TECHNOZOLA

THE GLOBE OF TECHNOLOGY

"There Is No Innovation Or Creativity Without Failure Period"

NEWS

LETTER

Article
Block Chain Technology

The blockchain technology has successfully disrupted many industries, and the banking sector is one of the main beneficiaries, dare we say. The fintech sector is truly up and running, and companies everywhere are building blockchain solutions. With use cases such as international payments, KYC, and opÉmized cash management, the blockchain is truly the next big thing when it comes to the finance.

According to surveys, 90% of execuÉves surveyed said that their firm was looking into using blockchain for their operaÉons. Due to the decentralized nature of the blockchain, it is easier to form a global banking network where international transacÉons and other operaÉons could be carried out easily. Santander, a Spain-based bank, reports savings of USD 20 billion a year if blockchain is incorporated. Different consorÉums and organizaÉons have started taking collecÉve steps toward blockchain adopÉon. Talking about the current scenario, there exist many potenÉal use cases for blockchain in the banking sector. What follows is a brief descripÉon of each of these use cases, their comparisons with tradiÉonal methods, and their benefits.

Know your customer (KYC) regulaÉons :

As of now, banks and other financial insÉtuÉons spend up to USD 500 million per year to comply with KYC regulaÉons. KYC is intended to reduce or completely eradicate terrorism or money laundering, with comprehensive background checks of all bank customers, in accordance with some requirements. The current scenario is that every company has their own independent KYC procedures. With the introducÉon of the blockchain, the independent verificaÉon of a parÉcular client could be accessed by different companies, so that the whole KYC process need not be done again.

then need not carry out the KYC process all over again; instead, they just read the data from the blockchain, and Carl's idenÉty is confirmed.

Blockchain ApplicaÉons in Supply Chain :

Payments: local and internaÉonal

Low security and a lot of intermediaries in the payment processes are two factors hurÉng this area in the present scenario. More and more commercial banks are looking to introduce blockchain into the payment process, without waiÉng for central banks to make a move. For example, UBS of Switzerland has come up with a uÉlity seÑlement coin, which is a digital currency for use in internaÉonal financial markets.

The blockchain firm Ripple developed a payment applicaÉon that settle transacÉons, even internaÉonal, instantly, and partnered with a consorÉum of 61 Japanese banks for the same. According to Ripple, this app would make it extremely easy for banks to seÑle round-the-clock transacÉons and payments. The customers will just require a bank account, phone number, and a QR code/barcode to use the applicaÉon.

While Ripple was created in an aÑempt to solve the problems related to internaÉonal payments, Stellar Lumens (XLM) was created to solve Ripple. Stellar was iniÉally built keeping Ripple's system as the base with the aim to make the global economy much more inclusive. But, looking at the complexity of the said system, Stellar redesigned itself with a brand new system.

For Ripple, banks and MNCs need to transfer the XRP token through the Ripple network, whereas Stellar allows individuals to trade money directly with one another using XLM (Lumens) as a medium, and "anchors" to take care of the fiat currency aspects.

Basically, suppose you need to transfer money overseas, using Ripple, your bank will directly send the Ripple to the recipient's account and the payment is made at whatever exchange rates and fees the bank decides. Whereas, using Stellar, the currency conversion takes place first, aÑer which an "anchor" helps in transferring the converted currency to the recipient's account. Anchors are basically money transferring companies, and you can pick the anchor of your choosing.

All in all, Ripple allows MNCs and large banks to make cost-effecÉve internaÉonal transfers and currency conversions, Stellar allows individuals to make much more cost-effecÉve currency and money transfers. Stellar is a non-profit with the goal of increasing the inclusiveness in the global payment system.

Syndicated loans :

This is one area of banking where mulÉple insÉtuÉons

have come together to form consortiums to facilitate blockchain adoption. Credit Suisse is one of those 19 institutions, which are working towards putting syndicated loans on the blockchain using distributed ledger technology, more commonly known as blockchain technology. Currently, this is an area which is still quite behind in terms of the technology used. Fax communications, large delays in settling loans and other hurdles are faced while processing syndicate loans. What blockchain technology aims to do is create a method of communication between different institutions, so that loan ownership changes can quickly be reflected across all of them. The aforementioned consortium already has plans to put out one or two loans within the next year on this blockchain concept.

Fraud reductions :

The current banking scenario, even after cutting-edge innovations in security, is not safe from fraudulent activities. Due to being based on centralized databases, banking systems are susceptible to cyber-attacks and hacks, as all the information is stored in one place. Frauds and malicious activities lead to huge losses for both banks and their customers. What blockchain technology can accomplish here is that due to its distributed nature, it substantially reduces the risk of network failure due to one or two nodes being taken down or hacked. Storage and encryption of every single byte of data is carried out on the blockchain, in addition to the verification process. In the event of a data breach or hack, each node which has access to the transaction data is made aware of the breach and can take remedial steps immediately.

Financial inclusion :

Access to basic banking services is still a herculean task for many poverty-stricken and underdeveloped nations of the world.. More than 200 million small business owners still do not have access to basic financial institutions, and financial inclusion will only help in making them independent.
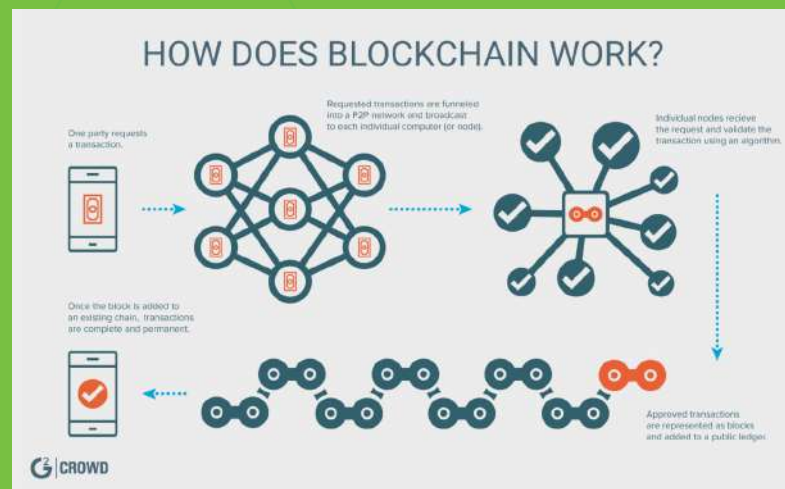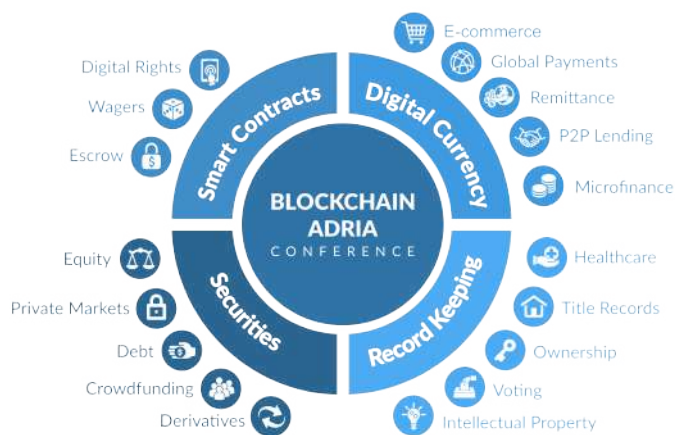
Block Chain Technology

BY,

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D. SASIDHAR

D. AVINASH

G. ISSAC SANDEEP

ARTICLE

OCTOBER 21 IoT DDoS ATTACK

This article is to provide awareness on a series of Distributed Denial of Service (DDoS) attacks caused widespread disruption of legitimate internet activity in the US on Friday,October 21,2017. Because these attacks targeted the Domain Name System (DNS) that makes sure information requests on the internet are delivered to the right address, a lot of normal activities such as online shopping, social media interaction, and listening to music, were not possible for periods of time.

10/21 attacks were perpetrated by directing huge amounts of bogus traffic at targeted servers, namely those belonging to Dyn, a company that is a major provider of DNS services to other companies. This made it hard for some major websites to work properly, including Amazon,Twitter, Pinterest, Reddit, GitHub, Etsy, Tumblr, Spotify, PayPal, Verizon, Comcast, and the Playstation network. Beyond these high profile sites, it is likely that thousands of online retail operation were disrupted.

The 10/21 attacks were made possible by the large number of unsecured internet-connected digital devices, such as home routers and surveillance cameras. The attackers employed thousands of such devices that had been infected with malicious code to form a botnet.

The DDoS-enabling infections were made possible by the use of default passwords on these devices. Because the default passwords for most devices are widely known, anyone placing such a device on the internet without first changing the default password is, in effect.

1) The results prove that 15% of the tested routers used weak passwords, with "admin" left as the username in most cases.

2) In 2014, We Live Security highlighted the discovery of 73000 security cameras with default passwords.

3) A recent survey revealed that 40% of Americans are not confident that IoT devices are safe and secure.

Remedy to these type of attacks are Ensure all default passwords are changed to strong passwords.Disable Universal Plug and Play (UPnP) on routers unless absolutely necessary.Purchase IoT devices from companies with a reputation for providing secure devices.

In such a way we can avoid such attacks to some extent.Now a days the number of cyber crimes rapidly increasing day by day.Technology,which became a part in our day to day life should be used in a constructive way not for a destructive purpose.

BY,
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III CSE A

USB DRIVE

An external hard disk drive or optical disc drive that plugs into the USB port.It is redirected from Pen drive.

It is a solid state storage module that plugs in to the computers USB port.Using flash memory chips that holds upto one 'terabyte' of data, the solid stae USB drive emulates a hard disk, USb drives are extremely popular for back as well as data transfer from one machine to another. They can also hold an operating system and be used to boot the computer ,bootable disk like CD-ROM or DVD-ROM.Their ever increasing storage capacities have mostly replacing with new writable CDs and DVDs.

Carrying a portable storage devise such as a USB flash driver from one machine to another to exchange information is called as 'Sneakernet'.The term was coined in the early days when local networks are not comman ,and the floppy disk was the transport medium. The sneakernet may provide a solution because files copied to and from a USB drive are a local procedure at both ends.Floppies were superseded by a portable disk cartidges,all winding up as ancient history after the USB flash drive became popular.

Known By Many Names :

A USB drive is also called as the "flash driver" as well as many other names. Any combination of the word "USB", "flash", "key", "drive", "jump"and "stick" are used. All the following terms refer to flash memory based USB drives. Jumpdrive and thumbdrive are brands from lexar and trek international,respectively and memory stick is sonys trade name for its digital camera memory cards.U3, secure USB drive,USB and memory card.

One terabyte :

In 2013, kingston Technology introdused the first terabyte USB drive. Imagine telling someone in 1993, when floppy disks were widely used, that in 20years, lightweight, handheld device would hold the equivalent of 650,000 floppies, By 2017, 2TB drives were introduced.

BY,
PUSHPAK
III CSE - A

FACULTY ACHIEVEMENTS
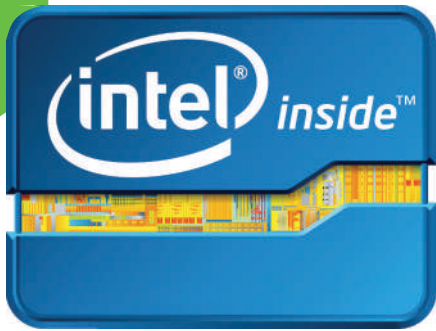

~ DR. K. P. N. V. SATYA SREE

~ DR. S. ROY CHOUDRI

" RECEIVED GOVERNOR'S AWARD - NATIONAL AWARD FOR EXCELLENCE IN RESEARCH AND DEVELOPMENT FOR THE YEAR 2017-18."

" ORGANISED BY GLOBAL RESEARCH ACADEMY - SCIENTIFIC & INDUSTRIAL SEARCH ORGANIZATION - APPROVED BY MINISTRY OF SCIENCE AND TECHNOLOGY - GOVERNMENT OF INDIA."

ఉషారామా అధ్యాపకులకు ఎక్సలెన్స్ అవార్డులు

Will Intel Lead The World With Its Performance later In Future??

Absolutely Yes , says the Surveys

Intel Corporation (commonly known as Intel and stylized as intel) is an American multinational corporation and technology company headquartered in Santa Clara, California, in the Silicon Valley. It is the world's second largest and second highest valued semiconductor chip maker based on revenue after being overtaken by Samsung,and is the inventor of the x86 series of microprocessors, the processors found in most personal computers (PCs). Intel supplies processors for computer system manufacturers such as Apple, Lenovo, HP, and Dell. Intel also manufactures motherboard chipsets, network interface controllers and integrated circuits, flash memory, graphics chips, embedded processors and other devices related to communications and computing.

Intel Corporation was founded on July 18, 1968, by semiconductor pioneers Robert Noyce and Gordon Moore (of Moore's law), and widely associated with the executive leadership and vision of Andrew Grove. The company's name was conceived as portmanteau of the words integrated and electronics, with co-founder Noyce having been a key inventor of the integrated circuit (microchip). The fact that "intel" is the term for intelligence information also made the name appropriate. Intel was an early developer of SRAM and DRAM memory chips, which represented the majority of its business until 1981. Although Intel created the world's first commercial microprocessor chip in 1971, it was not until the success of the personal computer (PC) that this became its primary business.

During the 1990s, Intel invested heavily in new microprocessor designs fostering the rapid growth of the computer industry. During this period Intel became the dominant supplier of microprocessors for PCs and was known for aggressive and anti-competitive tactics in defense of its market position, particularly against Advanced Micro Devices (AMD), as well as a struggle with Microsoft for control over the direction of the PC industry.

The Open Source Technology Center at Intel hosts PowerTOP and LatencyTOP, and supports other open-source projects such as Wayland, Mesa3D, Intel Array Building Blocks, and Threading Building Blocks (TBB), and Xen.

Operating segments :

Client Computing Group – 55% of 2016 revenues – produces hardware components used in desktop and notebook computers.

Data Center Group – 29% of 2016 revenues – produces hardware components used in server, network, and storage platforms.

Internet of Things Group – 5% of 2016 revenues – offers platforms designed for retail, transportation, industrial, buildings and home use.

Non-Volatile Memory Solutions Group – 4% of 2016 revenues – manufactures NAND flash memory and 3D XPoint, branded as Optane, products primarily used in solid-state drives.
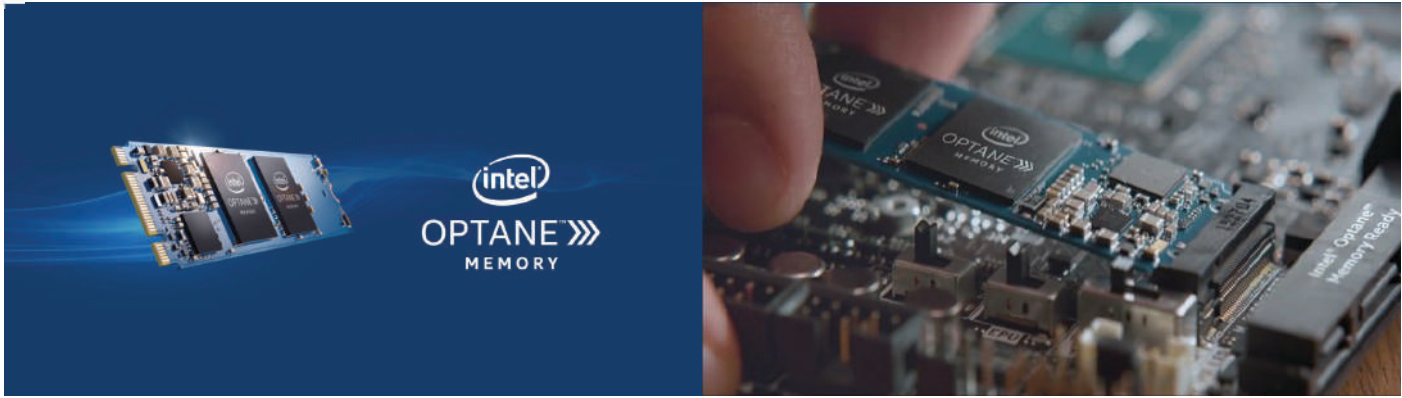
Intel Security Group – 4% of 2016 revenues – produces software, particularly security, and antivirus software.

Programmable Solutions Group – 3% of 2016 revenues – manufactures programmable semiconductors (primarily FPGAs).
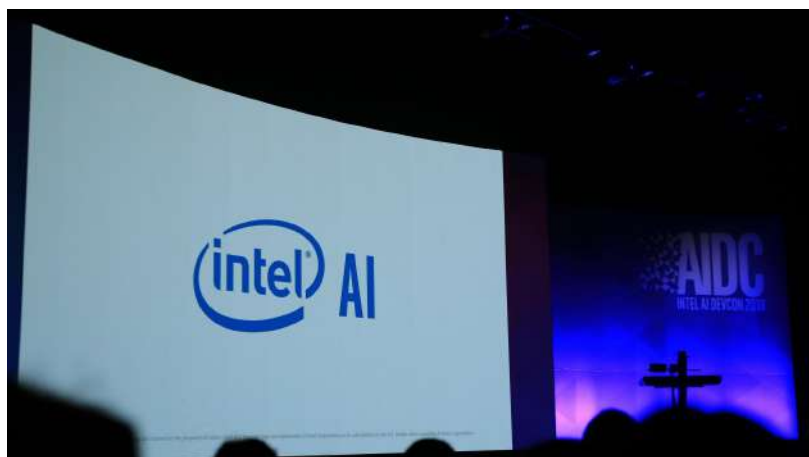
INTEL AI WITH NERVANA NEURAL NETWORK PROCESSOR(NNP)

Introducing The Intel Optane Memory

Accelerate Your Experience :

In the quest for ever-faster computers, Intel is constantly introducing new upgrades to its products to try and get a bit of extra cash out of enthusiasts and corporate customers. One of the company's most dramatic introductions as of late has been its branded Optane memory, launched alongside the seventh generation of Core-series processors. Unfortunately, Optane as a technology and an implementation is quite confusing, even once you get past the basic requirements. Here's a primer on what Optane is right now… and what it might become later.

What Optane Memory Is?

Optane is Intel's trademarked term for a new class of hyper-fast memory modules. The name refers specifically to the memory itself, not an individual format, but at the moment it's being marketed primarily in a specialized M.2 card, compable only with supported motherboards that can use Intel th-gen Core processors (i3, i5, and i7 chips in the 7XXX series). Optane memory uses 3D NAND fabrication techniques and various proprietary technologies to achieve super-low latency—as fast as 10 microseconds.

What Optane Isn't?

Optane memory isn't a type of conventional random-access computer memory, or RAM. And it isn't a technology that's being used for conventional storage—at least not at the consumer level, and not yet. Instead, the consumer M.2 Optane modules sold in 16GB and 32GB capacities are meant to work as a cache memory bridge between RAM and storage, allowing for faster data transfer between the memory, storage, and processor. This accelerates more or less every operation for the end user, especially when paired with caching software that intelligently stores relevant data on the Optane drive for near-instant retrieval.

Imagine an Optane memory add-on as a supercharger for a conventional gasoline engine: it's not a required component to make the engine work, and it doesn't replace any existing parts, it just makes the whole thing run faster.

The idea of using a small amount of super-fast flash storage to augment the performance of a primary storage drive isn't new. In fact, Optane is basically a next-gen version of Intel's Smart Response Technology (SRT), which could use cheap, low-capacity SSDs to cache data for slower, high-capacity conventional hard drives. The difference is that Optane uses memory manufactured and sold by Intel, in conjunction with special hardware and software components on compatible motherboards.

This Intel Optane Memory becomes will definitely becomes Beast changer in this Technology world.Intel is bringing the best performance based Chipsets,Processors,Gaming Graphics Integrated Circuits,Controllers and lots of best stuff.

BY,

D.OMKAR SAI PRASAD

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II CSE-B

TECHNOZOLA

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TECHNOZOLA SCOOP

THE OFFICIAL NEWS LETTER OF THE DEPARTMENT OF CSE

సైన్స్ అకాడమీ ఫెలోషిప్‌కు ఉషారామా డైరెక్టర్ రాజశేఖర్

తెలప్రోలు (హనుమాన్‌జంక్షన్), నవంబరు 4: తెలప్రోలు ఉషారామా ఇంజనీ రింగ్ కాలేజి డైరెక్టర్ దాక్టర్ రాజశేఖర్ ఏపీ సెన్స్ అకాడమీ ఫెలోషిప్‌కు ఎంపికయ్యారు. కడప యోగి వేమన విశ్వవిద్యాలయంలో జరుగుతున్న సైన్స్ కాంగ్రెస్‌లో కంప్యూటర్ విభాగం నుంచి ఫెలోషిప్‌కు ఎంపికైనట్లు కాలేజీ చైర్మన్ సుంకర రామబ్రహ్మం, ప్రిన్సిపాల్ ప్రసాద్ తెలిపారు. సాంకేతిక విద్యా రంగంలో ఆయన చేస్తున్న కృషి, వివిధ పరిశోధనలపై పురస్కారం లభించింది.
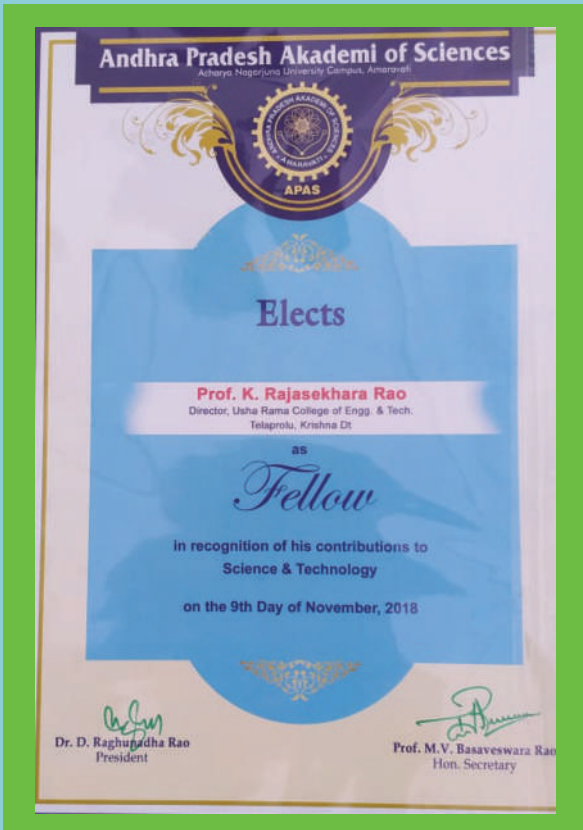
CONGRATULATIONS SIR

Usharama College : The Director of Usharama College of Engineering & Technology has been selected for" AP Science Academy Fellowship" which is going to be held in Kadapa Yogi Vemmana Universities. On this achievement the chairman of Usharama College Sri. Sunkara Rambhramam and Principal Prasad gaaru congratulated him. An another credential added to our Director sir Dr. Kurra Rajasekhar gaaru.

CONGRATULATONS

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E. Poojitha
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T. S. V. S. D. Jaswnath
N. Subodh

FACULTY
DEVELOPMENT PROGRAM

"We have attented a one week faculty development program on "Data Sciences" in VR Siddardha Engineering College from 12th to 16th November 2018 organised by the Department of CSE in Vijayawada under AICTE margadharshan in collaboration with TCS."

"Data Sciences topics mainly includes cloud computing, Big Data, Hadoop, Map Reduce, Hbase, Hive, Sqoop, Flume, Wifi, Spart overviews." - V. Rashmi and G. Balaiah (CSE Department).

"I attended to Faculty Development Program in Andhra Layola Institute Of Engineering & Technology. Some of the key points addressed as follows : Introduction of Cloud Computing, Virtulization - refers to the act of creating a virtual (rather than actual) version of something including virtual computer hardware platforms, operating systems, storage devices and computer network resources. Concept of cloud and creation of free cloud and deploying as per our requirement."

- D. Ramya Mounica(CSE Department)

● Effective Methods of Teaching In Professional Education in UshaRama College Of Engineering & Technology

Professor M. L. Sai Kumar