

Science is built upon previous knowledge, which is incredible that what is now common sense mathematics was once never before discovered or thought of.

<u>-</u>Georg Christoph Lichtenberg(1742-1799)



## INFINITO 2019

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A Green Campus is a place where environmental friendly practices combine to education promote sustainable and eco-friendly practices in the campus. Going green means to pursue knowledge and practices that can lead to more environmentally friendly and ecologically responsible decisions and lifestyles, which helps to protect the environment and sustain its natural for current future resources and generations.

This year in "INFINITO 2019" we are taking a step forward to promote this notion. Every activity in this event of 5 days aims at encouraging this ecofriendly concept of "GREEN CAMPUS".

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# ROLE OF HIGHER EDUCATION IN BUILDING A GOOD SOCIETY

The world has realized that the economic success of the states is directly determined by the quality of their education systems and that the most effective factor of production is human capital expressed in knowledge, skills, creative abilities and moral qualities of individuals in society. In the past decade higher education institutions have been buffeted by a complex set of pressures all over across the globe. Foremost among them is the growing importance of knowledge-led economies that have placed higher education at the centre of competitiveness national agendas. Higher education institutions "economic increasingly viewed as engines" by policy makers and are seen as essential for ensuring knowledge production through research innovation and the continuous education of the workforce. Tertiary education policy regarding quality in higher education is increasingly important on agendas. The widespread national recognition that tertiary education is a major driver of economic competitiveness in an increasingly knowledge-driven global economy has made high-quality tertiary education

more important than ever before. The imperative for countries is to raise higher-level employment skills, to sustain a globally competitive research base and to improve knowledge dissemination to the benefit of society.

Higher education has an important role both for the student, as an individual, and also for the society in which he lives. Higher education represents an aid for the growth and the development of the students and a key for a better life. the society, higher education institutions can contribute to the creation of ideal citizens, who will help in keeping the society peaceful. In school, students very rarely get to experience life. When the students get enrolled in college, they are first of all away from their families, so this makes them independent, and thus, they learn how to be on their own. During the college years, if the students have the right attitude, i.e., they really want to learn and study, the scope for it is unlimited. They can increase their knowledge by reading lots of books or by attending the lectures given by the experts in the fields.



"I am enough of an artist to draw freely upon my imagination. Imagination is more important than knowledge. Knowledge is limited. Imagination encircles the world."

— Albert Einstein (1879- 1955)

SANTOSH DAS, ASST. PROF, DEPT. OF CSE



## The Changing Face of Data Security 2019

Security Concerns and Methods of Alleviation by Data Technology Environment.

Digital transformation (DX) is changing the way we live and work. Companies are fundamentally reimagining their businesses and taking advantage of digital technologies like cloud, mobile, social, and the Internet of Things.

critical component of digital transformation is the edge. DX creates opportunities for new technologies that engage businesses and consumers where but introduces they are, it complexities as companies push an increasing data amount of and computing power to the edge. An increase in edge technologies demands that security spend shifts away from traditional enterprise security and even away from cloud. Mobile and IoT are specific examples of this, but big data, containers, and block chain are also enabling technologies that help expand and customize edge computing.

Mobile Payments: Respondents have a wide range of data security concerns regarding mobile payment technologies. Fraudsters hold a slight lead in the list

of concerns and are joined by exposure of PII, weak authentication protocols, and potential exposure of payment card information. Leading methods to address mobile payment concerns include the use of strong encryption, multi-factor authentication (MFA), and strict password compliance.

Internet of Things: The main data security concerns around IoT include attacks on IoT devices, lack of frameworks and controls, and protecting sensitive data through encryption and tokenization. The main ways they look alleviate IoT security concerns encryption/tokenization authentication/digital identification of IoT devices, and anti-malware. There is relatively little anti-malware available for the vast majority of IoT devices on the market today. This finding could point to respondents' desire to see more of it become commercially available.

BigData: Leading data security concerns regarding big data include sensitive data residing throughout the environment, data quality concerns, and privacy violations from internationally-originated data. The top methods of alleviating big data security concerns are stronger authentication, system-level encryption and access controls, and sensitive data discovery/classification.

<u>Containers/Docker</u>: When it comes to containers/Docker, the leading security

concern was the security of data stored in containers, followed by unauthorized access to containers and spread of malware among containers. The main ways respondents looked to alleviate containers/ Docker data security concerns include encryption, antimalware, and vulnerability scanning.

Blockchain: Blockchain data security concerns were also very broadly spread. The leading concern by a slight margin was threat of crypto jacking, followed by exposure of private data from improper public ledgers. The leading methods to alleviate blockchain

"The way to build a nation is to build a good citizen. The majority of the citizens should be efficient, of good

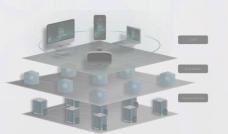
—Mokshagundam Visvesvaraya (1860-1962)

character and possess a reasonable high sense of duty."

data security concerns are continuous authentication, identity proofing, and strong entitlements. Blockchain is still a relatively new technology and respondents are probably not as familiar with it and its security issues as they are with other technologies.



**Kashmir Handicrafts- Paper Mache Angry** 





S.K MUKHERJEE HOD, DEPT. OF CSE



# SUCCESS ATTRIBUTES AT WORK

Work can define us, as we spend enormous amount of our time, energy and focus. This work needs to make an impact for making us shine brightly. We need to use our limited energy for maximizing our returns. This is only possible if we believe in something, else we have discontinue our time and effort in it. The business needs its dutiful service people. Sometimes we need to define ourselves and shine in what we accomplish.

A condition of having the ability to shine, is the ability to lead where the influence over the colleagues increases alongside the leadership potential. The standards of success are set by interacting with others, creating energy in business and managing of relationship. Some of us need to be unique and stand out and become a brand. Sometimes we need to listen to our colleagues, as silence is golden. The simplicity dictates

that less is more, but in contrast more detail fortifies the idea.

The North Star guides us when deciding on the kind of person we become, and enjoy the journey as much as the fulfillment of reaching the destination. Sometimes it may be better to do something like executing a plan of actions rather than imagining it when the experience can teach the reality and the reward received may be the perfect data.

A person should surround himself with resonators who have an energy and provide support for doing new things, and not vampires who take energy away and produce difficult situations at every action they take.

In a situation where everyone is clamoring for attention we should be iconic and do the big stuff and the right thing for enhancing our profile.

Success is defined by the psychology and grace attributes. The psychology attributes are thought, perception, intellect, logic, inner dialogue, readiness, understanding and concentration. The grace attributes are inspiration, vision, intuition, guidance, connection, trust and flow.

A leader must have the ability for inspiring his team by staying ahead of the competition, not get blinded by the prize and be too hard on team members, and manage his impact on the team.

Intuition is a prized asset, when in situations our conscious brain cannot work to solve. The trial of different actions in a trying situation, provide a better idea how the outcome can affect our ambitions and ultimate goal. This trial of actions can be reinforced by experts who can advice us of the reality attached to the outcome of the chosen action.

The thoughts are useful as stepping stones to an idea, but mere thoughts are not as useful as ideas which are gold in our pockets. There are two ways of thinking, where one is analytical, logical and reductionist which is used by our conscious brain and the other is creative and expansive thinking. A business has to thrive based on both of these exploitative and explorative ideals.

The thinking hats used by a professional are white hat thinking based on hard facts and figures, red hat thinking providing an emotional view, black hat thinking which is more somber and serious, cautious and careful, yellow hat thinking which is sunny and positive, optimistic and bolsters positive thinking, green hat for

fostering creativity and new ideas, and blue hat which is cool and above everything else and this thinking is attached to control, organization of the thinking process and use of other hats. Here are some favorite quotes which I found is relevant to happiness and success of a person.

Knowing others is intelligence, knowing yourself is true. - Lao Tzu

First say to yourself what you would be; and then do what you have to do. -**Epictetus** 

The highest reward from your working is not what you get for it but what you become by it. - Sydney Harris Success is letting go of fear. - Carl

Whittaker

Failure is only the opportunity to begin again, more intelligently. - Henry Ford I am always doing that which I cannot do, in order that I may learn how to do it. -Pablo Picasso

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DR. PIJUSH BASAK PROF. DEPT. OF MATHEMATICS



# Causes Of Green House Effect In Atmosphere And Its Effect In Life

Green house is made of glass and is designed to trap the heat inside. Even in cold winter days, there is warmth inside the green house. Like a green house, the atmosphere on Earth also has some gases that trap some energy that enters from sun and blocks it from escaping back from the Earth. In the atmosphere of Earth, there are molecules called green house gases that trap the heat.

The greenhouse effect is important as absorbing the energy keeps the temperature of Earth warm and appropriate for living. In the midst, the problem is that green house effect is warming rapidly up as excessive released greenhouse is in atmosphere leading to climate change. Green house gases occur naturally in the atmosphere and also occur due to human activities.





## Fig: Natural and Human enhance Green House Effect

Green house gases and their effects Carbon dioxide (CO<sub>2</sub>): Of all green house gases, the most prominent is Carbon dioxide. The chief sources of Carbon dioxide in the atmosphere include manmade activities such as clearing of land, burning of fossil fuels and production of cement and natural sources such as volcanoes, respiration organisms, oxygen-using by combustions and decay of organic matter. The natural sinks that absorb Carbon dioxide from the atmosphere involve the process of photosynthesis which is very important. The marine life absorbs Carbon dioxide also the dissolved in the oceans. But. deforestation and cutting of plants at huge level without new tree plantations is harming the environment very badly.

Water vapour (H<sub>2</sub>O): Water Vapour is one of the most powerful greenhouse gases in the atmosphere of the planet. The warmer the climate on the earth, the greater the evaporation of water of water from earth's surface. The greater the evaporation, the more the concentration of this powerful greenhouse gas.

Methane ( $CH_4$ ): Methane is present in lesser concentration in the earth's atmosphere. Methane also resides in atmosphere for shorter duration compared to Carbon dioxide. sources of methane include volcanoes, wetlands. vents. Methane seepage oxidises bacteria, livestock farming; accelerates burning of natural gases and coal, helps decomposition of landfills, biomass combustion and so on. The natural sink for the gas is soil and atmosphere.

Nitrous oxide (N<sub>2</sub>O) and fluorinated gases: Greenhouse gases produced due industrial activities include fluorinated gases and nitrous oxide. The three main fluorinated gases are hydro sulphur fluorocarbons (HFC), fluorocarbons (SF<sub>6</sub>); Fluorinated gases are manmade and not natural. These are created by human activities mostly due to industrial processes. The sources of Nitrous oxides include bacteria in soil. livestock waste management and use of fertilizers in agriculture.

**Surface level ozone** (O<sub>3</sub>): Surface ozone is the most significant green house gas in the atmosphere. It is caused due to air pollution and it has a very difficult role in balancing radiation on Earth. Ozone occurs in both, Earth's upper and ground level atmosphere. Ozone is harmful air pollutant produced in the atmosphere when contaminants are released by vehicles, power plants, chemical plants, industrial boilers,

refiners and other such sources chemically react in the presence of sun radiation.

## **Consequences of global warming:**

Global warming is a continual rise in the Earth's temperature. This rise is largely caused due to the emission of green houses gases. Several evidences given by scientists prove that the earth's temperature is rising, more so after 1950's. Human activists over the last few decades have led to the warming of the climate system on the planet and it is being predicted that in the 21st century the global surface is likely to go up further.

The rise in the temperature is having a negative impact on the life of earth. A detailed look at the consequences of global warming is presented.

#### **Effect on climatic conditions**

Global warming has led to a change in the precipitation pattern in different zones across the globe. As a result, while certain regions are experiencing draught -like situation others are facing floods. This way the wet areas are becoming wetter and dry zones are getting drier. Increase in temperature is also giving way to storms, cyclones, heat waves and wild fires among other changes in the atmosphere. Many regions earth are experiencing on extreme weather conditions as a result of global warming and the problem is expected to aggravate in future.

Effect on the sea







Fig: Cause and effect of global warming.

The global sea level has risen over the 20<sup>th</sup> century. There are two key reasons for this rise in sea level. One is the thermal expansion that occurred due to the warming of the ocean water and second is the increased melting of the land based ice. It is being predicted that there will be a considerable rise in the sea level in the times to come. The continued rise in the sea level is a major threat to the life in the coastal and low-lying areas.

### **Effect on the environment:**

The overall environment of the earth has been adversely affected due to global warming. The rise in temperature worsens the air pollution further by raising the level of ground level ozone which is formed when the smoke emitted by factories, cars and other sources come in contact with heat and sunlight.

Increased air pollution has led to various health problems and the condition is worsening by the day.
Effect on agriculture

Agriculture has been worst affected due erratic rainfall pattern formed as a result of erratic rainfall formed as a result of global warming. Many areas are experiencing frequent drought-like situation while others are receiving heavy rainfall and floods. This has not only affecting the people living in those areas but also adverse effect on the crops too.

Agricultural lands are losing their fertility and the crops are being damages.

Global warming is a series concern. Its repercussions are devastating. Carbon

emission needs to be controlled immediately in order to lower in order to lower consequences of global warming. This can be done if each and every individual contributes his/her bit towards the cause.

The good thing about science is that it's true whether or not you believe in it.

Neil de Grasse Tyson (1958-Present)





**ART OF INDIA** 



The 30th of November is known as "Computer Security Day".

DR. ARUN CHANDRA SEN, PROF. DEPT. OF PHYSICS

## **Detection of Gravitational Waves**

Gravitational waves are ripples in the fabric of space-time as predicted by Einstein in general theory relativity. of The sources gravitational waves include very close binaries, colliding neutron stars and stars collapsing into black holes. But the detection of gravitational waves was a difficult task for scientists, but it has now been detected by a group of international scientists and engineers. Detection of gravitational waves was done at Laser Interferometer gravitational Wave Observatory (LIGO). It was built on two sites in Louisinia and Washington in the USA. an L-shaped Each installation is structure with 4 Km arms. Masses suspended at the corner of the 'L' and at the ends of the arms moved in response to a passing gravitational wave. Laser beams directed along the arms sensed these tiny motions of no more than one thousandth the diameter of a proton. giant VIRGO was another laser interferometer designed to detect gravitational waves and is now operating in Europe.

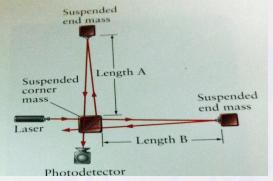
The LIGO detectors have observed gravitational waves GW150914 in 2015 from the merger of two stellar-mass black holes.

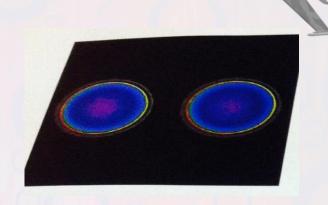
The detected waveform matched the predictions of general relativity for the inspiral and merger of a pair of black holes and ringdown of the resulting single black hole. It was the first direct detection of gravitational waves and the first observation of a binary black hole merger. Another gravitational wave event GW170817. observed localized in 2017 by the two advanced LIGO detectors and the advanced VIRGO detector was one of the biggest and successful experimental work done by a group of international scientists and engineers. These detectors made their first observation of a binary neutron star inspiral. It was the loudest gravitational wave signal detected to date. It was also confirmed that coalescence of binary neutron star event was followed by a short burst of γ-rays.

Studies of gravitational wave data and observations of electromagnetic emissions may provide new insights into the astrophysics of compact binary systems, γ-ray bursts, dense matter under extreme conditions, nature of gravitation and independent tests of cosmology.

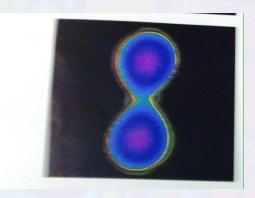








A schematic diagram of a gravitational wave detector





The merger of a neutron star binary, in a computer simulation, by Max Ruffert, to a single object with a disk around it; it will collapse to a black hole. Gravitational radiation is emitted during the merger.



Humans accidentally created a protective bubble around Earth.



ANINDITA MUKHERJEE, ASST. PROF, DEPT. OF CSE



# Deep learning is so cool for so many problems...

Connecting the world in real time (Face book)

In February 4, 2004, Face book was launched by Mark Zuckerberg and his Harvard College roommates. Now there are more than 1.52 billion people using Face book every day, a 9 percent increase year over year. The company's goal is to connect every person on the planet through Face book owned tech within 100 years. To get there, they're using DEEP LEARNING.

## What is Deep Learning?

Deep learning uses layers of algorithms for data processing, understands human speech and recognizes objects visually. In deep learning, Information is passed through each layer, and the output of the previous layer acts as the input for the next layer. The first layer in a network is referred as the input layer, while the last is the output layer the middle layers are referred to as hidden layers where each layer is a simple, uniform algorithm

consisting of one kind of activation function.

Another aspect of deep learning is feature extraction which uses an algorithm to automatically construct meaningful features of the data for learning training and understanding. Face book is at the forefront of general machine learning and deep learning research. They have covered a lot of ground in tackling fake news, filtering offensive content through learning machine and artificial intelligence. The social media giant has been focusing on resolving issues and building products related to recommendation engines, text and image analysis.

Giving people the power to share and connect requires constant innovation. At Face book, research permeates everything we do. We believe the most interesting research questions are derived from real world problems. Working on cutting edge research with a practical focus, we push product boundaries every day.

They proudly work at the intersection of research and engineering to make the world more open and connected.

Face book uses Deep learning in every aspect. Either you are scrolling the news feed or browsing the images or videos, here you don't need to seek that person over Face book; Face book will already do it for you.

With 1.2 billion people uploading 136,000 photos and updating their status 293,000 times per minute, until recently Face book could only hope to draw value from a tiny fraction of its unstructured data – information which isn't easily quantified and put into rows and tables for computer analysis.

Deep Learning is helping to play a part in changing that. Deep Learning techniques enables machines to learn to classify data by themselves. A simple example is a deep learning image analysis tool which would learn to recognize images which contain cats, without specifically being told what a cat looks like. By analyzing a large number of images, it can learn from the context of the image — what else is likely to be present in an image of a cat? What text or metadata might suggest that an image contains a cat?

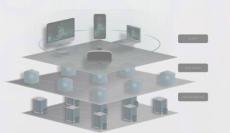
That's the basic principle of why Deep Learning (DL) is useful to Face book, and as DL algorithms become more sophisticated they can increasingly be applied to more data that we share, from text to pictures to videos. So here's a couple of specific use cases where DL is used to gain value and help Face book achieve its goals of providing greater convenience to users, and enabling them to learn more about us.

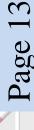
### 1. Textual analysis:

Facebook uses a tool it developed itself called Deep Text to extract meaning from words we post by learning to analyze them contextually. Neural analyze the relationship networks between words to understand how their meaning changes depending on other words around them. Because this is semi-unsupervised learning, the algorithms do not necessarily have reference data - for example a dictionary – explaining the meaning of every word. Instead, it learns for itself based on how words are used.

## 2. Facial recognition

Face book uses a DL application called Deep Face to teach it to recognize people in photos. It says that its most advanced image recognition tool is more successful than humans in recognizing whether two different images are of the same person or not – with Deep Face scoring a 97% success rate compared to humans with 96%.





# 3. Targeted advertising

Facebook uses deep neural networks the foundation stones of deep learning – to decide which adverts to show to which users. This has always been the cornerstone of its business, but by tasking machines themselves to find out as much as they can about us, and to cluster us together in the most insightful ways when serving us ads, it hopes to maintain a competitive edge against other high-tech competitors such as Google who are fighting for supremacy of the same market.



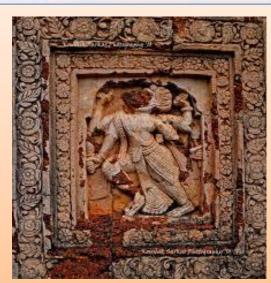
"Nothing in life is to be feared, it is only to be understood. Now is the time to understand more, so that we may fear less."

— Marie Curie

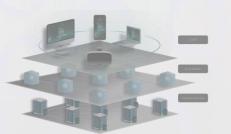
(1867-1934)

### **Conclusion:**

Face book AI Research team are doing a lot of work to improve the basic algorithm of Deep Learning (DL) to support at present 1.2 billion people uploading ,updating status etc per minute, and as DL algorithms become more sophisticated they can increasingly be applied to more data that we share, from text to pictures to videos.



TERRACOTTA ART IN **BISHNUPUR** 



## PUJA MUKHERJEE, ASST. PROF. DEPT. OF CSE



## Recognize Face in all Walks of Life

Identity management and security is the most common and visible application of this technology. However, face recognition is now finding applications across all industries. With artificial intelligence and the blockchain, face recognition certainly represents a significant digital challenge for all companies and organizations - and especially governments.

## How does face recognition work?

Biometrics are used to identify and authenticate a person using a set of recognizable and verifiable data unique and specific to that person. In the case of facial biometrics, a 2D or 3D sensor "captures" a face. It then transforms it into digital data by applying an algorithm, before comparing the image captured to those held in a data base. This is a faithful and "augmented" replica of the process at work in the human brain.

These automated systems can be used to identify or check the identity of individuals in just a few seconds based on their facial features: spacing of the eyes, bridge of the nose, contour of the lips, ears, chin, etc. They can even do this in the middle of a crowd and within dynamic and unstable environments. Proof of this can be seen in the performance achieved by Gemalto's Live Face Identification System (LFIS), an advanced solution resulting from our long-standing expertise in biometrics.

- ➤ Owners of the iPhone X have already been introduced to facial recognition technology. However, the Face ID biometric solution developed by Apple was heavily criticized in China in late 2017 because of its inability to differentiate between certain Chinese faces.
- ➤ Of course, other signatures via the human body also exist: fingerprints, iris scans, voice recognition, digitization of veins in the palm of the hand and behavioral measurements. These are mainly used to secure online payments in an environment where cybercrime has proliferated in recent years.

# Face recognition Trends: Top Technologies

Google, Apple, Facebook, Amazon and Microsoft (GAFAM) are also very much in the mix. All the software web giants now regularly publish their theoretical discoveries in the fields of artificial intelligence, image recognition and face analysis in an attempt to further our understanding as rapidly as possible

## Deep learning impact

It's a central component of the latestgeneration algorithms developed by Gemalto and other key players in the market, and holds the secret to face detection, face tracking and face match as well as real-time translation of conversations.

## Market dynamics and dominant usecases

A study in June 2016 estimated that by 2022, the global face recognition market would generate \$9.6 billion of revenue, supported by a compound annual growth rate (CAGR) of 21.3% over the period 2016-2022.

## Mapping of new users

While the United States currently offers the largest market for face recognition opportunities, the Asia-Pacific region is seeing the fastest growth in the sector. China and India lead the field.

## Face recognition and the legal system

The ethical and societal challenge posed by data protection is radically affected by the use of facial recognition technologies.

## Face recognition latest hacks

Despite this technical and legal arsenal designed to protect data, citizens and their anonymity, critical voices have still been raised. Some parties are concerned and alarmed by these developments.

Towards hybridized solutions.

It's clear that the identification and authentication solutions of the future from will borrow all aspects biometrics. This will lead to "biometrix" biometric mix capable security for all guaranteeing total stakeholders in the ecosystem.

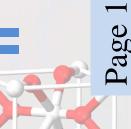
#### Recent news:

Bengaluru airport set to become first in Asia to use face recognition as boarding pass

UIDAI makes face recognition feature mandatory for Aadhar authentication.

UIDAI announces phased rollout of face authentication.

Facial biometrics continues to be the preferred biometric benchmark. That's because it's easy to deploy implement. There is physical no interaction required by the end user. Moreover, face detection and face match processes for verification/identification are very fast.



## SANDIP BOSE ASST. PROF. DEPT. OF CSE





## JOURNEY OF A COMMON MAN

Problem is a part of our life. While we are alive we will always be faced with some challenges. People may have fewer while rest have too many. On the other hand the average person always has problems in different part in his life whether in health, career, family, relationships, education etc. Everyone has different approach to problems. Some people get on their problems face to face while others look away from it. There are times that a common man overcomes his problems while there are also some moments when he runs away.

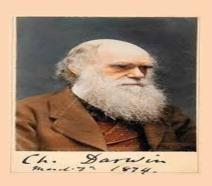
What type of problems of the common man? The most common problems of the average middle class individual is facing money issue. Working people may just have enough to get by or mostly not able to make ends meet. Economy tries to recover it with credit cards and loans, sales, and other opportunities that allow the common man to continue to purchase things, eat, or go out even when the cash he earned. Apart from this financial problem is that the common man cannot fulfill his dreams. If he wanted to travel or to own his dream car or home perhaps he has to wait until his retirement where he can receive a

bigger amount of money. The common man cannot easily achieve for a high quality of education for himself or his children. Health and medical issues is one of the bigger issues od our daily life.

Unless he has a medical program or health benefits from the company he works for he is fine. Unlike the few percent of rich people who can get diagnosed right away and fly to where their remedy is, the common man has to stick to free consultations or they have to spend a lot if they do ask a prescription from medical professionals. The common man is stay in the middle. Perhaps the core problem of being a common man is that he is in a somewhat permanent situation. Parents had been common people and so they have only provide him the common education and opportunities which is affordable. Consequently he grew into a common adult, which he can also only afford the common things for his children, and goes on the cycle. Unless the common man does something really out of the ordinary track then maybe he can get himself out of the never ending loop. But the rich likes the common men to be where they are, because they are useful consumers to the products and services that they sell, and are contributing workers to the growth of business empires they the Expectations from a common man are that behave like a common man, survive like a common man. Until and unless the common man cannot think in a different way the period of continuing this cycle is going on. The common man has a lot of



common problems but unless he deals with it in an uncommon way then perhaps he will yield uncommon results.



"A man who dares to waste one hour of time has not discovered the value of life."

— Charles Darwin (1809-1882)



TERRACOTTA ART IN WEST BENGAL



TERRACOTTA ART IN KOLKATA



HAND MADE JEWELRY
IN BIRBHUM



TERRACOTTA ART IN BIRBHUM

## PRITHICK SAHA, ASST. PROF. DEPT. OF ECE





# Social Network Impact on Youth

media Online social have gained amazing worldwide growth and fame which has led to attracting attention from variety of researchers international. Although with time all generations have come to hold in your arms the changes brought about, social network has teenagers and young adults are the most extreme users of these sites. According to various research studies in the field of online social networks, it has been given away that these sites are impacting the lives of the youth wholly. When using these sites such as Twitter, Face book or MySpace, there are both positive and negative out-turn on the youth.

It is foreseeable to take no notice of the fact that these days social network plays an vital role in young people lives. Most youths are spending as a minimum an hour in these fashionable social media sites. In general, 1 out of 7 minutes which are used up online by most of those who can access internet is spent on Face book according to Shea Bennett. One may ask how spend all that time on the social media sites may have a positive propelon them. Well, social

media helps the youth and any other user modernized with what is occurrence around the world, help the teenagers hang about connected and proceed together with each other even if they are countless miles spaced out. This strengthens their alliance even if they finished school and moved to like chalk and cheese locations they stay connected and update one another.

In count, social media sites have provided a dais whereby the youth can create groups and pages based on their common obedience and end up building connections and opportunities for their particular careers by updating various topics to discuss. Youth who have been interviewed they say that social media has become their daily life and it makes their lives easier and resourceful. While on one hand social network sites seems to carry people together and connected on the other hand it creates social isolation in regard to BBC News report. As the youth tend to spend many hours on these sites, they rarely have face-toface interaction. According various studies, scientists evaluation determined that social isolation can lead to a host of emotional, psychological, physical and mental problems which include fretfulness, melancholy and somatic complaints among many others.



Other negative effects of social networking different people suggested built-in cheering poor spelling and grammar, exposing underage to online predators, allowing spread misinformation that is perceived as fact, decreasing work rate as those who are supposed to be working spend time in the sites to chat, provide a perfect platform for cyber bullying and providing details that increase risks of identity theft.



"The essence of science is independent thinking, hard work, and not equipment. When I got my Nobel Prize, I had spent hardly 200 rupees on my equipment."

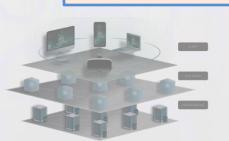
----- C. V. Raman (1888-1970)







**ART IN ODISHA** 





PRATIK SARKAR. ASST PROF. DEPT. OF EE



## The Urge Of "Innovation And Entrepreneurship" In **Technical Institutes**

Today, we live and work in the world that has been shaped and is maintained through Engineering. It is the process by which we, as a society, leverage our surrounding conditions to suit as per our needs and wants. As we have become more reliant on technology, engineering had become very crucial to our daily lives. Engineers and engineering are indispensable to us in many different ways like for health, livelihood, wellsecurity, being, sustainability, Engineering and technological works and development in any country must be driven by motivated, conversant and capable engineers and scientists. That is why engineering and technical education any country is the base technological growth of that country. Till date, India has already developed a huge set-up in the field of engineering and technical education sector. educational institute of engineering and technology in the nation must assure utmost effort to help India to develop a large pool of proficiency in the technoallied sector. Our educational standards must be enhanced to be at par with international standards.

However, India has a huge reserve of not-achieved needs in serious areas such as health, agriculture, education, energy which is preventing large sections of our populations to be optimistic opportunities that would enhance their future. It is the circumstance when innovations are the key fundamental answer for India. Innovations - which can present the solutions to existing traditional problems where conventional approaches have unsuccessful to deliver results. On the other hand, in this age of aggressive competition and fast pacing world where technologies and products become outdated every now and then, the business groups are in a rush to plan out unconventional alternative policies and ways to expand, rather than attempting to nourish the market with augmenting the familiar range of new products. Companies are enormously engaged themselves for creating a breakthrough can develop a new market. that Entrepreneurship is nothing but professional approach. With mindsets, they apply the knowledge, skills and competencies to convert a brand new idea to a money making idea. Entrepreneurs may be an individual or a set of people and by launching a new enterprise or diversifying from an



existing one and their mindset is to pursue growth while generating wealth, assets, employments and social good.

Earlier, technical education was mainly focused to prepare the students mostly for employment. It was a truth that, in spite of millions of students pursuing engineering education in India, results in terms of research, innovation and entrepreneurship were not encouraged in the past. But presently keeping the view to the present necessity and requirement, apex bodies like All India Council for Technical Education (AICTE), Directorate of Technical Education (DTE), etc. are more focused and development, research innovation and entrepreneurship. They are promoting and encouraging the different technical institution to establish such infrastructure. Further, they are identifying colleges on the basis of their contribution towards innovation, R&D work to provide financial support to establish state of the laboratories. **Various** art competitions have been arranged at different levels to showcase the hidden talent of the student. Best innovative ideas in the said competition are patenting encouraged for and commercialization.

From the inception, along with the regular technical curriculum, Dream Institute of Technology is highly

entrepreneurship. Here students from their first year are oriented towards innovation and entrepreneurship. per the inclinations of the student, they participate different campus courses in order to understand the business plan of an entrepreneur. Further students are asked to prepare a business plan of their choice with financial and marketing considerations. In order to imbibe innovation among student, a series of related assignment or task is given to create new knowledge, generate technical ideas aimed at new enhanced products as well as different services. Students are highly and encouraged to attend, present exhibit their ideas different in exhibitions. seminars. competitions, summits and workshops. Our institute also organizes talk shows to interact with successful entrepreneurs understand their career path, challenges faced by them.

Holistic approach towards innovation and entrepreneurship is one of the most important components in engineering education for the overall growth of students. If everyone decides to work in synergy with the focused goal of imbibing innovation and entrepreneurship culture among aspirants through continuous effort and follow-ups, we can notice a massive change in the coming years. It would be in line with the "Transform India" Initiative which focuses on social

progressiveness, environmental consciousness, and financial growth to shape tomorrow's India and with the "Make in India" Initiative which focuses on attracting businesses to

invest and manufacture in India with an aim to make our country a hub for global manufacturing while bringing about an economic revolution in the country.



**DIT SPECIAL** 



## DHRITIMAN MONDAL, ASST. PROF., DEPT. OF CE

# YOGA -MAKING FRIENDS WITH THE MIND

Yoga brings stability to the body and therefore the wavering mind. It's the union between the mind, body and spirit. Our modern-day life-style is simply too agitated and puts tons of stress on us that successively causes tons of life style issues like blubber, high blood pressure, high sterol, polygenic disorder etc. Yoga is that the answer to all or any these issues. It offers harmless solutions to those issues within the sort of relaxation. In Daily Life Yoga is a system of practice eight consisting of levels development in the areas of physical, mental, social and spiritual health. When the body is physically healthy, the mind is clear, focused and stress is under control. The main goals of "Yoga in Daily Life" are Physical Health, Mental Health, Social Health, Spiritual Health, Self-Realization or realization of the Divine within us. These goals are attained by Love and help for all living beings to make respect for life. protection ofnature and the environment.

# According to a lecture by A.C. Bhaktivedanta Swami Prabhupada:

The whole purpose of the yoga system is to make the mind our friend. The purpose of practicing yoga is to control

the mind in order to make it a friend in discharging the human mission.

Unless the mind is controlled, the practice of yoga is simply a waste of time; it is simply for show. One who cannot control his mind lives always with the greatest enemy, and thus his life and its mission are spoiled. The constitutional position of the living entity is to carry out the order of the superior. As long as one's mind remains an unconquered enemy, one has to serve the dictations of lust, anger, avarice, illusion, and so on. But when the mind is conquered, one voluntarily agrees to abide by the dictation of the Personality of Godhead, who is situated within the heart of everyone as the Super soul (Paramatma). Real yoga practice entails meeting the Paramatma within the heart and then following His dictation.

Actually, every living entity is intended to abide by the dictation of the Supreme Personality of Godhead, who is seated everyone's heart as Paramatma. When the mind is misled by the external energy, one becomes entangled in material activities. Therefore, as soon as one's mind is controlled through one of systems, one is to be the yoga considered as having already reached the destination. One has to abide by superior dictation. When one's mind is fixed on the superior nature, he has no other alternative but to follow the dictation of the Supreme. The mind must admit some superior dictation and follow it. The effect of controlling the mind is that one automatically follows the dictation of the Paramatma, or Super soul.

## UTPALENDU MONDAL, ASST. PROF. DEPT.OF HU



## Rabindranath's thoughts on Science

In 1913,the first Nobel Laureate in Asia and Africa, Rabindranath Tagore (1861-1941) was not only a poet, a philosopher but also took integral part in the movement of intellectual renaissance in the second half of 19<sup>th</sup> century. He was one of the makers of modern India. His sense of science and its spirit has been reflected in his different writings.

# Concept of Thermodynamics and Entropy:

In his "Pancha Diary" (1895), he considers that the movements of matters and blow of wind is possible with the existence of heat because heat is the source of all energy and motion. If heat is released, everything will be stopped. This concept reflects the second law of thermodynamics which means that the entropy of a closed system tends towards a maximum and its available energy tends towards a minimum. It has been held that the Universe constitutes a thermodynamically closed system, and if this were true, it would mean that a time must finally come when the Universe unwinds itself, no energy being available for use. In his writings Rabindranath considered this aspect and expressed apprehension.

## Rabindranath and the universe:

The universe, stars, planets etc. were depicted in the canvas of poetic mind which reflected in his writings during the 40 years, starting from "Naibedya" (1901) to "Janmadin" (1941).

".... What we mean by words like body, soul, mind: I don't fathom, but I shall always observe the

universe quietly,

without words

the current of the cosmos's awareness flows towards you."

("Naibedya" Poem No. 88: Translation by Ketaki Kushari Dyson-"Rabindranath Tagore: I Won't Let You Go". Blood axe Books Ltd., Newcastle upon Tyne, 1991, p.125).

Power is the main source of the universe. The ever changing structure of atoms in 1900 revolutionized our perception about things around us. These thoughts have been reflected in other poems of "Naibedya":

"... Body, mind and soul in unison
What a beautiful display in my body
What a glow-what a burning light
In the eternal theatre of day and night."
Further he wrote

"...In the veins and arteries of my body
Flow the waves of life day and night,
That life is rushing to win the universe
That soul is dancing on the planet
in beautiful tunes."





In the poem "Nataraj" in "Banabani" (1931), he expressed how electron rebels against the proton -circling the proton and enriching itself rushes again to the centre of another proton:

"...... the rebel atom becomes beautiful in its dancing spree around the feet of the moonlight"

#### Science in satires:

Intellectual satire is an important property of Rabindranath. In his novel-"Sesher Kabita" (1928) the hero Amit Ray is addressing Labanya as Banya in her maternal aunt-Jogamay's house. Here the same person is addressed in different names in different places and in different contexts. This is relativity of names. He tells Labanya that he wants to be famous by preaching "Relativity of Names"; he also mentions time-space relation and time dilation as thought by Einstein. KABITA. (SHESHER VISVABHARATI, 1929, p. 53-54.) It was a time when the Special Theory of Relativity by Albert Einstein (1879-1955) was a talk of the day in science, arts, philosophy, sociology, theology and so on. It stole people's hearts; it spoke the language of their lips, it sang the song of their souls and it played the music of their minds. Such an epochmaking event-the Special

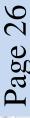
Theory of Relativity-cannot and did not escape the attention of Rabindranath.

In other conversation, the very basic concept of the relationship of man, universe and velocity ( $E = MC^2$ : E =energy, M = mass, C = velocity of light)expression found literary the in shortening and lengthening of names. The complex theory of Relativity derived in the easiest way for all of us through his hands. Einstein's Theory of Relativity got a new popular dimension in the poet's classic-"Shesherkabita" (p. 54, q.v.).

".....Time should not mean the same to everybody. Conventional clock gives one time relative to space, but personal clock which controls the Universe, gives another. This is what Einstein thinks." The scientific satires are found in his different works.

Einstein told "Experimentation with instruments only does not make one a scientist, to me scientific mind makes one a real scientist." Rabindranath was not only a man of literature but also a man of science.





UTTIYA SARKAR ASST. PROF. DEPT. OF HU(ENGLISH)



## THE MERMAID'S INN

In the middle of the street,
Among darkened alleys,
Hangs the board" The Mermaid's Inn"
The board itself had faded,
The letters blotted,
Patched with the dust and the rust,
At the entrance hangs the curtain,
Hand-made with a carpet stitch.
You go inside the dark entrance - ramp
on the
Century old wooden elevationRather reception-

Rather receptionThe only receptionist cum manager shows up.

An old lady with round specks,
With a lantern in hand.
She lights up your face and shouts"All rooms are busy-no placeGo elsewhere in the town"
The rude words turn you out in the street.
Every time customers like you is refused,
The old lady rushes to an old tin trunk,

Opens and reads a very old letter-With an ending promise-"Dear I will return" Amit Ghosh ASST. PROF. DEPT. OF ECE



## STUDENT OF DREAM

You dream big, you dream high,
You make a leap, you reach the sky.
Big are the buildings and campus green,
What a blissful life that I have seen.
Young in age in the college days,
So much you see and so many ways.
Innovative ideas, technologies cool,
Grooming as corporate or business
school.

What I like and that I choose,
Growing here and nothing to lose.
I enter college, new all to my past,
I shall remember, to my memories last.
Now in shining shoes and Tie in brown,
The day I leave wearing unseen crown.
Expanding enlarging yet here is the stem,
To the lustrous world I'll be precious
gem.

The more I see and more to ponder, I work and learn and rest in wonder. Pushing my limits and skills to raise, At the start of the end, the hard work pays.

The radical world always affright with fear,

If I have a dream, I dream it here.



## ASHADUL MUNSI ASST. PROF. DEPT OF EE



## WINNERS VS. LOSERS

The winner is always a part of the answer.

The loser is always a part of the problem.

The winner always has a programme.

The loser always has an excuse.

The winner says, "let me do it for you".

The loser says "that is not my job".

The winner sees an answer for every problem.

The loser sees a problem for every answer.

A winner makes commitments.

A loser makes promises.

Winners have dreams.

Losers have schemes.

Winners say, "I must do something".

Loser say, "something must be done".

Winners are a part of the team.

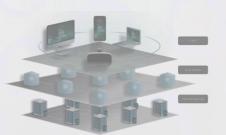
Losers are apart from the team.

Winners see possibilities.

Losers see problems.

Winners see the gain.

Losers see the pain



## SAMAR PITA DAS ASST. PROF. DEPT OF HU.



# WITH A SMILE ON YOUR FACE

Piles of expectations,
Demands that could never be met;
Heartbreaks, broken trust,
Promises shattered yet
He stands on his feet with
A smile on his humble face.

I ask him, 'how, why?' and
Then think 'why not?'
As it is better to forget and let go;
It's better to forgive and
Never think again.

'Is it easier?'- I ask myself.
It is easier to hold grudges,
To be angry on your loved one.
Easier to be spiteful and jealous,
To curse and to hurt back.

Negativity can never bring joy, Revenge cannot cause happiness; Anger makes our heart fragile, Jealousy makes us insecure and weak.

So, let's be selfish once;
Be happy for ourselves.
Let's not look back and regret,Let's choose not to suffer,
And be happy for all we got,
With a smile on our face.



PRASENJIT BHOWMICK ASST PROF., DEPT. OF CE



## THE SOULMATE

Soul mates are made naturally, Then why break that so easily? If love has the supreme power, Then why need of language our?

Two strangers come together Have no time so become differ. Life is a merry-go-round, Which have no proper sound.

Soul mate should never break Understanding now become fake If God makes us for each other Then why should we bother?



TERRACOTTA ART IN RAJASTHAN



The world's smallest fidget spinner is 100 microns wide.



Lungs do more than help us breathe

– a surprising discovery has found
they also make blood.





## ANWESHA HALDER ASST. PROF. DEPT. OF ECE

## O MY CHILD!

O my child! Don't' be riled!
Don't' be wild!
Be humorous! Be valorous!
Be vigorous Be odorous!
Become active! Welcome a motive!
Overcome the offensive.
Don't be approved for aid

Don't be annoyed for aid. Don't be void of comrade.

Avoid a tirade.

Abstain from enormity!

Restrain from inanity, Sustain amity.

Tarnish the bellicosity.

Demolish the edifice of vanity.

Nourish the sanctity.

Perform what is essential.

Reform the partial.

Form full potential.

Go into rapture.

Show adventure.

Glow sculpture of culture.

But tress in distress.

Impress the mistress.

Express in excess.

Dress the address.

Subjugate the ire.

Be immaculate to sire.

Activate in mire!

Extinguish a fire.

Don't languish to acquire.

Advertise the less.

Minimize the mess.

Surprise the press!

Civilize in excess!

Apologize and confess.

Systematize the Process!

Eulogize the goddess!



"The black holes of nature are the most perfect macroscopic objects there are in the universe: the only elements in their construction are our concepts of space and time."

----Subrahmanyan Chandrasekhar (1910-1995)

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MEGHNA BISWAS ASST. PROFF., DEPT. OF CHEMISTRY

# The letter: unsent, the words: unspoken

Dear you,

I wanted to let you know, now I'm standing on the same location where I used to count fractions of seconds for you to come. I've been just thrown to the old enamoring frames we used to share and more importantly that smile of yours and those used to be a cure of every trouble I went through. I can still recall, with just a glimpse of your smile, all my agony would melt away. How strange the power of mind is! I still wonder.

You came in my life like a morning breeze, like the peace from the droplets of a summer rain, like a cold night sky, filled with glittering stars.

Memories! You made my mind to fade our frames away. I saw you, change your colours faster than the speed of light. And I had to endure that. Cause sometimes I have to accept the fact that I can't make the frames right as those used to be a way back. Sometimes I have to accept things already has fallen apart such a way that I can't just gather the parts to stitch those up. Sometimes I have to accept, it's okay to put the steps forward. Sometimes I have to accept unknowingly I've been playing just a role of a stage drama. Sometimes it's

okay to accept that it's the best to let a broken bonding go rather than holding on.

I know it's killing me inside. My soul got burnt alive. I can feel the flame. I can feel my emotions, screaming. But it's okay to accept that with time.

Sometimes some emotions should remain unspoken. And it's just okay to live with that.

From, A chapter,

You tore from your life book a way back



"Falsity in intellectual action is intellectual immorality."

----Thomas Chamberlin (1843 - 1928)

## DARAKHSHAN ZAFAR ASST.PROF., DEPT. OF ECE



## STORY OF MY HERO

Once there was a small child in a very small village of Jharkhand. His financial condition was very poor.. They used not to eat anything for so long period, sometimes it became fasting for 3 to 4 days. The child started to work early in the morning as a farmer then he used to go to his school which was 4km far from his house by walking without slipper even. While walking on the way to school, he used to read previous day's lesson given in the school and he started memorizing everything. After coming back from school he used to give

tuitions to the children in his village, some of children were from his own class and some of them were from higher classes than him. He used to study at night using lantern.

this In way he passed out Madhyamik as a district topper. Since, the village was very small and no college was there but he wanted to continue his study very badly.

One of his uncle gave him Rs 10/- to go to Doltanganj which was developed district area of that time. He went there and stayed at Mosque as he

didn't have money to pay rent. Somehow he managed to take admission and started attending classes in the college. Once a teacher came into the classroom and started asking questions, no body but that boy answered every question. After completion of the class, the teacher called the boy and asked from "where have u came?".

"where have you stayed?"

After listening to the boy, the teacher offered the boy to stay in his house ,to teach 10-12 students of his family and offered 100 rupees for one month. Whatever he earned, he used to send all the money to his parents. In this way he completed his H.S and B.A (Geography Hons). After completion, he decided to teach in some of institutions so that he could manage to do his further studies. His teacher suggested him to go to Ranchi University, gave him a letter and told to give that letter to a teacher of Ranchi University. He went to Ranchi, again he used to stay in the Mosque and started searching that teacher. Somehow he found the teacher and wanted to talk to him but the teacher didn't allow him to talk. He came back home and next 3-4 time he tried but he was not able to contact him. Next day he tried again and this time he became successful in talking

to him and giving the Letter to that teacher and he came back to his work. Another day, he was attending lecture of his Master's and that teacher called him, he also offered him to teach his children and offered a salary of Rs 200/- . After completion of one month, he got his salary, then he took a rental house and basic need things. He also started working in an institution .In this way he completed M.A and worked at some institutions, schools and also started giving interviews for job.

Suddenly, one day he got a offer letter for a job role of a teacher in a govt. school situated in Kolkata. He came to Kolkata and started teaching there. Now, he is one of the best teacher of his area. That person is no other than my father. My dad is my hero, my proud. Many father always says,

- 1. Be patient and work hard.
- 2. No matter, what people are talking about you or what they are doing with you, you always be polite and humble with them, and always help everyone.
- 3. We are no one to help others, God has chosen you to help others, so it'ls an opportunity to do good things and help others.

Other than his own children, my dad continues to inspire students in the locality and thus he is a torch. Bearer of message: education is for all and for obtaining education, one 's willingness is the basic minimum requirement.



"The saddest aspect of life right now is that gathers knowledge faster than society gathers wisdom"
----- Isaac Asimov(1920-1992)



Technophobia is the fear of technology.



ANUJA SANTOSH RAO KOLHARIKAR ASST. PROF. DEPT. OF ME



### <u>From Peasant to</u> <u>Enterpreneur</u>

I recently came across an inspirational story in an article about Mrs Jyothi Reddy an army ward on her journey peasant to CEO of Keys software solutions in USA. Napoleon Hill once said "Whatever human mind believes and conceives human mind can achieve" So just believe .. believe .. believe .. believe .. believe .. you can do it.... Have you goal clear and start working on it.

While, I started to read and know about her I become more enthusiastic and eager to know how a woman could surpass all the obstacles at domestic as well as financial and make her dreams realized. She has now an example to overcome the limiting believes as well as glass ceiling which condense the growth of a modern day women.

<u>Childhood</u>: Anila Jyothi Reddy was born in Narasimhula Gudem in Hanumakonda Mandal, Warangal District as eldest of four children. The military training that the father had and the attitude that he developed, was given to her as inheritance.

Jyothi Reddy joined BALASADAN, a government orphanage at

Hanumakonda from 5th class to 10th class to persue her education. Jyothi Reddy stayed in an orphanage by having solitary life away from home due to her father's frequent posting. She used to await for her father who guard the nation. During would summer vacation, she used to stay in warden's house and did all the house hold work. She strongly believes the words of Mother Teresa... "The worst disease in the world is neither poverty feeling other, lack of belongingness, being unwanted is the worst".

Marriage: At the age of 16 she was married with Mr. Sangi Reddy. It is quiet common in rural India to perform marriage at an early age. By the age of eighteen she became mother of two girls.

**Early Career**: Strong determination to take care of her children made her to persuade her mother-in-law husband to work in the agriculture to work for money. She worked for Rs. 5 per day as agriculture labour. Many other people who worked along with her on field were impressed by her attitude and taught her the basics of hard work of peasants. She worked  $\mathbf{O}$ from 1986 to 89 on field till she got an interesting turn in 1989. Nehru Yuvak Kendra (NYK) started a night school in the village to provide basic education for adults.

As there was no graduate from the village and Jyothi was the only available option, they appointed her as the volunteer to educate the adults after giving her some training. It fetched her Rupees 150 per month. She gathered all the co workers in the evenings to the Centre and taught them the basic education with unique methods. The Inspection authorities were impressed by the initiative and dedication. She was later appointed as Prerak of Hanumakonda. Mandal Academic Pursuit : After being appointed as Mandal Prerak Jyothi used to visit all the centres in her district and realized the importance of education. She completed her graduation and post graduation from Ambedkar Open University and B. Ed from Anna University and became teacher. She had to government balance family and work as these are problems even higher than the Everest for any Indian women. Patience, perseverance and commitment are the secrets of her energy behind this passionate effort. Every successful story has a painful beginning and every painful beginning has a successful ending..... Dr. APJ Abdul Kalam..

American Dream: Jyothi while working as inspector of schools, a relative of her settled in America came to her place. Jyothi accompanied her during her stay and observed how much change had taken in the life style of her relative. The way her relative was spending money for her daughters laid seeds of desires in her. She thought even she could give great future to her daughter if she would go to America and earn there. Bill gates has rightly said ' If you are born poor, it is not your mistake but if you die poor it is your mistake'. That time onwards she made up her mind and learnt computers and started saving money for her passport and visa. After series of early failures she could got a visiting visa and flew to America with heart filled with dreams.

American Days: As soon as she landed in America she realized it was not an easy task to settle in America. The people whom she believed would give her shelter and support turned off their faces and money she brought from India was exhausting hence, joined as a salesperson in " Movie Time " a video shop in New Jersey. While she was working in Video Time a known Indian from Warangal saw her and recommended her name to a company called "CSAMERICA" and she was appointed as recruiter after being trained. Later a well know company ICSA offered her a good job with handsome salary.





### Agricultural Labourer to CEO of USA companies (Ms. Jyothi Reddy)





1986-warangal

1995 USA

#### **Entrepreneurship**

She went to Mexico for her VISA stamping. All the hardships of obtaining visa gave her an idea of establish her first entrepreneurship to assist people to get their Visas. Thus software solutions Keys initiated. It extended it services like developing software solutions and recruitment and other job providing areas. Jyothi came to America in May 2000 and by September, 2001 successful she became an entrepreneur

Fulfillment of Dreams: Her hard work, commitment and dedication fetched her the success she dreamed for. She made enough money to take care of her children and her near relatives. Her two daughters could finish higher education in America

from prestigious universities and got married to well settled bridegrooms. Her dream to provide good living conditions to her daughters was fulfilled.

Take Away for Future: The journey of Joythi Reddy which started in the fields of Warangal upto the American streets is truly inspiring. The women who crossed all the obstacle in her way to achieve her dream. The story also encourages us that everyone should accept the self responsibility and try to be courageous enough to face the challenges. Struggle in life strengthens the caliber of the people. I strongly feels that every individual should stop blaming the environment and start helping themselves. God always sends his hidden helping hand through different unexpected sources. We need not to look back when we realize we are responsible for our lives.



There are approximately 6000 new viruses released every month.

### ANWESHA SENGUPTA ASST. PROF. DEPT. OF EE



### The True Purpose of Life

There is a saying that, "The purpose of life is a life of purpose". A life without purpose is like sailing a boat in the mid sea without knowing any direction. But, what is the true purpose of human life? Other related questions are, "What is the meaning of life?", "Why are we born?", "Why are we here?" The answer can be "To earn money" or "To be famous" or "To live a happy life" which follows to another question, "What is happiness?" It is not always true that a wealthy man is a happy man. A famous man can be unhappy too. Then how can we be constantly happy?

Everything in life follows the law of eternal change. They are brought into materialism, exist for a while and then decay with time. Our happiness after buying a brand new car gets affected when our neighbour buys a Earning better car. money, popular, buying huge pent house can never be the sources of long lasting happiness. The thirst of a Man for materialistic desire is unquenchable. Hence, trying to find happiness in the outer world is an act of foolishness. We, the human beings, are the part of this whole Universe. Whatever is existing in the Universe, is also existing within us. Happiness can be achieved by gaining total control over any situation. Hence by gaining total control over our inner

self, we can be utterly happy and that happiness is unaffected by outer disturbances.

Now the question arises, "How to gain control over ourself?" The answer is to find God or to find ourself, which is also known as "Self Realization". When our consciousness the universal consciousness through deep meditation, self realization happens. Yes, through self realization a Man can actually see his purest identity and then he is able to create a stable foundation of happiness and peace around him, even when storm strikes. There is a dynamic consciousness actively resting in an infinite space of Silence. "That which cannot change, remains. The great peace, the deep silence, the hidden beauty of reality remain. While it can not be conveyed through words, it is waiting for you to experience for yourself."

When inner our consciousness meets this Infinite though constant practice of meditation, instantly experience inner harmony. In this state no Duality exists. We feel oneness with everyone. "One for each, each for all". When duality disappears, we lose interest on any kind of material that boosts our ego. We lose jealousy, anger and experience an inner joy. Finding God and Experiencing Non duality is the true meaning of life and experiencing this is the real purpose of life.

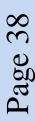
The Ego rises from the Self. Search the source of the Ego and the Self is revealed. That alone remains."



### **TERRACOTTA ART IN RAJASTHAN**



HP, Google, Microsoft and Apple have one thing in common, they were all started in garages.



### MR. ARKA CHATTERJEE ASST. PROF. DEPT. OF MATHAMETICS



### Adoration of Mathematics in Ancient India

Now a day's whatever we know or Consider as Mathematics, that is the result of the slow evolution. It is the only subject to us now a day's which was the "SHASTRA" to the people who were in the starting moment in the ancient period, that means the present mathematics was the Great "GANIT SASHTRA" ancient to Indian mathematicians. India is basically spiritually enriched country. We have many different type of shastras here namely (1) Four Vedas (2) Twenty Purans (3) twenty Sanhitas and so many things like that, but all this shastras are incomplete without conception Mathematics ,i.e. the Ganit Shastras. Therefore our ancient saint pointed out the Slokes in "SRITI SHASTRAS" that

### "GANITATH GAYOTE KAL, TATRA TISTHANTI DEVATA"

That means GANITATH= From Ganit shastras GAYOTE KAL = Came to know the timing TATRA TISTHANTI= that duration will be stay. It means that, Worship of GOD should have to be completed within the specific time which is calculated by Mathematics.

Now at present it is impossible to predict the exact time and place where Mathematics, i.e. The Ganit Shastra were started initially. Although few ancient mathematicians marked Mishor and Babylon as the initial Mother land of Mathematics, but many learned mathematicians think that INDIA is also the Birth place of Mathematics in very early stage. The Vedic civilization was the example of the ancient Indian civilization before the Sindhu civilization. Although that time was some counting technique but these do not come as in form of complete Mathematics Book. So many topics related to contemporary mathematics were discussed in "SHULBA SUTRA" (SHULBA = Measure SUTRA = **Process**), which contains of the discussion of **GEOMETRY**.

In the very early days the man use to some symbols or signs to express their thoughts of mind which were known as LIPIS or BARNAMALAS. From the invented lapis and symbols from Mohenjo-Daro and the Harappa it is expected that the Indians knew the way of writings of numbers around 6000 B.C. among these "Bramhi" and "Kharosthi" were Main.

In Indian Mathematics the number of letters are 9. The Mathematicians told "Naboibo Yoga Ganoneti" i.e. Sum of counting will be Nine.It is seen that They never consider 0(=zero) in this definition. After taking 0(=zero) numbers became ten. It is known as "DASHANKO PRANALI".

The great invention of Mathematics is zero (=0/shunnya). Now question is that What is Zero? It is a position like such that it is nothing else again it is everything. Let us Consider a drop of water, Which is so small ,just have a position only i.e.so negligible which is equivalent to nothing else. On the other hand the vast sky which is vacuum , but it(= Vast sky) covered the Universe, means the symbol of completeness, so zero is considered as complete.

In an ancient period Of

India, we get different names of Mathematicians; among those **ARYAVATTA** was important name. Aryavattiya Mathematics divided into two parts, 1st ARYAVATTA and the 2<sup>nd</sup> ARYAVATTA. 1st ARYAVATTA was born on 476 AC and 2<sup>nd</sup> ARYAVATTA was born on 950 AC. 1st ARYAVATTA wrote the 1<sup>st</sup> Mathematics BOOK.

Now Let us Mention Name of Some Ancient Mathematicians And their Work

	in an ancient per		
Sl.No	Name & Date	Name of Book	Topics
1	1st ARYAVATTA 476 AC	Aryavatiyo	<ol> <li>1. 118 no of         Mathematical Slokes and         Kalkriya Ganit     </li> </ol>
2	1 <sup>st</sup> vaskar	Laghu vaskari	Sloke related to Astronomy
3	Barahamihir (525AC)	Brihot Sanhita	Important Topic Related To Astronomy
4	Brahmagupta (598AC)	Brahmasfuit Sidhhyanta	Topics related to Algebra, Arithmetic, Geometry
5	Sridhar Achyarya	Trishtika	Near about 300 slokes Related to Arithmetic, Algebra and Geometry

In the very previous day Algebra was known as "KUTTAK GANIT" by Brahma Gupta. The word "KUTTAK" means To Analysis. It is Also Known as by "ABBYAKTO GANIT"\*.

### Algebraic Series in our Ancient Ganit Shastras:

At Present which we called progression, in ancient day it was known as "Sherri" (=which is Series now a days). The concept of Sherri was in Indians from Vedic Era. It is important regarding this topic whatever is told in ATHARBA VEDA Which implied rolling numbers the are 99,88,77,66,55,44,33,22,11 whose Difference is 11. So these numbers may construct the AP Series with common difference 11. Apart from these the numbers of Different SANHITAS are given by

1, 3, 5, 7,.....,19,29,39...... 99 2,4,6,8,10,12,....20 4,8,12... etc. Also there are different type of AP are there in GANIT SHASTRAS. There are some number in TRILOKSAR mention by Nemi Chandra which are 1,5,13,29, 61,125,253. To mention some ring he took this numbers ,and the difference between them are 4,8,16,32.... and very interesting things is that Which form the series of the form a, 2a, 2<sup>2</sup>a, 2<sup>3</sup>a, ..... 2<sup>n-1</sup>a. These were discuss First time in "PANDULIPI of Bakshali".

So it is clear that the normal representation of Series is that a, a+d, a+2d, a+3d,...... a+kd, a+(k+1)d, a+(k+2)d, ....., a+(k+n-1)d The mean of These AP is a+(d and the sum will be given by n{a+(}

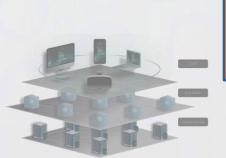
If k=0 Then the Series will be a, a+d, a+2d, a+3d, ...... a+(n-1)d

Mean of these series will be a+And the sum of the series is  $n\{a+\}$ If  $F=1^{st}$  term and L=Last term then the sum = n/2(F+L)

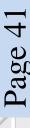
And the sum 1+2+3+4+5....+n= Mentioned in Triloksar Granthya.

Also the Mathematician **ARYAVATTA** mention the formula to calculate the sum S=(a+b) in his **GANITHPADH** in 20<sup>th</sup> number of Sloke.

\*\*BYAKTA GANIT IS Arithmetic







ARPITA GHOSH, LIBRARY



# Existence of Libraries in Modern Age

Today we are living in the cyber age. Technology has also emphasized the education system. From the mid 1990, the knowledge society began to compete with the information society as a pervasive term in public discourse.

Information can be accessed easily from online. But, what about those who do not have access to broadband or the internet? How can they tap into the information they need? This is why the existence of libraries cannot be erased. Through libraries, everyone can access information. here is no denying that technology has indeed changed the way we consume media. Newspapers have virtual distribution channels, books have online versions, and everything can be accessed through the World Wide Web.

We have entered into an era where information can be acquired with a touch of the finger. What we see offline can almost always be found online. No exceptions. With the rise of online versions of books called <u>eBooks</u> or even audio books, we face the question do we still need <u>libraries</u> in this digital age? Surprisingly, the answer is

Many users are still unable to perform a simple inquiry on search platforms. engine common behaviour for users is just to click on the topmost result or the first article that appears in a Google search. This behaviour can skew research. So, plays though technology significant role in our society, libraries are crucial because of the information they can provide to the general public. Even those who are not proficient in using technological tools. Technology is transforming the traditional methods of teaching and learning in the classrooms of the 21st Century. The goal is to create students who become can active. independent and lifelong learners rather than passive recipients of information. This new approach to education takes student beyond the traditional the and requires textbook students develop a combination of skills in computer technology, critical thinking and information seeking strategies. The orthodox "teacher and taught "method is fast changing. The human teacher is now replaced by an electronic teacher in many fields knowledge. of The classroom teacher is the key to the success of an education program that promotes these qualities. Society has librarians long viewed as the acknowledged information experts. As modern-day librarians, we represent a professional group that long ago learned to bridge the gap between the traditional





methods and the modern technological techniques used in the organization, management and retrieval of information.

The importance of having libraries is not decreasing, people are

just choosing to access information differently. We cannot abandon the existence of libraries in colleges or communities because they serve as the bridge between those who are wellinformed and those who aren't.



Email has been around longer than the World Wide Web.

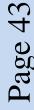


"My success will not depend on what A or B thinks of me. My success will be what I make of my work." "For, each man can do best and excel in only that thing of which he is passionately fond, in which he believes, as I do, that he has the ability to do it, that he is in fact born and destined to do it."

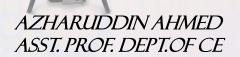
----- Homi Jehangir Bhabha (1909 – 1966)



**TERRACOTTA IN INDIA** 









### **Civil Engineering and Psychology**

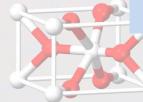
Many people are probably not aware of the strong linkage between psychology and civil engineering. Psychology tools are used in many areas of civil engineering, Psychology, the science that deals with mental processes and behavior of humans and animals, Psychology encompasses the field of ergonomics (a term originated in Europe) which is synonymous to human factors (a term often used in North America).

Ergonomics refers to three groups of human characteristics (physical, physiological, and psychological or behavioral) and addresses the human-machine-system The guiding concept interface. ergonomics is that the human is an integral element of the system, and not merely a user or an operator to be considered after the system developed. Clearly, this concept is essential in optimizing the performance, productivity, usability, and safety of civil engineering systems as well as aiding education and training.

Experimental psychology has many tools for addressing issues of human performance that is independent measures collected include reaction time

(commonly used where attention is an issue), evoked potentials (brain waves), physiological responses (e.g. heart rate), cognitive tests (e.g. memory, attention, processing speed), and behavioral responses (e.g. eye movement). In particular, information processing in psychology is computational in nature, involving the brain (hardware) and the mind (software) which is represented by a neural network. Mind-based neural network is the foundation for the wellknown neural network estimation used techniques commonly in engineering.

In construction, technical regulations and programs have been developed to ensure a basic level of equipment and procedural safety for workers. Human factors engineering modify aim work programs to procedures and equipment to account for the physical and psychological capabilities and limitations of humans. Examples of research topics include the perception of balance at sloped roof compatibility surfaces. work musculoskeletal disorders, and effect of forklift operation on lower back pain. In architecture (an area closely related to civil engineering), ergonomics is a key ingredient in the design of buildings and other infrastructure. Architects focus on the physical features that reflect people's needs/preferences and shape their behavior.





For example, in buildings attention is given to the design and arrangement of facilities and associated features, such as lighting, fixtures, and furnishings to develop the most efficient and safer interactions with people. In fact, the relatively new field of environmental psychology is quite related to architecture.

Ergonomics considerations in other civil engineering areas have been limited. In structural engineering, for example, some sporadic research has addressed occupant comfort during wind-induced tall building motion, human-based design approaches to minimize excessive vibrations in residential timber floors, and human error in structural reliability analysis. It is clear that ergonomics has been considered more prominently in some areas of civil engineering than in others.

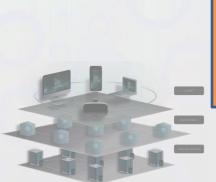
Collaborations between psychologists and civil engineers benefit both groups. First, psychologists benefit from increased knowledge of environmental

design, while civil engineers benefit from the psychologists unique training and knowledge in human information processing. Second, attracting students to graduate studies can be challenging to psychologists civil engineers. and Research collaboration benefits these cross disciplinary fields by offering students a breath of training that would not be received by studying either field in isolation. Finally, while the problems that these groups tackle are research based, they often have applications in solutions for practical discovering problems and directions for future research.

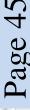
Reference: Said Easa Department of Civil Engineering, Ryerson University.

Maureen Reed Department of Psychology, Ryerson University.

Frank Russo Department of Psychology, Ryerson University.







### MD MAHFUZ MOLLAH ASST. PROF. DEPT OF ECE

## Indian hero who have now been forgotten Sadanand Viswanath





Sadanand Vishwanath (kneeling, extreme left), a forgotten hero of the World Championship glory

before Long MS Dhoni became successful, the Indian team boasted of a series of brilliant wicket-keeper in the early 80s. Syed Kirmani bowed out in the mid-1980s and was succeeded by Kiran More till the mid-90s. There was also Chandrakant Pandit who was so good with the bat that he even played as a specialist batsman. But the man who was perhaps more talented than this trio but enjoyed the least international success was Sadanand Viswanath. An ODI average of 9.00 and a Test average of 6.20 hardly tells you the entire story. His highest ODI score of 23 not out against Australia in the 4th ODI at Nagpur in 1984 was a match-winning innings. Chasing 241, India were 204 for 7 when Viswanath joined Ravi Shastri. As Shastri played the holding role, Viswanath took the Australian attack to

the cleaners, finishing with a matchwinning 23 off 25 balls. He is also remembered for his remarkable glovework during the World Championship of Cricket held in Australia in 1985. The Indian batting did wonders in that tournament so that Viswanath had to bat only His significant once. most contribution. however. came from behind the stumps as he finished the tournament with 9 catches and 3 stampings .In the final against Pakistan the MCG, his stumping Shivaramakrishnan to dismiss Miandad is still talked about to this day. It was brilliant glove work -- fast, furious and completed in the blink of an eye. Gavaskar went on to write about him in One Day Wonders: "People will talk about many other reasons why we won the World Championship of Cricket in 1985 but one of the main reasons was the presence of Sadanand Viswanath behind the stumps."



### PAROMITA CHAUDHURI, ASST. PROF. DEPT. OF EE



### Prasanta Chandra Mahalanobis and the unprecedented failure of the second five year plan:

Prasanta Chandra Mahalanobis, renowned 20th Century statistician is often considered the "father of Statistics India". in Among his contributions to the field of statistics, what stands out is the establishment of the Indian Statistical Institute in 1951. Besides that due to his close proximitywith Nehru, and since Nehru relied on Mahalanobis's statistical skills immensely, this eventually Mahalanobis to formulate the Second Five Year Plan. Although Mahalanobis believed in a 'socialistic pattern of society' and intended to improve the of life of the quality masses, unknowingly, certain flaws crept into the 2<sup>nd</sup> Five Year Plan. This article not only discusses the drawbacks of the second five year plan but also touches upon the relevance of this plan in the present economic context, focusing on Mahalanobis's noble intent of building a self-reliant economy.

The success of the first five year plan emboldened Nehru enough, to finally launch his daring venture, the second

five year plan. The plan was devised keeping India's needs in mind, without paying heed to India's resources. Another feature of the plan was to assume the fact that left to their own devices the Private Sector would not place the needs of the common man as their top priority, although this may well be true, the approach taken to ensure that the Private Sector played a greater nation's role in the economic development was far from right cause it was done by means of creating certain draconian laws. However, the main focus of the plan was on heavy industries, principal among them was steel. It was estimated that by 1961, which was the end of plan period, the steel output was to rise by 3 million along with the additional production of 23 million tons of coal and 5.2 million tons of Cement on top of the usual output. Though such steep figures were never realized, partly because of the dangerous assumption that the enormous costs incurred could be met by such volatile methods such as deficit financing, even so progress had been made, especially in areas such as annual rice production, since from the period of 1947-48 to 1956-57 rice production increased from 21 million tons to 28 million tons. Though it may not appear to be a huge success but raising one-third of the rice production in less than a decade is quite a challenging task. But such a satisfactory progress could not be kept up.

From 1956-57, a foreign exchange crisis situation broke out in India, as the available scarce amount of

standard of living in India, coupled with a less than average growing season, could create a serious shortage of food grains, resulting in the need for substantial amount of food import.

When this overlooked scenario actually occurred, even a \$350 million US 'food loan' agreement, could do little to the problem. The heavy alleviate industries, where most of the money was being invested, were going through a dilemma of their own, as there was going to be, a prolonged period of gestation. As early as 1957, saw the Sterling Balances, reduced to Rs 527 crore from the initial amount of Rs 746 crore, which was available at the start of the plan and by the beginning of 1958, Sterling Balances had sunk to the pitiful amount of Rs 271 crore. With heavy industries not being able to supply the required steel, iron etc for their own country, let alone earning any foreign exchange for it and since India still had to import substantial amount of food grains, the rise in the prices of the import goods, was the final nail in the coffin, after this the foreign exchange gap had become so enormous that India was forced to review her second five year plan. But some economists believe that although it may seem that the second five year plan's faulty structure jeopardized the country's well being, the truth was far from it, they believe that

the Export Import Policy of April 1956 which liberalized import was the main culprit, which had begun functioning much before the plan came into action. Whatever the real reason may have been, the truth remained that the second five year plan had to tread the hostile territory of the foreign exchange crisis, its credibility and hence its potency was reduced to a great extent.

As Ashok Rudra opines that relying on the principles of Charles Bettelheim, a distinguished authority on Soviet Planning Techniques, the authorities wanted to create a socialist nation, bypassing the cumbersome and tedious process of abolition of private sector, which would have most definitely lead to a gigantic social turmoil. They decided that socialism will be brought about by the implementation of plan models. Another issue to be considered is that the Mahalanobis model was created imagining that there would be just one decision maker. Although such an assumption is perfectly justified in an economy such as that of Soviet Union or China, where the state does indeed have the power to take most of the crucial decisions, but in the context of Indian economy, such an assumption could lead to serious difficulties, especially since a very small portion of the Indian economy lies under the direct command of the government. Thus the concept of a single



decision maker is not relevant to the Indian system, as Ashok Rudraagain points out that, "Even with respect to the Public sector, this assumption proved to be totally inept. The way the public sector in India functions rules out the idea that different parts of it work harmoniously according to the dictates of any single dictator. There are various degrees of autonomy enjoyed by different public sector enterprises".

In spite of the fact that, the second five year plan, to put it bluntly did not produce the desired outcome, but amidst all the aforementioned controversial arguments a fact that cannot be denied is that Mahalanobis's sole objective in creating such a bold plan structure was to make Indian economy self-reliant. And today many economists believe that the seeds of economic independence were sown the day the second five year plan came into action. In this regard, V.L. Kelkar, points out that by focusing on the creation of heavy industries, India's requirement for capital goods has drastically reduced, which is clearly evident, since from the period of 1960-61 to 1973-74, India had managed to reduce her share of imported equipment from 43% to a meager 9%. Kelkar is of the opinion that the rise of capital goods manufacture has often been linked to the technological progress of a nation.

Another indication that India is escaping from the shackles of 'dependant development' is the rise in food production, which is evident by the

significant decline in food import, from a dismal 10.34 million tons imported in 1966 to a relatively insignificant 0.41 million tons in 1977. Yet another sign of a self reliant economy is the decline of foreign aid, which as Kelkar mentions has been significant. Although dangers of derailment lurk at every corner, it can be said without a shadow of doubt that India is leaving no stone unturned in her path towards the fulfillment of the long cherished dreams of patriotic statesman such as Mahalanobis & Nehru.

In conclusion, one can say that at a time when the nation's collective amnesia has reached such a critical juncture, that the people are beginning to believe that had the nation still been under the British empire, by now India would have managed to outrun China. Patriotism has long been replaced by an attitude of tremendous devotion towards foreign products & productions coupled with a belief that foreign establishments can do no wrong. In such an atmosphere, one cannot afford to forget the contributions of a man like Mahalanobis, true he took a gigantic risk by formulating a plan that on heavy industries in focused primarily agrarian economy such as ours, but that was the only way in which he felt that India could become a selfreliant nation, never having to extend her begging bowl to western seats of power.



### PAYEL HALDER ASST. PROF.DEPT. OF ECE

#### **COLLEGE PICNIC**











enjoyed by all. The innovative game was great fun too. The staff members were treated to a sumptuous lunch after which we had some time to relax and enjoy the spot. Many staff members enjoyed playing games like badminton and cricket as well. The picnic aimed not only at relaxation but also building up team spirit among the staff members. The memories of the picnic will linger on and enable the staff to work together with the spirit of oneness.

PRIYANKA DEY ASST. PROF. DEPT. OF ECE



### Go Green.....Give Earth a Chance

Our environment is going to keep supporting us till the time we keep in of manipulation limits destruction. The fact that with all the advancement and addition of artificial things, the environment is still holding up has given the majority of us to believe that it is some sort of elastic which can be stretched the way we want. However, what has been forgotten or is being deliberately ignored is that even elasticity has a limit, which & once crossed only ends up bo» in breaking the thing,

History is witness to previous societies which were wiped off and all that is left of them is their decomposed remains to tell their sorry tales. The problematic part is not that they don't exist anymore but the way that they went out, and their stories drip of extreme desperation. One example is that some of these societies turned to cannibalism for their survival and when anthropologists went look all they could find was only one skeleton, showing that in the end only one of the many was left alone. No matter how much zombie fiction we get used to, real life cannibalism is only going to be ugly and nothing else.

Natural resources are no one's private property and have been be-stowed so

that everyone can enjoy and benefit from them, For this nature has mechanisms which are able to sustain changes to a degree but beyond that, there are going to be negative implications and at the current stage we are witnessing some of these,

Global warming is one of it and the prolonged unbearable summers should be enough to bring us back to cur senses, The decreasing levels of water and its current quantity and quality should be another major These two changes alone are bringing major changes in our ecology and geography. For all those cynics who respond with the clichéd "tree hugger' theory, all they need to do is look and compare around the environmental difference that they have experienced in their own short life span. Just imagine what will happen for us and for our coming | generations if we keep up this pace of manipulation. Nobody is suggesting that we revert back to the life style of cave people but to hold hack on our wastage and pollution levels is going to benefit us in the long run- Car pools, less forest destruction, controlling wasting water are little things that will add to have a positive impact. Above all it would be really helpful if everyone spends time and effort in creating and maintaining their real gardens (kitchen gardens, recttop gardens etc) instead of spending that same time playing Farm villa on Face book!





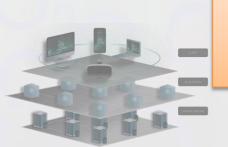
The variety of life on Earth, its biological diversity, is commonly referred to as biodiversity. The number of species of plants, animals, and microorganisms, the enormous diversity of genes in these species, the different ecosystems on the planet, such as deserts, rainforests and coral reefs are all part of a biologically Earth. diverse **Appropriate** sustainable conservation and development strategies attempt recognize this as being integral to any approach, In some way or form, almost all cultures have recognized the importance of nature and its biological diversity for their societies and have therefore understood the need to maintain it. Yet, power, greed and politics have affected the precarious balance.

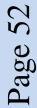
Biodiversity boosts ecosystem productivity where catch species, no matter how small, all have an important role to play. It has long been feared that human activity is causing massive extinctions. Despite increased efforts at Conservation, it has not been enough and biodiversity losses

continue. The costs associated with deteriorating or vanishing ecosystems will be high. However, sustainable development and consumption would ecological avert problems. Preserving species and their habitats is important for ecosystems to selfsustain themselves. Yet, the pressures to destroy habitat for logging, illegal hunting, and other challenges are making conservation a struggle. At the 1992 UN Conference on Environment and Development (the Earth Summit), the Convention on Biological Diversity (CBD) was bom. 192 countries, plus the EU, are now Parties to that convention. In April 2002, the parties the Convention committed significantly reduce the loss of biodiversity loss by 2020. Perhaps predictably, that did not happen. Despite successful numerous conservations measures supporting biodiversity, the 2019 biodiversity target has not been met at the global level. This provides an overview on the to how attempts prevent biodiversity loss is progressing.



Doug Engelbart created the very first computer mouse from wood in 1964.





### SABIR AKHTAR MALLICK ASST. PROF. DEPT. OF ECE



### **Internet of Things**

The Internet of Things is an emerging topic of technical, social, and economic significance. Consumer products, durable goods, cars and trucks, utility industrial and components, sensors, and other everyday objects are combined with Internet being connectivity and powerful data analytic capabilities that promise to transform the way we work, live, and play. Projections for the impact of IoT on the Internet and

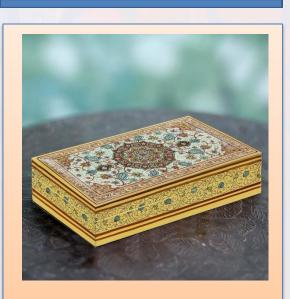


"Science without religion is lame, religion without science is blind"

---- <u>Albert Einstein (1879-</u> <u>1955)</u>

economy are impressive, with some anticipating as many as 100 billion connected IoT devices.

At the same time, however, the Internet of Things raises significant challenges that could stand in the way of realizing its potential benefits. Attentiongrabbing headlines about the hacking of Internet-connected devices, surveillance concerns, and privacy fears already have captured public attention. Technical challenges remain and new policy, legal development challenges and emerging. Ultimately the Internet of Things engages a broad set of ideas that are complex and intertwined from different perspectives.



Handmade Papier Mache Kail Wood 'Kashmir Mandala'





SAYANTAN ACHARYA, ASST. PROF. DEPT. OF CSE



### The Shadowing Effect of Femtocells

#### What are Femtocells?

A Femtocell is the smallest type of cell used to expand cellular network connectivity within a targeted geographical area (typically a small, single location). Femtocells can also be used as a wireless access point that improves cellular reception inside a home or office building. This device communicates with the mobile phone and converts your voice calls into voice over IP (VoIP) packets. The packets are then transmitted over a broadband connection to the mobile operator's servers.

In addition to being the smallest in the family of small cell technologies, Femtocells also use the lease amount of power; as such, they don't offer as much of an impact when attempting to expand network connectivity. In fact, compared to other types of small cells, like picocells and microcells, femtocells offer the least amount of additional bandwidth, so they should only be deployed in specific situations.



Figure 1: AT & T's Femtocell

Femtocells are compatible with CDMA2000, WiMAX or UMTS mobile telephony devices, provider's own licensed using the spectrum to operate. Typically, consumer-oriented femtocells will support no more than four active users, while enterprise-grade femtocells can support up to 16 active users.

### The Shadowing Effect:

Even though Femtocell range and capacity network relatively limited, it's their low powered nature that often makes them the small cell of choice. Before deployment of a small cell network begins, the targeted space must be analyzed for certain limiting factors that might cause interference to the network signal, and the result of this analysis often limits the use of larger small cell technologies due to the potential for signal interference.





Firstly of all, for all small cell systems, there is a "shadowing effect" with the signal that must be taken into consideration when designing the small cell network. For some small cells, such as microcells, the broadcasted signal is strong enough that if placed too close to another transmitting microcell, the two signals can interfere with one another and cause signal degradation.

This shadowing effect can cause serious problems for the targeted location if it just so happens to be filled with signal interfering obstacles. For example, let's say your office space is arranged in such a manner that there is a combination of cubicles and smaller enclosed spaces used for meetings. These areas are separated by glass, concrete, and other building materials that can disrupt the traveling signal of the microcell.

But what's worse is that sometimes adding additional microcells to the office will only cause the signal to degrade further, but here's where Femtocells truly shine. Because of its tiny footprint, Femtocell architecture allows for the placement of multiple antennas around the space, providing the necessary network connectivity disrupting without the Femtocell network signal and simultaneously negating the effects of interfering obstacles.

In this scenario, Femtocells can be strategically placed near and around the cubicles, as well as inside each enclosed meeting room in order to provide a stable cellular connection, and avoiding the shadow effect.

#### The Future is here

For smaller locations, or locations that feature many signal obstructing obstacles, Femtocell technology will continue to be a popular network solution. Their low cost, low powered nature makes them an attractive alternative to other larger, costlier small cell solutions, especially when the need for network connectivity only covers a few individual users at any given time.

However, for the casual at home. the future of consumer Femtocells is not quite as secure. Even though Femtocell networks are small, low-powered, and easy to deploy, cellular providers are rapidly adopting the capability of offering Wi-Fi calling, which directly competes with Femtocell capabilities. Also, as popular messaging applications move more users away from traditional SMS text messaging, need for a reliable the cellular connection in the home is likely to continue to decrease in priority.



# WASHIM MOLLAH, ASST. PROF. DEPT. OF CE



# FUTURE TRANSPORTATION TECHNOLOGY THAT WILL TRANSFORM WORLD HYPERLOOP



A Hyperloop is a proposed mode of passenger and/or freight transportation, first used to describe an open-source vactrain design released by a joint team from Tesla and SpaceX .Drawing heavily from Robert Goddards vactrain, a hyperloop is a sealed tube or system of tubes through which a pod may travel free of air resistance or friction conveying people or objects at high speed while being very efficient. Tesla and Hyperloop One are two of the biggest companies that are developing Hyperloop. Hyperloop would allow passengers to travel at a top speed of 600 miles per hour, which is more than twice the highest speed of the fastest train. Hyperloop projects are being developed in many parts of the world, including San Francisco and Baltimore. Tesla has also built a 500-meter test track in Nevada. But there are many challenges in the development of Hyperloop, including the painstaking task of building a vacuum tube over hundreds of

miles of land and investing billions of dollars. Other than that, the Hyperloop must travel only in a straight line so passengers don't fall ill. Getting environmental and other clearances for the purpose of hyperloop is a difficult task and a lot of people assume it to be overblown and extravagant. The alpha proposal projected that cost savings compared with conventional rail would come from a combination of several factors. The small profile and elevated nature of the alpha route would enable Hyperloop, However, whether this would be truly feasible is a matter of debate. The low profile would reduce tunnel boring requirements and the light weight of the capsules is projected to construction reduce costs over conventional passenger rail. It was asserted that there would be less rightof-way opposition and environmental impact as well due to its small, sealed, elevated profile versus that of a rail easement.

### Yeh Dosti Hum Nahi Todenge

It is rightly said, "Friends are the family choose ourselves". we During childhood, friendship helps in making us understand and develop the habit of sharing and caring. As we grow up our friend varies from time to time. We all have friends like colonial friends, school friends, college friends and so on. From them we make our best friend, and the one who becomes most crucial and near we move into called one SO "Relationship". But each of them occurs a particular place in our hearts. Many of the problems faced during this age cannot be discussed with our family members but we are quite comfortable with sharing these with our friends. Having good friends who can listen to our issues and provide us support and guidance are indeed a blessing from god.

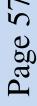
When I stepped on to my college on the first day, there were all new faces seen to me for the first time. I hardly talk to anyone on that day. Gradually I made some friends and started talking to them. I still remember the day during the lunch recess I have ordered a plate of egg chow Mein. No sooner did I get it I saw my friends stated eating all the pieces of egg from it lastly something which was left was the only chow Mein. As you can see the guy in the pink shirt is me on the right.





You must have listened these famous quote- "Senior and junior relationship be like 'separated by years – united by arrears".it was the day of personal introduction which was supposed to be taken by students of senior years. I was many dares by them like given proposing a girl, have to do mimicry of the famous Bollywood characters and also have to give my personal intro in 'suddha' Bengali or English or in Hindi. Those were the guys who have become a very close friend of mine now. It all started from the day of our trip to global entrepreneurship summit or GES. I have to stay with my seniors along with my two friends. I still remember that there was not a single moment when I have felt sad or bored.

Standing on today I feel that my friends are a real gift to me from god as the famous song goes "Tera Jaisa Yaar Kahaan".



# KUNAL HAIT, 2<sup>ND</sup> YEAR , CSE

1

- •Graphics: The graphics adjust itself according to the specs of the phone. that it has slightly lower frame rate. But it rarely causes any lag and still appropriate to play.
- •Controls: I think they really tried their best to setup best possible controls to play. Its really hard to setup the best control for FPS in mobile. So to make it

more easier they added features like sprinting, moving eye, gyroscope control and picking up best supplies automatically. In recent update they added shoot button in both left and right side. Earlier it was only in right side. Although you can change the control positions.



Also it has leaning feature which allows you to lean on left and right side so that you can shoot an enemy while hiding

behind a wall



Although obviously PC version would have the better controls.

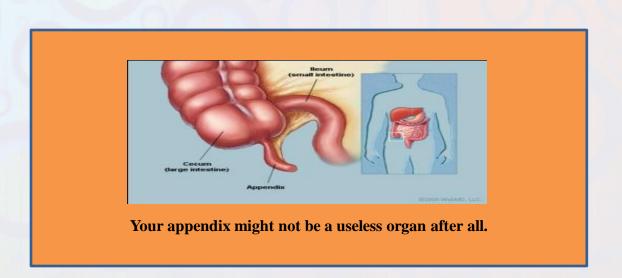
. **Gameplay:** I saw some videos of pubg pc and I found out that its actually very hard to get to the top 10. In mobile version it seems very easy. When I played single for the first time I

got 2nd ranking in it. It tries to give us the experience and features as the PC version does. Although it still doesn't have a first person mode. You can only go in that mode when you touch the aim button.

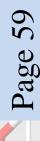




- •Added new features:\_In the new update there are some new modes. Its good for players who don't want to spend much time playing it.
- Overall it's a very addictive game which you can also play with your friends. You can enjoy this game anywhere. It is also free so everyone can afford it.









BIBEK SINGH FT YEAR DEPT.: ECE

### **Mother'sLove**

Mother's love is a feelings, something which requires unlimited words to explain because it is as deep as an ocean. Mother's love always encourages us in any falls which comes in life. Without even speaking she understand what we want. She is only a person who has no demands except our best future.

A mother is the person who plays most important role in everyone's life. No-one can take place of her. Mother is the one who can do her best for giving her child each and every comfort. At different stages a child tries life lessons his or her mother's guidance. Mother's love for her child is beyond anyone's expectations. Mother can easily identify each desire of her child even when her child is not able to speak properly. Behind a person's success, the most efforts who put, it

the only one, the mother. Mother's love can change that wrong way on which her child has started to move. Her love easily turns her child into the right way of Truth and Honesty. This is the power of mother's love. It is kind of a sweet connection between child and mother that if child gets hurt mother feels the pain. A mother feels into lerable pain when she gives birth to her child, but when she only saw her child's face she forget all the pain and trouble. This is the greatness of the Mother.



Pen\_Box\_(qalamdan)\_LA CMA\_M.89.160a-b

# Googol

The name Google was created accidentally. A spelling error was made by the original founders who were under the impression they were going for Googol.





### "TRAVEL HUB... LOVE TO TRAVEL..."

Thank you god for everything gratitude always and forever...

The two most powerful and important words of my life blessed, abundant and happy. Always enjoy the present, it's a gift. If my dream can come true so can yours. You are no different.

Believe and make it stronger day by day and see yourself touching the sky.

Being an independent girl I feel proud that my parents imbibed me to believe, dream and never to give up. They let me free and here I am travelling the world and enjoying the life. I know lot of women specially in India who love to travel but can't due to many reasons...

- (1) Safety
- (2) Indian standard
- (3) What the people say
- (4) Dependent

But trust me if u want to travel, forget over thinking and just be INDEPENDENT. The day you can take care of yourself no one's gonna stop you. For me travel is like a drug it gives me a kick...

- (1)meeting different people
- (2)knowing new culture
- (3)learning and adapting to new environment

I know

woman wants to travel and explore. I feel so proud when I came across alone woman travels around the world and have knowledge and insights.

I get to share and learn in something that no book can ever give you...In

short I just want to support girls travelling and if we persist by spending a bomb

on makeup then we can definitely save on some money for travelling and make this as your base not any high end luxuries brand foundation because makeup

isn't gonna support you in old days but travels and memories will

for ever

...Conquer the world

...Wanderlust ...

Winter or summer vibes.



In general, people tend to read as much as 10% slower from a screen than from paper.

# GOLAM RASEL MONDAL, 2ND YEAR,CE

### **SMART GOALS**

If you ask most people what is their one major objective in life, they would probably give you a vague answer, such as, "I want to be successful, be happy, make a good living," and that is it. They are all wishes and none of them are clear goals.

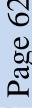
#### **Goals must be SMART:**

- 1. S--specific. For example, "I want to lose weight." This is wishful thinking. It becomes a goal when I pin myself down to "I will lose 10 pounds in 90 days."
- 2. M--must be measurable. If we cannot measure it, we cannot accomplish it. Measurement is a way of monitoring our progress.
- 3. A--must be achievable. Achievable means that it should be out of reach enough to be challenging but it should not be out of sight, otherwise it becomes disheartening.
- 4. R--realistic. A person who wants to lose 50 pounds in~30 days is being unrealistic.
- 5. T--time-bound. There should be a starting date and a finishing date.



### **Engineering laboratories**

Creativity involves coming up with something novel, something different. Up-to-date laboratory learning combination approaches in inventive information and communication technology can offer an immense variety of novel opportunities for experimentation and learning in the modes of creative inquiry. Our college provides the opportunity of creative departmental learning in all the laboratories it has. Students encouraged to perform different projects in their own streams other than the scheduled laboratory works. Other than the departmental laboratories, there is also IDCE lab in our college, where students can exercise their own freedom to make innovative models. The projects of automatic elevator, suicidal fan, electric heater, etc can be seen in the lab. There are also many projects on Robotics like Line following robot, hand gesture controlled robot, voice controlled robot, smart dustbin, clap sensor, obstruction avoidance car, light sensor robot, etc ongoing in the lab by students of all departments. These creative lab works are done by the students in the scheduled class every week.



The Digital lab, RF lab, Analog & Solid state lab, electrical lab, mechanical workshop, computer labs, mechatronics lab, and many other simulation labs provide vast opportunity to perform and learn the subjects with much more interest.

Fostering and encouraging creative laboratory learning in engineering education may not only animate what is learned but also includes the chance to tighten students' understanding and creative self-efficacy. The aligned teaching and learning approaches aim at facilitating fostering and creative laboratory learning in engineering education.

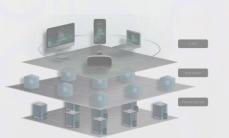


has been around since 1986. It was first implemented in France, with Germany following shortly after.



# THEORY OF TIME MACHINE

In the time of 20th century the concept of time is totally a hypothitical thing. After the publication of Einstein's general theory of relativity a group of scientists is doing research on some the oritical physics topics like travel's parallal universe. time possibility, mirror world etc. All of us definitely saw a science fiction movie called "koi mil gaya" by hritick roshan. There we have seen that a with the help of time machine one can easily see his future. That was a science fiction but in the upcoming days this theory become true. But i think the most important thing that though we travel through past or future anyone can't change his past or future. phenomona has been proved with the paradox called "grandfather paradox". So i hope in the next 100 years the men of earth will be interact with time machine and from then the civilization will turn into a new way which is now totally unknown and impossible to us.





# There are so many people in life

There are so many people in your family

So many of them who care
Be it your mom whose there
Or dad who guides you along the
way

Brother is fun and funny at times
A sister so loving with her say
I think I would be incomplete
Without having a loving family
besides

Where I can find true love in the heart

And such an emotional love in the eyes

I love my family and my family also Loves me being true and kind!



On 1<sup>st</sup> April 2005, NASA pulled a prank telling the world that they had found water on Mars.

### DEBASMITA BAG F<sup>T</sup> YEAR,DEPT: CSE

#### **ANCHORED**

When the wind blow and the sea pitches

To distant lands and open doors,
To the abyss of dreams and life not
known

In a trance state my perception bewitches,

A little aloof i shall stay,
Keeping love at bay, as they say
But then your finger reaches by
The sand and the sea inter wine;
The mountains echo at the far,
As suddenly amidst all the dark
Appear the specks of the truly gray
An anchor floats askew, how so
though?

When i know it's bound to you,
Floats apart to a novel ground,
To the longest eon it stays bound,
And they call it impure, unknown
names,

But by then the societal toll is conquered
And two hearts lie deeply anchored!



In 1822, Charles Babbage created the first computer.



### **Happiness**

The whole purpose of life is - to have a happy life

- to see near and dear ones to be happy This purpose becomes selfish, if one has only that purpose, whereas if one can go beyond

this, extend this purpose to others also, then the above purpose becomes unselfish. Not

only that, one gets the dividend of being more and more happy.

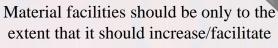
But, how can the purposes gets fulfilled? The whole world is striving to find that.

- Some think that it can be done by material advancements alone;
- Some think that it should be done both materially and spiritually, and
  - some think that it should be done totally spiritually.

To me the way seem to be "to enjoy the life in this material world by being part of it but at the same time not being slave to it".

To attain this stage,

- one has to look not only what are seen, but also those unseen,
- not only open our eyes outwardly, but also inwardly.



our

peaceful coexistence. Unhappiness results often as the result of the perception that events do not occur the way "I" want. In other words, outside world does not react the way I think it should. This

perception can change once one realises that "I am the one to be changed" not others.

Before pointing fingers to others, look oneself, ask if "I am free of errors". Is "right" in

my opinion is "really right"? As and when one finds something is wrong in others, take

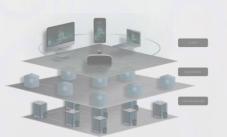
that occasion to cleanse oneself

- take woe to be devoid of such wrong
things in oneself!

Have you decided to be happy?



The word robot comes from the Czech "robota". This translate into force labor, or work.

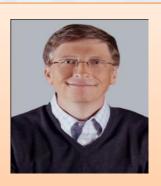




SAMIR DAS FT YEAR, CE

### Open a book

Open a book
And you will find,
People and places of every kind;
Open a book
And you can be
Anything you want to be;
Open a book
And you can share
Wondrous words you find in there
Open a book
And I will too,
You read to me,
And I'll read to you!



The founder of Microsoft, Bill Gates, was a college drop out.



The English word for red panda is 'Firefox' which is where the browser gets its name from-this means the Firefox logo is actually a red panda, not a fox.



The very first Apple logo featured Sir Isaac Newton sitting underneath a tree, with an apple about to hit his head.



**ART OF WEST BENGAL** 



# **PHOTOS**



ANIRBAN BASU Assistant Professor (Dept. of ECE)

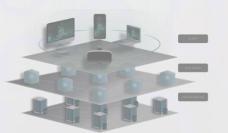


SAYAK SARKAR, Asst. Prof. Dept.of EE

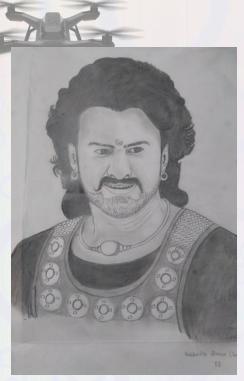


"Beauty at its best"

AFROZ MOHAMMOD, Asst. Prof.,Dept. of CE







SUBHADIP BANU 2<sup>nd</sup> YEAR, EE



BHASKAR BHAUMICK 1st YEAR, ME



SUDIP MAITY

1st YEAR, CSE

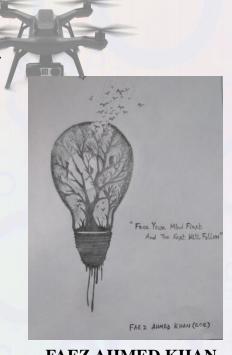
RITWIK MONDAL

1st YEAR, CSE



PRITAM MANDAL 1st YEAR, ME





FAEZ AHMED KHAN ECE



SAUGATA SHOME 1st YEAR, CSE



SAGNIK MANDAL 1<sup>st</sup> YEAR, CSE



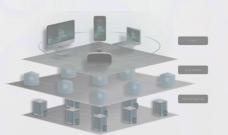
SAGNIK MANDAL 1st YEAR, CSE



PRITHWIRAJ MAITY
1st YEAR EE



PRASENJIT BHOWMICK Asst.Prof.Dept. of CE



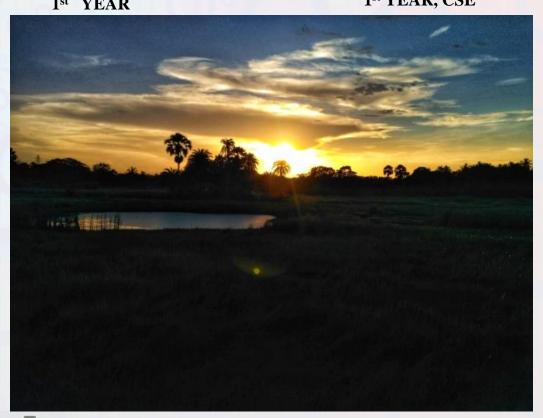




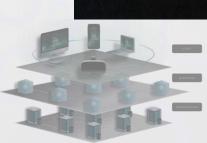
Ayan Naskar 1<sup>st</sup> YEAR



BIJAN ROY 1st YEAR, CSE



SAUGATA SHOME 1st YEAR, CSE









AVIRUP DAS, 4<sup>th</sup> YEAR, CSE





SAYAN MAJUMDER Asst. Prof. Dept. of CSE



THE BEAUTY OF NATURE







# 1

### Proud to Be a DIT-ian





























### **Glimpses of DIT**













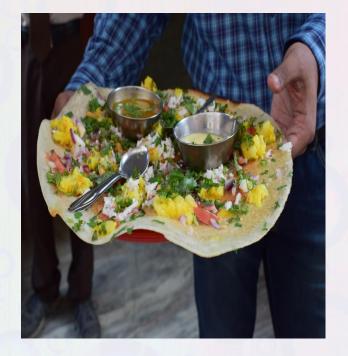






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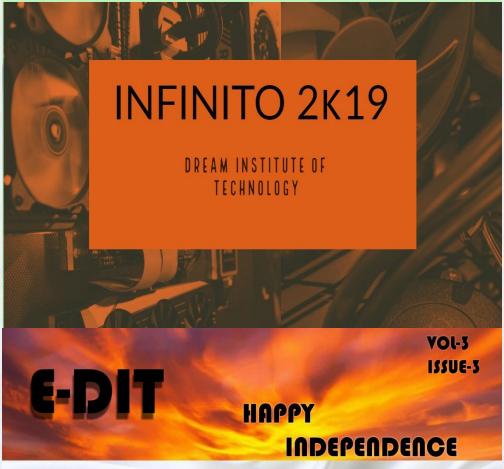












**UP COMING ISSUE** 

15 AUGUST INDIPENDENCE DAY



DAY

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