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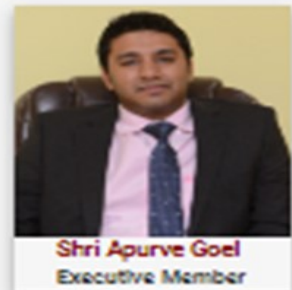Executive Member

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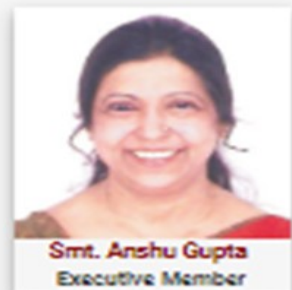**Shri Ashok Chaturvedi**
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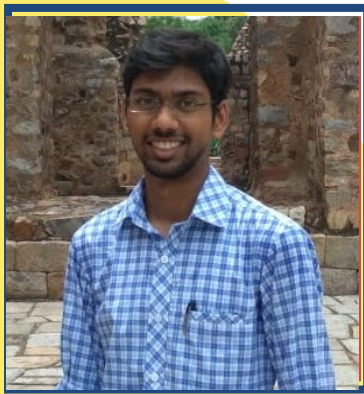
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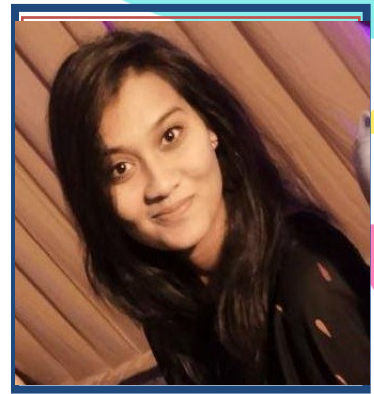
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VISION/ MISSION OF INSTITUTION AND DEPARTMENT

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

Institute 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.

Department Vision: 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.

Department Mission:

- 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

- 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.

- 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.

- 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.

- 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

- *Student should learn to demonstrate the basic understanding of Computer Science & Engineering fundamentals, programming, and professional/social ethics and apply mathematical foundations to design & solve computational problems.*

- *Student should learn to apply analysis, design, development, testing & management principles in the development of computational solutions & software systems; He/she is expected to function effectively in development teams.*

- *Student is expected to gain enough value addition and technical expertise on latest industry specific skills through self learning & training. They are expected to have good communication skills with correct attitude and aptitude.*

- *Students are expected to inspire for lifelong learning & do well in their professional careers. They are also expected to act as a good citizen by inculcating in them moral values & ethics.*

From Editorial Desk....

It is with immense happiness that we place in the hands of our readers this edition of 'THE BYTE'. This magazine is a platform that exhibits the literary skills, innovative ideas of teachers and students. It was crazy when we stated it but when it all come together, we were more than happy.

We express our considerable appreciation to all the authors of the articles in this magazine. These contributions have required a generous amount of time and effort. It is this willingness to share knowledge, concerns and special insights with fellow beings that has made this magazine possible. We hope you enjoy reading these articles, as seen through the IMS student's journalistic eye.

Thank you all!!

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ARTICLES

QuoTES of chanakYa

1. "A man is great by deeds, not by birth".

2. "We should not fret for what is past, nor should we anxious about the future; men of discernment deal only with the present movement".

3. "books are as useful to a stupid person, as a mirror useful to a blind person".

4. "A person should not be too honest. straight trees are cut first, and honest people are screwed first."

5. "One whose knowledge is confined to books and whose wealth is in the possession of others can use neither knowledge nor wealth when the need for them arises."

6. "Once you start working on something, don't be afraid of failure and don't abandon it. People who work sincerely are the happiest."

7. "There is no austerity equal to a balanced mind, and there is no happiness equal to contentment, there is no disease like covetousness, and no virtue like mercy."

8. "Purity of speech, of the mind, of the senses, and of a compassionate heart are needed by one who desires to rise to the divine platform."

9. "before you start some work, always ask yourself three questions. Why I am doing it, what the result might be and will be successful. Only when you think deeply and find satisfactory answers to these questions, go ahead."

QuoTES of chanakYa Continue…….

10. "Time perfects men as well as destroys them."
11. "Do not reveal what you have thought upon doing, but by wise council keep it secret being determined to carry it into execution."
12. "The wise man should restrain his senses like the erne and accomplish his purpose, with due knowledge of his place, time and ability."
13. "The education is the best friend. An educated person is respected everywhere. Education beats the beauty and the youth."
14. "Wealth, a friend, a wife and a kingdom may be regained, but this body when lost may never be acquired again."
15. "The world's biggest power is the youth and beauty of a woman."

-Mukhar Bajpai (CSE 2nd year)

SUMMER IS HERE!

Temperature's rising and we are looking forward to longer and lazier days of summer. While summer may be of some relief from cold and chilly days, it may also bring along various health problems like dehydration, upset stomach, bacterial infections, heat stroke, et al. It is imperative to make sure you are eating the right foods and exercising the right way to fitness and health. Restore and replenish your skin and physical health as we suggest some amazing healthy diet tips to survive the sweltering summer this year. Here are some healthy tips for summer you must note down!

1. Grab seasonal fruits and vegetables
These days most vegetables and fruits are available all-year round; however, consuming seasonal foods have their own charm and health benefits. Always picks freshly harvested foods to extract best benefits they have to offer. Load up on mangoes, plums, tomatoes, berries, watermelon, oranges, celery, et al.

2. Keep yourself hydrated
Drinking water is extremely important as it help rehydrate your body and helps it function better. Make sure you gulp down 8-10 glasses of water and ensure a well hydrated body. Do not drink extremely chilled water as it will only wreak havoc on your health.

3. Downsize your meal
It takes longer for the stomach to digest food plus the hot weather does not allow you to load up on too many foods. It is good to have lighter meals rather than having heavy ones, especially at night.

4. Eat more cooling foods
Load up on more body cooling foods and more hydrating foods that will help your keep going in this heat. Eat more watermelon, sesame, coconut water, cucumber, mint, fennel seeds, et al.

5. Choose fresh juices over cold drinks
Summers make you thirsty more often, which makes us resort to cold drinks and energy drinks that prove to be hazardous in the long run. Whenever you feel like quenching your thirst, prefer drinking orange juice or melon juice.

6. Binge on lighter snacks
Move over fried snacks that you enjoyed during winters; it is time to load up on lighter snack options like nuts, trail mixes, seeds, fruits, et al.

7. Hygiene is the key to a healthy body
Make sure whatever you eat or drink on is clean and hygienic. You are prone to get bacterial infections from the utensils in restaurants and even at home. Always ensure they are clean and always wash your hands before eating.

These healthy diet tips will ensure a happy and healthy you! Happy Summers!

NIKITA GUPTA
(CS 2nd year)

The Web World Wide

Despite the name, the World Wide Web ... isn't. Some 52 percent of the world — roughly 4 billion people, mostly women — don't have access to the open web.

This has sparked something like a new space race, featuring satellites, high-altitude balloons, drones, even lasers. The rush of startups and tech companies, including SpaceX, Google and Facebook, make it only a matter of time before most humans are online.

The benefits are already clear. Getting online is financially advantageous for folks in low-income regions, especially Africa and Asia, where lack of connectivity is highest. Connectedness also promotes greater participation in politics and society.

"If people have access to faster internet speeds, then you will also see improvements in economic growth," says Dhanaraj Thakur, a researcher at the Alliance for Affordable Internet, a group aiming to lower broadband costs. "There are specific benefits in different sectors: health, education and so on."

The International Telecommunication Union has nailed down a few main reasons why online access remains elusive: insufficient infrastructure, lack of digital literacy and irrelevant content, such as English webpages when your native language is Amharic.

But one of the biggest hitches? Cost. A survey of 58 low- and middle-income countries found just 19 boast affordable internet, defined as 2 percent or less of average monthly income for one gigabyte of mobile data. Across Africa, the 2015 average cost was more than 17.5 percent of monthly income. That's prompted interest from tech companies. It can seem altruistic, but these endeavors are also driven by the urge to find more customers, which concerns outside groups worried about privacy, data collection and free speech.

"It's not enough simply to bring the internet to a country," says Cynthia Wong, the senior internet researcher at Human Rights Watch. "It's what kind of internet do you bring, how is it going to be regulated, and how much meaningful control and choice do people have over their experience."

Ellery Biddle is advocacy director for Global Voices, which focuses on technology and human rights. She agrees the issue isn't just "connecting" countries. It's about quality. "Today, it's a matter of who has access to and benefits from that internet infrastructure," she says.

Companies have gotten creative to overcome the technological hurdles, with mixed success. In June, Facebook shuttered Project Aquila, its program of massive solar-powered drones that would've beamed the internet via lasers and then relayed it down to places without dedicated access. The much-hyped project ran just two test flights — during the first, a drone faced with high winds crashed, leading to a federal investigation. After that, Facebook decided building aircraft was too difficult — and irrelevant, with so many other companies developing autonomous Wi-Fi hotspots.

Facebook closed their lab, and they've partnered with Airbus on their drones. Now, they're testing plane-mounted lasers like Aquila's. They're also working on OpenCellular, an open-source, low-powered base station that Facebook hopes will connect billions more using cellular networks. Facebook wasn't the only tech agency to crash and burn. Back in 2014, Google's X division moved in ahead of Facebook and purchased Titan Aerospace, which made personal solar-powered drones. During Titan's only test flight, both wings snapped off and the aircraft was destroyed on impact. The company was shut down in January 2017.

X has now switched focus to Project Loon — a balloon flotilla that bobs 12 miles above Earth, beaming 4G LTE like a cell tower. Loon was deployed last year after Peru's deadly floods and again after Hurricane Maria hit Puerto Rico. They've (temporarily) connected more than 300,000 people, the company says. And now they're eyeing rural Africa.

Meanwhile, others are focusing their efforts on making satellite internet cheaper. By year's end, startup OneWeb aims to launch the first of a constellation of 900 little, low-orbit satellites beaming high-speed internet. SpaceX wants to launch around 4,000 satellites for the same purpose; its prototypes are doing well.

Other companies, big and small, are edging in on the action. But despite these many projects, there are more roadblocks than just logging on. Biddle says Facebook and other companies often overlook government presence — and things like balloons and drones can distract leadership from building infrastructure.

"Some of the riskier 'moonshot' investments will fail, and some will find a place alongside more mature access technologies," says Nathan Kundtz, CEO of Kymeta, whose flat-panel satellite antennas came on the market last year. "Ultimately, I expect that the expansion of internet access into developing countries will continue, and that it will be a force for positive economic and social development."

Abhinav Kaushik

CS 2ND Year

INDIA AND DATA PRIVACY

In a recent article in the Washington Post, Mark Zuckerberg, founder and chief executive of Facebook, said there is a need for regulating the internet while preserving what is good about it. One of the areas he identifies that require new rules is on privacy and data portability. He makes a case for a globally harmonised framework by taking the EU General Data Protection Regulation 2016 (GDPR), considered one of the most stringent in the world, as the basis.

In India, there is indeed a need for a robust privacy law that puts the rights of the individual at the centre. The nine-judge bench of the Supreme Court of India (SCI) in Puttaswamy (Aadhar case; 2017) recognised the right to privacy as a fundamental right under Article 21 of the constitution. The Personal Data Protection Bill 2018 (the Bill) was drafted with twin objectives of creating a legal framework for data protection and an enabling environment for data driven innovation and entrepreneurship to flourish.

Section 40 of the bill, however, provides a data localisation mandate, which does not quite meet its privacy objective. Storing data in India may actually have negative implications making individuals vulnerable to Big Brother surveillance.

What The Bill Mandates

The bill requires personal data to be stored in a server located in India and notified critical personal data to be processed only in India. Section 41 (1) (a) of the bill permits cross-border personal data transfers (other than the notified sensitive personal data) subject to standard contractual clauses or intra-group schemes that have been approved by the Data Protection Authority or where the central government has permitted transfers to a country, sector or an international organisation. In addition, for the transfer of personal data/ sensitive personal data, consent/ explicit consent of the data subject is required. These requirements prohibit or severely restrict routine cross-border transfer of data that requires burdensome gatekeeping and approvals.

India already has data localisation requirement in respect of customer account information in the telecom sector. On April 6, 2018, the Reserve Bank of India issued the Storage of Payment System Data Notification requiring all system providers to store payments data in India to ensure better monitoring and supervision.

The deadline for compliance expired on October 15, 2018, and in a case pending before the Supreme Court, allegations have been made that some platforms like

Further, the Draft National e-commerce Policy published on February 23, 2019 provides that in respect of Internet of Things (IoT), a Decentralized Citizen-owned Data Ecosystems (DECODE) will develop a data-centric digital economy where data that is generated and gathered by citizens, the IoT, and sensor networks and that data generated by users in India from sources like e-commerce platforms, social media activities, search engines must be stored locally within three years.

Most countries do not have a data localisation requirement. The EU GDPR allows cross-border transfers of personal data to jurisdictions that have adequate/similar levels of controls. In the event the adequacy test fails, the GDPR sets forth the conditions for transfers by way of appropriate safeguards, use of standard contractual clauses, Binding Corporate Rules (BCRs), and conditions for derogations for specific situations in the absence of an adequacy decision or appropriate safeguards. No prior notice or approval is required.

China has the most comprehensive data localisation mandate. China's Cybersecurity Law, 2016 and a range of related implementing regulations require personal information of Chinese citizens collected and generated by critical information infrastructure (CII) operators in China to be stored in China on Chinese servers. Further, CII and "important" information remains undefined and operators are required to provide encryption keys to the government.

Other countries have imposed specific restrictions in specific sectors like Russia, Vietnam, Indonesia (operators of public service), Australia (health records), Nigeria (subscriber data of tech and telecom firms and government data), Germany (telecom and internet service providers).

India's objective appears to be asserting national sovereignty over valuable resource of a billion plus people and aspirations of economic benefit by providing a competitive advantage to local companies. However, a cost-benefit analysis must be undertaken before enacting the law as recommended by the Srikrishna Committee Report.

SUMIT UPADHYAY
(CS 2nd year)

HOW HACKABLE IS YOUR PASSWORD?

If "123456" is your password, it may be time for a change.

That was the unsurprising conclusion of a survey revealing the internet's most vulnerable passwords, which also warned that codes using names, sports teams and swear words are more popular than you might think.

The survey, by the UK's National Cyber Security Centre (NCSC), analyzed passwords belonging to accounts worldwide that had been breached.
Several combinations of numbers made up the top 10, while "blink182" was the most popular musical artist and "superman" the most common fictional character.

But "123456" was the runaway winner, with 23.2 million accounts using the easy-to-crack code. "123456789" was used by 7.7 million, while "qwerty" and "password" were each used by more than 3 million accounts.
Ashley and Michael were the most common names used, followed by Daniel, Jessica and Charlie.

Liverpool topped the table of Premier League football clubs used as passwords, with Chelsea, Arsenal and Manchester United ("manutd") making up the rest of the top four. Manchester City ("mancity"), by contrast, would finish in 11th place in the Premier League password standings.

The Dallas Cowboys ("cowboys1") was the most popular NFL team nickname, while Sunday was the most used day of the week and August the most common month.

The top 10 most common passwords were:

1. 123456

2. 123456789

3. Qwerty

4. Password

5. 111111

6. 12345678

7. Abc123

8. 1234567

9. Password1

10. 12345

"iloveyou" just missed out on the top 10, while "monkey" and "dragon" made surprise appearances in the top 20. Plenty of users also used passwords as an opportunity to employ a colorful array of swear words.

The NCSC recommended using three "random but memorable" terms in a password, to reduce the risk of having an account breached.

"Password re-use is a major risk that can be avoided -- nobody should protect sensitive data with something that can be guessed, like their first name, local football team or favorite band," Ian Levy, NCSC Technical Director, said in a statement.

"Using hard-to-guess passwords is a strong first step and we recommend combining three random but memorable words. Be creative and use words memorable to you, so people can't guess your password," he added.

SACHIN AGGARWAL
CS(2nd year)

Google's Tez new Audio QR will make cashless process easy
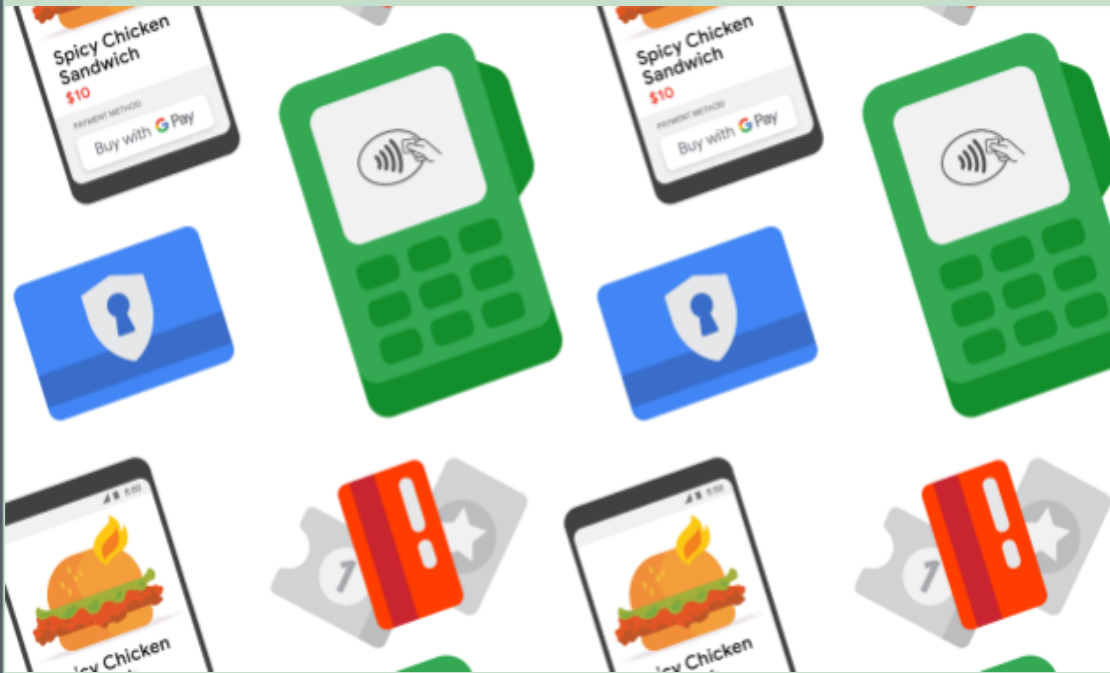
The Android and search giant has launched Tez, a free mobile wallet in India that will let users link up their phones to their bank accounts to pay for goods securely in physical stores and online, and for person-to-person money transfers with a new

Tez is Google's play to replace cash transactions and become a more central part of how people pay for things, using their mobile to do so. But it's also a chance for the company to push out some new technologies — like audio QR (AQR), which lets users transfer money by letting their phones speak to each other with sounds — to see how it can make that process more frictionless, and therefore more attractive to use than cash itself.

Google says that AQR — the sound-based format for transferring money securely between devices — is its own proprietary technology.This appears to be the first time that Google has used it for payments, although it has used ultrasonic sound for transferring information so making this kind of tech secure and hassle free on all devices before: for example, the tech has been used in Chrome cast to connect devices since 2014. Other startups that have used audio-based "codes" to transfer payments and other data before include Lisnr, and Chirp.

While AQR might seem like a neat technical twist, there are some practical reasons behind why Google might opt for this in Tez. For starters, it obviates the need for NFC in the device, and in the payment devices of merchants or whoever else a person is planning to transact with. While we are seeing a greater proliferation of NFC and Bluetooth across consumer electronics, it's still not completely ubiquitous and when considering low-cost smartphones in countries like India, may not always be present.

The other think that make AQR such an amazing piece of tech is its nature of convenience and foolproof transaction. Earlier you have to turn on your camera and point it to a physical QR code. Wasn't that irritating? But those are the days of past. So let's not take AQR code for granted and cherish the mind-blowing piece of tech and lets thank all those developers who made it possible.

Jatin Srivastava

CSE- 2nd year

WHAT IS BITCOIN?

Bitcoin is a cryptocurrency created in 2009. Marketplaces called "bitcoin exchanges" allow people to buy or sell bitcoins using different currencies.

Bitcoin is a new currency that was created in 2009 by an unknown person using the alias Satoshi Nakamoto. Transactions are made with no middle men – meaning, no banks! Bitcoin can be used to book hotels on Expedia, shop for furniture on Overstock and buy Xbox games. But much of the hype is about getting rich by trading it. The price of bitcoin skyrocketed into the thousands in 2017.

Bitcoins can be used to buy merchandise anonymously. In addition, international payments are easy and cheap because bitcoins are not tied to any country or subject to regulation. Small businesses may like them because there are no credit card fees. Some people just buy bitcoins as an investment, hoping that they'll go up in value.

Many marketplaces called "bitcoin exchanges" allow people to buy or sell bitcoins using different currencies. Coinbase is a leading exchange, along with Bitstamp and Bitfinex. But security can be a concern: bitcoins worth tens of millions of dollars were stolen from Bitfinex when it was hacked in 2016.

People compete to "mine" bitcoins using computers to solve complex math puzzles. This is how bitcoins are created. Currently, a winner is rewarded with 12.5 bitcoins roughly every 10 minutes.

Though each bitcoin transaction is recorded in a public log, names of buyers and sellers are never revealed – only their wallet IDs. While that keeps bitcoin users' transactions private, it also lets them buy or sell anything without easily tracing it back to them. That's why it has become the currency of choice for people online buying drugs or other illicit activities.

No one knows what will become of bitcoin. It is mostly unregulated, but some countries like Japan, China and Australia have begun weighing regulations. Governments are concerned about taxation and their lack of control over the currency.

ANURAG SRIVASTAVA
CS 2nd Year

Blockchain Technology

Introduction:

A blockchain is a growing list of records, called blocks, which are linked using cryptography. Each block contains a cryptographic hash of the previous block a timestamp, and transaction data (generally represented as a Merkle tree).

By design, a blockchain is resistant to modification of the data. It is "an open, distributed ledger that can record transactions between two parties efficiently and in a verifiable and permanent way

Is Blockchain Technology the New Internet?

The blockchain is an undeniably ingenious invention – the brainchild of a person or group of people known by the pseudonym, Satoshi Nakamoto. But since then, it has evolved into something greater, and the main question every single person is asking is: What is Blockchain?

By allowing digital information to be distributed but not copied, blockchain technology created the backbone of a new type of internet. Originally devised for the digital currency, Bitcoin, (Buy Bitcoin) the tech community has now found other potential uses for the technology.
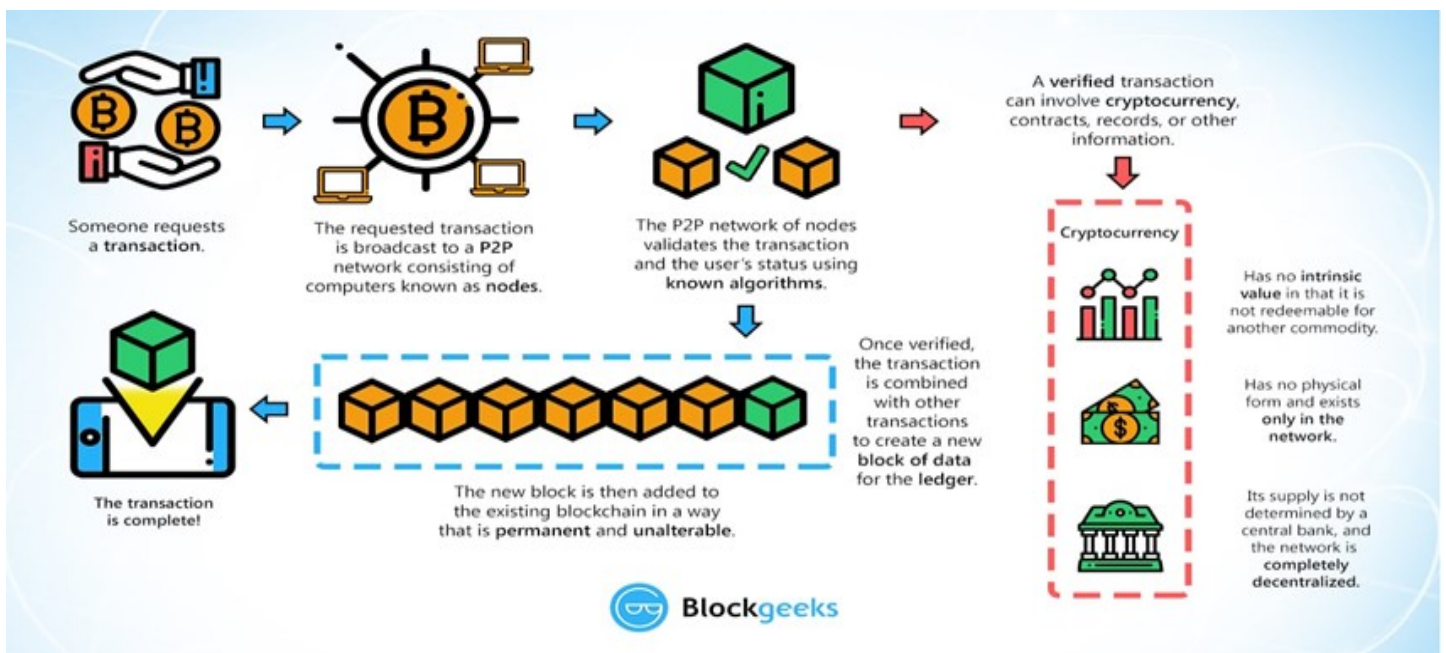
What is Blockchain Technology?

A blockchain is, in the simplest of terms, a time-stamped series of immutable record of data that is managed by cluster of computers not owned by any single entity. Each of these blocks of data (i.e. block) are secured and bound to each other using cryptographic principles (i.e. chain).

So, what is so special about it and why are we saying that it has industry disrupting capabilities?

The blockchain network has no central authority — it is the very definition of a democratized system. Since it is a shared and immutable ledger, the information in it is open for anyone and everyone to see. Hence, anything that is built on the blockchain is by its very nature transparent and everyone involved is accountable for their actions.

Blockchain Explained

A blockchain carries no transaction cost. (An infrastructure cost yes, but no transaction cost.) The blockchain is a simple yet ingenious way of passing information from A to B in a fully automated and safe manner. One party to a transaction initiates the process by creating a block. This block is verified by thousands, perhaps millions of computers distributed around the net. The verified block is added to a chain, which is stored across the net, creating not just a unique record, but a unique record with a unique history. Falsifying a single record would mean fal-

sifying the entire chain in millions of instances. That is virtually impossible. Bitcoin uses this model for monetary transactions, but it can be deployed in many others ways.

Think of a railway company. We buy tickets on an app or the web. The credit card company takes a cut for processing the transaction. With blockchain, not only can the railway operator save on credit card processing fees, it can move the entire ticketing process to the blockchain.

What New Applications Will It Bring Us?
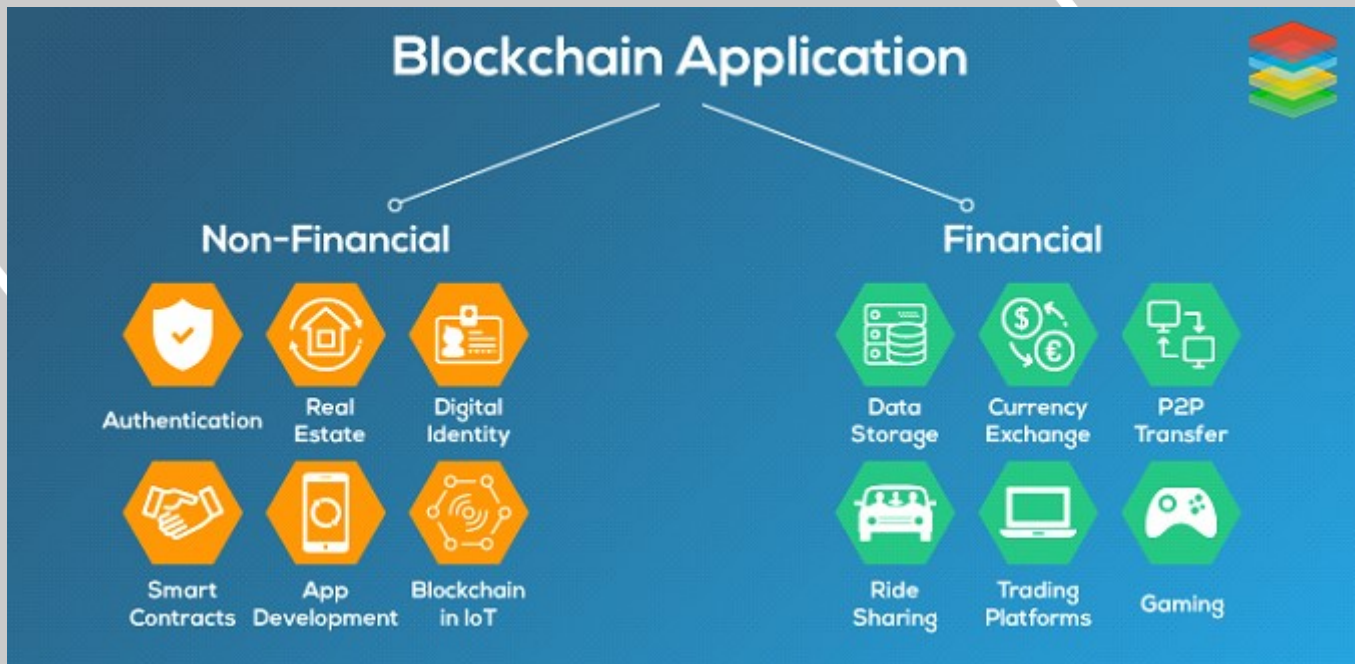
The blockchain gives internet users the ability to create value and authenticates digital information. What new business applications will result from this?

Smart contracts
The sharing economy
Crowdfunding
Governance
Supply chain auditing
File storage
Prediction markets
Protection of intellectual property
Internet of Things (IoT)
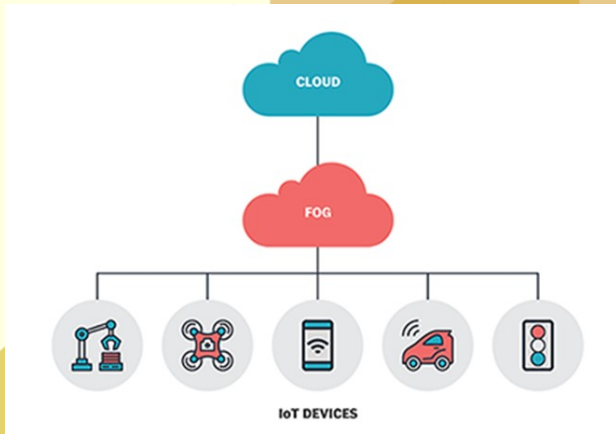
Mr. Anurag Gupta
Assistant Professor, CSE Department

FOG COMPUTING

Fog computing is an emerging technology that is basically used for Internet of Things .Fog computing fetches data and services from network centre to the network edge. Similar to Cloud, data, compute, storage, application services are given to the end-users by the fog. Fog computing is a distributed computing model that fetches centralized located data storage, processing and application and given to the network edge device(set top box, access point).

Fog computing is a technique that is locally hosted where the user uses the service.To be simplified fog computing is a model that provides IOT data processing, storage instead of sending to cloud it is locally processed in smart devices. Both Cloud and fog structure are for compute, storage and networking resources.

In fog computing data collected by sensors are not sent to cloud server instead it is sent to devices like network edge or set top box, routers, access point for processing thus by reducing the traffic due to low bandwidth. Fog computing improves the Quality of service and also reduces latency. Small computing works are locally processed and responses are sent back to the end users without the use of cloud. So, fog computing is emerging as a better option than cloud computing for smaller computing works. Fog computing plays an important role by reducing the traffic of data to the cloud. Since fog system is placed near to the data sources computation and communication are not delayed.

CISCO gives us the example of jet engine.Whenever the jet engine is connected to the internet, half an hour running time of the jet engine creates 10 TB of data.This huge data itself will create a big traffic in the bandwidth which cannot be neglected. So comes the importance of fog computing. Fog computing is complementary to

cloud. Certain features of fog computing differentiate it from cloud, Fog Computing is used for real time interactions but cannot totally replace cloud computing as it is preferred for high end batch processing. As the name suggests cloud system is placed at a distant where as the fog system is placed locally near to the end user.

EDGE COMPUTING

Edge computing allows data produced by internet of things (IoT) devices to be processed closer to where it is created instead of sending it across long routes to data centers or clouds. Doing this computing closer to the edge of the network lets organizations analyze important data in near real-time – a need of organizations across many industries, including manufacturing, health care, telecommunications and finance.

It is typically referred to in IoT use cases, where edge devices would collect data – sometimes massive amounts of it – and send it all to a data center or cloud for processing.
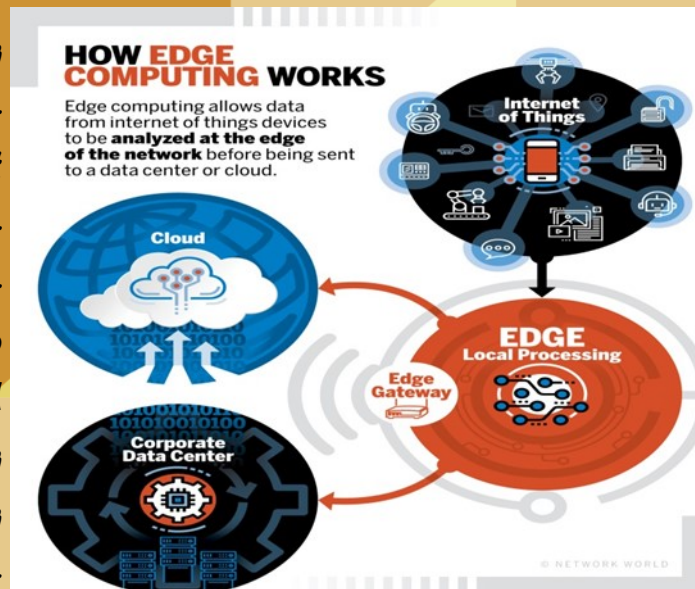
Edge computing triages the data locally so some of it is processed locally, reducing the backhaul traffic to the central repository. Typically, this is done by the IoT devices transferring the data to a local device that includes compute, storage and network connectivity in a small form factor. Data is processed at the edge, and all or a portion of it is sent to the central processing or storage repository in a corporate data center, co-location facility or IaaS cloud.

Edge vs. Fog computing

As the edge computing market takes shape, there's an important term related to edge that is catching on: fog computing. Fog refers to the network connections between edge devices and the cloud. Edge, on the other hand, refers more specifically to the computational processes being done close to the edge devices. So, fog includes edge computing, but fog would also incorporate the network needed to get processed data to its final destination.

Ms. Priyanka Gaba

Assistant Professor, CSE Department

Introduction to Recommender Systems in 2019

Many e-commerce and retail companies are leveraging the power of data and boosting sales by implementing recommender systems on their websites.

In short, these systems aim to predict users' interests and recommend items that quite likely are interesting for them.

Data required for recommender systems stems from explicit user ratings after watching a movie or listening to a song, from implicit search engine queries and purchase histories, or from other knowledge about the users/items themselves.

Sites like Spotify, YouTube or Netflix use that data in order to suggest playlists, so-called **Daily mixes**, or to make **video recommendations**, respectively.

Advantages of implementing recommender systems

Companies using recommender systems focus on increasing sales as a result of very personalized offers and an enhanced customer experience. Recommendations typically speed up searches and make it easier for users to access content they're interested in, and surprise them with offers they would have never searched for.

What is more, companies are able to gain and retain customers by sending out emails with links to new offers that meet the recipients' interests, or suggestions of films and TV shows that suit their profiles.
The user starts to feel known and understood and is more likely to buy additional products or consume more content. By knowing what a user wants, the company gains competitive advantage and the threat of losing a customer to a competitor decreases.

Providing that added value to users by including recommendations in systems and products is appealing. Furthermore, it allows companies to position ahead of their competitors and eventually increase their earnings.

Types of recommender systems

Recommender systems function with two kinds of information:

Characteristic information. This is information about items (keywords, categories, etc.) and users (preferences, profiles, etc.).
User-item interactions. This is information such as ratings, number of purchases, likes, etc.

Based on this, we arrive at a first classification of recommender systems: *content-based*, which uses characteristic information, and *collaborative filtering*, which is based on user-item interactions. *Hybrid systems* combine both types of information with the aim of avoiding problems that are generated when working with just one kind. Next, we will dig a little deeper into content-based and collaborative filtering systems.

Software systems providing suggestions for users utilizing historical interactions and attributes of items/users.

Content-based Methods

- Uses attributes of items/users
- Recommend items similar to those liked by the user in the past

Collaborative Filtering Methods

- Recommend items liked by similar users
- Enable exploration of diverse content

Content-based systems

These systems make recommendations using a user's item and profile features. They hypothesize that if a user was interested in an item in the past, they will once again be interested in it in the future. Similar items are usually grouped based on their features. User profiles are constructed using historical interactions or by explicitly asking users about their interests. There are other systems, not considered purely content-based, which utilize user personal and social data.

One issue that arises is making obvious recommendations because of excessive specialization (user A is only interested in categories B, C, and D, and the system is not able to recommend items outside those categories, even though they could be interesting to them).

Another common problem is that new users lack a defined profile unless they are explicitly asked for information. Nevertheless, it is relatively simple to add new items to the system. We just need to ensure that we assign them a group according to their features.

Collaborative filtering systems

These kinds of systems utilize user interactions to filter for items of interest. We can visualize the set of interactions with a matrix, where each entry (i, j)(i,j)represents the interaction between user ii and item jj. An interesting way of looking at collaborative filtering is to think of it as a generalization of **classification** and **regression**. While in these cases we aim to predict a variable that directly depends on other variables (features), in collaborative filtering there is no such distinction of feature variables and class variables.

Ms. Sonal Soni

Assistant Professor, CSE Department

LITERARY

Follow your dream

Follow your dream.
Take one step at a time and don't
settle for less,
Just continue to climb.
Follow your dream.
If you stumble don't stop and lose
sight of your goal
Press to the top.
For only on top can we see the whole
view,
Can we see what we've done and
what we can do;
Can we then have the vision to seek
something new,
Press on.
Follow your dream.
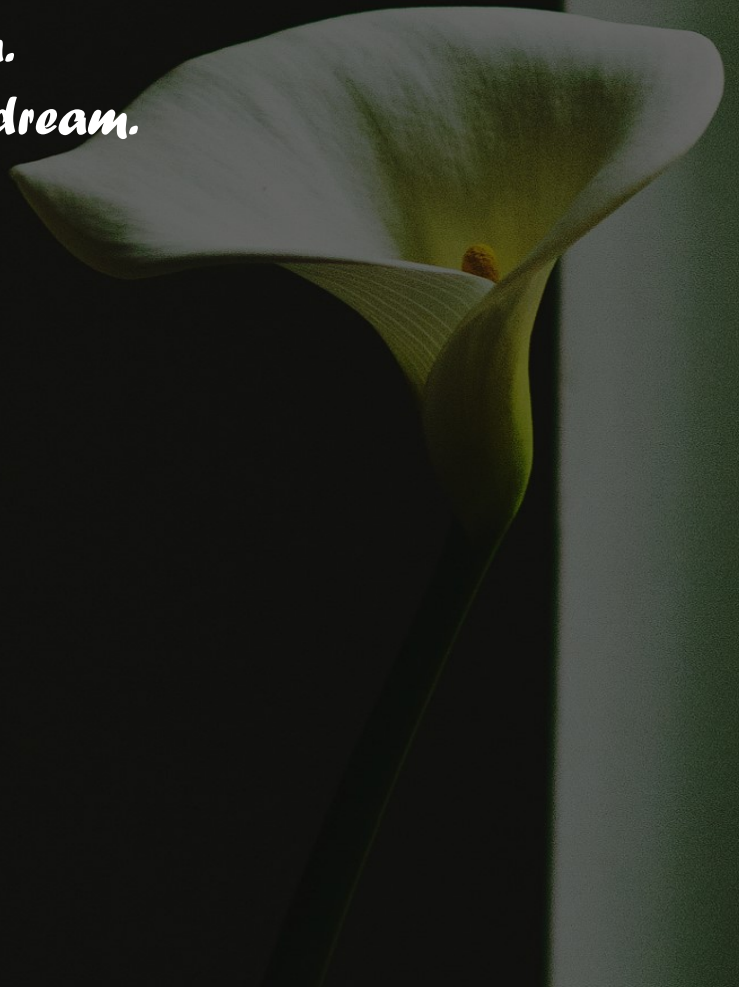
Megha Kamboj
CSE-2

Sea

The chills he got,

The waves that formed.

The sea was him,

Little did he know,

Of the treasures underneath;

He never found it,

The sea was deep,

And so was he!

Mask!

Mask!

Everyone is wearing!

Revealing various traits;

Stoned?

Demons inside? Spreading smiles?

Giving false hopes?

Watch your own back,

Lest the closest should stab you.

Rest in peace otherwise.

Mukhar Bajpai (CSE-2nd year)

Don'T QuiT

When things go wrong as they sometimes will when the road you're trudging seems all uphill.

And you want to smile, but have to sigh

When care is pressing you down a bit...

Rest if you must, but do not quit.

success is failure turned inside out

The silver tint of the clouds of doubt

And you can never tell how close you are

It may be near when it seems so far

so stick to the fight when you're hardest hit...

It's when things go wrong but you must not quit....

Jyoti Chauhan (CSE-2nd year)

FEAR IS AN ILLUSION

Sitting alone in the darkness
I feel how strangely I am a mess
Crying, smiling both at once
A little nervous, with goosebumps
What was my fault, what was my
Sin?
That i did not notice that grin?
I feel sorry for being dumb
So much so that I am numb.
I should have trusted myself
I should not have trusted this
World.
Because they saw, they waited
But no one dared, no one
Activated.
A chapter suffered, a lesson
Learnt.
Much lost, but confidence earned.
Let the world despise me
Let the people misprize me
But I won't drown, I would swim.
I won't let my fear win

Akashdeep Srivastava
Branch- EN
2nd year

QUIZZES

QUIZ:

1. Who invented Compact Disc?

2. Which day is celebrated as world Computer Literacy Day?

3. Who invented Java?

4. Longhorn was the code name of ?

5. Who is known as the Human Computer of India?

6. What is mean by Liveware?

7. Which computer engineer got Nobel Prize for literature in 2003?

8. 'Weaving The Web' was written by.....

9. What is Beta Test?

10. 'Do no evil' is tag line of ......

11. First Indian cinema released through inter-net is .....

12. Rediff.com was founded by.....

13. What is the extension of PDF?

14. Mows is a type of mouse for .... people

QUIZ Continue.....

15. Expand RDBMS?

16. Difference engine was developed by.....

17. Orkut.com is now owned by ......

18. World's first microprocessor is .....

19. What is SQL?

20. What is the expansion of COBOL?

21. What is the expansion of SMS?

22. Which IT company's nickname is ' The Big Blue ' ?

23. What is the full form of IEEE?

24. Who developed COBOL?

25. Email was developed by......

ANSWER KEYS

Ans : James T Russel

Ans : December 2

Ans : James A Gosling

Ans : Windows Vista

Ans : Shakunthala Devi

Ans : People who work with the computer

Ans : J.M. Coetzee

Ans : Tim Burners Lee

Ans : Trial test of a computer or software before the commercial launch

Ans : Google

Ans : Vivah

Ans : Ajith Balakrishnan and Manish Agarwal

Ans : Portable document format

Ans : Physically handicapped people

Ans : Relational Data Base Management System

Ans : Charles Babbage

Ans : Google

Ans : Intel 4004

Ans : Structured Query Language

ANSWER KEYS Continue.....

Ans : Common Business Oriented Language

Ans : Short Message Service

Ans : IBM

Ans : Institute of Electric and Electronic Engineers

Ans : Grace Murry Hopper

Ans : Raymond Samuel Tomlinson (Ray Tomlinson)

PLACEMENTS

Congratulations on your well-deserved success
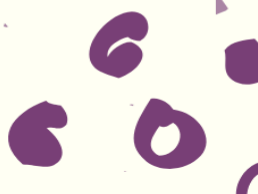
Placement Details of CS students

S.No	Name	No. of Offers				
		Company 1	Company 2	Company 3	Company 4	Company 5
1	ANANYA SINGH	CapitalVia, Espire In-folabs	Espire Infolabs			
2	A RUPALI	TCS			TCS	
3	ABHIJEET SHUKLA	WIPRO	Cognizant		WIPRO	Cognizant
4	ABHINAV KUMAR SINGH	Acxiom	Mindtree	NTT Data	Mindtree	NTT Data
5	ABHISHEK GUPTA	CapitalVia	KNOLDUS	Bhilwara		
6	ABHISHEK GUPTA	Devstrings Technologies				
7	ABHISHEK KUMAR PANDEY	CapitalVia	Bhilwara			
8	ABHISHEK KUMAR SINGH	Mindtree				
9	ABHISHEK KUMAR SONKAR	Bhilwara				
10	ABHISHEK RAI	TCS				
11	ABHISHEK SACHAN	MobiliZeon				
12	ABHISHEK SETHI	GENPECT HeadStrong				
13	ABHISHEK SINGH	Velocity Softwares	NTT Data			
14	ABHISHEK SINGH CHAUHAN	TCS				
15	ABHISHEK SINGH CHAUHAN	TCS	WIPRO			
16	ABHISHEK TRIVEDI	CapitalVia	Capgemini			
17	ADARSH KUMAR SINGH	TCS				
18	ADITYA PANDEY	VVDN				
19	ADITYA PRATAP SINGH	MobiliZeon	UHG	TCS	Global Logic	
20	AJAY SINGH CHAHAR	Cognizant				
21	AKARSH PATHAK	RESEVOIR FINANCIAL				
22	AKASH ROSHAN CHAURASIA	Velocity Softwares				
23	AKHIL	TCS	WIPRO			
24	AKHILESH KUMAR	360 Degree				
25	AMAN GUPTA	CapitalVia				
26	AMAN RATHORE	TCS, CODEVITA	NTT Data			
27	AMIT KUMAR	NTT Data				
28	AMIT RANJAN	WIPRO	Cognizant			
29	ANAND	EUDFEVER				
30	ANANT BHARDWAJ	CapitalVia				
31	ANKITA	RESEVOIR FINANCIAL				
32	ANMOL JINDAL	Nucleus				
33	ANSHUL KUMAR SAROHA	MobiliZeon	IndiaMart	WIPRO		
34	ANUBHAV KUMAR VERMA	To The New				
35	ANURAG SHAKYA	CapitalVia	WIPRO			

36	ANUSHIKA	RESEVOIR FINANCIAL				
37	ARCHIT CHATURVEDI	VVDN				
38	ARFA NAAZ	Scuccessive Technologies				
39	ARPIT GARG	TCS				
40	ARPIT KUMAR	360 Degree	CapitalVia	InputZero		
41	ASHWANI KUMAR	Polestar	QA Infotech	Cognizant		
42	ASRAA AHMAD	WIPRO				
43	AVIRAL RUHELA	QA Infotech	Mobilizeon	Hitachi Consulting	TCS	
44	AVNEESH JHA	TCS				
45	AYUSH AGARWAL	MainTech Pvt. Ltd.	Cognizant			
46	AYUSH KAUSHIK	Investors Clinic				
47	AYUSH TRIPATHI	GINGERWEBS				
48	BIPIN KUMAR YADAV	Algoworks				
49	CHAKSHU	MobiliZeon				
50	CHANCHAL KUMAR MISHRA	TCS				
51	CHANDAN MISRA	CapitalVia	Cognizant			
52	DEEKSHA PAL	Algoworks	CapitalVia	WIPRO		
53	DEVYANSH AGARWAL	QA Infotech	Mobilizeon	WIPRO		
54	DIKSHA KHURANA	TCS	Bhilwara			
55	DIVYANSH TIWARI	TCS				
56	DIVYANSHU SRIVASTAVA	Polestar	Mobilizeon	KNOLDUS	NTT Data	
57	DUSHYANT SINGH	CapitalVia				
58	GAURAV MISHRA	CapitalVia	HCL	COGNIXIA	Bhilwara	
59	GOVIND NARAYAN JHA	NTT Data				
60	HARASHIT MITRA	Espire Infolabs	Capgemini	NTT DATA		
61	HARI SHANKAR TIWARI	CapitalVia	WIPRO			
62	HARSHIT KUMAR SINGH	Algoworks	WIPRO			
63	HARSHIT GUPTA	CapitalVia				
64	HARSHIT GUPTA	Cognizant				
65	HARSHIT SARAN	Capgemini	NTT DATA			
66	HRITIK AGRAWAL	VVDN				
67	IMRAN KHAN	Capgemini				
68	ISHIKA SHUKLA	Deloitte	TCS			
69	JYOTI CHAURASIA	PureSoftwares	Cognizant			
70	KAJAL	Idemia				
71	SRISHTY PANDEY	COGNIXIA				
72	KOMAL SINGH	Idemia	InputZero			
73	KSHITIJ PRATAP SRIVASTAVA	To The New	WIPRO			

74	KUMARI SWATI GUPTA	Cognizant				
75	KUNAL BANSAL	PureSoftwares				
76	LABEEB AHMED	Deloitte				
77	LAV AGARWAL	QA Infotech				
78	LOKESH KUMAR TIWARI	TCS	WIPRO			
79	MAGHVENDRA SINGH	WIPRO				
80	MANDEEP SINGH	CapitalVia				
81	MANISH BANSAL	TCS,CODEVITA	Global Logic	OPENTEXT		
82	MANNAT YADAV	GINGERWEBS				
83	MANSI VARSHNEY	Espire Infolabs	Velocity Software			
84	MANVIR SINGH	TCS	WIPRO			
85	MEGHNA RAJ SAXENA	TCS	WIPRO			
86	MITALI SRIVASTAVA	MIRKETA SOFTWARE				
87	MOHAMMAD WASIUDDIN	TCS				
88	MOHD HILAL HUSAIN	WIPRO				
89	MOHIT BHARDWAJ	TCS				
90	MUKESH YADAV	KNOLDUS				
91	MUNANDER SINGH SINGH	KNOLDUS				
92	NAVEEN MISHRA	INSTALOCATE	TESTBOOK	HyperVerge		
93	NAVEEN SINGH	InputZero				
94	NAVNEET SINGH MALIK	CapitalVia	Cognizant			
95	NAVYA SRIVASTAVA	MINDTREE	NTT Data	WIPRO		
96	NEETISH SINGH	TCS				
97	NEHA SHARMA	CapitalVia	WIPRO	Capgemini		
98	NISHANT SRIVASTAVA	ANR Softwares	Algoworks	InputZero		
99	NITIKA KAPOOR	Espire Infolabs	PureSoftwares			
100	NITIN SAHU	TCS	WIPRO			
101	NITIN SHARMA	INPUTZERO	Idemia			
102	NUPUR MITTAL	Reservoir Financial	Bhilwara			
103	OJAS MODI	QA Infotech	Wipro			
104	OMVESH CHAUDHARY	CapitalVia				
105	PRANSHUL GOEL	TCS	WIPRO			

106	PRASHANT CHAUHAN	TCS				
107	PRASHANT SISODIYA	TCS	WIPRO	OPENTEXT		
108	PRATIYAKSHI KAPIL	UHG				
109	PRAVEEN TYAGI	PoleStar				
110	PRIYAVRAT RAGHAV	TCS				
111	RAJARSHI SAHU	TCS codevita				
112	RAJAT YADAV	Algoworks	CapitalVia	Cognizant		
113	RAKSHIT CHAUDHARY	WIPRO	SOPRA STERIA	Trident		
114	RANJEET KUMAR MAURYA	MINDTREE				
115	RANJEET RAI	CapitalVia	QA Infotech			
116	REEDAM CHOUDHARY	TCS	WIPRO			
117	RISHABH GUPTA	OPENTEXT				
118	RISHABH SINGH	PureSoftwares				
119	ROOPAK SINGH	TCS				
120	RUDRANSH	Cognizant				
121	RUPAL RATURI	Deloitte	TCS			
122	SACHIN GUPTA	GINGERWEBS				
123	SAGAR SAINI	Idemia	CAPGEMINI			
124	SALMAN MUSHTAQUE	CapitalVia	WIPRO			
125	SANCHIT GUPTA	COGNIZANT				
126	SATYAM CHAURASIA	COGNIZANT				
127	SATYAM SHARMA	Bhilwara				
128	SAURABH KUMAR SINGH	Idemia				
129	SHASHANK NATH YADAV	PureSoftwares	Bhilwara	COGNIZANT		
130	SHIVAM MAHENDRU	CapitalVia				
131	SHIVAM RAI	TCS	NTT Data			
132	SHIVAM SHARMA	HCL				
133	SHIVANG BHATNAGAR	Acxiom	CapitalVia	WIPRO		
134	SHIVANSH SHRIVASTAVA	TCS				
135	SHIVANSH SRIVASTAVA	TCS	NTT Data			
136	SHREYA AGARWAL	Espire Infolabs	NTT Data			
137	SHREYA SINGH	TCS				
138	SHRISTY MAHESHWARI	Acxiom	CapitalVia	NTT Data		
139	SHUBHAM CHAURASIA	QA Infotech	TCS			
140	SIDDHARTH MOHAN	RESEVOIR FINANCIAL	Crusaders			

141	SONALI SINGH	PureSoftwares				
142	SOUMYA GUPTA	TCS				
143	SOURAV DAS	TCS				
144	SRISHTI ROBIN	TCS				
145	SURAJ GUPTA	Cognizant	Virtusa			
146	SWARNIM VARSHNEY	Amazon				
147	SYED ABBAS HAIDER	CapitalVia				
148	UDDESHYA	MIRKETA SOFTWARE	CAPGEMINI			
149	UJJAWAL GOEL	Algoworks				
150	URVASHI TYAGI	Cognizant				
151	UTKARSH UPADHYAY	Capgemini	NTT Data			
152	VAIBHAV GUPTA	SOPRA STERIA	VIRTUSA			
153	VAIBHAV KAPIL	CapitalVia	SOPRA STERIA	NTT Data		
154	VAISHNAVI GARG	MIRKETA SOFTWARE				
155	VARUN TYAGI	TCS	SOPRA STERIA			
156	VASU AWASTHI	TCS				
157	VIBHAV KUMAR	WIPRO				
158	VIKAS KUMAR MISHRA	Espire Infolabs	NTT Data			
159	VIKAS KUMAR MISHRA	NTT Data				
160	VINEET SINGH	FELLAFEEDS				
161	VINEET YADAV	TCS				
162	VISHAL AGRAWAL	TCS				
163	VISHAL SINGH	TCS				
164	VISHAL SINGH	NTT Data				
165	VRINDA SHARMA	TCS	Cognizant			
166	VYOM MADHUR	SopraSteria	TCS	Capgemini	Cognizant	
167	YACHANA SINGH	PureSoftwares				
168	YASH PRATAP SINGH	CapitalVia	NTT Data	Cognizant		
169	ANISH ANAND	TCS				
170	MANVENDRA SINGH	WIPRO				
171	ADDI	CapitalVia	KNOLDUS			
172	HIMANSHU CHAUHAN	QA Infotech				
173	JAGVEER	Sopra Steria	TCS			
174	MANISH KR PANDEY	CAPGEMINI	S-Cube Technologies			
175	ANIVESH KR TIWARI	VVDN TECHNOLOGIES				
176	ANAND KUMAR SINGH	CapitalVia	WIPRO			
177	AKSHAY GAUR	Bhilwara				

National Conference
on
Innovative
Computing'19

Department of Computer Science & Engineering organized an AKTU sponsored National Conference on Innovative Computing on 20th April 2019 under IMSEC CSI student branch. Objective was to gather and motivate engineering minds for exploring new trends and innovative challenges in area of the Computer Engineering. Participants presented working models and experimental results for their proposed innovative ideas. Total 61 papers submitted for the conference. Among all paper, reviewer committee had selected 43 papers.

The event started with the lighting of ceremonial lamp by distinguished speakers and Director, IMSEC. Prof. Sraban Mukherjee congratulated organizing committee and participants for their effort to make the event success. Prof. Pankaj Agarwal, Program Chair-NCIC'19 gave the briefing about event. The event is preceded by the keynote talk of Prof. Shampa Chakraverty, NSUT. Prof. Kavita Saxena and Prof. Manoj Kumar Pandey, chapter officers, CSI Ghaziabad Chapter addressed the participants. The participants also received an opportunity to listen technical talk of Prof. O. P. Verma, Principal, GB Pant Engineering College and Mr. Gaurav Jain, TCS.

The paper presented in three tracks. The event is enclosed by giving the vote of thanks by Dr. Upasana Pandey, Program-coordinator, NCIC'19.

CURRENT AFFAIRS

1. List of major International Awards conferred upon Prime Minister Modi

Prime Minister Narendra Modi was recently awarded with the Zayed Medal by the UAE for his efforts in strengthening ties between the United Arab Emirates (UAE) and India. On the similar lines, PM Modi has been honoured with various awards and accolades since the time of taking the hold of premiership of the country in 2014. Have a look!

2. 75th anniversary of Battle of Kangla Tongbi commemorated

The Platinum Jubilee of the Battle of Kangla Tongbi, also known as Battle of Imphal, was commemorated on April 7, 2019 by the Army Ordnance Corps at Kangla Tongbi War Memorial near Imphal, Manipur. The 75th anniversary celebrations honoured the martyrs of Ordnance Personnel of 221 Advance Ordnance Depot who made their supreme sacrifice during the World War-II on the night of April 6/7, 1944. The Battle of Imphal or Kangla Tongbi is referred to as one of the bloodiest battles of World War-II.

3. India launches 'MERA India' to eliminate malaria by 2030

The Indian Council of Medical Research (ICMR) on April 25, 2019 launched the 'Malaria Elimination Research Alliance (MERA) India', a gathering of partners working together to plan and scale up research to eliminate Malaria from India by 2030. MERA India alliance holds utmost importance to the Union Ministry of Health and Family Welfare for the operational research. The World Health Organisation (WHO) had earlier appreciated India's research in malaria and hence, the country now aims to ensure its elimination by 2030.

4. Madras High Court lifts ban on 'TikTok' App

The Madras high court on April 24, 2019 lifted the ban on Chinese short-video app 'TikTok', three weeks after it had asked the Government to prohibit further downloads of the popular application on Google and Apple app stores. Earlier April 16, 2019, Google and Apple blocked the access to TikTok on their app stores following the refusal of the Madras High Court to lift the ban imposed on the app on April 3, 2019.

5. President Kovind releases NIRF and ARIIA-2019

The President of India, Ram Nath Kovind, released National Institutional Ranking Framework -2019 (NIRF) and presented the India Rankings awards to the top eight institutions in different categories at a function held in New Delhi on April 8, 2019.

He also released the Atal Ranking of Institutions on Innovation Achievements (ARIIA) and presented the ARIIA awards to the top two institutions. IIT Madras ranked on top in overall category in NIRF-2019 while Miranda House College of Delhi University ranked number one in ARIIA.

6. Merger of Bank of Baroda, Vijaya Bank, Dena Bank: Power of 3

The merger of Bank of Baroda, Vijaya Bank, and Dena Bank became effective on April 1, 2019, marking the first-ever three-way merger in India's banking sector. The amalgamation of Vijaya Bank and Dena Bank into Bank of Baroda was first announced in September 2018.

7. Indian world cup squad announced

Indian selectors on April 15, 2019 announced the Indian team for the ICC Cricket World Cup 2019, which is scheduled to begin in England and Wales from May 30, 2019. The announcement was made by the BCCI Acting Honorary Secretary Amitabh Choudhary in Mumbai, in the presence of the Chairman of Selectors, MSK Prasad.

8. Asian Athletics Championship 2019: India finishes fourth with 17 medals

The 23rd edition of the Asian Athletics Championship concluded in Doha, Qatar on April 24, 2019. India with 17 medals (3 Gold, 7 silver and 7 bronze) finished fourth in the tournament.

9. FIFA rankings: Belgium tops, India gets 101st rank

FIFA has released world football rankings on April, 04 2019. India rose two points and gets 101st rank while Belgium tops the list. FIFA said in its report, there were 150 games played across the globe during the international period, things remain tight at the top of the FIFA World Ranking as the top three remained unchanged. In current FIFA rankings India gained two spots, but couldn't found a space in top 100. As per latest FIFA rankings India is on 101st position while 18th in the Asia.

10. Libyan Crisis: Explained

Libya has been torn by violence and political instability since long-time ruler Muammar Gaddafi was toppled and killed by rebels in 2011. The crisis was triggered by the Arab Spring protests, a series of anti-government protests, uprisings and armed rebellions that spread across the Middle East in late 2010.

UPCOMING EVENTS

1. TRAINING COURSES ON ARTIFICIAL INTELLIGENCE (AI), INTERENT OF THINGS (IoT) AND ROBOTICS FOR STUDENTS AND PROFESSIONALS AT Indian Institute of Technology Kanpur FROM June 3, 2019 TO June 17, 2019.

ABOUT COURSE:-

IIT Kanpur in collaboration with MHRD and iSMRITI is conducting training courses on Introduction to AI, IoT & Robotics to provide hands on experience in the field of Artificial Intelligence, IoT, & Robotics to orient students towards the present industrial scenario. This course is designed to impart value addition for all students who are pursuing their relevant degrees. Students will be taught basic foundations with the aid of well developed theoretical modules and lab-oriented experiments. A student taking up this course will be able to build a small prototype that is powered by IoT and AI principles. The course modules have been designed by iSMRITI with the help of experts from IITs. Experimental facilities and module wise logistics will be provided by ISmriti.

2. Indian Navy jobs for Officer - Short Service Commission Across India. Last Date to apply: 29 May 2019.

Indian Navy - Job Details
Date of posting: 13 May 19

Officer - Short Service Commission job opportunities in Indian Navy

Applications are invited from unmarried eligible men & women candidates for grant of **Permanent Commission (PC) and Short Service Commission (SSC)** in under-mentioned branches / entries in the Indian Navy for course commencing Jun 20 at Indian Naval Academy (INA) Ezhimala, Kerala. Candidates must fulfill conditions of nationality as laid down by the Government of India.

Naval Orientation Course (NOC) Regular – Pilot / Observer / Air Traffic Controller / Naval Armament Inspectorate Cadre / Logistics / Education / Information Technology / Technical (Engineering & Electrical)

Executive Branch

Branch/ Cadre : **SSC Naval Armament Inspection Cadre (NAIC)**

No. of Vacancies : 08

Qualifications : BE/B.Tech from AICTE recognized institute / university with minimum 60% marks. (Candidate must have 60% aggregate marks in class X and XII and minimum 60% marks in English in class X or class XII). (i) Mechanical (ii) Electrical/Electrical & Electronics/Electronics/ Micro Electronics/ Instrumentation/ Electronics & Communication/ Electronics & Tele Communication/Instrumentation & Control/Control Engineering (iii) Production/Industrial Production/ Industrial Engineering (iv) Applied Electronics & Instrumentation/ Electronics & Instrumentation (v) Information Technology/Computer Science/Computer Engineering/Computer Application.

3. Summer School 2019(Four Week Intensive Internship cum Training Program in association with Rendezvous at IIT DELHI. "Hands – On with Trending Technologies".

Course Details

Following courses would be covered during the four week course with implementation to Live Projects:

Week 1 – Cloud Computing

Week 2 – Internet of Things

Week 3 – Machine Learning & Data Analytics

Week 4 – Project Work

Dates:

June 1st – June 30th 2019

Procedure

Admission process consists of filling the application form and pay the online registration fee of INR 2000/-.The remaining fee can be paid by

Dear Readers   Editorial Board welcomes articles for the next issue of "THE BYTE", April 2019.

Please send your articles @ below email id:

imseccsedept@gmail.com

Department of Computer Science & Engineering

IMS Engineering College

NH-24, Adhyatmik Nagar, Near Dasna,
Distt: Ghaziabad. Uttar Pradesh-201009