BRIGHTIT

PRESENTS

ezine

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VOL 5

Dr. Kamal Shah
(Dean R&D)

Deans Message

I acknowledged the efforts of students and staff of IT department who have taken forward 'E-Zine' for 4 consecutive years.

This is a platform provided to students and staff where they can express their creative thoughts through technical and non-technical sections.

It provides opportunity for all students to write various technical articles in five technical domains defined by the department. Students and staff achievements will be also documented here which will be motivational factor be for all other students to achieve standard of excellence.

The vision and mission of IT department is to make students technically sound and ethical citizens of nation. Let the "learning attitude" develop in each one of us and mau all of us contribute for the betterment of our society.

Dr. Vinayak Bharadi
HOD
INFORMATION TECHNOLOGY

Message From Head of Department of IT

Dear all,

It gives me immense pleasure to be part of the FIFTH issue of ezine. It started with a novice initiative but now has mature a lot. The technology is presenting us with new horizons like Cloud Computing, Big Data Analytics and IoT. All the technocrats are fascinated with these new horizons and especialy students have focused their attention on them for their upcoming projects. similar trends can be seen in articles presented here.
I give my best wishes to the editorial team for this informative magazine.

Thank you all !!

Mrs.Hetal Amrutia
(Assistant Professor-IT)

Message From Ezine Faculty Incharge

Enjoy every moment you have because in life there are no rewinds, only flashbacks.
Creativity has no limit, it goes beyond all the boundaries we have created to divide ourselves to narrower canes of life. Education is a sharp device to make people more creative and imaginative to bring out the nest of young minds.

This is the fifth issue of "E-zine" - The E-Magazine which aims to provide a platform on which each and every member of IT department, whether they are current students, alumni, Faculty or industry person can express their views, share their experiences for the benefit and development of the current students.

I take this privilege to thanks Our Principal Dr. B. K. Mishra, Mentor Dean Dr. Kamal Shah, HOD IT Dr. Vinayak Bharadi for their continuous support and valuable guidance for the E-Magazine of Department of Information Technology.

Once again, I would like to express my considerable appreciation to all authors of the articles in this issue. These contributions have required a generous contribution of time and effort. It is this willingness to make the effort to share knowledge, concerns and special insights with the Bright IT Department at large that has made this issue possible.

"Team EZINE" welcomes your suggestions and feedback at ezine@gmail.com .
We extend our best wishes for your continued success and lasting happiness in Next Year.
Thank you all !!

From the Desk of Editor

-PUNIT MASHRUWALA
(Student Editor)

A big thank you to E-zine 2015-2016 to furnish us with a platform to showcase the artistic facet of our technical writers. As a student editor, it enables me to appreciate all the efforts of the staff and students of IT department who have worked for E-zine. Certainly, E-zine is indeed one of the biggest opportunities being grabbed by our students to write articles based on their interest and specializations and are converted into editors in true sense. Our editors have made sure to introduce many latest trending technology. The various activities organized and conducted by the ACM student's chapter have also been highlighted.

The mission of the department is to provide overall growth and development of students in all aspects through academic and co-curricular activities.

The vision of the IT department is to impart quality education to all the students so that they become technically sound, research oriented, professionally ethical and socially responsible citizens.

"As a bussinesssman, my dharma is to cater to every taste of my viewer. " - Netaji Subhash Chandra Bose. "

MISSION & VISION

THAKUR COLLEGE OF ENGINEERING

VISION :

Thakur College of Engineering and Technology will excel in Technical Education to become an internationally renowned premier institute of Engineering and Technology.

MISSION:

To provide state-of-the-art infrastructure and right academic ambience for developing profesional skills as well as an environment for growth of leadership and managerial skills to students which will make them competent engineers to deliver quality result in industry.

DEPARTMENT OF INFORMATION TECHNOLOGY

VISION :

The department of IT will strive to be top among providers of IT education.

MISSION:

The I.T department is committed torigorously impact quality education and prepare our student to be industry ready ready & research oriented , imbibing in them professional ethics and social values to become responsible citizens.

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Wireless Networks – 5G

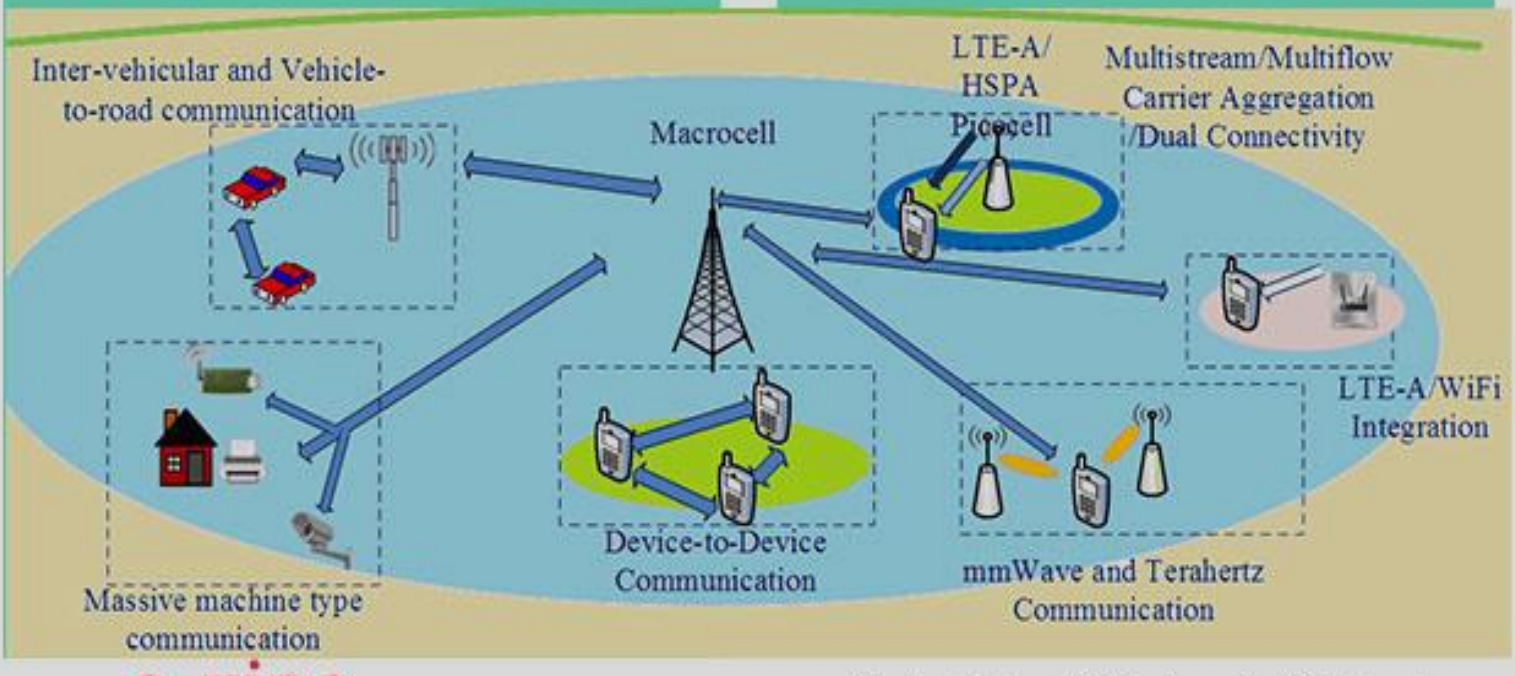
5G (5th generation mobile networks or 5th generation wireless systems) denotes the proposed next major phase of mobile telecommunications standards beyond the current 4G/IMT-Advanced standards. 5G planning includes Internet connection speeds faster than current 4G, and other improvements.

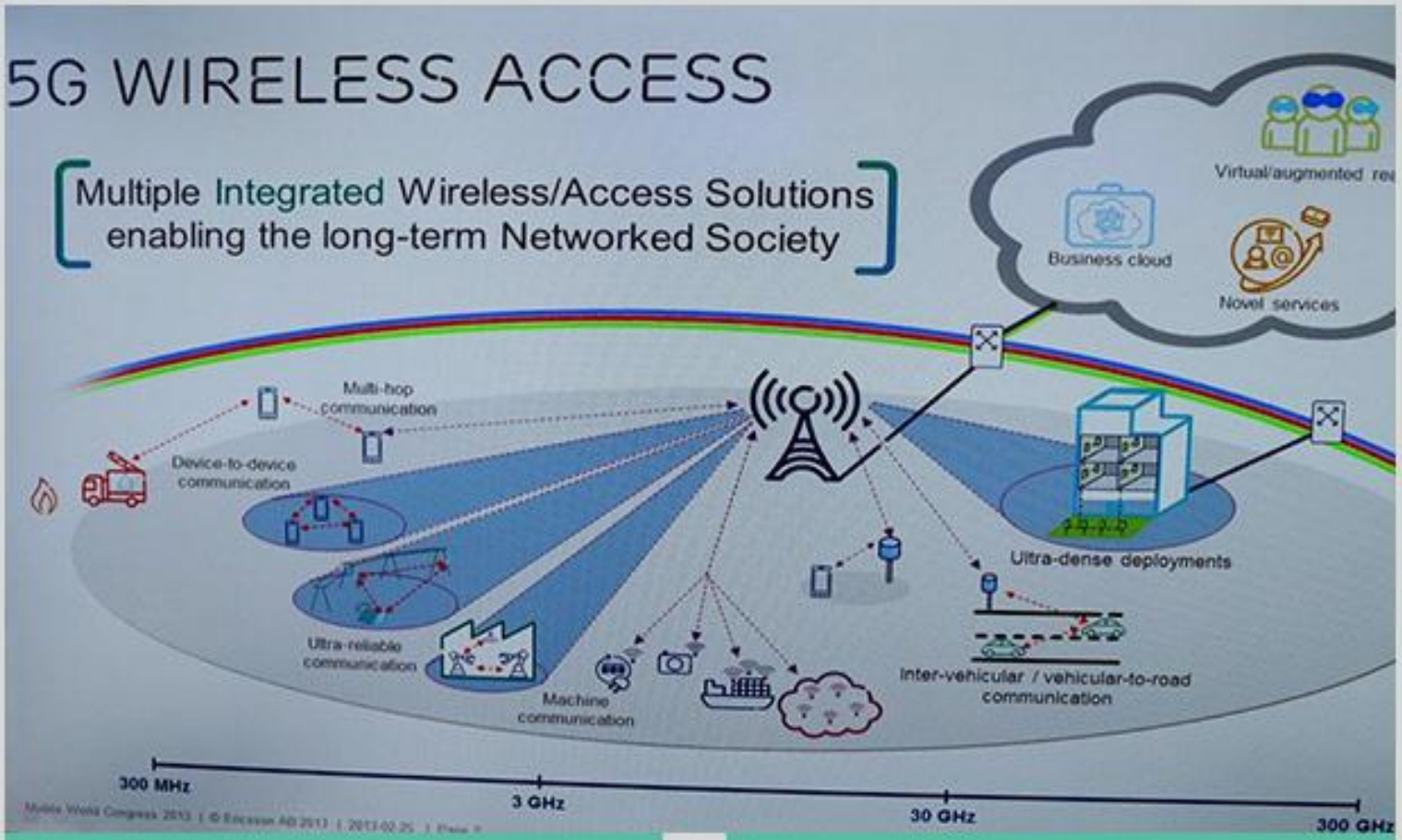
The Next Generation Mobile Networks Alliance defines the following requirements for 5G networks:

- Data rates of tens of megabits per second for tens of thousands of users
- 1 gigabit per second simultaneously to many workers on the same office floor
- Several hundreds of thousands of simultaneous connections for massive wireless sensor network
- Spectral efficiency significantly enhanced compared to 4G
- Coverage improved
- Signaling efficiency enhanced
- Latency reduced significantly compared to LTE

The Next Generation Mobile Networks Alliance feels that 5G should be rolled out by 2020 to meet business and consumer demands.[3] In addition to providing simply faster speeds, they predict that 5G networks also will need to meet new use cases,[4] such as the Internet of Things (internet connected devices) as well as broadcast-like services and lifeline communication in times of natural disaster.

Finally, current frame structure and implementation of various protocols such as scheduling and retransmissions in the 4G LTE systems offers the latency of multiple 10 ms, which is far beyond the 5G strict delay requirement of 1 ms. In fact, this 5G delay requirement implies that the physical-layer delay budget is about 100 μs.





There are many open challenges to address regarding the 5G waveform, frame structure, and related design issues in the physical layer and higher layers of future 5G wireless systems. One such frame structure to support the 5G diverse QoS (Quality of Service) and traffic requirements has been proposed in. To enhance the multiple access gain, non-orthogonal multiple access schemes have been proposed. For example, the NOMA framework utilizes power-domain superposition multiplexing. Data symbols of users are mapped to multi-dimensional sparse code words. Code words are non-orthogonal but are systematically designed to allow low-complexity detection. Moreover, while a rich literature on adaptive resource allocation techniques has been developed for OFDM wireless systems over the past decades, significant more research on medium access, resource management, and higher layer design aspects to better understand the pros and cons of different waveform alternatives is expected in the coming years. Such studies for relevant 5G deployment scenarios will be especially useful.

Dr. Rajesh S. Bansode.

Economics Denial of Sustainability Attack (EdoS) in Cloud

I would like to begin with proverb " Antivirus companies create a virus". And this article is based on that perspective.

A web hosting service is a type of Internet hosting service that allows individuals and organizations to make their website accessible via the World Wide Web. The web hosting can be done in traditional way like dedicated hosting where the user has full administrative access to the web server or shared hosting in which one's website is placed on the same server as many other sites. The cloud computing can also support web hosting that allows customers powerful, scalable and reliable hosting based on clustered load-balanced servers and utility billing. In case of cloud based web hosting, the website can either be hosted as SaaS application or it can be hosted on rented instance. In the latter case, Cloud service providers (CPS) usually offer cloud customers (i.e. website owners) two resource provisioning plans: short-term on demand and long-term reservation. If the website owner opts for second plan, the owner will be charged based on the usage.

The plan is vurnerable to Economic Denial of Sustainability (EDoS) attack.

EDoS attack is a special breed of Distributed Denial of Service (DDoS) attack that targets the cloud hosted website with the help of botnet. The attacker sends malicious botnet HTTP requests to the website as a result of which the Cloud Service Provider automatically scales up the architecture to service those requests. The website owner is charged for the increased resources that causes a sustainable decline in the economy of the website owner. The malicious HTTP traffic mimics to be legitimate and hence go undetected.

The valuation of website hosted over the cloud is done on various parameters and hence attacker's intention is to generate such traffic that exploits these parameters and never produces revenue for owner of web site. The most straightforward way to carry out EDoS attack is through botnet. Thus, the traffic generated by botnet is characterized as anomalous traffic and almost all of the current approaches detect and mitigate

this attack by distinguishing between normal traffic and botnet traffic. But, another approach to generate such traffic is by negative web browsing.

1. In case of E-commerce applications, the cloud consumer earns profit if the client makes a purchase. But if the client only browses the site without making a purchase, then the consumer earns no profit but in turn pays to the CSP. These requests have a heavy workload effect on the web application e.g. Requesting large files, making frequent searches on entire product range, which results in large queries on backend databases such as involving the joining of tables. The hosting providers like Amazon AWS offers the standard or dedicated Amazon EC2 instances for dynamic websites. In this, a customer pays for all of the virtual private hosts (servers) and all other resources. Many websites today like Quora , Wordpress etc. use Amazon for hosting and they need couple of AWS products.

The parameters on which such websites are billed are as follows:

- Number of active users per month
- Number of page views per month
- Number of web logs generated per month
- Size of static files
- New contents generated per month
- Data transfer in and data transfer out.

Thus, in EDoS attack, attacker tries to exploit above parameters by which the website owner is fraudulently charged.

Hence there is a need for Research to protect cloud based applications for such type of attacks, probably from CS and Owner of web application will able to challenge the bill raised by CSP.

BY
DR. DEVEN SHAH

Here's Why Steve Jobs Didn't Let His Kids Use iPads And Why You Shouldn't Either

If you fall within the Gen-Y era like us, chances are you've given a bunch of thought as to how you would raise your own children in this day and age (assuming you don't have children already). Especially with technology, so much has changed since our childhoods in the 90s. Here's one question: Would you introduce the technological wonder/heroin that is the iPod and iPad to your kids?
Steve Jobs wouldn't, and for good reason too.
In a Sunday article, New York Times reporter Nick Bilton said he once assumingly asked Jobs, "So your kids must love the iPad?"
Jobs responded:"They haven't used it. We limit how much technology our kids use at home."Especially in Silicon Valley, there is actually a trend of tech execs and engineers who shield their kids from technology. They even send their kids to non-tech schools like the Waldorf School in Los Altos, where computers aren't found anywhere because they only focus on hands-on learning.
There is a quote that was highlighted in The Times by Chris Anderson, CEO of 3D Robotics and a father of five.

That's because we have seen the dangers of technology firsthand. I've seen it in myself, I don't want to see that happen to my kids.
If our current addictions to our iPhones and other tech is any indication, we may be setting up our children for incomplete, handicapped lives devoid of imagination, creativity and wonder when we hook them onto technology at an early age. We were the last generation to play outside precisely because we didn't have smartphones and laptops. We absorbed information through books and socialization with other humans as opposed to a Google search.Learning in different ways has helped us become more well-rounded individuals — so, should we be more worried that we are robbing our children of the ability to Snapchat and play "Candy Crush" all day if we don't hand them a smartphone, or should we more worried that we would be robbing them of a healthier, less dependent development if we do hand them a smartphone? I think Steve Jobs had it right in regard to his kids.Play outside with them and surround them with nature; they might hate you, but they will absolutely thank you for it later.

- DR. Vinayak Bharadi


INDUSTRY
ARTICLE

App Development: Native or Hybrid?

We cannot imagine our lives without our smartphones or its apps. It's been nine years since the launch of the first iPhone which launched with ten or so apps and now there's an app for everything. People want to interact with companies through apps. One of the most important decisions before developing an app is to decide the development strategy i.e. native or hybrid.

A native app is a smartphone app developed specifically for a mobile operating system (Objective-C for iOS or Java for Android). Native app leverages the operating system specific features to give a unique user experience.

A hybrid app is essentially a web app written using HTML5 and are packaged with a native wrapper. Hybrid app can use most of the common smartphone features such as location, camera etc. using plug-ins.

The argument against hybrid apps is the performance and user experience. The performance of a native app cannot be matched by a hybrid app although that gap is reducing. Native apps allow a company to create platform specific apps that follow the user interface standards of the operating system which leads to better a user experience. Imagine an android app running on an iOS device, it just doesn't "feel right". Hybrid apps tackle the user experience problem by designing a generalized app that follow the common user interface standards and inculcate their own design language.

The argument for hybrid apps is its portability (Single Code Base, Multiple Platforms). Hybrid apps lead to faster development since there is only one code base to manage. The development time and cost of hybrid apps is considerably less as compared to native apps. Hybrid apps are very useful when the company wants to release the app ASAP.

There cannot be a winner in this debate. It essentially comes down to what is right for a particular app and a company.

Yash Jhunjhunwala
(Ex-Employee)

PARENTS

ARTICLE

Is Hockey our National sport?

Since it is the Olympics days going on,I wanted to clear people about there misconception of hockey as our national game? .India won six consecutive hockey gold medals at Olympics between 1928 and 1956. It is our national game and that's why whenever the men in blue show their dribbling skill on the green turf at a Games venue, out heart goes out to them. Not just the sport buffs but students in every school have at some point of time learnt these facts. Now, it's time, however for some unlearning.

Hockey is not the national game of the country! And the revelation has come straight from the Union ministry of youth affairs. The ministry says that country does not have a national game as no game has been notified as such.

The response from the ministry has come on an RTI query from a ten-year-old girl, Aishwarya Parashar, who has grown learning in school books that hockey is the national game of the country and was the first non-European team to be a part of the Indian Hockey Federation The Indian men's field hockey team is the most successful team in Olympic history with 8 gold, 1 silver, and 2 bronze medals.

"I wanted to know when did the government issue an order to announce the country's national game," Aishwarya told TOI. And, the candid response from the ministry has already left everybody - she herself, her parents and teachers confused.

"I learnt it from my text books that hockey is our national game," she added. The ministry, on the other hand, said it has not found any official order or notification which calls hockey the national game." I haven't come across any order or notification in the ministry saying hockey is the national game," said SPS Tomar, under secretary, Union ministry of youth affairs and sports, while responding to the query. "It's known to be a national game in general parlance," Tomar had added.

The ministry has sports disciplines put into different categories. Hockey is one of the priority disciplines but it is not a national game. The response, however, contradicts GoI's own announcement, made on its official website (india.gov.in).

The website does not only call hockey the national game but also talks about India's glorious `hockey' history. Not only this, the response has left hockey players fuming. "They should then tell us which is the national game and show us the notification which says hockey is not a national game," says Olympian Sujit Kumar.

Since 1928, when India played hockey in Olympics in Amsterdam under the Union Jack, it has been the country's national game. "Instead of talking nonsense, they (govt) should do something to improve the game and work for betterment of hockey players," said another Olympian Syed Ali.

It was when the performance of the hockey team deteriorated, in 1990s, that ministry did consider taking away from hockey the status of the national game but it never happened.

"I have played three Olympics and given 14 years to the game, I have always known it to be a national game," says Mohammad Shahid, former Indian captain and one of the greatest dribblers the country has produced.

By- -Reeta Dutta


Students
Articles

Internet Of Things.

Why would we want an Internet of Things? we need to empower computers with their own means of gathering information, so they can see, hear and smell the world for themselves, in all its random glory.

Buildings, cars, consumer products, and people become information spaces. We were entering a land where the environment became the interface, where we must learn anew how to make sense. Making sense is the ability to read data as data and not noise. Still this is the challenge we face today.

Gone are the days of computers, smart phones and tablets being the only objects able to connect to the Internet. Today, nearly everything around us — from coffee pots and household lights to vending machines and cars — has the ability to be brought online to interact with other machines. This idea of physical objects communicating and interacting with each other online is referred to as the Internet of Things

In 1999 Kevin Ashton, then at P&G, coined the term 'Internet of Things'. It was a new term, but not a new operation. It was known as pervasive computing,and ambient intelligence. The 90s database storage was too expensive. It is the Cloud, operational from 2000s, that enables IoT.

Since then, technology companies around the world have been feverishly trying to develop new ways to link the Internet with physical objects. Currently, there are more than 12 billion devices that can connect to the Internet. However, by 2015, IT giant Cisco projects there will be 25 billion, with that number jumping to 50 billion by 2020, nearly seven times the number of people on the planet.

The IoT has a wide application range depending on the network type, scale, coverage, and user involvement. In fact, many companies have their own vision about the

future of the IoT.

The Internet of Things is currently being applied in a wide variety of uses throughout the home, businesses, hospitals, cars and entire cities. The most common places everyday consumers see Internet-connected devices are in the home. Internet-connected objects, from thermostats and lights to smart outlets and key tracking devices, are used in the home to help owners save time and money. Being able to remotely monitor and control which devices are on and off at any certain time helps homeowners reduce monthly electric, gas and water bills.

The Internet of Things is seen similarly in businesses. Companies in every industry are incorporating Internet-connected devices into their operations as a way to save money. While the majority are using things temperature and lighting controls, some are figuring out more advanced ways to use the devices. Examples include vending machines that send signals to a business' computers when they're running low, or manufacturing equipment that can send warnings when it is malfunctioning.

But that's only one layer of what the Internet of Things is capable of. Its full potential can be seen when multiple devices are interacting and communicating with each other all at one time. For example, Cisco paints a picture of a sleeping employee who receives an email overnight letting them know their first appointment of the day is being pushed back 45 minutes. That email will then notify the employee's alarm clock, which will then readjust when it is set to go off. When the alarm does go off, the clock can then communicate with the coffee pot to start brewing a cup and let their car know they need to start defrosting those ice-covered windows.

The Internet of things is often known as Machine to Machine, Man to Machine, or Machine to Mobile.Smartphones are an important connecting tool acting as a vital instrument in making this new technology a convention. These wireless devices are equipped with all the necessary sensors and network technologies to stay connected with your things. With the IoT, watches, car keys, and even buildings use embedded chips and sensors to form a ubiquitous network.

Companies like Samsung and GE are manufacturing products like smart thermostats, lighting systems and other appliances that communicate using the IoT. However, until now this smart connectivity was expensive and difficult to produce. It is only in the last year or so that companies like Qualcomm, Texas Instruments and Intel have come up with economic and efficient chips that can connect to the web.

A wide adoption of the Internet of Things model will result in the generation of a large amount of data requiring storage, processing and retrieval. This challenge requires the scale of cloud computing.

Internet of Things (IoT) shaping human life with greater connectivity and ultimate functionality, and all this is happening through ubiquitous networking to the Internet. There is seemingly no limit what can be connected to the Internet. In short, we can summarize that Internet of Things (IoT) will be more personal and predictive. This will make life easy, comfortable and more efficient with the help of mobility and cloud. The Internet of Things (IoT) will merge the physical World and the virtual world to create a highly personalized and ofter predictive connected experience.

By
Shweta Mishra
TE.IT.B

The Advent of Machine Learning

Have you ever wondered why Facebook is able to "recommend" friends to you? Ever wondered how youtube always has something for you that you might find interesting? Be it gmail giving you suggestions to reply to an email or a camera detecting your face in an image; from ranking pages on Google or Bing, to filtering out all the spam from your mailbox; from predicting a cancerous tumor, to creating a machine that could defeat you in a game that has more than 1 million moves after each turn (Go). Everything uses Machine Learning in some way or the other.

So what is this new term? Well, to be technical:

"Field of study that gives computers the ability to learn without being explicitly programmed".

-Arthur Samuel

The Ability to learn ! This is where things get interesting, as for all we know, animals are the only species (in the universe) that have the capability to learn, to experience their mistakes and to grow from them. But with a lot of math and code, we have been able to create machines that are capable to learn and grow, just as humans, but faster.

To complicate it a bit:

A computer program is said to learn from experience E with respect to some class of tasks T and performance measure P if its performance at tasks in T, as measured by P, improves with experience E.

Woh! That's some fancy-shmancy t erminology. So let's break it down: A computer program (we'll refer to it as the model) is said to learn via experiences (just as humans learn from their experiences) with respect to some task T (like throwing a ball or learning how to ride a bicycle) and performance measure P (if you fall while riding the bike, it was a failed attempt, but it taught you that what not to do while riding the bike) if it's performance in task T (you riding the bike) as measured by P (don't worry, you'll get better with time, just as our model gets better with more data) improves with experience E (the more time you spend practicing on that bike, the more likely you are to succeed).

Let's take another example:

Suppose the task is the prediction of whether it will rain or not tomorrow. Here the task T is to predict the weather. The performance measure will be whether the machine predicts the weather correctly or not. And the experience will be the weather data that we feed into the .

Are you paying close attention? Good. Because this is complicated.

So initially, the machine might randomly guess that it will rain tomorrow. There is a 50% chance that the machine is right (because either it will rain tomorrow or it won't). Now we feed in some data to the machine, i.e. the precipitation in the air, the humidity, wind currents, temperatures, etcetera for a day. All these values which we feed into the machine are known as

Parameters used to determine weather on that day. And thus each day will become a training example for the machine. Suppose that we train on 2 months of data, the performance of the machine will increase as it will start finding patterns from the data. It will see that if the humidity is high, it might not rain. If the wind current is fast then there is a strong chance that it will rain. We will measure the performance of the machine. Each negative example (i.e each time it guesses incorrectly) will make the machine to ignore that pattern and each positive example will make the prediction model stronger.

This is a basic example of how machine learning works. You have objects, those objects have parameters, on the basis of those parameters you create a model which has trained on those example objects. You basically plot all the data points on a n dimensional space (n being the number of parameters). You plot all the data points. Then when the new data comes, you see where it is in the n dimensional space and accordingly toy predict the type of that data item. Then you measure the accuracy of the model using test cases. If the model works (i.e it correctly identifies the test examples) then the model can be used to predict any new data.

TL;DR: feed some data to a machine so that it becomes capable enough to classify the new data or predict the pattern in the new data.

So, what gives?

Well, the reason that machine learning is the big thing today and will likely be for a few years to come is because it helps create entities that learn own their own, that require less manual intervention and that make processes faster, thus saving time and energy of us Humans which can be used somewhere else.

Require online medical consultant at 3 in the morning? There is a chatbot which has been trained on medical history data of many patients across the world. It can help you out.

Need a pizza? There is a pizza bot mounted on a truck which is autonomously driving towards your house while the bot makes the pizza in the back of the truck.

Pranjal
TEIT-A

Are Celebrities Given To Much Importance in INDIA?

Just 4 days back the trailer of 'M.S.Dhoni: The Untold Story' was out and it has got 12 million views on YouTube already. There was too much buzz regarding the trailer. On the other hand, the house of a soldier who fought for his country in Pathankot was being demolished. A very few news channels covered this news. This made me wonder if Celebrities in India are given too much importance? Yes, they are. But the question is, do they deserve it?

Cricket and Bollywood, Indians breathe in everyday with these areas of profession giving us a reason to exuberate, gossip, to flaunt our knowledge and to quickly grab attention of people we are walking with. I believe they do deserve the attention they get. People all over the world get attracted to things that help them forget their problems. Cricket and Films allow an escape to the people from their daily life, make them laugh and celebrate life.

In a country where 1.2 billion people worship Cricket and thousands pursue the dream of playing for their country, a person who gets into the national team deserves all the attention he gets. Not all film stars get excessive attention. There are thousands that act in movies but not more than a handful of them actually go on to become famous. The attention is also for a small period of time and there is a constant change in those who attract the crowds. Though, a few actors have managed to stay in the spotlight for more than 15-20 years by immense hard work.

A common myth among Indians is that becoming an actor is easy. Let me tell you there is no book that teaches you how to Act. Cricket and Bollywood is celebrated throughout India by everyone with each other regardless of any caste, creed or religion. Being a celebrity in India has its disadvantages too, the crowd expects them to perform always. If they fail to deliver, they are criticized a lot.

As I have discussed if celebrities deserve the importance they get, , let's talk about how they get it. Indian media follow the celebrities everywhere like Betaal followed Vikram. For many years the Media has been earning by gossiping about the celebrities.

The media stalks their families, friends, etc and make it difficult for any celebrity to have a peaceful outing. Thus, the celebrities are not at fault, we are!

Today, everyone would prefer to rather watch the news about a celebrity's personal life than about a war veteran. Thus these facts prove that the attention & Importance given to the celebrities in India is well deserved.

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By Jeet Shah
(S.E. IT B)

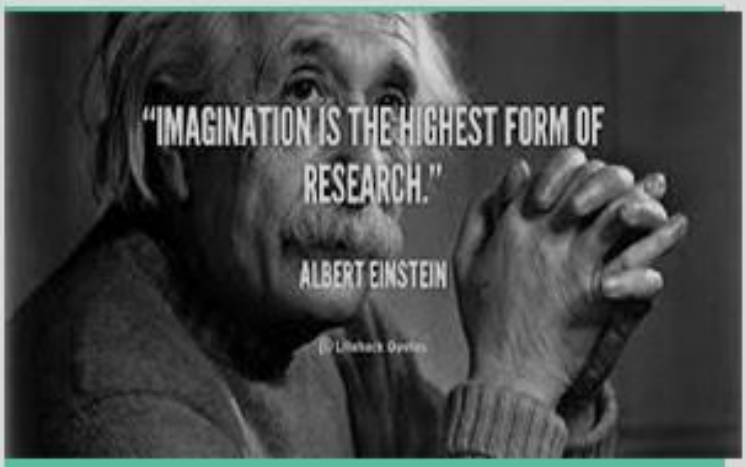
IS TECHNOLOGY KILLING HUMAN IMAGINATION?

What comes into your mind when you hear a word "TECHNOLOGY"? I think mobiles, laptops, television, games right? But you ever think what technology actually means? No, because you are just using technology, you are not bothered about how it came.

Every coin has two sides like that technology also has two sides. One positive side which is, it right now connected each and every person in the world but the negative side is that it has killed the human imagination. Whenever you ask something to a person, he will not think just Google it & find out the solution.

Now internet connected the people, which is far away from each other. Technology makes them so closer that they don't feel they are apart from each other. Whenever you want, you just text the person and communicate, but people using it so blindly that they are sitting side by side and still texting each other, rather than talking face to face.

People get the news of small things by sitting at home on TV.TV shows teach some good thing to kids, refresh them if they are tired, cooking shows helps the woman by showing them different dishes by sitting home only. But this TV is also one which is responsible to make the children lazy; kids are sitting hour & hour in front of TV and wasting their precious time. They even don't prefer to play sports.



Noted scientist and thinker Albert Einstein has stressed that imagination is more important than knowledge.

This is because knowledge is limited to what is known and understood while imagination embraces the world and points to all there ever will be to know and understood. Technology is a platform for talent; it has made many innovations possible in fields as diverse as music, entertainment & film making. It has expanded the scope and power of human imagination by enhancing the limits to which one can go in creative process but it stops the creativity of human mind. If person want to dance he just Google (YouTube) it & copy the steps rather than creating its own. When a project is given to student he simply Google it & find out topic. He will not think to create his own topic & project.

Technology helps the imagination to become true but technology is only one who killed the imagination. If people have any doubt he just use technology to find its solution. It is good to use technology because it saves the time in this timeless world. But

Technology helps the imagination to become true but technology is only one who killed the imagination. If people have any doubt he just use technology to find its solution. It is good to use technology because it saves the time in this timeless world. But

they do not try to think about the solution by itself. This is what reduces the IQ of person. If programmer get error he just Google it and find out the solution but never try to find & solve the error. Mistakes are the one who taught you the lesson then books. In the entire world only 10% people are there who use technology to help their imagination become true and 90% people use technology to find new idea.

So conclusion is that technology makes human more talented, if it is used in right manner. Whatever we are right now is because of technology only & we are thankful for it. But we should use the technology not the technology uses us. First think something then use technology rather than use technology to think something. Make yourself such that you sit up to technology not down to technology.

Sraddha Paghdar
- TE IT A

Data Mining

Development knowledge technology has created great amount of information base and large amount of data in several analysis fields. To analysis in data mining has make to store information and control before that keep information for additional deciding process. Data mining is employed to extract understood and before that unknown data from information. Data processing is that the process that provides a plan to draw in attention of users thanks to high availableness of big quantity of knowledge of data and wish to convert such data into helpful information. So, many of us use the term "knowledge discovery device" or KDD for data processing.

Knowledge extraction or discovery is completed in seven steps employed in information mining:

1) Information cleaning:
We have a tendency to take away noise information and unrelated/unimportant information from collected data, at this step.

2) Information (combination of various things along that job collectively unit):
At this step, we have a tendency to mix several

3) Information Selection:
Here, information clearly connected with or relating. lysis job area unit retrieved from information base as pre-processed information.

4) Information Change:
Here, information is grouping along into customary formats acceptable for mining by summarizing and classified operations.

5) Information Mining:
At this step, completely different good ways that of doing things and tools area unit applied so as to extract information pattern or rules.

6) Pattern (process of determining the price, amount, or quality of something):
At this step, strictly determine tree patterns representing data.

7) Data Representation:
This is often the last stage within which, seeing and data illustration ways that of doing things area unit accustomed facilitate users to know and understand the information mining data or result. The goal of data discovery and data processing is to seek out the patterns that area unit hidden among the large set of information and understand helpful knowledge and knowledge.

There area unit completely different major data processing ways that of doing things that are developed and employed in data processing comes not terribly long ago as well as association, rule classification, clustering and process of determining the price, ajam-packed with information.

amount, or quality of something pattern etc, area unit used for data discovery from computer file jam-packed with information. Data mining may be a "decision support" method within which we have a tendency to explore for patterns knowledge in data. Data processing ways that of doing things akin to classification, clustering, association and patterns etc.

The business, academic and scientific applications area unit additional and additional passionate about these ways that of doing things. Call trees area unit a reliable and effective higher cognitive process means of doing things which give high classification quality of being terribly on the brink of the reality or true number with a straightforward illustration of collected KDD. It facilitate specialists to validate and classify the results and results of tests and punctiliously study completely different new signs of sicknesses supported information. This way , data processing will facilitate to play a vital role within the field of drugs or health care and disease prediction.

By
Riya Parikh
TE IT A

A LINE BETWEEN NEEDS AND WANTS

We were always advised to buy only the things we want. By defining the items we need we can be able to streamline our finances in order redirect our money to the needs rather then the wants. Plus we can also be able to prioritize on these things.its is proven that we humans consider our physiological needs and biological needs first.This mean that in our money and budgeting we must prioritize our needs for foods,shelter and colthing.

when you get that designer shirt, it is still part of our colthing need but can that be counted as well? However, many of us are afced with the dilemma of that confusion between wants and needs. There is always that thin line between as well as separate the two . I suggest you use that line in order to justify your purchases. There are physiological and biological needs . there are items that we think of as needed in some way in line with that, it is important that weget to see and define them and think about it critically from our prespective.

That is when defining your needs and wants it is imperative that we get to think of these items for a moment and justify it.

Lets take some example:

we need food. However , going to fastfoods and resturants would be deemed as a want. we can opt to frugally take food from the house. It will still provide us the same nourishment that we need and can sustain us every single day without the large bill afterwards.

we need clothes. But what we need are the items that woukd make us comfartable and appropriately dresses. designer ones are considered a want. There are comfortable clothing items that look good on us yet also inexpensive and cheap.

Everything that goes beyond those needs and will entail more cost on our end is already considered a want. When you begain to appreciate the simple things and you realize how much you could be able to cut in process . For instace, we no longer need a post-aoid line since we can live a prepaid line instead. with that we can save money monthly.

However, this does not mean that you can only buy the things that you need. Life after all is meant to be lived , not survived. That is why, it is also important you get to treat yourself with a few wants. But bear in mind this, do so when you can be able to afford it. Even more, think if purchasing that want can cripple your current financial situation. If you will still a lot after the purchase,then buy it. If it can eat up a big bulk of your money , then don't.

"THERE'S IS FINE LINE
BETWEEN
WANT AND NEED"
& I DON'T NEED TO BE WANTED,
I SIMPLY WANT TO BE NEEDED...

Manav Mishra
SE A

Privacy and Security: Online Social Media

Online Social Media (OSM) such as Facebook, WhatsApp, YouTube, Twitter, Google+, Instagram attract hundreds and millions of users. Such social networks have a centralized archarchitecture wherein user's private data and user generated content are centrally owned by a single administrative domain that manages communication between its users. As a result, centralized social networks have gathered unprecedented amounts of data about the behaviors and personalities of individuals, raising major privacy and security concerns. This has put in demand for a decentralized social networking site that addresses the privacy and security issues.

The emergence of online social networks brought an era that changed the whole scenario of online information sharing. The earlier methods used included electronic mail messaging wherein the user could just pass on a text document or an image of a particular size. When these social networking sites came into existence, users experienced new ways of sharing information as well as performing other online activities. These included online chat, video chat, sharing common interests, playing online games with friends, keeping touch with friends, near and far relatives, gaining information about them through their profiles and knowing their whereabouts. Therefore, by providing these exciting features at less cost these sites gained a lot of popularity. Out of the various social networking sites that exist today Facebook, Twitter and Google+ are the most popular as they deal with millions of users worldwide. Although these websites have greatly increased internet usage, they have also created various privacy and security concerns in the research

community. These concerns arise due to centralized architecture of these social networking sites. Most of the issues are due to the fact that these SNS (social networking site) vendors treat users as 'consumers'.

HOW TO PROTECT YOURSELF:

- Use the least amount of information necessary to register for and use the site. Although this is not possible with all social networking sites, it is best to use a nick-name or handle.
- Create a strong password and change it often. Use a mix of upper and lower case letters, numbers, and characters that are not connected to your personal information (such as birthdates, addresses, last names, etc.).
- Use the highest level privacy settings that the site allows. Do not accept default settings.
- Be wise about what you post. Do not announce when you will be leaving town. Other things you should never post publicly: your address, phone number, driver's license number, social security number (SSN) or student ID number. Only connect to people you already know and trust. Don't put too much out there - even those you know could use your information in a way you didn't intend.
- Read privacy and security policies closely - know what you're getting into. Some major social networking sites actually say they will use or sell information about you in order to display advertising or other information they believe might be useful to you.
- Verify emails and links in emails you supposedly get from your social networking site. These are often designed to gain access to your user name, password, and ultimately your personal information.
- Install a firewall, reputable anti-spam and anti-virus software to protect your information-- and keep it updated!

- Be certain of both the source and content of each file you download. Don't download an executable program just to "check it out." If it's malicious software, the first time you run it, you're system is already infected. In other words, you need to be sure that you trust not only the person or file server that gave you the file, but also the contents of the file itself.
- Beware of hidden file extensions. Windows by default hides the last name extension of a file, so that an innocuous-looking picture file, such as "susie.jpg," might really be "susie.jpg.exe," an executable Trojan or other malicious software. To avoid being tricked, unhide those pesky extensions, so you can see them.
- Use common sense. When in doubt, don't open it, download it, add it, or give information you may have doubts about sharing.

Conclusion:

Consumers need to be educated on the proper use of social media as it relates to protecting privacy and security. Social networks need to understand the impact of not addressing security and privacy issues. If the information becomes corrupted, it not only casts doubt on the social network but on your real-life personality.

By- PraDeep Kotian
TE.IT.A

AI's Linguistic Problem

About halfway through a particularly tense game of Go held in Seoul, South Korea, between Lee Sedol, one of the best players of all time, and AlphaGo, an artificial intelligence created by Google, the AI program made a mysterious move that demonstrated an unnerving edge over its human opponent. On move 37, AlphaGo chose to put a black stone in what seemed, at first, like a ridiculous position. It looked certain to give up substantial territory—a rookie mistake in a game that is all about controlling the space on the board. Two television commentators wondered if they had misread the move or if the machine had malfunctioned somehow. In fact, contrary to any conventional wisdom, move 37 would enable AlphaGo to build a formidable foundation in the center of the board. The Google program had effectively won the game using a move that no human would've come up with.

One reason that understanding language is so difficult for computers and AI systems is that words often have meanings based on context and even the appearance of the letters and words. We need to demonstrate the use of a variety of visual clues to convey meanings far beyond the actual letters.

AlphaGo's victory is particularly impressive because the ancient game of Go is often looked at as a test of intuitive intelligence. The rules are quite simple. Two players take turns putting black or white stones at the intersection of horizontal and vertical lines on a board, trying to surround their opponent's pieces and remove them from play. Playing well, however, is incredibly hard.Whereas chess players are able to look a few moves ahead, in Go this isn't possible without the game unfolding into intractable complexity, and there are no classic gambits. There is also no straightforward way to measure advantage, and it can be hard for even an expert player to explain precisely why he or she made a particular move. This makes it impossible to write a simple set of rules for an expert-level computer program to follow.

AlphaGo wasn't told how to play Go at all. Instead, the program analyzed hundreds of thousands of games and played millions of matches against itself. Among several AI techniques, it used an increasingly popular method known as deep learning, which involves mathematical calculations inspired, very loosely, by the way interconnected layers of neurons fire in a brain as it learns to make sense of new information. The program taught itself through hours of practice, gradually honing an intuitive sense of strategy. That it was then able to beat one of the world's best Go players represents a true milestone in machine intelligence and AI.

A few hours after move 37, AlphaGo won the game to go up two games to nothing in the best-of-five match. AlphaGo's surprising success points to just how much progress has been made in artificial intelligence over the last few years, after decades of frustration and setbacks often described as an "AI winter." Deep learning means that machines can increasingly teach themselves how to

DEPARTMENT

ACTIVITY

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1.	AKANSHA TIWARI, ABHISHEK TIWARI, DIVYA SHRAMA, MILAN TANK, SURAJ SINGH, SHUBHAM MORE	OCPJP
2.	SIDDESH KADAM, ADITYA PITRODA, RAJ SURVE	RUNNER UP AT NATIONAL LEVEL PAPER PRESENTATION.
3.	VEDANT	WINNER AT MULLTICON(PAPER PRESENTATION)
4.	VIVEK KUMAR, SANGITA PADSHALA	PYTHON CERTIFICATION
5.	AKSHDEEP RUNGTA SHIVAM WAGHELA	4TH PLACE AT EYANTRA COMPETION
6.	SURAJ SINGH	JRD TATA SCHOLARSHIPS
7.	VEENA KAMAT	SPORTS(THROWBAL)
8.	GAURAV GUPTA	SPORTS(KARATE)
9.	HARSH SINGH	SPORTS(CRICKET)
10.	SUYASH YADAV	SPORTS(FOOTBALL)
11.	YASH KANODIA	SPORTS(TABLE TENNIS)

E-zine
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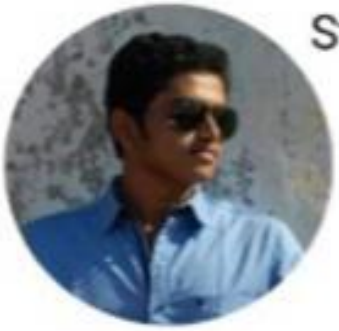

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Date Submitted : _____

Suggestion : _____

Code of Ethics

The department of Information Technology of TCET believes that IT engineers make a direct impact on almost all aspects of human life for its betterment. I.T engineers should strictly adhere to the highest principles of ethical conduct. In order to inculcate high standards in professional behavior. The department advocates the following code of ethics for all students ,faculty members and staff of the department :

1) Strive to be professionally competent to provide high quality products and services.
2) To responsibly make decisions avoiding / minimizing hazards to society and to disclose potential factors that may be a threat to health and safety.
3) Be fair to all individuals and not discriminate between individuals based on religion, race, sex, age, disability, national origin etc.
4) Give credit to contributions of others viz. copyright, patents, intellectual property.
5) Protect and respect privacy and ensure confidentiality of information wherever appropriate.
6) The knowledge gained during the course of study will not be misused for carrying out any illegal activities including intruding and hacking of networks.