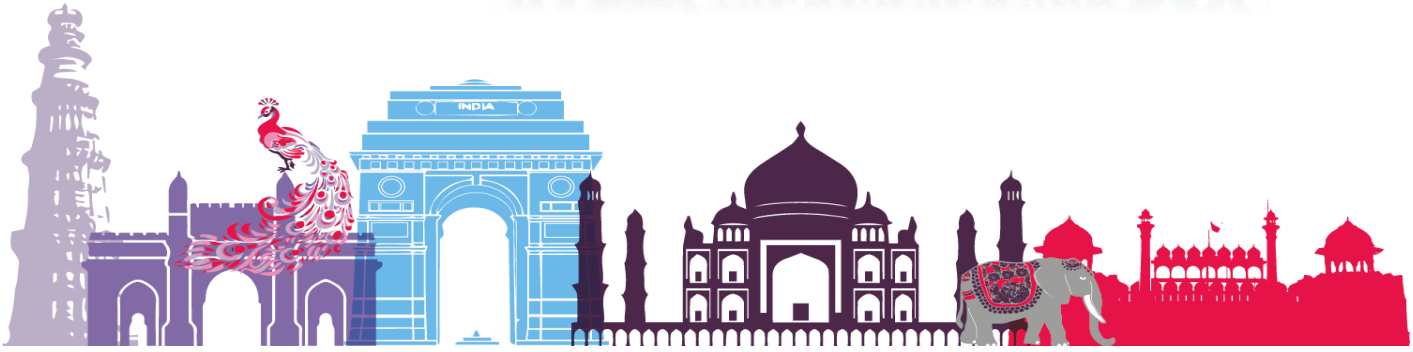
literary



REALITY OF LIFE...
"FACE IT....MAKE IT"

By: Ayushi Gahlot CS-1 (4th Yr)

"LIFE".....such a small word...with an unending description...which brings the complete flashback of ours in front of our eyes.

Life is not about "how we get it"...its about "how we make it...

Life starts with a new born baby...who comes in this world...and finds it as"a beautiful and peaceful place to live in"....with complete freedom...no worries...no problems....with so many loving and caring people ....enjoying.....happy.....no remorse of past nor fear of future...only a beautiful present to live in.His world is limited to his mother's lap..his house..laughing and playing....as if he has his own "illusionary world ".....

I wish this "illusionary world" would have existed forever....the illusion would have never broken.....yes!!!!...illusion....coz life is not what it seems to be...

The baby grows...learns to walk....his first step to be independent.Then goes to school...and for the first time he steps out to the real world...meets people...gets into the "race"of life that begins here...with all the challenges...academics...extras...stiff competition towards the career....start building their roots...

As the time passes...the hurdles and challenges goes on increasing and pressure on us too...and also our mental well being and human values develops...

We realise that life is not that easy..our lives are affected by people around us too...we meet different kinds of people...and again their is a big challenge to judge people.We are unable to understand what is right and what is wrong....we should become mature enough to recognise the people and their intentions.We also make mistakes..everybody does...but every person does what seems right to him in that particular situation.A

"mistake" is never intentional.So we should believe in forgiveness.

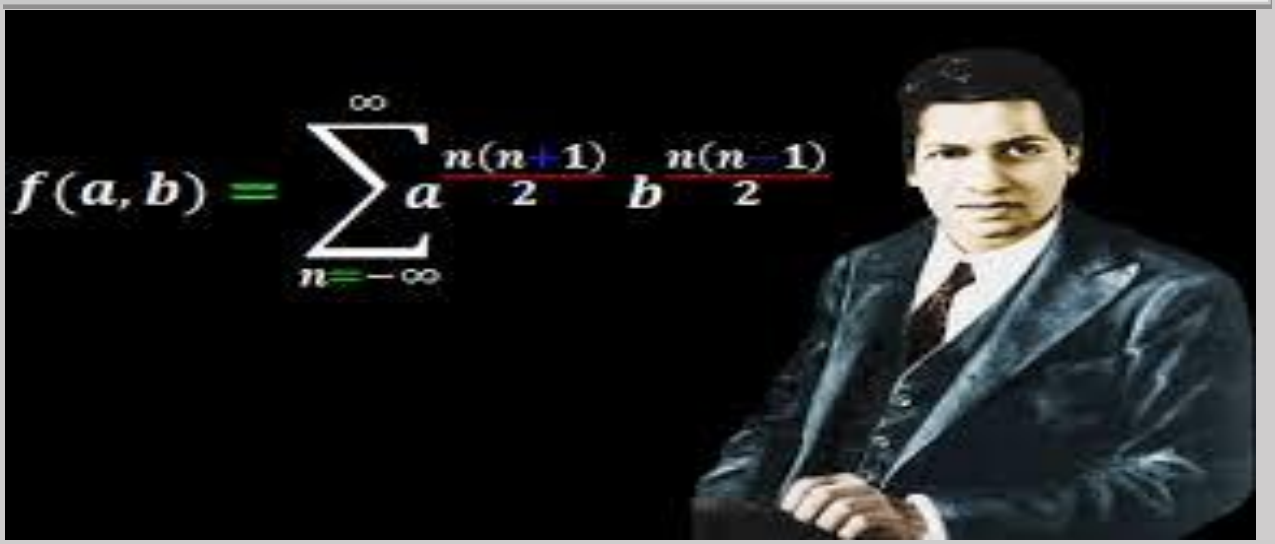
Most of us are found complaining that"people change".But its not the people who change..its the mask that falls off....and recognising these double personalities is a big challenge...try to understand human behaviour...to develop a better understanding about people...observe them..and then analyse.

Another big problem among teenagers is the feeling of "ignorance" by their friends...ignorance is all about priorities and failure of expectations from the other person.A time comes when we are hurt deeply due to such behaviour of people...thinking and thinking...getting more deeper...making us hollow...as if we are left alone..in pain...but sometimes being strong and moving on is the only choice u have...

Those who have a selfless nature..are the most suffering ones..in the present selfish crowd...its in vain being selfless for the selfish ones...if they never realize...its a reality of life that people replace u wid other choices with time..no matter what...so its better to be with the people who consider u as a choice rather than those who take u as an option.

Choose good friends...start judging people smartly...be mature enough to think what is good for u and judge who thinks good for u...make ur life worth...live for those who live for u...make ur loved ones proud... be thankful to everyone in ur life...good or bad...past and present..coz they all made u the person u r today..

Face the reality...rather than running away...life has many chapters for us..one bad chapter doesnt mean its the end of the book...learn from ur past....dont waste your life.....dont make it like the "subway surfers"...running all the way collecting coins to reach nowhere.....!!...cheer up...juzz make it worth...!!



Peculiar's Voyage to Cambridge

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

It is remarkable that while there was no one in the Colleges or the University who could appreciate the depth of Ramanujan's mathematical abilities, the University of Madras awarded its first research scholarship to Ramanujan to study in Cambridge, despite the fact he had failed twice to pass the First degree in Arts (F.A.) examinations of the University. This is undoubtedly due to the courage of conviction of Indian stalwarts of that era - Dewanbahadur Ramachandra Row, V. Ramaswamy Iyer, S. Narayanan Iyer and P.V. Seshu Aiyar - who succeeded in convincing and persuading the British authorities to act immediately on the basis of the merits of the candidate.

In a letter dated 28th January 1914, Mr. Neville wrote to Mr. Dewsbury, the Registrar of the University of Madras, about the importance of securing to Ramanujan a training in the refinements of modern methods and a contact with men who know what range of ideas have been explored and what have not and prophesied that Ramanujan would respond to such a stimulus and that his name will become one of the greatest in the history of mathematics, and the University and city of Madras will be proud to have assisted in his passage from obscurity to fame. The very next day, Prof. Littlehails also wrote to Mr. Dewsbury that Ramanujan be granted by this University a scholarship of about £250 (Sterling) together with a grant of about £100 in order to enable him to proceed to Cambridge. Ramanujan is a man of most remarkable mathematical ability, amounting I might say to genius, whose light is metaphorically hidden under a bushel in Madras. They wrote these letters after Ramanujan was persuaded to put aside his prejudices against crossing the sea. Hardy, Mr. Neville and others here are un assuming, kind and obliging. As soon as I came here, Mr. Hardy paid £20 to the college for my entrance and other fees and made arrangements to give me a scholarship of £40 a year. The proposals regarding the scholarship to be granted to Ramanujan by the University of Madras were approved. To the lasting credit of the University of Madras, the Syndicate decided within a week to set aside Rs.10,000/- to offer Ramanujan a scholarship of £250 a year plus £100 for a passage by ship and for initial outfit. At the instance of Professors Neville and Littlehails, Sir Francis Spring wrote to the personal Secretary (Mr. C.B. Cotterell) to the Governor (Lord Pentland) of Madras, persuading His Excellency to speedily approve the University's sanction. Government sanction too was granted within a week.

Ramanujan's designated tutor who monitored his progress at Trinity College, Cambridge, was E.W. Barnes, who considered Ramanujan as perhaps the most brilliant of all the top Trinity students, which

included Littlewood. . Hardy was immensely satisfied with the progress of Ramanujan and wrote so to the Registrar of the University of Madras supporting an extension of Ramanujan's two-year scholarship ,...until, as I confidently expect, he is elected to a Fellowship at the College. Such an election I should expect in October 1917. Later, in June 1916, in an official report on the progress of Ramanujan's work in England to the University's Registrar, he wrote: it is already safe to say that Mr. Ramanujan has justified abundantly all the hopes that were based upon his work in India, and has shown that he possesses powers as remarkable in their way as those of any living mathematician. I have said enough, I hope, to give some idea of his astonishing individuality and power. India has produced many talented mathematicians in recent years, a number of whom have come to Cambridge and attained high academical distinction. They will be the first to recognize that Mr. Ramanujan's work is of a different category.

In spite of the war which was raging, which deprived Ramanujan of the center stage which he would otherwise have held with his brilliant research work in the midst of his peers, the confidence he kindled in Hardy was enough to win for him recognition and laurels very soon, but, unfortunately, the first signs of illness appeared in Ramanujan in the spring of 1917.

The history of the notebooks, in brief, is the following: Ramanujan had noted down the results of his researches, without proofs, (as in A Synopsis of Elementary Results, a book on pure Mathematics, by G.S. Carr), in three notebooks, between the years 1903 - 1914, before he left for England. These were the notebooks which he showed to his benefactors to convince them about his abilities as a mathematician. The results in these notebooks were organized by him. The first notebook has 16 chapters in 134 pages. The second is a revised, enlarged version of the first, containing 21 chapters in 252 pages. The third notebook contains 33 pages of unorganized material (included at the end of volume 2 of the facsimile edition [VII]). Ramanujan took these notebooks with him to Cambridge. But, in one of his letters to a friend, he wrote that he had no time to look into them and most probably he did not put them to use during his five year stay abroad.

This offer of the University of Madras was made to Ramanujan in February 1914. He sent his wife and mother back to Kumbakonam, changed the traditional hair-style of the brahmin, viz. a tuft, and got his hair trimmed in European style and left Madras by S.S. Nevasa on 17th March 1914. Prior to his departure, he arranged with the University for £60 a year to be sent to his parents in Kumbakonam, out of his annual scholarship amount. Mr. Arthur Davies and Prof. Littlehails attended to all the details regarding Ramanujan's passage to England. Except for the first three days when he was sea-sick, Ramanujan enjoyed the voyage and reached London through the Channel and the Thames on 14th April 1914. He was received by Mr. E.H. Neville and his brother at the docks and stayed at Cromwell Road for a few days before going to Cambridge on the 18th evening. He remained for a few days in Mr. Neville's house before moving to the college premises for stay, which even though costlier than lodging houses, was more convenient for him and the professors.

It is remarkable that while there was no one in the Colleges or the University who could appreciate the depth of Ramanujan's mathematical abilities, the University of Madras awarded its first research scholarship to Ramanujan to study in Cambridge, despite the fact he had failed twice to pass the First degree in Arts (F.A.) examinations of the University. This is undoubtedly due to the courage of conviction of Indian stalwarts of that era - Dewanbahadur Ramachandra Row, V. Ramaswamy Iyer, S. Narayanan Iyer and P.V. Seshu Aiyar - who succeeded in convincing and persuading the British authorities to act immediately on the basis of the merits of the candidate.

A Feminist or a Female Misogynist ???

By : Anjali Sharma IT-3rd Year

Theoretically, Feminism is described as the belief which advocates social, political, legal and economic rights of women to be equal to those of men. But in reality, feminism has started to mean something else.

Since time immemorial, women have been treated as unequal. This section has been facing atrocities and has been disparaged every now and then. In this regard, Feminism is a very loud and an ideal movement to break the stereotypes against objectification of women and also to empower women. Or I can say it started on with the right idea, as almost everything does. But it has brain-washed women into thinking that Feminism is a bigoted hate movement against men and has nothing to do with creating equality amongst the females and males alike.

Recent Vogue magazine's video "My Choice" which featured Deepika Padukone is an example of "elitisation of feminism" which targets the voices of urban, elite section of the society. The women who take steps to direct such feminist movements are mostly from the upper strata as was seen in this video.

Moreover, the video had narcissistic comments like "It is my choice to have affairs outside marriage" which deceive women's perceptions to maximize their supremacy, but honestly, this goes for both, men and women alike. You cannot empower yourself by putting the other gender on the tip of your shoe.

Further, pursuing female supremacy under the false banner of "gender equality" is nothing but what we call as Female Chauvinism, which is as derogatory as Male chauvinism is. In the contemporary times, TV soaps and movies reaffirm the concept related to masculine connotations, as seen in Hitler Didi and the movie called Mardani.

Another movie called "Daawat-e-ishq" depicted how women deceive and misuse the Constitutional Laws under the shiny cloak of bringing women justice. Indian Constitution has provided provisions in the form of Marriage Laws like IPC-498a to promote women's liberation but it is a fallacy. The snide harassment, blatant bigotry and adultery by females is chaining the males as their rights are crushed under the heels of the pseudo-feminists who abuse the laws to give themselves artificial advantages.
Like religious zealots, feminists are driven mindlessly by the force of changing feminine proclivities into masculine ones. Being violent and showing attributes that of a man according to them is a symbol of being authoritative. This in itself is a loophole in the very ideological definition of "their" Feminism.

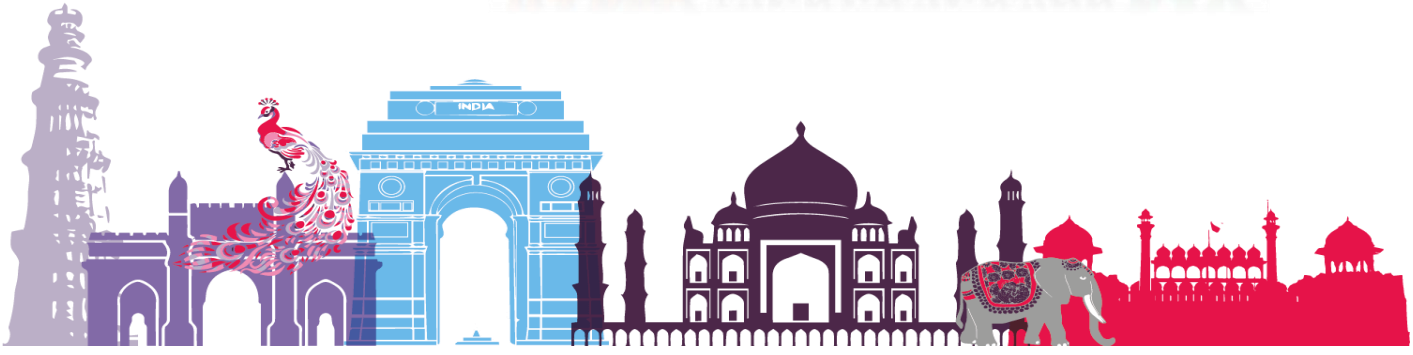
And before I conclude I would like to say this to the readers that I have written this piece after a number of horrifying cases against men which shocked me. By speaking against the "Neo-Feminism" I do not mean that Feminism has failed the women or is not needed at all. I never meant that I am in favor of the crimes against women but I wanted to show the mirror to my readers that how our society is discriminatory against men and advocates for women's rights even beyond fairness and justice.

We need to understand the thin line between being a Feminist and a Female Misogynist. It's time to break the shackles of unnatural living and to not produce an entirely new prototype of woman but rather recognize them as they actually are and should strive to improve the status of beings altogether.

the byte

august 2018 issue xxiv

departmental events



DEPARTMENTAL EVENTS

Short Term Course on Institutional Accreditation (NBA Guidelines) and Quality Management (ICT Based) - 18 - 22 July, 2016

- Department of computer science and engineering organised a short term course Conducted by NITTTR, Chandigarh.
- Faculties of CSE Department, IT Department, and Electronics department attended the course.
- Main objective of the course was to understand institution as a system, world class institution and its characteristics, concept and process of NBA accreditation.

Some of highlights of the course were

- World class institution and its characteristics
- Institution as a system
- SWOT Analysis of an institution
- NBA accreditation: concept and importance
- Accreditation process of NBA
- Norms and standards for degree programmes
- A comparative analysis of ISO 9001 certification and NBA accreditation
- Institutional preparation for accreditation and pitfalls
- Accreditation visit and reporting
- Managing institutional excellence.

The course coordinator Dr. Rakesh K Wats ensured effective management of the course and delivery of a coherent and relevant curriculum.

All the sessions were very useful and beneficial for understanding important considerations for institutional preparation for accreditation

Dr. Avdhesh Gupta attended the panel discussion and Dr. Pankaj Agarwal provided the concluded remarks to the course and desired to be the part of such associations in future as well.

Session 1: Inauguration and about the program,

Technical education in India: Issues, Opportunities & Challenges

Session 2: Accreditation Process of NBA

Criteria I: Vision, Mission & PEO's

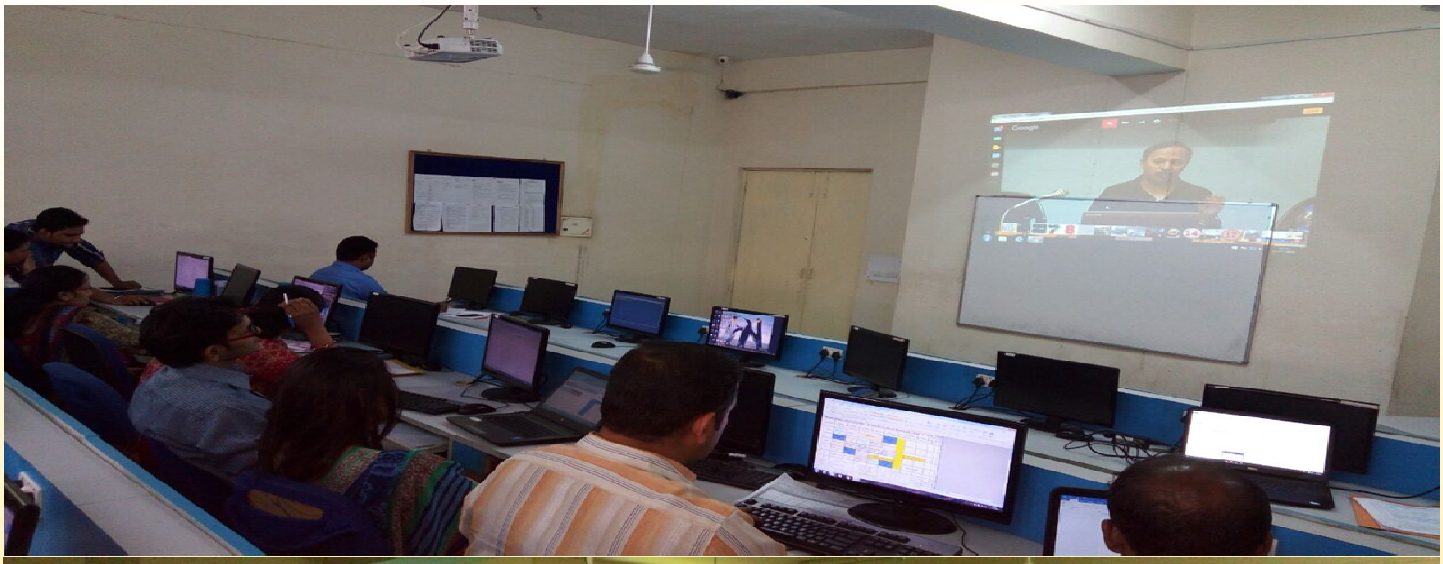
Session 3: Criteria III: Curriculum Aspects in Accreditation Criteria IV & V: Student Performance& Filling of SAR Performa

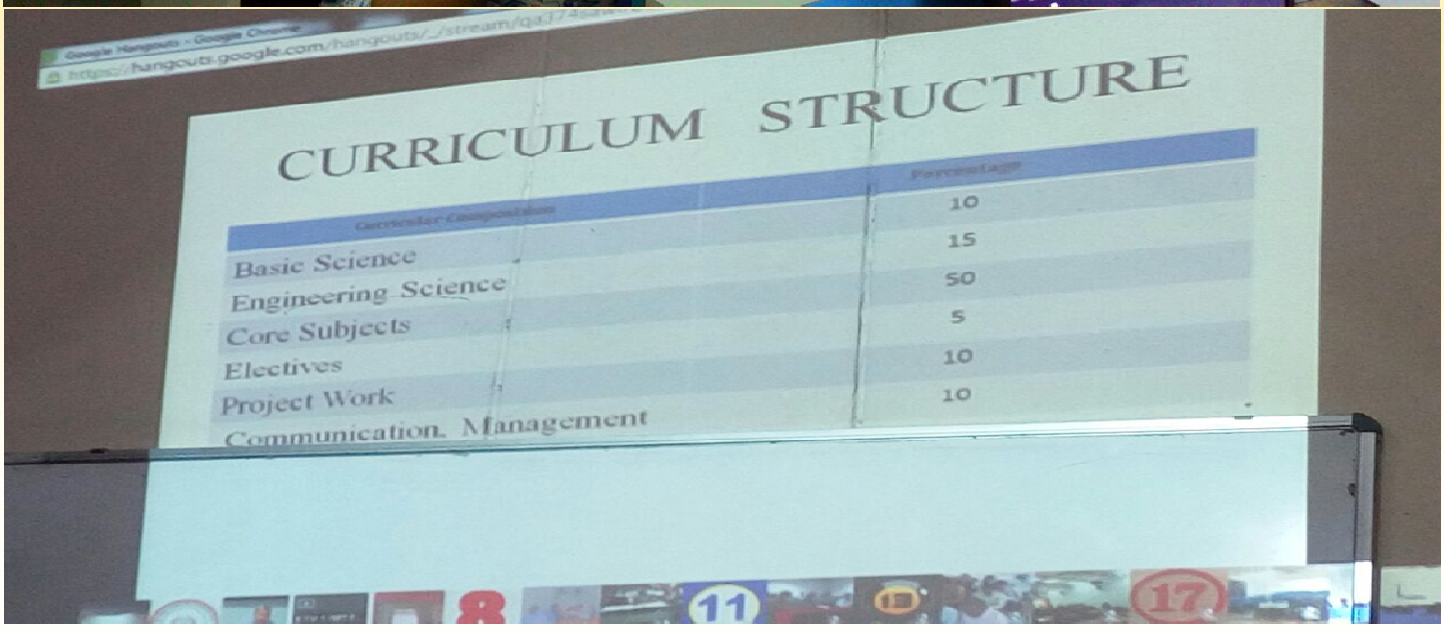
Session 4: Filling of SAR Performa

Session 5: Discussion on SAR &

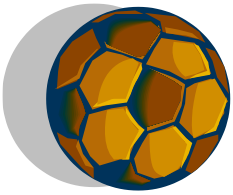
TIME TABLE

Day/Date	Session-I 09:30-11:00 a.m.	Session-II 11:30-01:00 p.m.	1:00- 2:00 p.m.	Session-III 02:00- 04:00p.m.
Monday 18.7.2016	Inauguration and about the Programme Dr. AK Nassa	Technical education in India: Issues, Opportunities & Challenges Dr M.P Poonia		Institutional Accreditation: Concept & Importance Dr RKW
Tuesday 19.7.2016	Accreditation Process of NBA Dr RKW	Criteria I: Vision, Mission & PEO's Dr J S Virk	L	Criteria II: Outcome Based engineering Education- Program Outcome(POS) Course Outcome(COs) Dr BS Pabla
Wednesday 20.7.2016	Criteria III: Curriculum Aspects in Accreditation Dr AB Gupta	Criteria IV & V: Student Performance& Faculty Contribution Dr BS Pabla	U N	Criteria VI to X: Infrastructure, Support services , Governance & Continuous improvement Dr SS Banwait
Thursday 21.7.2016	Filling of SAR Performa Dr BSP/ SSB/ RKW		C	AICTE Norms & Standards for Engg. Programmes Sh Rajiv Gulati
Friday 22.7.2016	Discussion on SAR Dr SSB/SS/RKW	Accredation Visit & Reporting Dr SS Banwait	H	Feedback & Valediction




CURRICULUM STRUCTURE
Basic Science 10
Engineering Science 15
Core Subjects 50
Electives 5
Project Work 10
Communication, Management 10

Current Affairs



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

Justice Dilip Babasaheb Bhosale sworn in as Chief Justice of Allahabad HC

Justice Dilip Babasaheb Bhosale was sworn in as the new Chief Justice of Allahabad High Court. He succeeds Justice D.Y. Chandrachud who was appointed judge of Supreme Court. He was administered oath of office was administered by Uttar Pradesh Governor Ram Naik in Allahabad as per Article 219 of Constitution.

30 July: World Day against Trafficking in Persons

The World Day against Trafficking in Persons is observed across the world on 30 July to raise awareness of the plight of victims of human trafficking and to protect their rights. Human trafficking is the trade of humans, most commonly for the purpose of forced labour, sexual slavery or commercial sexual exploitation for the trafficker or others.

First BRICS Employment Working Group meeting held in Hyderabad

The first-ever meeting of BRICS Employment Working Group (BEWG) was held in Hyderabad, Telangana from July 27 to 28, 2016. The agenda of the two day meeting was to shape the agenda for labour and employment track in BRICS countries.

IMD to use supercomputer to forecast monsoon based on dynamical model

The Union Ministry of Earth Sciences (MoES) has announced that India Meteorological Department (IMD) will use supercomputer to forecast India's annual summer monsoon. The forecast made by a supercomputer will be based on a dynamical monsoon model and will be operational from year 2017. This model will be used along with the present traditional ensemble model.

28 July: World Hepatitis Day

The World Hepatitis Day is being observed every year on July 28 around the globe to spread awareness about viral

hepatitis. Significance of the Day: It seeks to encourage diagnosis, prevention and treatment of Hepatitis. Provide a single global platform to raise awareness about hepatitis and influence real change in disease prevention, testing and treatment 2016 Theme: “Elimination”. It focuses on elimination of hepatitis as a public health threat by 2030.

Union Cabinet approves Bilateral Investment Treaty between India and Cambodia

The Union Cabinet has approved Bilateral Investment Treaty (BIT) between India and Cambodia to boost trade and business. Decision in this regard was taken during the Union Cabinet Meeting chaired by Prime Minister Narendra Modi in New Delhi.

Union Cabinet approves setting up of new AIIMS in Bhatinda

The Union Cabinet has approved the establishment of a new AIIMS at Bhatind, Punjab under the Pradhan Mantri Swasthya Suraksha Yojana (PMSSY). The medical institution will have a hospital with capacity of 750 beds which will include Emergency Beds, Private Beds, ICU Speciality & Super Speciality beds and AYUSH beds.

India’s CSIR ranked world’s 12th best Government Institute

The Council of Scientific Industrial Research (CSIR) was ranked world’s 12th best government institution out of 746 institutions. These institutes were ranked by a prestigious Scimago Institutions Rankings Report based on various parameters including the research performance, innovation and social impact. This is for the first time CSIR has improved its position among government institutes after it was ranked 14th spot for three consecutive years. CSIR is the only Indian government institute to have found a place among the top 100 global institutions.

India-US joint expedition discovers natural gas in Indian Ocean

Joint expeditions by India and the United States have discovered large, highly enriched accumulations of natural gas hydrate (an icy form of the fuel) in Indian Ocean. The discovery was made by the Union Oil Ministry and the US Geological Survey in the Bay of Bengal. It was the result of the most comprehensive gas hydrate field venture in the world to date that comprised of scientists from India, Japan and the US.

Permanent Court of Arbitration rules against Antrix Coroporation in Devas case

The Permanent Court of Arbitration (PCA) tribunal in The Hague, Netherlands has ruled against Antrix Corporation in the case with Devas Corporation over sharing of spectrum on satellites. A PCA tribunal has found that the Union Government’s actions in annulling a contract between Devas and Antrix Corporation Ltd. It also found that it has denied Devas commercial use of S-band spectrum constituted an expropriation (state actions in modifying the property rights of an individual in the exercise of its sovereignty. Following the ruling, India may have to give 1 billion compensation to Devas.

Solar Impulse 2 completes historic round-the-world trip

The Solar Impulse 2 has become the first aircraft to circle the globe using solar energy after landing in Abu Dhabi on the last leg of its journey. In its journey, the long-range solar-powered aircraft has travelled 26744 miles across four continents, three seas and two oceans since setting off from Abu Dhabi in March 2015.

Scientists working toward storing digital information in DNA

Scientists are working towards storing digital data in the base sequence of DNA (Deoxyribonucleic acid). Thus they are seeking to make the genetic material capable to store data for long time in durable format as an archive data for the future.

India's first Green Rail Corridor launched in Tamil Nadu

The India's first Green Rail Corridor was inaugurated on the 114-km long Rameswaram-Manamadurai stretch in Tamil Nadu. It was inaugurated by Union Railways Minister Suresh Prabhu through video-conferencing from Chennai, Tamil Nadu.

China unveils world's largest amphibious aircraft

China has completed the production of the world's largest amphibious aircraft dubbed as the AG600. It was unveiled by the state-owned Aviation Industry Corporation of China (AVIC) in the southern port city of Zhuhai.

Neeraj Chopra becomes 1st Indian to set world record in Jr athletics Championship

Javelin thrower Neeraj Chopra (18) has created history by becoming first Indian Junior athlete to create a World Record in Junior athletics Championship. He achieved this feat, by throwing javelin at a record distance of 86.48 m in his second attempt in the IAAF Under-20 World Athletics Championship held in Bydgoszcz, Poland. He won gold medal in this event.

CSIR-CMERI develops Solar Power Tree for generation of electricity from solar energy

The Union Ministry of Science and Technology has launched 'Solar Power Tree', an innovative way to generate electricity by harnessing maximum solar energy in a limited space. It was launched by Union Minister for Science & Technology and Earth Sciences Dr. Harsh Vardhan in New Delhi.

Kerala Tourism wins two Gold Gongs at PATA Awards

The Kerala Tourism has won two Gold Gongs at the Pacific Asia Travel Association (PATA) Awards in recognition of its trend setting marketing initiatives. Kerala Tourism won the awards in the Travel Advertisement Broadcast Media and E-Newsletter categories respectively.

Virat Kohli becomes first Indian captain to score double century outside India

Indian test team captain Virat Kohli became the first Indian captain to score a double century outside India. He achieved feat after scoring 200 runs against West Indies on second day of the first Test at the Sir Vivian Richards stadium in Antigua, North Sound. Virat Kohli is only third captain who have managed to score double century in a Test match vs West Indies in the Carribean. Other two are England's Len Hutton (205 in 1953-54) and Australia's Bobby Simpson (201 in 1964-65).

India ranks 110th on Sustainable Development index

India has been ranked a low 110th out of 149 countries on Sustainable Development index (SDI). The SDI assesses countries where they stand with regard to achieving the Sustainable Development Goals (SDGs) also their progress and ensuring accountability.

PM Narendra Modi lays foundation stone of AIIMS and fertiliser plant in Gorakhpur

Prime Minister Narendra Modi laid the foundation stone of All India Institute Of Medical Sciences (AIIMS) and revival of fertilizer factory plant in Gorakhpur, Uttar Pradesh. The fertilizer factory plant belongs to the Fertiliser Corporation India Ltd (FCIL) and was lying idle since 1990s. It would be revived through a special purpose vehicle (SPV) of public sector units (PSUs) at an estimated cost of 6,000 crore Rupees.

Canada to conduct world’s first Zika vaccine test on humans

Researchers from Laval University based in Quebec City, Canada are going to conduct the world’s first Zika vaccine test on humans. They are first international researchers team in the world to complete all of the steps in the regulatory process for the test.

The BYTE

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