February 2016

2016 AUTO EXPO THE MOTOR SHOW

The Byte

Unambiguious Decibles Kilo Bel Storage Interpretations Representation Approximation Octet Encode Sequence Alphabets Hexadecimal Alphanumeric Operating System Contigious Web Standardization Computing Bit Digital Calculations Uppercase Logarithematic Implementation Lowercase Data Char Language Algorithms Prefix Giga Transmission Number Int Blog Storage Unsigned Ambiguity Design Address Analysis Architecture Development

(An e-Magazine of CSE Department of JMSEC Ghaziabad)

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Happy Basant Panchami

!: सरस्वती वंदना :!

चरणों में तेरे पुष्प हो माथे पे तिलक चंदना
हे माँ सरस्वती करता हूँ तेरी वंदना .....

माँ ऐसा प्रसाद दो ,
सफलता का स्वाद दो,
अज्ञानता का अँधियारा मिटे
ज्ञान का प्रभात दो !!

हाथों में लिए आरती करता हूँ यही अर्चना ,
हे माँ सरस्वती करता हूँ तेरी वंदना.....

समानता का दीप जलाऊं ,
जाति-धर्म का भेद मिटाऊं,
जहां मानव मानव हो एक समान,
ऐसा मैं समाज बनाऊं !!

सर झुका के आपसे करता हूँ यही प्रार्थना ,
हे माँ सरस्वती करता हूँ तेरी वंदना

Written By : Amit Kumar Gautam
Asst. proff.
Dept. of CSE

IMS GHAZIABAD

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ARTICLES

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.

Few Facts & Features About Smart Cities

BY : AMIT KUMAR GAUTAM , ASST PROFF. , DEPT. OF CSE

Union Development Minister M Venkaiah Naidu on Thursday announced the first list of 20 cities to be developed as smart cities.

Here are the 20 smart cities:

1. Bhubaneswar
2. Pune
3. Jaipur
4. Surat
5. Kochi
6. Ahmedabad
7. Jabalpur
8. Vishakapatnam
9. Sholapur
10. Davangere
11. Indore
12. New Delhi
13. Coimbatore
14. Kakinada
15. Belagavi
16. Udaipur
17. Guwahati
18. Chennai
19. Ludhiana
20. Bhopal

What is a Smart City?

The first question is what is meant by a 'smart city'. The answer is, there is no universally accepted definition of a smart city. It means different things to different people. The conceptualisation of Smart City, therefore, varies from city to city and country to country, depending on the level of development, willingness to change and reform, resources and aspirations of the city residents. A smart city would have a different connotation in India than, say, Europe. Even in India, there is no one way of defining a smart city.

Some definitional boundaries are required to guide cities in the Mission. In the imagination of any city dweller in India, the picture of a smart city contains a wish list of infrastructure and services that describes his or her level of aspiration. To provide for the aspirations and needs of the citizens, urban planners ideally aim at developing the entire urban eco-system, which is represented by the four pillars of comprehensive development-institutional, physical, social and economic infrastructure. This can be a long term goal and cities can work towards developing such comprehensive infrastructure incrementally, adding on layers of 'smartness'.

In the approach of the Smart Cities Mission, the objective is to promote cities that provide core infrastructure and give a decent quality of life to its citizens, a clean and sustainable environment and application of 'Smart' Solutions. The focus is on sustainable and inclusive development and the idea is to look at compact areas, create a **replicate model which will act like a light house to other aspiring cities**.

Smart Cities Mission of the Government is a bold, new initiative. It is meant to set examples that can be replicated both within and outside the Smart City, catalysing the creation of similar Smart Cities in various regions and parts of the country.

The core infrastructure elements in a smart city would include:

Adequate water supply,
Assured electricity supply,
Sanitation, including solid waste management,
Efficient urban mobility and public transport,
Affordable housing, especially for the poor,
Robust IT connectivity and digitalization,
Good governance, especially e-Governance and citizen participation,
Sustainable environment,
Safety and security of citizens, particularly women, children and the elderly, and
. Health and education.

As far as Smart Solutions are concerned, an illustrative list is given below. This is not, however, an exhaustive list, and cities are free to add more applications.

Smart City Features

Some typical features of comprehensive development in Smart Cities are described below.

1. Promoting mixed land use in area based developments–planning for 'unplanned areas' containing a range of compatible activities and land uses close to one another in order to make land use more efficient. The States will enable some flexibility in land use and building bye-laws to adapt to change;

2. Housing and inclusiveness – expand housing opportunities for all;

3. Creating walkable localities –reduce congestion, air pollution and resource depletion, boost local economy, promote interactions and ensure security. The road network is created or refurbished not only for vehicles and public transport, but also for pedestrians and cyclists, and necessary administrative services are offered within walking or cycling distance;

4. Preserving and developing open spaces – parks, playgrounds, and recreational spaces in order to enhance the quality of life of citizens, reduce the urban heat effects in Areas and generally promote eco-balance;

5. Promoting a variety of transport options – Transit Oriented Development (TOD), public transport and last mile para-transport connectivity;

6. Making governance citizen-friendly and cost effective – increasingly rely on online services to bring about accountability and transparency, especially using mobiles to reduce cost of services and providing services without having to go to municipal offices. Forming e-groups to listen to people and obtain feedback and use online monitoring of programs and activities with the aid of cyber tour of worksites;

7. Giving an identity to the city – based on its main economic activity, such as local cuisine, health, education, arts and craft, culture, sports goods, furniture, hosiery, textile, dairy, etc;Applying Smart Solutions to infrastructure and services in area-based development in order to make them better. For example, making Areas less vulnerable to disasters, using fewer resources, and providing cheaper services.

12 INCREDIBLE FACTS ABOUT INDIAN RUPEE

12 Incredible Facts About Indian Rupee You Must Know

1. Initially, just after Independence, Pakistan used British Indian coins and notes simply over-stamped with "Pakistan". They started issuing new coins and banknotes in 1948.

2. Did you know, while minting a Rs. 10 coin it costs Rs. 6.10. Sounds crazy but its true.

3. Across the globe only Bhutan and Zimbabwe are the two countries considered Indian Rupee has legal approval and acceptance for domestic uses. Further Nepal also uses Indian currency as a medium to buy commodities and services, though they do not have legal issuance.

4. Yes it's not paper! Indian Rupee is made up of cotton rag. In general, it is not a paper but though it gives look and feel of paper.

5. Did you know that Rs. 500 and Rs. 1000 notes are banned in Nepal. Yes it's true.

6. Our Indian currency have specific Braille signs for helping the visually challenged, which provides hope to the blind in identifying currency note. There are identification marks on the left side of banknote, which comprised of different shapes for banknotes of 1000, 500, 100, 50, 20 and 10 as Diamond, Circle, Triangle, Rectangle, Square and None respectively.

7. In 1917, the ₹ was brilliantly mightier than the $. It was nearly Re 1 = 13 USD.

8. On Indian Rupee you can't find I, J, O, X, Y, Z alphabet on the number panel. As in these cases RBI only have twenty alphabets that are used as insets.

9. Mystery of the rupee disappearance – In 2007, the Indian city of Calcutta was gripped due to acute/extreme shortage of coins, which saw even shopkeepers buying coins at prices above their face value. The reason was overwhelming, the Indian coins were smuggled to Bangladesh for manufacturing blades.

10. You might have heard the fact that the rupee was nearly equal to a US dollar in 1947, is not true but a myth. Initially, at the time of independence and till 1965, India's currency was pegged to British pound, and the exchange rate was Rs 13.33 to the pound. The pound itself was pegged to $4.03. That means, the $ to INR rate would be somewhere around Rs 4.

11. The Rs 5 note was the first paper currency issued by RBI in January 1938. It was used to have portrait ofKing George VI.

12. Did you know that average cost while printing banknotes of different denominations differ from each other. Surprisingly, the cost of printing Rs. 50 notes exceeds the printing cost of Rs. 100, though the difference is minute but it is often asked.

Summing It Up

I hope you all have gripped some prominent information related to our currency "Rupee." Isn't the above facts are interesting and informative to our knowledge. I guess you all have added this really incredible facts to your mind and might be thinking that it should have been known earlier. Moreover, stay tuned to us for new posts. You will find some more interesting stuffs. I guess little reading wouldn't harm anymore so keep reading.

Implementation remains major challenge for Indian economy

Implementation remains the major challenge for India's economy and if it can deliver on its promises the country will be "the place to be", RBI governor Raghuram Rajan has said.

When asked to nominate the three things that most need to change to make a difference to the Indian economy Rajan said, "Implementation, implementation, and implementation".

"The gap in India has always been between the promise and the execution," he said.

"If anybody was to look towards a big source of demand in future it would be hard for them to miss India," he said adding "If our implementation matches our promise I have no doubt that in the next five or 10 years this will be the place to be - so good to get in early".

Rajan told Australia's Sydney Morning Herald that he believes the "implementation gap" which had plagued India in the past is narrowing.

The central bank head said "I would argue that because of the common language - different accents but common language - I think there could be a lot going on there".

Rajan praised the role of Australia's Productivity Commission in developing economic policy.

"Clearly there is a lot to learn about how you have used the intellectual inputs, the economic inputs, from that kind of organisation," he said. "There are so many places two large economies can learn from each other," he added.

When asked about Australian companies, like ANZ and Telstra, which have made promising investments in India in recent decades only to retreat at great cost, Rajan said "I'm not sure it's anybody's fault - there have been periods of strong growth and there have been periods where people have thrown in the towel and said it is impossible doing business".

Rajan said India needed to improve its infrastructure, human capital (knowledge base of the population), regulations and access to finance.

When asked if he was to consider a leadership role at the IMF in future, Rajan said "I haven't even thought about that. The problems here (in India) and the immediacy of dealing with them is so much more interesting at this point".

ISRO PSLV-C29 / TeLEOS-1 Mission

India's Polar Satellite Launch Vehicle, in its thirty-second flight (PSLV-C29), will launch six satellites of Singapore into a 550 km circular orbit inclined at 15 degrees to the equator. Of these six satellites, TeLEOS-1 is the primary satellite weighing 400 kg whereas the other five are co-passenger satellites which include two micro-satellites and three nano-satellites. PSLV-C29 will be launched from the First Launch Pad at Satish Dhawan Space Centre (SDSC) SHAR, Sriharikota. This is the eleventh flight of PSLV in 'core-alone' configuration (without the use of solid strap-on motors).

Along with TeLEOS-1, the five co-passenger satellites launched are VELOX-CI (123 kg) micro-satellite; VELOX-II (13 kg) 6U-Cubesat technology demonstrator; Athenoxat-1, a technology demonstrator nano-satellite; Kent Ridge-1 (78 kg), a micro-satellite; and Galassia (3.4 kg) 2U-Cubesat.

"PSLV-C29 Successfully Launches all the Six Satellites from Singapore from Satish Dhawan Space Centre (SDSC), SHAR, Sriharikota on December 16, 2015"

Antrix Corporation Limited (ACL) has entered into the Launch Services Agreement with ST Electronics (Satcom & Sensor Systems), Singapore during February 2014, for launch of TeLEOS-1, an earth observation satellite of ST Electronics along with five co-passenger satellites from Singapore Universities.

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LATEST TECHNOLOGIES

MIT's Design for Elon Musk's Hyperloop

Source : BostInno

A couple of years ago, Elon Musk threw out the idea of Hyperloop, the super high-speed train that could solve all of our transportation woes. Although neither the entrepreneur nor his company SpaceX are personally pursuing the construction of such an infrastructure, they are encouraging others to go for it with their official Hyperloop Pod Competition.

I know what you're thinking: This is right up MIT's alley.

And you would be correct. The team from MIT - along with the hundreds of other groups participating in the competition - has submitted its final design proposal for Hyperloop and are set to present it at Design Weekend on January 29 and 30 down in Texas.

So what did MIT come up with for the challenge? I touched base with John Mayo and Chuan Zhang, the MIT team's project manager and business co-lead, to get the details on the design they submitted for Hyperloop.

As expected, it's pretty freaking audacious

How MIT imagines speed

According to Hyperloop's Twitter page, MIT is among 318 teams from around the world participating in the challenge. But both Mayo and Chuan aren't nervous about going up against that many groups. They were quite confident that their design will get them to the next round of the competition this summer, in which they'd be building their prototype to run on the mile-long test track SpaceX is constructing next to its headquarters in California.

"As far as the mechanics for Hyperloop go, our main focus was levitation," Mayo told me. "At such high speeds, wheels don't work that well and they don't last, so we chose to use levitation."

Levitation kind of sounds like magic. In this case, though, the MIT team will be using magnets to levitate their Hyperloop pod. The carefully placed series of magnets will be responsible for making the pod zoom down the track in about 15 seconds and allowing it to successfully brake at the end.

When it comes to aerodynamics, though, the MIT crew has taken a softer approach; it obviously played a role in their design, but it wasn't as high as a priority as making the levitation solid.

"Aerodynamics at lower speeds are more forgiving," Mayo explained.

By lower speed, Mayo means 240 miles per hour, which is the goal for this competition. The challenge, because it's to be completed in a year, is a dialed-down version of Hyperloop's long-term vision of travel at 700 miles per hour. At that speed, people will have to get more serious about aerodynamics, as drag will become a big issue.

What do these MIT grad students expect to see from their adversaries on Design Weekend? More levitation - except different from theirs.

"Levitation can also be done with air bearings, like you would see in an air hockey table," Mayo said. "It was what Elon Musk originally proposed, so we're expecting to see a lot of those designs.

"The problem with air bearings, though, is that the surface has to be incredibly smooth and clean, which is extremely challenging for long distances," he continued.

There will also be some pods with wheels that focused more on aerodynamics to make for a speedy design. Regardless of the other approaches, MIT maintains its design will rise to the top.

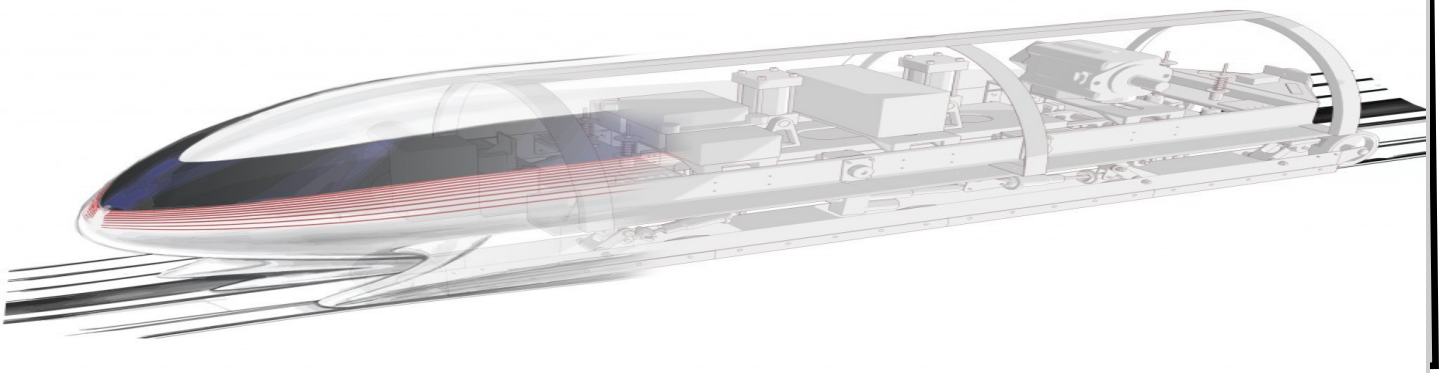
Next steps for the team (fingers crossed)

After the MIT team is hopefully selected to move forward, it'll be time to buckle down - and not just on the building side. Zhang, an MBA candidate at Sloan, explained that they'll have to raise more money to build this new infrastructure.

"I've been able to see what it's like to commercialize new technology," Zhang expressed. He's helped lead the team in terms of fundraising, marketing and promoting their design. He added, "It's just like how tech in the real world works."

"A competition like Hyperloop promotes engineering and in a more cooperative context" Mayo stated. "We've been learning so much because it's a larger scope than class projects we've done."

"It's been a project that's in line with MIT's motto: Mind and Hand," Zhang concluded.



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Periodic Table Has Now Four New Permanent Elements

Source : Science News

In what is likely to further the advancement of knowledge and research about the matter, scientists from Russia, Japna and United States have gathered sufficient evidence to claim the discovery of elements 113, 115, 117 and 118. The discovery will complete the seventh row of the periodic table.

According to Science News the International Union of Pure and Applied Chemistry announced that a Russian-U.S. collaboration had attained sufficient evidence to claim the discovery of elements 115, 117 and 118.

It also awarded credit for the discovery of element 113 to scientists at RIKEN in Wako, Japan, the first on the periodic table to be named by Asian scientists.

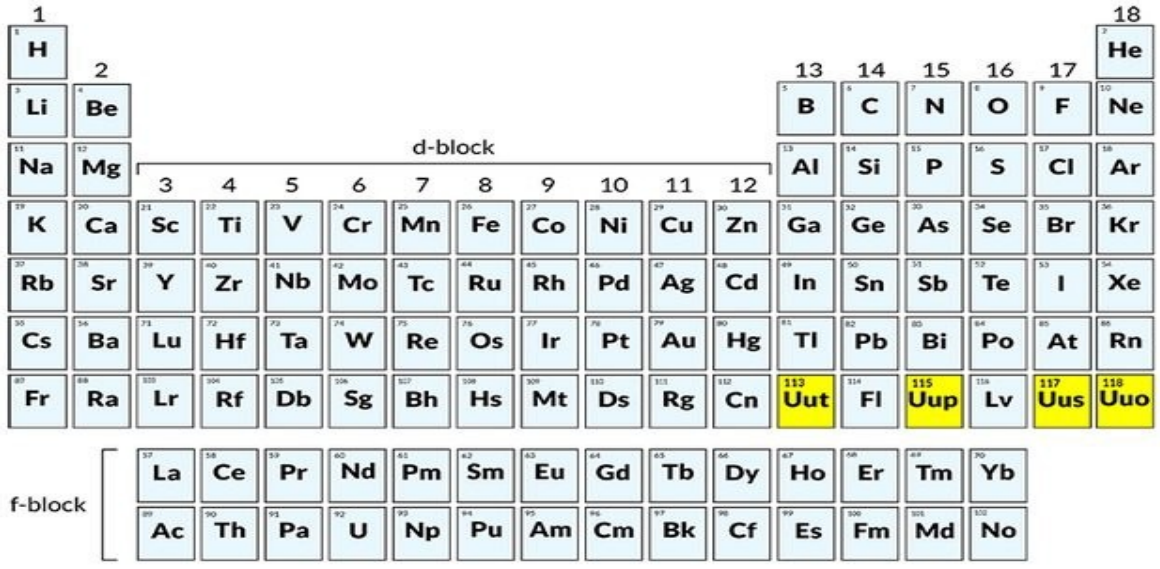
Both groups synthesized the elements by slamming lighter nuclei into each other and tracking the decay of the radioactive superheavy elements that followed, SN report added.

Researchers at the Joint Institute for Nuclear Research in Dubna, Russia, and Lawrence Livermore National Laboratory in California have been credited with discovery of elements 115, 117 and 118.

According to IUPAC's website, the fourth IUPAC/IUPAP Joint Working Party (JWP) on the priority of claims to the discovery of new elements has reviewed the relevant literature for elements 113, 115, 117, and 118 and has determined that the claims for discovery of these elements have been fulfilled, in accordance with the criteria for the discovery of elements of the IUPAP/IUPAC Transfermium Working Group (TWG) 1991 discovery criteria.

"These elements complete the 7th row of the periodic table of the elements, and the discoverers from Japan, Russia and the USA will now be invited to suggest permanent names and symbols," it added.

Japan's Riken Institute said a team led by Professor Kosuke Morita was awarded the rights from global scientific bodies - the International Union of Pure and Applied Chemistry (IUPAC) and the International Union of Pure and Applied Physics (IUPAP) - after successfully creating the new synthetic element three times from 2004 to 2012.



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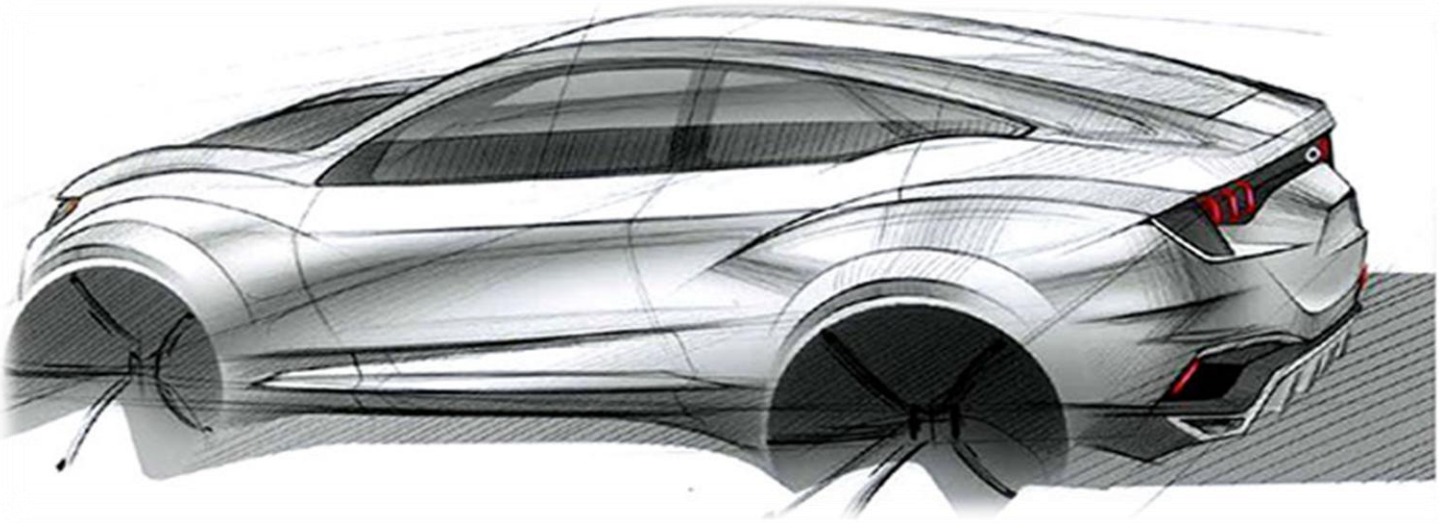

LITERARY

As we grow in life, number of experiments keeps on decreasing....

Anurag Mishra,
Assistant Professor, CSE Dept

Creativity Exist Or Not

Today this reminded me, when i was a kid, i used to do a experiment, having surf in the water with a wooden stick tied with a magnet, which i got from the speaker of a broken radio and revolving it for hours and hours. I used to claim that it would create ice. Amazing thing is that due to hours of hard work on soapy water it looses its temperature and become surprisingly cold. But i never got ice of course.

But point is that result was insignificant to what i thought. even though today i feel like a creativity in the procedure itself now when i think of it. but no more i feel like this creativity. life is so stereotyped now, more we know more we tend toward theory.

MORNING UNDER SHOWER

BY : RISHABH PRABHU , B.TECH 2ND YR , CS3

The morning is under a shower,

The buildings are bathing from an hour,

The rain drops are pattering on the wall,

The village children are clattering with the ball.

I am on my way to my school,

Oh! the road has been converted into a swimming pool,

My shoes are full of water,

But i am afraid if there is an open gutter!

"Oh God! how will i make my way?"

I paused and started to say,

Enormous trial made me to my destination,

But i was shocked to see myself as the first to take knowledge admission.

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Q & A

Don't Tap That Link! This Website Will Crash Your Phone

There's a new prank floating around the Internet and there's no word as to when — or if — it will be fixed. For those who aren't aware, the prank involves tricking people into visiting the crashsafari.com website. Don't do it, but if you do, make sure you visit using a computer.

In short, the website employs a bit of JavaScript code to recall the HTML5 history in an infinite loop, which eventually causes the browser to run out ofmemory. What happens next depends on your device.

On iPhones and iPads, visiting the site forces your phone to reboot after about 20 seconds. On Android devices, the site slows your device to a crawl and causes it to overheat until you close whichever browser you used to visit it.

On computers using Safari, the site causes the browser to crash. With any other browser, the site slows the machine to a crawl until the tab is closed or the browser is exited.

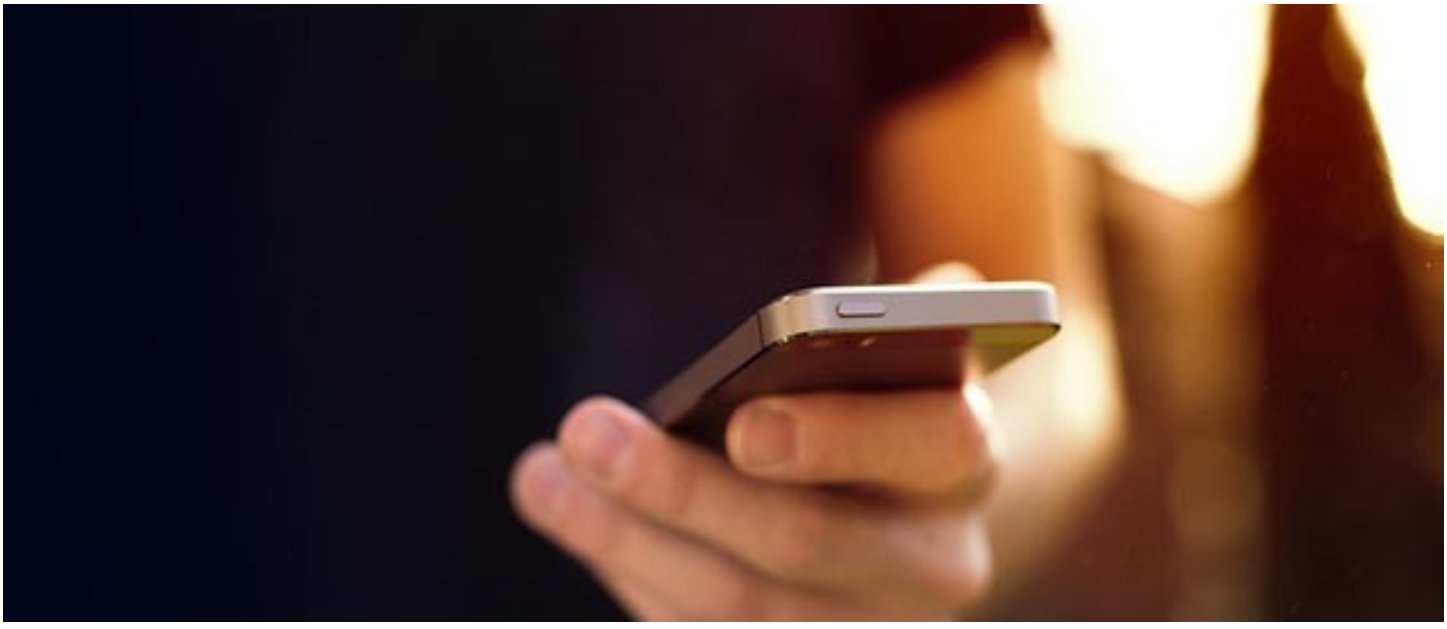
The good news is that this prank causes no damage.

Here's the prank aspect: People have been linking to the site using URL shorteners that disguise the actual address. If you encounter a shortened URL, you might be able to check its validity using one of these URL expander services.

Unfortunately, expanders aren't very convenient when you're on a smartphone, plus they aren't always effective. So for now, and until further notice, your best bet is to avoid all shortened URLs except when you absolutely trust the source linking it to you.

Have you fallen for this one yet? What are the worst social "pranks" you've ever seen on the Internet?

Write us : thebyte.cse.imsec@gmail.com



Keybase Introduces End-To-End Encrypted File Sharing Service

There's promising news for individuals and organizations that deal in confidential data. Keybase, the service for sending encrypted messages, has begun to offer a file-sharing feature that is powered by end-to-end encryption, making it considerably more secure than Dropbox or other mainstream file-sharing options.

The feature has initially rolled out to a selection of Keybase users, who have the option to create public folders of files or those that are private only accessible to others who they invite. All files appear as plaintext, aside from images, as demonstrated in this sample page.

Because the folders are end-to-end encrypted, their contents is not readable via Keybase's server. (Dropbox and others have been accused of posing security risks in this area.) Instead, private folders are streamed on demand to users who have been granted access to them.

Perhaps most interestingly, the team is preparing to add a feature that would enable Keybase users to securely share files with others who do not (yet) use the service.

"You'll be able to throw data into "/keybase/private/jonrussell,pal@twitter", even if that Twitter user hasn't joined Keybase yet. Your app will encrypt just for you and then awake and rekey in the background when that Twitter user joins and announces a key," the company explained on its blog.

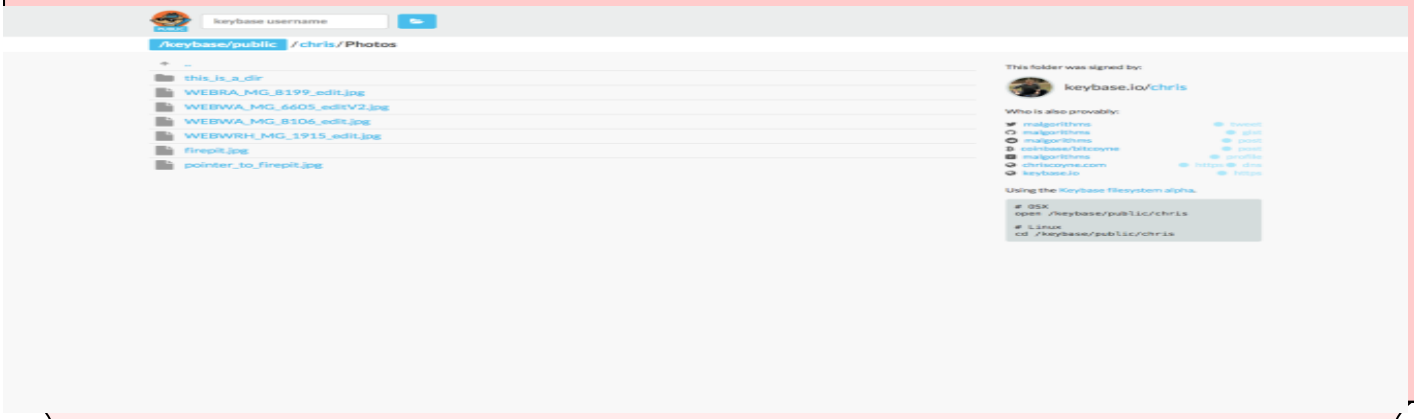
Initially, all early users have been given 10GB of storage to get started. There's no plan to expand that but Keybase said it will probably introduce paid plans to increase that allocation for those who want it.

That said, the company — which raised a $10.8 million Series A round last year — admits that it doesn't have a monetization model in place just yet. Things may still be up in the air on that front, but Keybase has pledged to remain ad-free and free for regular users, while it said it will never sell its users' data.

"We're not trying to make money," the company further explained. "We're testing a product right now, and we'd like to bring public keys to the masses."

This is a fascinating new service — bonus information nugget: keys are hashed into the blockchain for security — which could have real value for anyone wanting to transfer information confidentially online. Be that whistleblowers, media informants, or individuals or organizations in possession of highly sensitive data.

You can check out the Keybase blog post for more technical details and information about how to get on to the beta. Be warned though, you may need to wait on an invite — that's assuming that you've managed to get an invite to the main Keybase service already.



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DEPARTMENTAL EVENTS

Faculty Development Program on Student Evaluation

Faculty Development Program on Fundamentals of Data Structure.

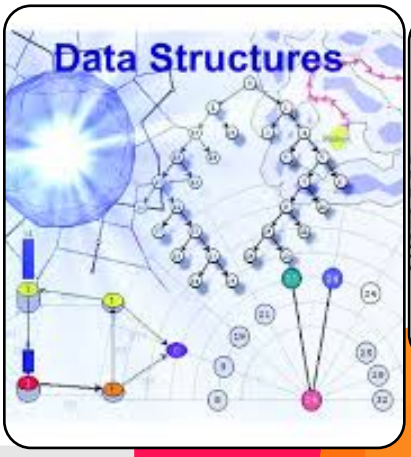
Departmental Events

FDP ON STUDENT EVALUATION

Department of computer science and engineering organised a short term course Conducted by NITTTR, Chandigarh. Faculties of CSE Department, IT Department, and Humanities department attended the course. Main objective of the course was to make aware the faculties regarding evaluation process.

Day and Date	Session – I 9:30 to 11:00 am	Session – II 11:30 to 1:00 pm	Session-III 02.00-04.00 pm
Monday 25.01.2016	Inauguration & Introduction to the Course (Dr.MP Poonia/Dr.PK Tulsi)	Evaluation: Concept, Types & Purposes (Dr.PK Tulsi)	Writing Test Items (Dr. Sunil Dutt)
Wednesday 27.01.2016	Designing Rubrics (Er.AK)	Planning, Organizing & Evaluating Practical Work (Er. AmandeepKaur)	Task & Presentation by Participants (Dr. Sunil Dutt/Ms.AmandeepKaur)
Thursday 28.01.2016	Project Work: Evaluation (Er. TN Thukral)	Setting Question Papers (Dr.PK Tulsi)	Task and Presentation TN Thukral/ PKTulsi
Friday 29.01.2016	Feedback (Er.T.N. Thukral)	Evaluation of Objectives in Affective Domain SD	Panel Discussion: Changes needed in Examination System (Dr.SunilDutt/Mr TN Thukral/Ms AmandeepKaur)

FACULTY DEVELOPMENT PROGRAM ON DATA STRUCTURES



Faculty Development Program on **"Data Structures"** was conducted successfully on **22nd – 23rd Jan 2016** at **IMSEC. Professor A.K Biswas** from **IIT Delhi** was invited as a resource person to conduct the FDP**. Prof. Biswas is** a distinguished Professor at IIT Delhi with more than 40 years of rich experience as academician & researcher. He also encouraged young faculty members to go for PhD course. He gave his useful inputs on how to select a research topic & approach a research supervisor.

The **objective** of the FDP was to help faculty members understand the correct delivery methods for the contents of data structure course during classroom teaching

He also encouraged young faculty members t go for PhD course. He gave his useful inputs on hov to select a research topic & approach a research supervisor.

Day 1:

- Introduction
- Recursion & its applications
- Asymptotic notations for analyzing algorithms
- Linked list & its applications
- Searching & Sorting Techniques

Day 2:

- Time Complexities of algorithms
- Stacks & Queue
- Trees & real time applications
- Practical implementations in C

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PLACEMENT NEWZ

Placement News

SPECIAL POINTS OF INTEREST:

Important Dates :

Online submission starts on : 20 March 2016 at 1700 Hrs (IST)

Online submission closes on : 10 April 2016 at 1700 Hrs (IST)

Personal interview schedule : May 2016 onwards for Subjects/Disciplines in Part I & August 2016 onwards for Subjects/Disciplines in Part II

LOOK UP INSIDE

DRDO JOBS

TIFR JOB DETAILS

DRDO(DAVP) jobs for Scientist/ Engineer B in Delhi

Scientist/Engineer B

Eligibility : MSc(Chemistry, Mathematics / Applied Mathematics, Phy),BE/B.Tech(Aero, chemical engineering, Civil, CSE, ECE, Mechanical Engineering, Metallurgical, Textile / Leather Technology, Fire & Safety, Electrical)

Location : Delhi

Last Date : 10 Apr 2016

Hiring Process : Written-test

Gate Paper Code : Computer Science & Information Technology (CS)

Computer Science & Engg./26 Post

Qualification : At least First Class Bachelor's Degree in Engineering or Technology in Computer Science & Engg from a recognized university or equivalent.

Pay Scale : Rs.15600-39100

Selection Process : i) The shortlisted candidates will be required to appear in the personal interview to be held at Delhi/Bangalore/Hyderabad/ Pune or any other place as decided by RAC/ DRDO from May 2016 onwards tentatively. Shortlisted candidates shall be able to download their interview call letter along with date/ venue of personal interview and other relevant documents through the candidate login. ii) Candidates serving in Govt. Service or in Govt. owned organizations will be required to produce "NOC" from their respective Department/Employer at the time of interview failing which candidate will not be allowed to appear for the interview.

Fee : General/OBC candidates are required to pay a non-refundable non-transferable application fees of Rs.100/- (Rs. Hundred only) payable online only. However there is no application fees for SC/ST / PWD and women candidates.

Training : All selected Scientists 'B' for DRDO may be required to initially undergo Post Induction Training.

TIFR JOBS FOR ENGINEER TRAINEE IN MUMBAI

About TIFR

The Tata Institute of Fundamental Research is a National Centre of the Government of India, under the umbrella of the Department of Atomic Energy, as well as a deemed University awarding degrees for master's and doctoral programs. At TIFR, we carry out basic research in physics, chemistry, biology, mathematics, computer science and science education. Our main campus is located in Mumbai, but we have additional campuses in Pune, Bangalore and Hyderabad.

Eligibility :
BE/ B.Tech(CSE, IT)

Location :
Mumbai

Last Date :
25 Feb 2016

Hiring Process :
Written-test, Face to Face Interview

Skills:
java, Linux

Engineer Trainee jobs opportunity in Tata Institute of Fundamental Research (TIFR) Appointment will be initially for a period of one year. Extension by another one year is possible for candidate with outstanding performance.

Qualification : B.E/ B.Tech in Computer Science or Information Technology from a recognized university.

Desirable : i) B.E/ B.Tech in Computer Science or Information Technology from a recognized university with 60% marks or more. (ii) Up to one year experience in web application development in PHP and RDBMS in a Linux environment, Core Java programming. (iii) Linux system administration and /or android based application development.

Job Requirement : Candidate (i) should have a clear understanding of secure web application development concepts. (ii) should have good programming and analytical skills. (iii) should have clear concepts of PHP and RDBMS. (iv) should have knowledge of basic networking concepts. (v) knowledge of digital signatures.

Stipend : Rs.25000

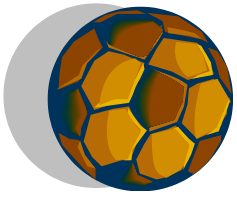
How to apply

Applications from the candidates will be accepted Only Online. On-Line applications must be submitted by February 25, 2016 and applications

by post must reach Head, Establishment by February 25, 2016. Applicants who

are required to send the applications by post must super scribe the post applied for, advertisement No. & serial number of the post on the envelope. The format of the application is as prescribed for on-line applications.

Current Affairs



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

Indian-origin cancer expert Harpal Singh Kumar knighted

An Indian-origin cancer research expert Harpal Singh Kumar was honoured with a Knighthood from Queen Elizabeth II for his influential work on prevention and treatment of cancer. Mr. Singh's name has appeared in the 2015 New Year's Honours list that includes several other Indian-origin individuals.

Union inks Financing Agreement with World Bank to fund education of minorities

The Union Government has signed a Financing Agreement of 50 million dollars with the World Bank for Nai Manzil Scheme- Education and Skills Training for Minorities. Under this agreement, the credit will be facilitated by the International Development Association (IDA), World Bank's concessionary lending arm. This credit will be in the form of loan which carries a maturity of 25 years, including a 5-year grace period. The loan funds will be used for interventions under this scheme improve the employability and performance of minority youth in the labour market. The total project size is 100 million dollars, out of which 50 million dollars will be available as IDA credit and the remaining balance funding from the Union Budget

Government to roll out DBT scheme for kerosene from April 1, 2016

The Union Government is going to roll out LPG-like Direct Benefit Transfer (DBT) scheme for kerosene from 1st April 2016. The scheme in the initial phase will be implemented in selected 26 districts of eight states. These states are Haryana, Chhattisgarh, Jharkhand, Himachal Pradesh, Maharashtra, Madhya Pradesh, Punjab and Rajasthan.

Union Government constitutes Shyam Benegal Committee to revamp Central Board of Film Certification

he Union Ministry of Information & Broadcasting has constituted a committee headed by noted film-maker Shyam Benegal to look into revamp the film certification nuances by Central Board of Film Certification (CBFC). The committee is tasked to suggest recommendations provide a holistic framework and interpretation of provisions of Cinematograph Act, 1952 and Cinematograph (Certification) Rules, 1983. Other Members of the Committee: Rakeysh Omprakash Mehra, Bhawana Somaaya, Piyush Pandey, Nina Lath Gupta and Joint Secretary

(Films) as Member Convenor.

4th January: World Braille Day

Every year World Braille Day is being observed across the world on 4 January to mark the birth anniversary of Louis Braille, inventor of Braille script or Braille code. Observance of the day helps people to spread the importance of Braille language and also help people to produce works in this language to allow visually impaired people to read the works. To commemorate this day several NGOs as well as other organizations come together to raise awareness about the apathy towards blind people and to help them be equal among rest of the people.

India won 2015 SAFF football championships

India has won the 2015 South Asian Football Federation (SAFF) championship for record seventh time. In the final match played at Thiruvanantapuram (Kerala), India defeated defending champion Afghanistan by 2-1 goal score. Jeje Lalpekhlua (72nd minute) and Sunil Chhetri (101th) had scored goals for India. For Afghanistan single goal was scored by Zubayr Amiri at 70th minute.

Amputee mountaineer Arunima Sinha scales Mount Aconcagua in Argentina

India's star amputee mountaineer Arunima Sinha has successfully scaled Mount Aconcagua in Argentina as part of her Mission 7 Summits. It was her 5th successful summit of the Mission 7 Summits that she had climbed on December 25, 2015 after starting on December 12, 2015. With this, she created World record by becoming First Female amputee to climb 5 Mountains of the World. These are Mt. Everest (Asia), Mt. Kilimanjaro (Africa), Mt. Elbrus (Europe), Mt.Kosizko (Australia) and Mt. Aconcagua (Argentina), Mt. Aconcagua (6,960.8 metres) is the highest mountain outside Asia and is also known as second Everest. By extension it is the highest point in both Western Hemisphere and Southern Hemisphere.

RK Mathur sworn in as 8th Chief Information Commissioner

Former Defence Secretary Radha Krishna Mathur (62) has sworn in as the eight Chief Information Commissioner (CIC) of the Central Information Commission. He was administered the oath of office by the President Pranab Mukherjee at a ceremony held in Rashtrapati Bhavan in New Delhi. Mr. Mathur as the CIC will have tenure of about three years i.e. till 2019 till he attains the age of 65 years. He succeeds Vijai Sharma as he has retired after completion of his tenure.

Abid Ali Neemuchwala appointed as CEO of Wipro

India's third largest IT exporter Wipro Limited has appointed Abid Ali Z. Neemuchwala as the new Chief Executive Officer (CEO) and Member of the Board of the company. He will succeed incumbent CEO T.K. Kurien who has been elevated as the Executive Vice Chairman of the company.

PM Narendra Modi inaugurates 103rd Indian Science Congress

Prime Minister Narendra Modi inaugurated the 103rd edition of the Indian Science Congress (ISC) on January 3, 2016 in Mysuru, Karnataka. The theme of this edition of the Congress is "Science and Technology for Indigenous Development in India." During the inaugural speech Prime Minister gave a new mantra comprising five Es – "Economy, Environment, Energy, Empathy and Equity".

Union Government launches Ganga Gram Yojana

The Union Government has launched Ganga Gram Yojana to develop 1600 villages in Uttar Pradesh (UP) situated along the banks of Ganga River. The scheme was launched by the Union Minister of Water Resources, River Development and Ganga Rejuvenation Uma Bharti at Puth village in Hapur district of UP.

Union Cabinet approves Stand Up India Scheme for women and SC/ST

The Union Cabinet has approved the Stand Up India Scheme to promote entrepreneurship among Scheduled Caste/Scheduled Tribes (SC/ST) and Women entrepreneurs. Decision in this regard was taken by Union Cabinet meeting chaired by the Prime Minister Narendra Modi in New Delhi. The Scheme seeks to facilitate at least two such projects on an average one for each category of entrepreneur per bank branch. The Stand-up India is component of Start-up India, Stand up India slogan anchored by Department of Financial Services (DFS) to encourage greenfield enterprises by Women and SC/ST entrepreneurs.

J&K Chief Minister Mufti Mohammad Sayeed passes away

Jammu & Kashmir Chief Minister Mufti Mohammad Sayeed passed away due to multiple organ failure at the AIIMS hospital in New Delhi. He was 79. Mr. Sayeed, a two-time Chief Minister of J&K had started his second tenure on March 1st, 2015 heading Peoples Democratic Party-Bhartiya Janta Party (PDP-BJP) coalition government.

India to grow at 7.8% in year 2016: World Bank Report

The Global Economic Prospect report published recently by the World Bank (WB) has projected a robust 7.8 per cent growth for the Indian economy in the year 2016. In its report bank also has cited strong investor sentiment in India and the positive effect on real incomes of the recent fall in oil prices.

India-France military exercise Shakti-2016 begins

India and France have started their eight-day counter-terrorism and counter-insurgency bilateral military exercise Shakti-2016 in Rajasthan. In this bilateral exercise, French contingent comprising 56 personnel of 35th Infantry Regiment of 7th Armoured Brigade are participating. Indian side is being represented by the 2nd Battalion of Garhwal Rifles which is part of the Sapta Shakti Command.

Government decides to merge Ministry of Overseas Indian Affairs with MEA

Union Government has decided to merge Ministry of Overseas Indian Affairs (MOIA) with the Ministry of External Affairs (MEA). This decision has been taken to avoid duplication of work and to improve efficiency in line with Union Government's broad principle of minimum government, maximum governance. The merger was announced by Union External Affairs Minister Sushma Swaraj and proposal in this regard was cleared by Prime Minister Narendra Modi.

14th Pravasi Bharatiya Diwas held in New Delhi

The 14th edition of Pravasi Bharatiya Diwas (PBD) was held in New Delhi. The event was inaugurated by the Union External Affairs Minister Sushma Swaraj and attended by Priti Patel, United Kingdom's Minister of State (MoS) for Employment.

10 January: World Hindi Day

The World Hindi Day is being observed annually on 10 January. On this occasion, Union Ministry of External Affairs (MEA) has conducted special events to spread the greatness of the language through its missions abroad. The Department of Official Language (Rajbhasha) also has organised several events to mark this day.

Sania Mirza, Martina Hingis win 2016 WTA Brisbane International Tennis trophy

Ace Indian tennis player Sania Mirza and her Swiss partner Martina Hingis have won the 2016 WTA Brisbane International Tennis trophy in the women's doubles category. In the final match played at Brisbane (Australia), the top seeded duo defeated German pair of Angelique Kerber and Andrea Petkovic by 7-5, 6-1 score.

CIRB Hisar becomes second institute to clone buffalo in India

Scientists at the Central Institute for Research on Buffaloes (CIRB) in Hisar, Haryana have successfully produced a cloned buffalo offspring named 'Cirb Gaurav'. CIRB scientists have achieved this feat under the project entitled- Cloning for conservation and multiplication of superior buffalo germplasm.

January 12: National Youth Day

In India, January 12 is being observed as National Youth Day. This day marks birth anniversary of social reformer, philosopher and thinker Swami Vivekananda. On this day, numbers of functions are being organised nationwide to celebrate the birth anniversary of Swami Vivekananda. This year it is The 153rd birth anniversary of Swami Vivekananda.

Government constitutes Arvind Panagariya committee to fast-track bullet train project

Union Government has constituted a committee to fast track the Mumbai-Ahmedabad High-Speed Rail Corridor, meant for connecting two cities with bullet trains. The committee is tasked to interact with the Japanese counterpart for taking further steps in implementation of Mumbai-Ahmedabad High-Speed Rail Corridor.

BSNL launches 4G services in Chandigarh

State owed telecom service provider Bharat Sanchar Nigam Limited (BSNL) has launched the high speed 4G (Fourth Generation) telecom services at Chandigarh in Punjab circle . With this launch, BSNL became fifth telecom service provider in India to launch 4G service after Airtel (1st), Aircel (2nd), Vodafone (3rd) and Reliance Jio (4th).

Kerala becomes first state to achieve 100% primary education

Kerala has become the first Indian state to achieve 100 per cent primary education. Declaration to this effect was made by the Vice President Hamid Ansari during his speech at special ceremony organised at Thiruvananthapuram. Kerala state was able to achieve 100 per cent primary education through its flagship primary education equivalency drive Athulyam

India to join the International Energy Agency – Ocean Energy Systems

India has decided to become member country of the International Energy Agency – Ocean Energy Systems (IEA-OES) to boost for country's quest for tapping ocean energy sources. Proposal for signing the Implementing Agreement (IA) in this regard was approved by Union Cabinet meeting chaired by Prime Minister Narendra Modi in New Delhi.

Nag anti-tank missile successful test fired

The indigenously-built third generation anti-tank missile Nag was successfully test fired at Mahajan Field Firing Range in Rajasthan.

India's Grid-linked solar generation capacity crosses 5,000 MW mark

Union Ministry of New and Renewable Energy has announced that India's grid-connected solar power generation capacity has crossed the 5,000 Mega Watt (MW) mark. Presently, Government has set an ambitious plan to achieve 175 Giga Watt (GW) of power generation capacity from renewable sources by 2022. It includes 100 GW from solar and 60 GW from wind. Under the National Solar Mission (NSM), Union Government increased the solar power generation capacity addition target by five times from 20,000 MW to 100 GW by

2022.

'Sahayog – Kaijin 2016': India and Japan joint Coast Guard exercise

The 15th edition of bilateral exercise by the Indian Coast Guard and its Japanese counterpart titled 'Sahayog-Kaijin 2016' has begun off the coast of Chennai, Tamil Nadu in the Bay of Bengal.

Chinese scientists develop new bio-artificial liver

Chinese scientists have developed a new bio-artificial liver that can help patients to survive from liver failure long enough for an organ transplant. It has been developed by team of researchers from the Shanghai Institute for Biological Sciences and doctors from Nanjing Drum Tower Hospital.

Sikkim becomes India's first fully organic state

Sikkim has formally become India's first fully organic state after it successfully implemented organic farming practices on around 75,000 hectares of agricultural land. Formal declaration in this regard was made by Prime Minister Narendra Modi after inaugurating the Sikkim Organic Festival 2016 in Gangtok, Sikkim. PM also handed the Organic Certificate to Sikkim Chief Minister Pawan Chamling.

BSE launches algorithm trading test

Bombay Stock Exchange (BSE) Ltd has launched a new service for algorithm trading test facility for investors on its derivatives and equity platform. The new service has been launched in partnership with Mumbai based Symphony Fintech Solutions Pvt Ltd and is free-of-cost for market participant.

CCEA approves six-laning of NH-2 in Bihar and Jharkhand

The Cabinet Committee on Economic Affairs (CCEA) has approved development of the six laning of National Highway-2 from Aurangabad-BarwaAdda section in Bihar and Jharkhand. Decision in this regard was taken in the CCEA meeting chaired by the Prime Minister Narendra Modi in New Delhi.

ISRO successfully launches IRNSS-1E satellite

Indian Space Research Organisation (ISRO) has successfully launched India's fifth navigation Indian Regional Navigational Satellite System (IRNSS) 1E satellite. It was launched on board of PSLV-C31 rocket from Satish Dhawan Space Centre (SHAR), Sriharikota in Andhra Pradesh.

India ranks 89th in Global Talent Competitiveness Index 2015-16

India has ranked 89th globally in Global Talent Competitiveness Index (GTCI) 2015-16 list of 106 assessed countries in terms of talent competitiveness of its human capital. This GTCI list was compiled by INSEAD business school in partnership with Adecco and Human Capital Leadership Institute of Singapore (HCLI). This index measures a nation's competitiveness based on the quality of talent it can produce, attract and retain.

Renowned Classical Danseuse Mrinalini Sarabhai passes away

Legendary classical danseuse Mrinalini Sarabhai passed away in Ahmedabad, Gujarat due to age related health complications. She was 97. She was trained in Bharatnatyam, Kathakali and Mohiniyattom and was educated at Shantiniketan under the guidance of Rabindranath Tagore.

4th India Africa Hydrocarbons Conference begins in New Delhi

The fourth edition of India Africa Hydrocarbons Conference (IAHC) has begun on January 21, 2016 in New Delhi. The two day conference aims at enhancing greater cooperation between India and African continent in the field of Hydrocarbons. It also seeks to explore opportunities, bridge boundaries and boost bilateral trade between India and Africa.

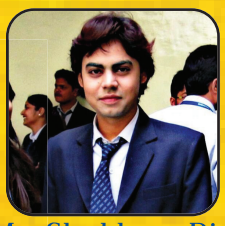
The BYTE

Chief Editors

Prof. Amit Kr. Gautam
Dept of CSE

Prof. Lipika Goel
Dept of CSE

TEAM LEADERS



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

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

Mr. Anuj Srivastva
B.Tech CS,4th yr

Ms. Ayushi Mishra
B.Tech CS, 2nd yr

Ms. Akansha Srivastava
B.Tech CS, 2nd yr

Ms.Aarohi Srivastava
B.Tech CS, 2nd yr

Mr.Charchit Gupta
B.Tech CS, 2nd yr