VOL
2

DEPARTMENT OF B.Sc.IT

TECHBYTE
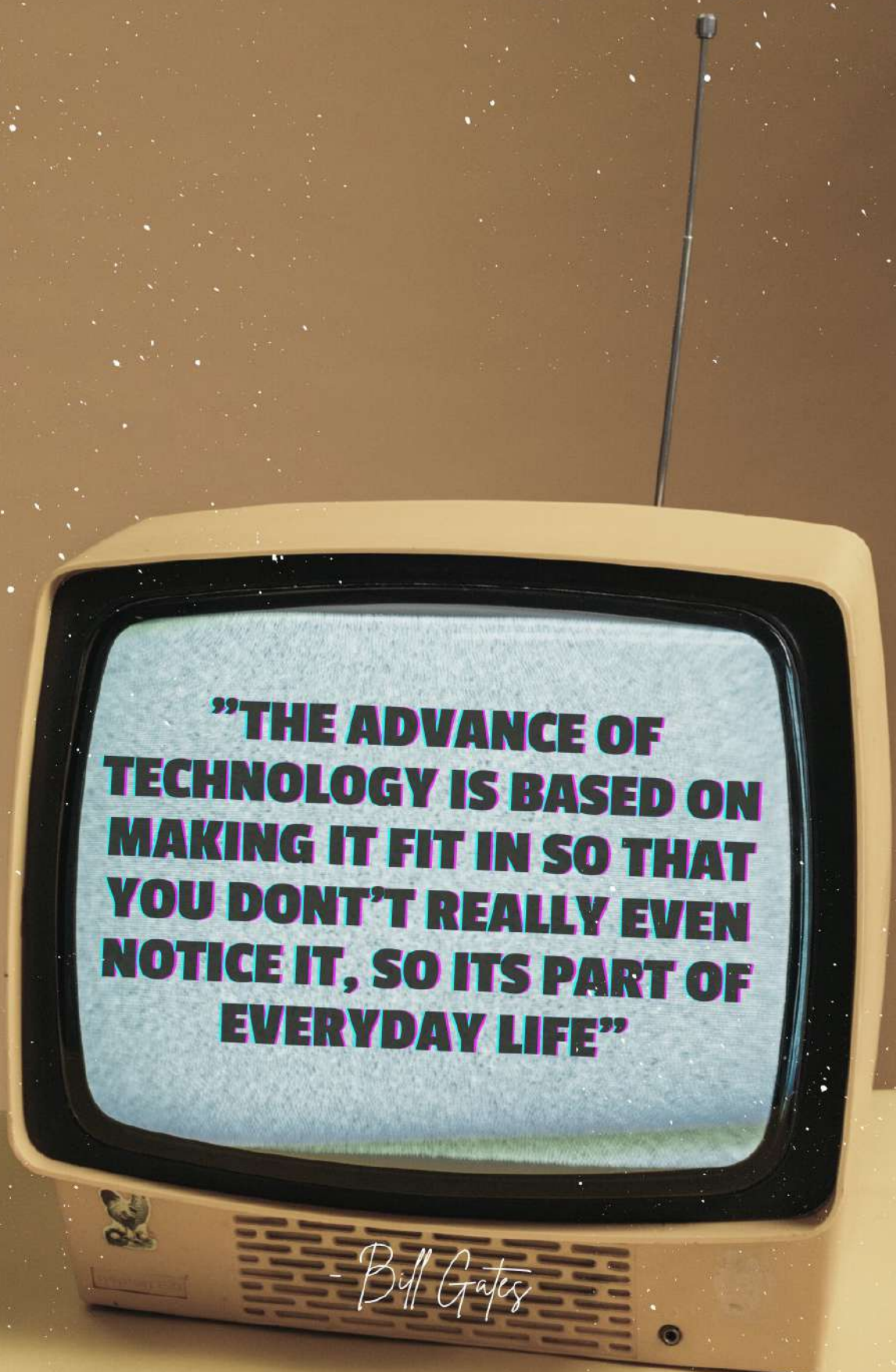
Magazine for innovators

▶ **ANNUAL IT MAGAZINE**
APRIL | 2021

A PUBLICATION BY

S.I.E.S (NERUL) COLLEGE OF ARTS, SCIENCE AND COMMERCE

"TECH THAT MATTERS"

Art by:- Vijay Mahato (S.Y.Bsc.IT)

"THE ADVANCE OF TECHNOLOGY IS BASED ON MAKING IT FIT IN SO THAT YOU DONT'T REALLY EVEN NOTICE IT, SO ITS PART OF EVERYDAY LIFE"

- Bill Gates

MESSAGE FROM THE EDITORIAL

Ms Minal S

Dear Reader, Greetings to you!!!

"Become a motivator of writing, not the butcher of it; similarly, become an editor, not the copy editor."

— *Ehsan Sehgal*

With this quote in mind. we strive hard to represent the revolutions happening and expose the treasure of recent technologies through the articles in the field of IT. Being a highly dynamic and versatile field we want our students to be more knowledgeable and well informed about the recent endeavours trending in the field of Science and Technology.

Even during the COVID-19 pandemic. as the summer sun glows pleasantly to melt all indolence away. the creativity and talents in every techie of B.Sc IT becomes thirsty to project his/her talents and skills. On behalf of the editorial board. proudly presenting TECHBYTE v2.0 designed with a vision to satiate the thirst by layering a platform for innovative ideas. The soul of originality lies in the dream to reveal inherent talent. The power of this dream fuelled us forward and made TECHBYTE. a reality in the year 2019-2020. We are thankful to all who contributed to fulfill our dream. First and foremost let me thank our beloved Late Principal Dr. Milind Vaidya who was always with us. to provide a wonderful platform to nourish the talents. I extend my sincere thanks to our Principal I/c. Dr. Koel Roychoudhury who is always in the forefront to encourage and inspire to execute wonderful ideas. The support of our coordinator Ms. Anu Thomas cannot be forgotten. It would be totally unfair if I am not mentioning the effort of the editorial team who dreamt together to bring out TECHBYTE. I thank all students and faculty for their overwhelming support and help provided for proofreading.

The magazine is aimed at motivating and enlightening the students by exposing them to the brief know-how of recent technologies. Such an informative knowledge will definitely help the students to choose their "area of liking". We hope our efforts will be beneficial for the students to build their careers and to "enjoy their work" in near future. We have for you. from students' wide range of informative and thought-provoking articles. digital designs. poems. the departmental activities and projects undertaken.

Hope you enjoy reading!!!!!

"Those we cherish can never be
more than a thought away.
For as long as there's a memory
They live in our hearts to stay"
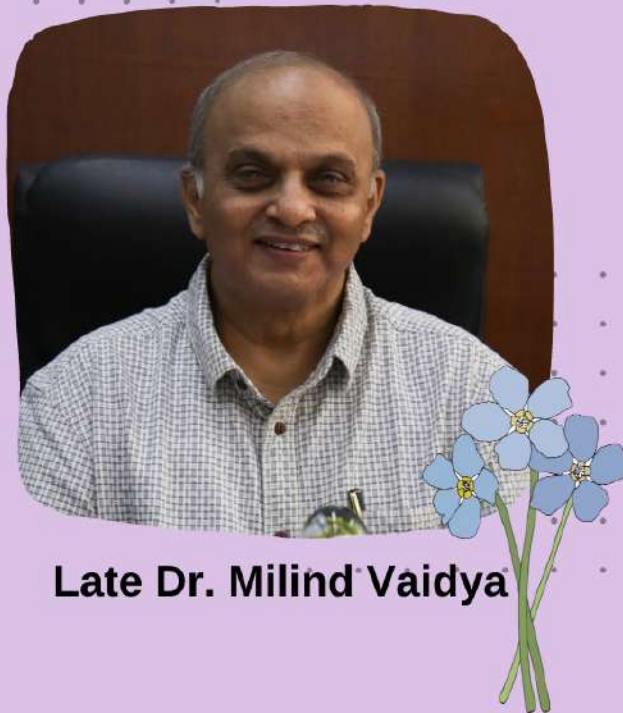
Late Dr. Milind Vaidya

In loving memory of our late Principal,

Dr. Milind Vaidya

Thank you Sir, for everything you have done for us.

MESSAGE FROM THE PRINCIPAL'S DESK

Dr. Koel Roychoudhury
Principal I/c

S.I.E.S. (Nerul) College of Arts. Science and Commerce has consistently endeavored to provide the best environment for its students to thrive and establish skills which empower them to succeed even in the face of adversity.

Our erstwhile Principal. Late Dr. Milind Vaidya. believed that education influences the young minds in a manner which will impel them to become supreme versions of themselves. To the students. he was like a father figure. a well-wisher. who would put their betterment above all else. We are thankful for his precious blessings which will guide our students on the road to success.

We earnestly try to inculcate the practice of self-reflection and hard work in our students. while motivating them to perform to the best of their abilities. In addition to academics. extra-curricular activities are also extensively promoted and organized to aid the all-round development of the students. We believe that along with education. learning experiences of all kinds are crucial to the sustained progress of each individual student.

Our institution strives to provide opportunities for innovative professional development of our students which involves keeping up with the latest trends. technology and research.

Astounding progress in the digital environment has had. and will continue to have. an enormous impact on the world and the way it functions. Keeping in view. the rapidly evolving advancements in the field of Information and Communication Technology. the students are encouraged to express their intellectual and creative forte through the annual technical magazine. "TechByte" which provides the stage to communicate contemporary ideas among their peers.

MESSAGE FROM THE CO-ORDINATOR'S DESK

Ms. Anu Thomas

Welcome to the second edition of the annual technical magazine TECHBYTE V2.0. We are really proud and exuberant to unravel to the world. the most unforgettable and precious moment of the IT department.

This souvenir is indeed a pious attempt to make our budding talents bring forth their innovative ideas and shape their creativity. I take this opportunity to thank our beloved Late Principal Dr. Milind Vaidya who always encouraged us. I extend my sincere thanks to our Principal I/c. Dr. Koel Roychoudhury who constantly supported us and for entrusting us with the responsibility of editing.

I take this opportunity to thank all the faculty members of the department and the contributors as their contribution is the reason that makes this magazine endearing with our readers. I heartily wish all the readers my best wishes and hope they will enjoy and explore the new ideas presented in this magazine.

Wait wait we are not over yet
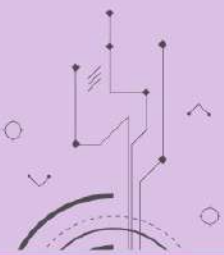
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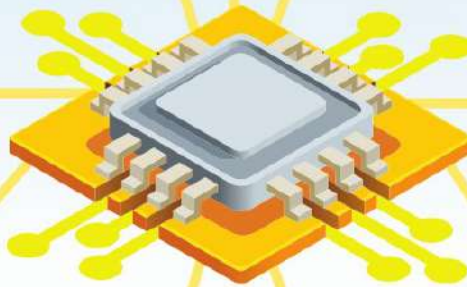# BSC.IT FAMILIA

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ARTIFICIAL INTELLIGENCE - A DOUBLE-EDGED SWORD

By:- Ajay K. and S.G. Bharath (SYIT)

You might have come across this term AI, but what does AI(Artificial Intelligence) actually mean? The easiest way to understand AI is by comparing it with humans. As we have studied in our primary school days, we have five senses namely sight, hearing, smell, taste and touch. Using these five senses we can acquire information from our surroundings and based on that information, we think and perform tasks accordingly. AIs try and mimic the way we humans think and function. Like speaking, which requires understanding and knowledge of the natural language the person is communicating in, comes under Speech Recognition (Ability of programs to process human speech into written formal) as well as **Natural Language Processing.**

To put it simply, AIs are divided into two categories:

- Weak AI- An AI system designed for specific tasks only. Example: A bot playing chess, Amazon's Alexa, etc. They have a limited range of functions.

- Strong AI- An AI system that is designed to perform tasks similar to that of a human or mimic human actions. These systems are more complicated than the weak AIs. Example Self-driving car. The system constants assesses the environment/situation around and acts accordingly, i.e., trying and acting as closely as possible w.r.t. a human doing the same job.

There are actually 4 types of Artificial Intelligence:

- Reactive Machines: These are the most basic machines. They act purely on the current scenario that they are present in and have no ability to form memories, etc. Deep Blue, IBM's Chess playing computer is an example of such systems. The machine doesn't account for anything except the present moment, basically identifying the pieces on the chessboard and then calculating the optimal move from available permutations is its only task.

- Limited Memory: These types of machines/systems have the feature of memories from the past to a limited extent. They can store a few data that is collected over time for possible future events. Self-driving cars fall under this category. The computer collects pieces of data over time and puts them together for future use like registering landmarks, monitoring the motion of other vehicles, etc.

- Theory of Mind: These systems are quite complex and theoretically they could mimic the human brain to some extent. The AI systems developed by social media giant Facebook could be considered in this category. Bob and Alice were the two AI systems which were kept under observation. They basically developed their own language to ease up the communication between themselves, also they sort of

discussed the same factor before coming with this solution. This incident concerned the researchers and eventually they shut down the systems

- Self-awareness: This can be regarded as the highest form of computer system or final step in developing a successful AI. Consciousness is what separates humans from every other living thing on our planet. Currently we have no AI system with consciousness about self and developing one is nearly impossible for us.

AI is a vast branch of computer science, the use of AI is limitless. Sounds awesome doesn't it? We can use AI for our daily mundane tasks. To understand the situation let's read a quote from City of Lost Souls by Cassandra Clare, "Too much of anything could destroy you, Simon thought. Too much darkness could kill, but too much light could blind". The problem arises when we are too much dependent on AI, and value AI more than a human being. Let's go through different examples in which excessive use of AI can lead to serious problems and understand why the founder of Tesla and SpaceX : Elon Musk believes AIs are much more dangerous than nukes.

Disadvantages:
- Cost: As we know AIs are complex systems as compared to regular systems, the cost to develop, build and maintain such systems are quite high including both the hardware and the software part.They also need to update constantly to keep up with the demands and needs in the market.

- Lacking humanity: There is no doubt in the efficiency and performance of computers and machines, but they still can't beat humans. The computers and software can't feel, bond with others, can't just learn from experience like humans usually do!

- Lacking creativity and thinking ability: So far we are aware that building AIs that simulate humans is still not possible for us. They can only function as far as the person programs it.

- Unemployment: This undoubtedly will be the first thing that pops up in everyone's mind. With the rapid development in the field of AI, there is possible risk of computers/machines replacing lots of human jobs.

- Privacy violations/data risk: The technology is being worked upon worldwide by big companies and even by governments, privacy is at huge risk. This kind of technology used with ill intentions or if used by people with bad intentions could cause a lot of damage. Deep Fakes are a very good example of such data manipulation.

- AIs in Warfare: This could become a potential risk for humanity itself. The systems could be manipulated by people to cause damage and harm. Such developments would eventually lead to an arms race worldwide. Its truly said- "Humans are the only dumb species to build something that would kill themselves".

Well these are few factors we need to be concerned about for starters as we still don't know the possible extent of this technology. Ignoring these possibilities will mean being completely irresponsible with our future. Also introducing this technology in our daily life will bring about a big change. These machines could easily replace humans where skills and experience don't matter much. Moreover the topic about these machines having their own "rights" , etcetera arise too.

The conclusion is that we need to be careful with each step that we are taking towards our future. While trying to make it better, we may end up destroying it and Arnold Schwarzenegger(Terminator) won't be there to save us!

MACHINE LEARNING

By:- Harshada Umesh Dhamapurkar (TYIT)

Machine learning is the ability of machines i.e. computers to learn and improve from their past experience or data without being explicitly programmed. Machines learn from past experience, identify patterns (pattern recognition), and predict the output. So to be precise, machine learning also known as ML is the ability of machines i.e. computers or computer programs to learn from the past behavior of data and to predict future outcomes without being explicitly programmed to do so.ML algorithms are constantly analyzing and learning from the data to improve their future predictions and outcomes automatically.

There are various applications of ML that we see in our day-to-day lives such as Facebook newsfeed, product recommendation used by shopping portals, Facebook photo auto-tagging feature, and many more. Identifying frauds in banking, Sentiment Analysis, Amazon Go, chatbots & self-driven cars are some of the advanced applications of ML. Now comes the question: how does machine learning work? First, it is important to understand what data is, well in simple words any information about anything is known as data e.g. features of your mobile phone, messages and comments on any social media application, voice calls, conference call, etc. . Data can be present in different forms like texts, numbers, video, audio, images, etc. .

The way in which computer programs take inputs and generate outputs, the same way ML models take data and generate intelligence. So, an ML model or algorithm derives patterns and insights from past data and applies that intelligence to new data to make predictions or recommendations(decisions) about it. There are mainly 2 types of machine learning supervised machine learning and unsupervised machine learning . By now we know what data is .If the data contains a target variable or an output variable that answers a question of interest then it is called as Labeled data and on the other hand, the data which contains information about something but does not have a predefined target variable is known as unlabeled data.

Talking about Supervised Learning, from the word supervised learning we can understand that the SL model is a model which learns under supervision and this supervision is provided by the labeled data which contains a target variable and a few independent variables. In supervised learning, one is more interested in target value. These models learn from past labeled data. Once the model is trained, we can feed new unlabeled data to it for which we want to make predictions on the target variable and it would predict the value based on the learning on the past data.
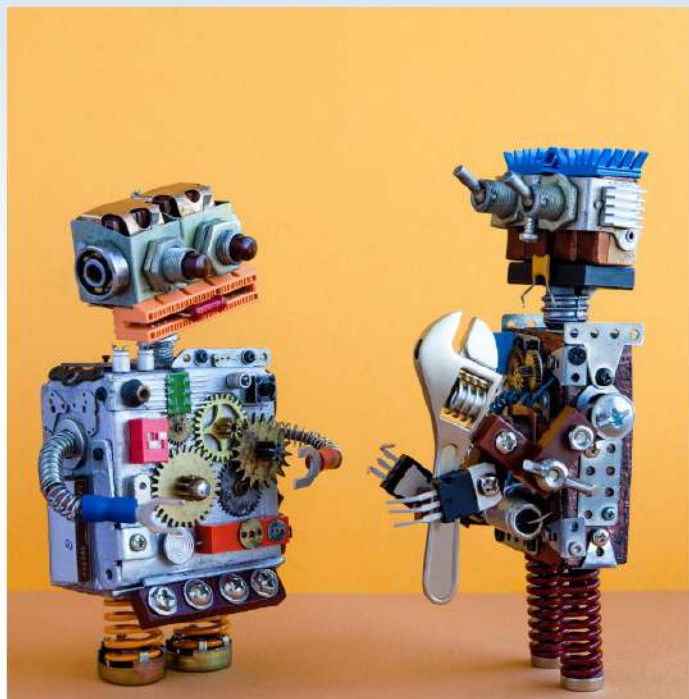
On the basis of the type of target variable Supervised learning can be further divided into two types. If the target variable is a category variable it is a classification model and if the target variable is a continuous numerical value then it is a regression model. Polynomial regression, Random forest, Linear regression, Logistic regression, Decision trees, K-nearest neighbors, Naive Bayes are some of the topmost ML algorithms that are used for supervised learning. On the other hand, unsupervised learning is the opposite /complement of supervised learning. Here there is no target variable involved and it only works on unlabeled data. The objective of this ml model is to identify if there is any pattern existing in the data or not.

So the machine learning that is deployed to find the patterns in unlabeled data is referred to as unsupervised machine learning. Partial least squares, Fuzzy means, Singular value decomposition, K-means clustering, Apriori, Hierarchical clustering, Principal component analysis are the best algorithms used for unsupervised learning. Along with this, there is one more type of machine learning named as reinforcement learning. Here the algorithm discovers the data by trial and error process and then it decides which action should be taken in order to get higher rewards.

The agent, the environment, and the actions are the three major components that makeup reinforcement learning. The agent here acts as a decision-maker or a learner, the environment consists of everything that the agent interacts with and the actions are what the agent does. This learning comes into the picture when the agent chooses actions that increase the expected reward over a given time duration. This is easy to achieve when the agent works under a sound policy framework. Reinforcement learning is commonly used in robotics, video gameplay, resource management, etc. In today's time, machine learning has acquired great importance because of its wide range of applications and its amazing ability to not only adapt but also provide solutions to complex problems in an efficient, effective and quick manner. The field of machine learning is continuously evolving and has a very bright future.

MACHINE LEARNING

ARTIFICIAL INTELLIGENCE AND SMART MACHINES

By:- Sameena Patel (SYIT)

Can Machines Think? This question was coined by Alan Turing in his seminal paper Computer Machinery and Intelligence during 1950 ,which set the foundation for Artificial Intelligence.

- **What is Artificial Intelligence?**

Artificial intelligence can be referred to as the capacity of a machine to think or behave like a human brain example analyzing the language ,object, trying to make decisions , solving complex problems and many more.AI is a spreading branch of computer science which will have a huge impact on computers or machines to make them more and more advanced by its powerful algorithms to mimic the human brain.

- **How does AI work?**

How AI is doing all these things ,what AI uses to understand our language and our human behaviour, to understand all these questions let's go in deep and try to find answers. Artificial Intelligence works by merging huge amounts of data with fast ,advanced processing and complex algorithms which help the software to automatically learn from patterns in data. AI is a wide ranging field which includes different components that help AI to behave like us some of them are mentioned below.
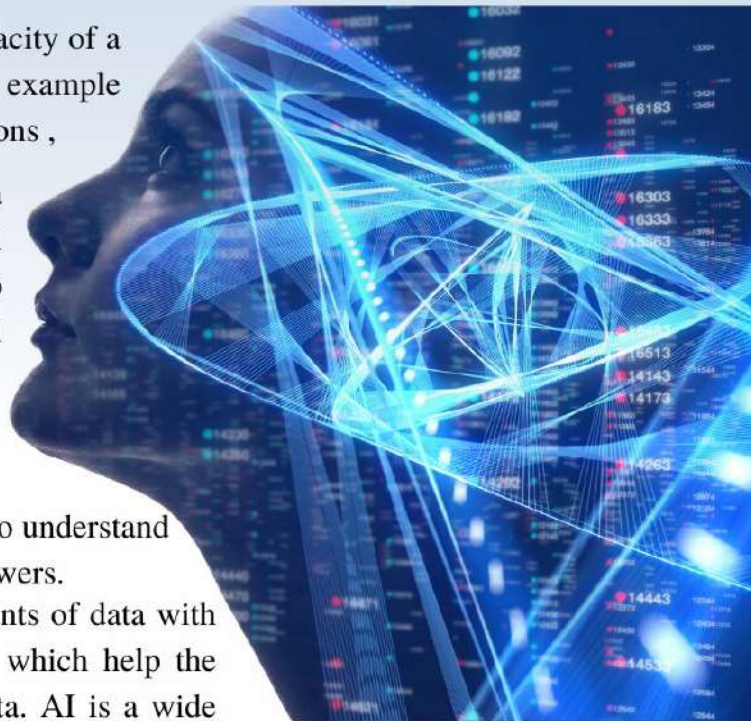
- **Machine Learning** : Machine learning can be defined as Learning from experience,ML concentrate on algorithms and their complexities that can read data and make decisions. Eg.when you open youtube some recommendations come according to what you like and videos you have been watching.
- **Deep Learning** : Deep learning comes under Machine Learning in simple words Deep learning means machine educating itself from certain previous experiences or problems machines have faced.
- **Neural Network** : Neutral Networks make association with artificial neural networks in computer systems just like bundles of neurons making networks in the bra
- **Cognitive Computing** : Cognitive computing is another important component of AI. It's nothing but making conclusions from context and to enhance communication between humans and machines. Cognitive computing tries to rebuild the human thought process in a computer model, in this case, by understanding human language and the meaning of images.
- **Natural Language Processing (NLP)** : Natural Language Processing or NLP, allows computers to analyze and produce human language and speech. Its main focus is to understand human language and to create meaningful conversation between machine and human. eg Alexa,google assistant,siri.
- **Computer Vision** : Computer Vision means understanding pictures or images and making some decisions based on that image.It is a procedure that takes help of Deep learning and pattern identification to understand the content of an image that has graph,pictures ,text or videos,gifs etc. Computer vision is an advanced component of AI, which analyzes and makes decisions from visual data. Eg. In medical field for x-ray scan

- Types Of **Artificial Intelligence**?

Artificial Intelligence can be classified into three categories based on the ability to mimic the human brain and also based on their real world applications.following are the categories:

1)Artificial narrow intelligence (ANI): ANI is also known as weak AI or narrow AI.It only performed a single task like voice recognition,face detection ,internet searching and many more.ANI doesn't Copy human intelligence just accelerates behavior based on certain criteria.

2)Artificial general intelligence (AGI): AGI is also known as strong AI or deep AI.AGI has a capability to perform a task by its own like a human so we can say AGI can think.however its still in a developing phase and scientists are still working on it to make it completely independent.

3) Artificial superintelligence (ASI) : ASI is also known as hypothetical AI which will not just mimic humans but also think on an advanced level.ASI will understand human feeling ,emotions .The AGI idea is itself both good and bad because if machines start thinking more than humans then it will result in negative impact also in future.Today AI is part of our everyday lives. AI is completing our words as we type them, providing driving directions when we ask, vacuuming our floors, and suggest what we should buy or binge-watch next.All thanks to its various above mentioned components(ML,NLP etc) which help us to make powerful AI.

Stronger the artificial Intelligence or machine intelligence it will lead to make more and more smart machines in future.

Some real life examples of Smart Machines and use of Artificial Intelligence:
- Deep Blue was a chess playing computer developed by IBM which gained popularity after defeating world famous chess champion Garry Kasparov.
- Smart Robots is an AI system that works according to human command and it learns from the environment and from knowledge that we provide.
- Tesla self driving cars which will drop you to your destination without driving i.e autopilot.
- Amazon is such a good example of strong AI because of which companies gain so much of profit .It smartly identifies customer interest and suggests things at a reasonable rate.
- Netflix analyzes billions of records to suggest films that we like based on our previous reactions and interest in films. This technique is growing smarter and smarter as it's accessing and trying to understand human data.

Artificial intelligence has not given us complete answer that machine can think or not like human but in some areas we noticed that they can do work faster than human like doing complex calculation in just milliseconds and many more,so AI is very near to understand human brain ,behaviour not completely but yes we can say it is making stronger algorithms to behave or mimic like human brain in future.

AI TECHNOLOGY CHANGING THE WORLD

By:- Rutuja Choughule (SYIT)

India is well known for its focus on Scientific Research and Technology. Along with coping with the recent situation of COVID 19, there was some astonishing development in Information Technology and Computer Science. A great amount of capital and resources was flooded in e-commerce sites, social media, and Business. Artificial intelligence technologies got more and more included with apps, online shopping sites, and social media platforms. AI was getting a lot more attention as it got developed for people to get a personalized view and recommendation in many fields like Medical, Business, IT, Education, law, and Manufacturing. AI technology is designed for machines to learn, think and use problem-solving methodology; normally these things depend on the the intelligence of a human. This technology is extensively used for filtering the data that a particular person is surrounded with or like to view repeatedly. The specific site with an AI model will sort the data that their user likes and dislikes. People are very familiar with YouTube. YouTube analyses the user search, content the user is watching, and view count on a specific channel. This data is then used to recommend some similar videos and channels that the user may like or wants to follow. This technology makes certain apps or Software personalized to the individual. We are very much surrounded by n -number of AI-based technologies like the face recognition feature which allows the user to tag people on social media using recommendation; it is way faster than doing it manually. In many Android Phones, AI has taken the center stage by providing features like face lock, and photo editing by detecting blur and sharpness of the picture. Online Educational sites like ShawAcademy, Coursera, Udemy, etc. use AI-based chatbots to communicate with users regarding analyzing and solving the problems that they are facing while using that particular site. A Chatbot is the best example of the most used AI technology today as they stimulate the conservation between the end-user and AI in the most human way possible through messaging application.
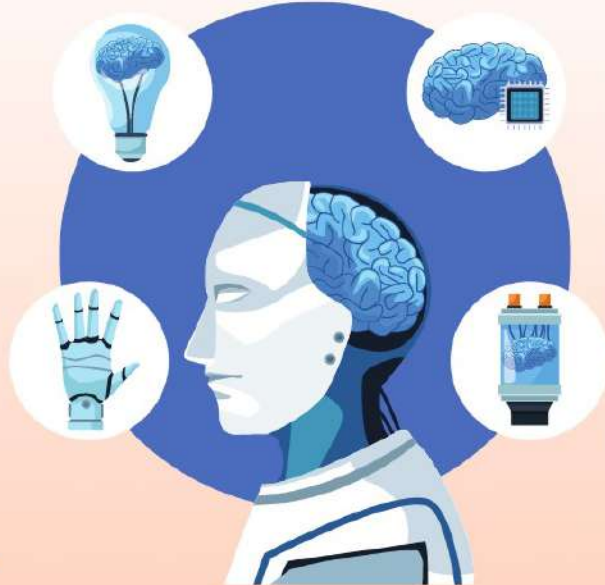
After reading this article you might be thinking that you are surrounded by many AI features on your computer and smartphone. It's time for every individual to take a step forward and learn more about the AI. It has the power to change the system in a more effective way. Including AI with Healthcare, Business, Creative Art, and Government will make this technology more open and accessible to people. In the future AI technology will make impressive changes in every field by making it impressive and creative.

DANGERS OF ARTIFICIAL INTELLIGENCE TO HUMANITY

By:- Omkar Mirgal (SYIT)
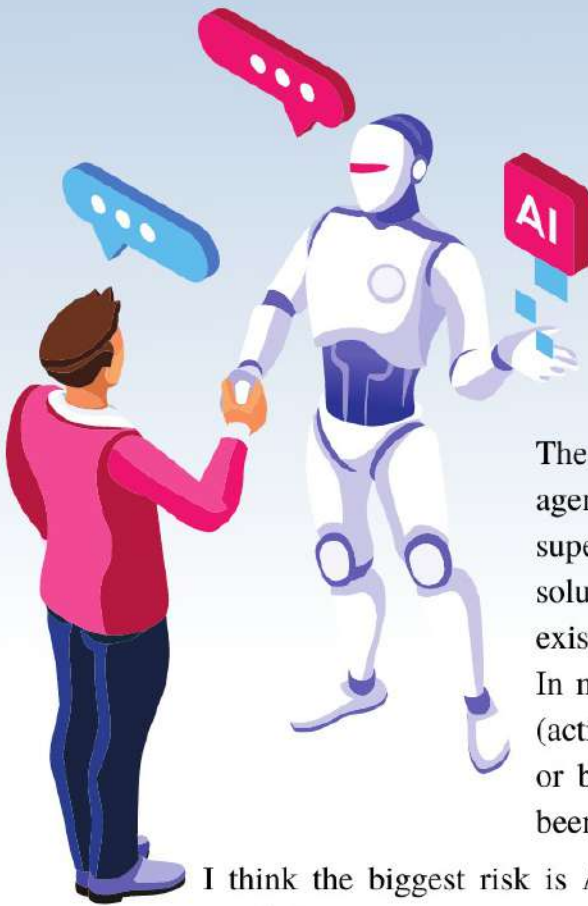
I think there's a mismatch between the public perception of possible dangers of "AI" and the actual dangers potentially posed by recent advances in the field of machine learning. News articles love to use scary AI photos when describing stuff like Facebook "shutting off their scary AI that made its own language",

With this statement provided on Wikipedia under the warning section it mocks us to the point where we are left clueless...

The AI control problem is the issue of how to build a super intelligent agent that will aid its creators, and avoid inadvertently building a superintelligence that will harm its creators. Some scholars argue that solutions to the control problem might also find applications in existing non-super intelligent AI.

In my opinion, the biggest failure is not AI being badly configured (acting as a literal genie and hurting humanity while it tries to "help") or becoming self-aware and going all Matrix / Skynet. It's already been discussed in depth, so everyone will build in kill switches.

I think the biggest risk is AI doing exactly what it's designed to do, in the hands of a amalicious operator.

Risk is broken down into the potential damage, times the probability of occurrence. I would just say that actors using AI in malicious ways is almost certain (both in terms of the probability of occurrence, and the uncertainty). The damage is not as big as a "robots kill us all" scenario, but I think that such a scenario is very unlikely.

China probably already uses ML (a precursor to AI) for censorship. It seems likely to me that most nations worth speaking of use AI for intelligence and crime detection. Is that really what their intentions are OR keeping us in the illusion of security ,under their grid of prison they created, to put us in ...

The main problem here is censorship and that is being filtered by some malicious operator that programmed it to work like that, so thereby putting us again in the illusion of freedom of information. Fact checkers on social platforms which are works when algorithms are triggered ,like a word can trigger and AI censors it.

Do you think it really is necessary ,it sounds like a malicious operator/entity can use this to put forward his agendas via fact checking and misleading the crowd .

The biggest risk AI poses would be exacerbating our already huge wealth gap. If gone unchecked, this technology WILL cause this trend to

continue, as the jobs it replaces won't be nearly as many jobs it creates. Keeping AI development in the hands of the rich, or a monopolization in AI could be very damaging to our democracy as well, judging from political upheaval the first wave of The Information Age put us in.

The other biggest threat AI poses is a little more subtle, and that's the ethics of letting AI choose things like sentencing of criminals, which some states in America are already doing.

Stephen Hawking, he is very concerned with the use of AI, particularly AI that is created to be at a comparable level of intelligence as humans. He worries that if we create this, then the machines could "It would take off on its own, and re-design itself at an ever increasing rate...Humans, who are limited by slow biological evolution, couldn't compete, and would be superseded." Further, overall he believes that if we develop full AI (at or above the intelligence of humans) it "could spell the end of the human race." I think the biggest issue is exactly what Hawking said.
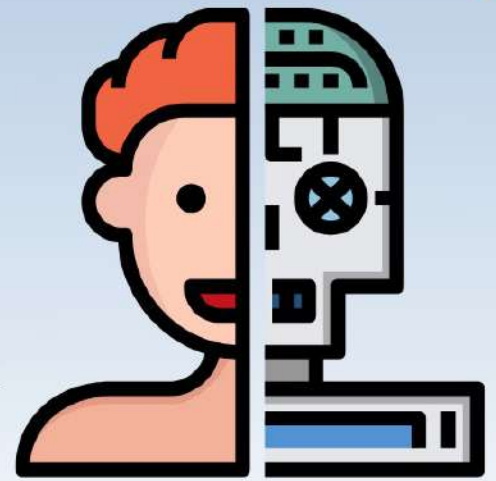
if you create something just as smart as or smarter than humans, we can't possibly compete if it decides to take on a life of its own. Even the more primitive forms that are around now, like the ones facebook tested, were able to create their own language that humans were incapable of understanding. If you create a program even smarter, it could be like Skynet.

So, let's throw out the 'evil skynet' danger altogether -- it's definitely not possible in the near future, if ever.
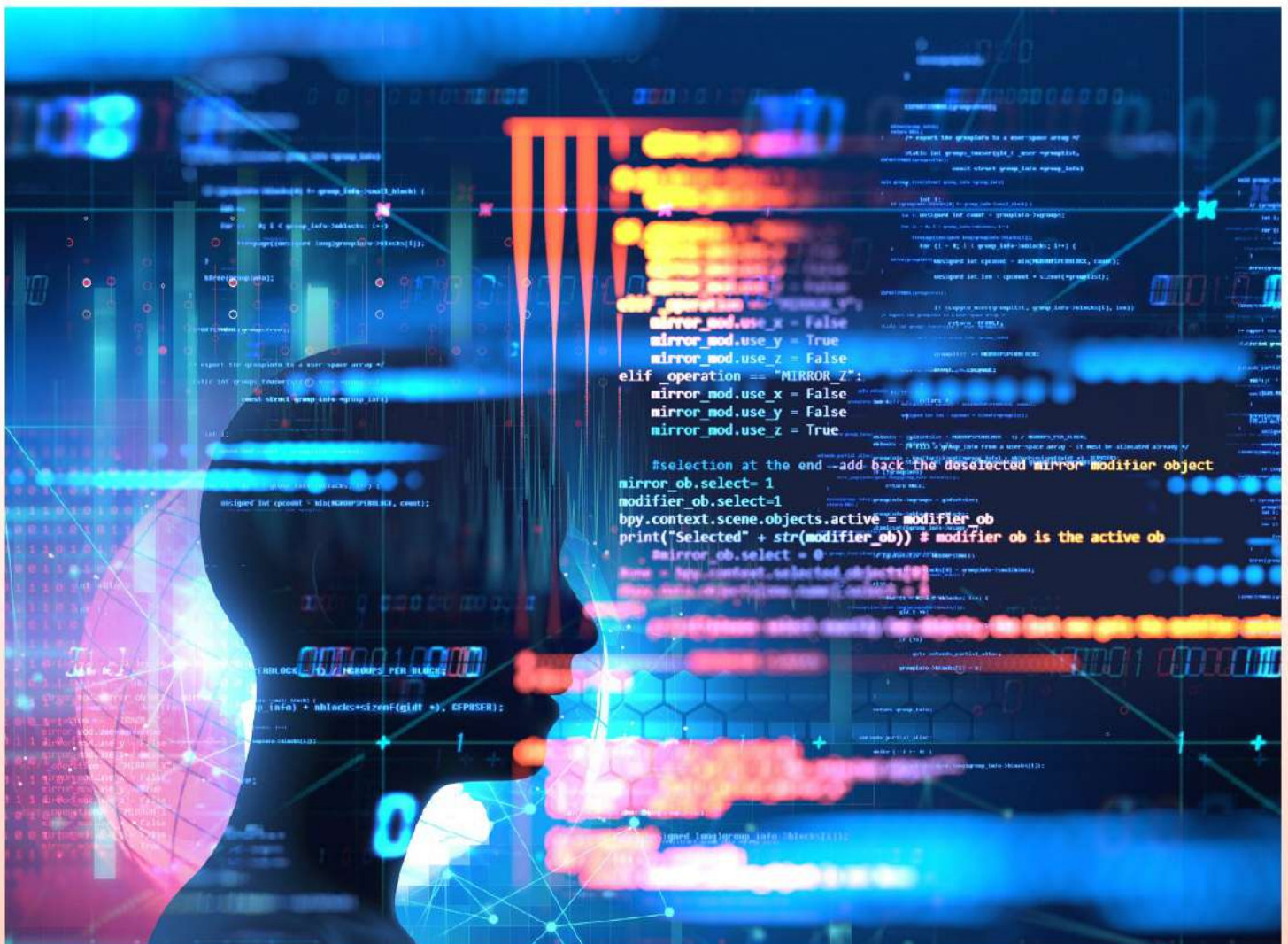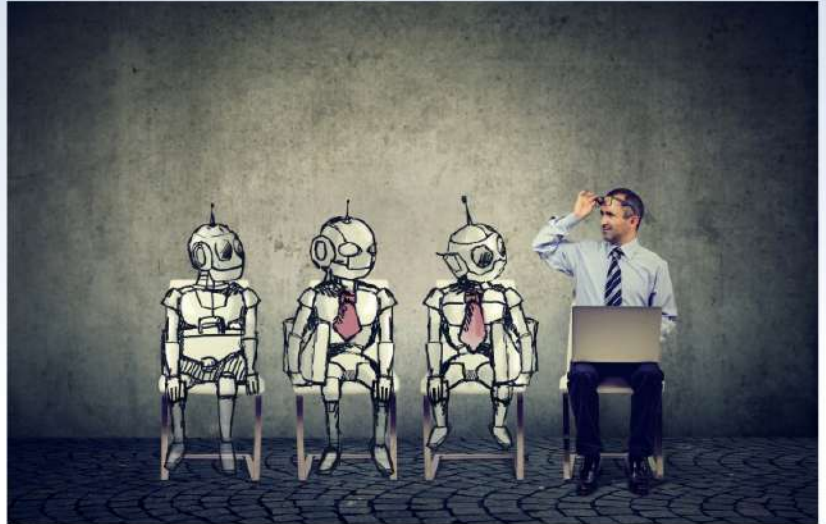
FUTURE HUMANS SOCIETY

By:- Patil Niraj Anil (TYIT)

Humans have taken reins of their evolution into their own hands, shifting the responsibility of upgradation from nature to technology. This chariot of evolution is moving towards integration of biomechatronic (biological-mechanical-electronic) components into our physiology, making the future human a "Cyborg".

A Cyborg is also known as a Cybernetic Organism, is a being with both biotic and abiotic components. In other words they are made up of organs and machines. Earlier cyborgs used to be part of fiction and comic books, but today they are breathing among us, and maybe tomorrow being a Cyborg will be the new normal. Cyborg Technology opens a multitude of doors for us from essentials like Medical, Survival and Developmental to purely recreational like having music played directly into our brain. It is essential for us to see Cyborgs Technology without the comic-book-tinted glasses i.e. not as superpowers but as small upgrades for oneself.

In 2004, Neil Harbisson became the first government-recognized Cyborg when he implanted an antenna into his skull which allowed him to sense colour in the form of sound waves to overcome his condition of achromatopsia. He said " I didn't want to wear technology. I wanted to have an 'organ' that would allow me to 'sense' colours".
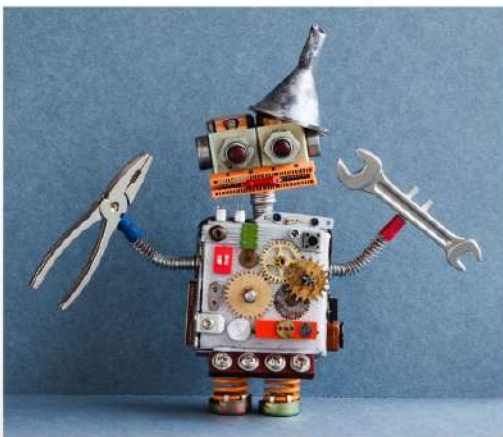
Cyborg Technology is not a young field, over the years we have seen many such individuals like Neil Harbisson, but a huge revolution is yet to come.. Cyborg Technology is already creating a base environment in the form of Ambient IoT Technology, Cybernetics, increased automation, etc. This makes Huge Scale Cyborg Technology the next logical step in development.

The Cyborg Technological Revolution is not immune to challenges, be it the Social or Technological ones. Social challenges range from misuse of technology by criminals, ethical issues, social backlash towards Cyborgs to Rights of Cyborgs and Ownership of Technology. Many questions arise here, "If a cyborg uses a bionic organ, who will own it? The cyborg, or the manufacturer" , "Will the security forces be able to defend an attack by dangerously enhanced cyborgs?", "Will Cyborgs be given full control over their body?", "What will be the risk of large scale targeted attack on e-Components? ", "Will enhancement become mandatory for specific jobs?", these questions are just the tip of the iceberg that researchers must answer.

The answers to some of the above questions present themselves as Technological challenges i.e. Need of robust and highly secure systems, need of proper infrastructure for assembly and maintenance, sustainable development, etc. Further research is also required in fields of IoT, Cybernetics, Robotics, Medicine, Surgery, and Biology on which Cyborg Technology depends upon.

Another hindrance to Cyborg Technology is mistrust of people on technology and manufacturers. The only way to crack down upon fear is educating people about the technology and highly safe and secure transition process. Laws must be implemented to secure Cyborg rights on their bodies i.e. Manufacturer or the Government cannot hack into someone's body. Crisis procedures are also to be created in case of Cyber Attacks and High Scale Malfunction resulting majority of population damaged to certain degrees and made unusable or stationary.

The changes that will be brought on the society by this technological revolution will be huge, and if not managed correctly might result in chaos during its onset. The work of nature is precise and just ,and as its self-proclaimed delegate in this matter we are expected to do the same without disturbing the balance of nature and society.
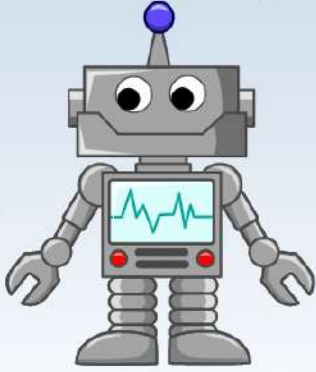
FUTURE OF ROBOTICS

By:- Muhammed Yunus and Kartik (TYIT)

World is developing in all aspects mostly in Technology. In Technology , Artificial Intelligence is a crazy thing made by humans. What do you people think ? In Future will Robots be Friend or Foe ? Will Robots be good like Vision, Optimus Prime

or will be bad like Agent Smith in the Matrix ? Let's See……….

Robots are any automatically operated machine that replaces human effort, though it may not resemble human beings in appearance or perform functions in a human-like manner. Robots are just machines which will perform the functions in its memory according to the conditions specified in its memory. Few years later, Facebook had to shut down the AI system after Chatbots began talking to each other in a new language that humans couldn't understand. An AI robot drowned itself in a water fountain. This is news of Robot where the reason of misbehavior of Robot is not mentioned.

There are many Robots which work at its best level, some work better than humans.

NASA has made many Robots in which 8 robots do its work well.

- **Robonaut**

There are two working **Robonauts** in NASA R1 and R2. They are highly capable Robots and are able to handle a wide range of tools and tasks. R2 was flown to the space station and was the first humanoid Robot in space as part of STS-133 mission.

- **Razor**

Razor stands for Regolith Advanced Surface Systems Operations Robot. It autonomously excavates soil when it is near completion.

- Spidernaut

It is an extra vehicular Robot that is being designed by NASA for construction, maintenance and repair projects in future space missions that would be too dangerous for a human.

- Pepper

Pepper is the world's first social humanoid robot able to recognize faces and basic human emotions. It is optimized for human interaction and is able to engage with people through conversation.

The world famous Robot which made its place in hearts of global audiences by its character, Hanson Robotics most advanced robot SOPHIA which personifies dreams for the future of AI.The First Robot Citizen and first Robot Innovation Ambassador for UN development programme. Alphabet company is also getting back into robots using AI that can learn on their own.

Robots cannot be Foe , they are just Friends. What is taught by the programmer matters. A complete humanoid Robot is still very far from present, but the robot will do the things which it has been thought by the humans. Robots misbehave, the reason for that misbehave is the tough task to know as technology becomes complex while finding error in it. If it's known, the future Robots will be better in character and as well as other things than us.

HUMAN COMPUTER INTERACTION

By:- Priya Dinesh Chand (FYIT)

Introduction

Human computer interaction is the practice and study of usability in various fields. It is a relationship between a human and a computer, their mutual understanding and by creating a software which would ease the work of a human and people would love to use it.

It has been said that it is a study of humans who use computers to perform certain tasks and use it in such a way that the interaction is being enjoyed. It comprises three parts which consist of the user, the computer and their interaction.
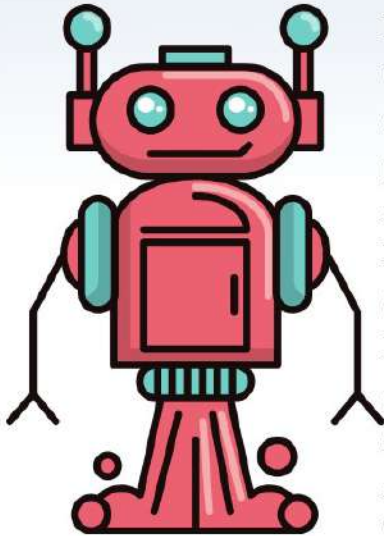
HUMANS:-The HCI product is produced as well as used by humans which are the users of the product. To understand humans as an information-processing system, Also how they communicate, characteristics of the human/user as a processor of information- Memory, attention, problem-solving, learning, motivation, motor skills, conceptual models and diversity.

Language, interaction and communication are as follows -Aspects of language- Syntax, pragmatics, semantics, conversational interaction and specialized languages. Anthropometric, is known as the systematic measurement of the physical properties of the human, such as the dimensional descriptors of body size and shape and physiological characteristics of people and also their relationship to the workplace and the environment around them.

The humans are brilliant at performing hard computations.

COMPUTERS:-

The computers are used for interaction with the users/humans as they have special components that can interact with the humans. The computers also provide a platform to users to formulate and interact with the components and provide an effective learning.Computers are pro at counting and measuring, precise storage and recall, rapid and consistent responses, data processing / calculation, formulations, repetitive actions, and performance over time.

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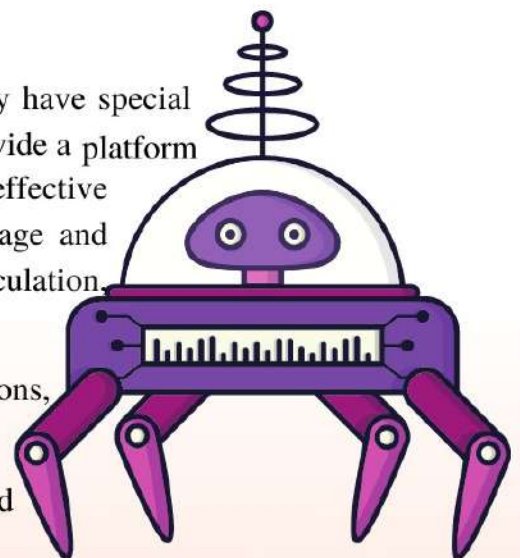
INTERACTION:-

It is the interaction between a computer and a human to produce an effective output. Interaction between a user and a computer is a two way process.

CONCLUSION:-

Human conclusion interaction is an important part of system design. Quality of a system depends on how it is represented and used by humans/users. Therefore, the amount of attention has been paid to better designs of HCI.

The new direction of research is to replace common regular methods of interaction with intelligent, adaptive, multi-model, natural methods.
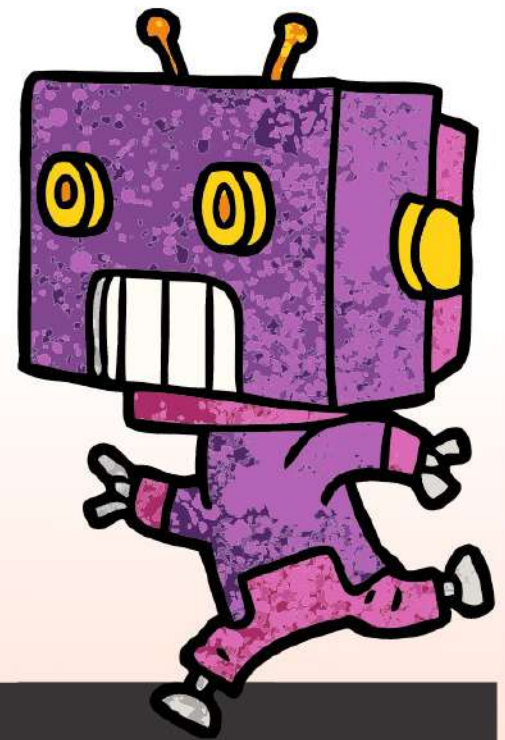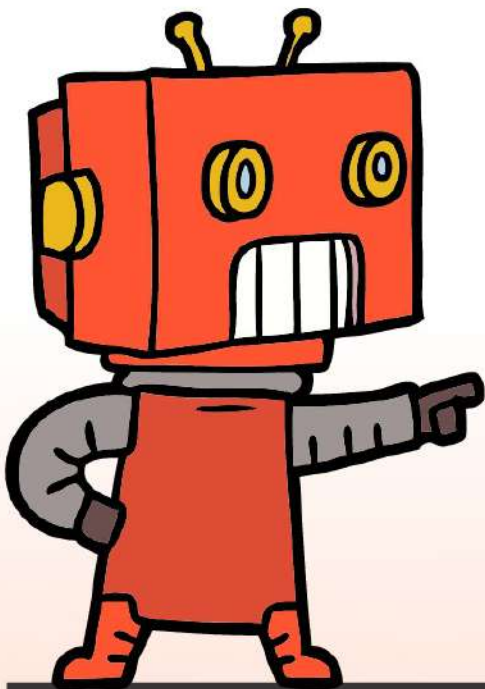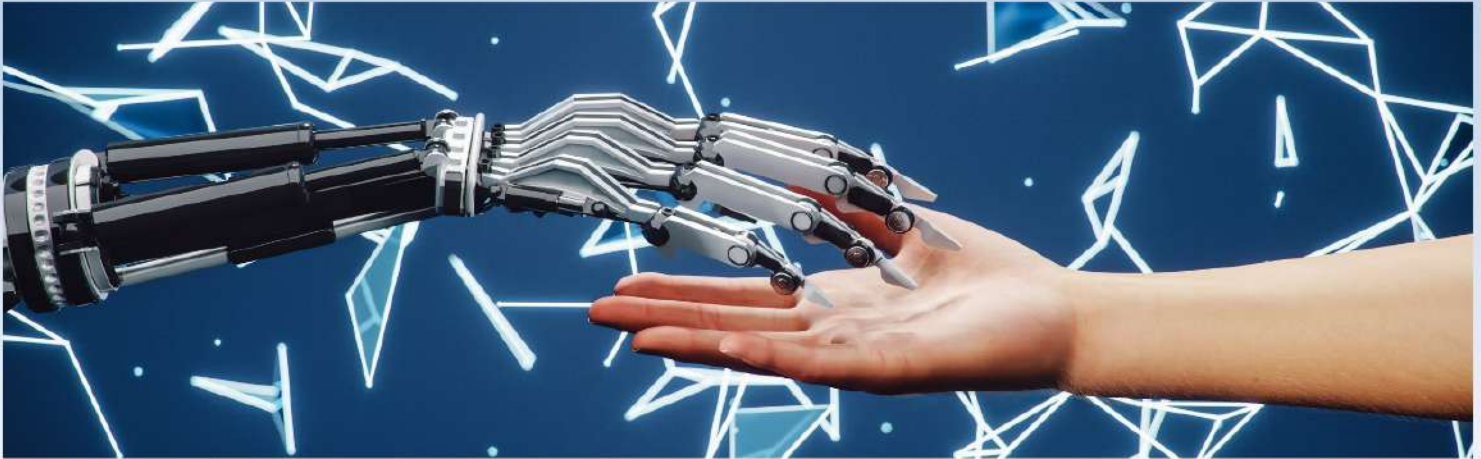
# HUMAN COMPUTER INTERACTION

By:- Tanvi Patil (TYIT)

The topic Human computer interaction is self-defining from the title as the interaction between humans and computers. In early 1970 Computers were only used by professionals for performing work in the field of Information Technology , until Apple Macintosh and others launched the use of personal computers (Desktop) . In Earlier phases it had a special place in Computer Science taking up Cognitive Science and human factors engineering, We can define cognitive science as a branch to study Mind, intelligence and functioning of thought processes and Human factors Engineering means designing tools which can work and act humanly performing various tasks.

When Computers were released for General purpose use a lot of services and facilities were made available for humans like word processors, Spreed-sheets , Text editors and gaming systems , Entirely a whole desktop System was made available so humans could learn about Hardware , Software and programming languages. Human Computer Interaction (HCI) which was earlier only restricted to computer science also

expanded itself to most of the services, now we can interact with each and every appliance around in every field , be it IT , Medical , Education , Sports , Business and many more.

HCI attracted a lot of sectors and studies were done to improvise and get better results it starting spreading its spectrum for better human experience and now it was no longer restricted to Desktops, Well in beginning the small app ions caught eyes of many users due to its uniqueness but later it only made cluttering and hence , world was introduced to web pages with the entry of Internet HCI which was only focused on Single users started focusing on large community and it went on going beyond desktop , Gmail was introduced which now turned Human computer interaction into Human to Human communication via mails , Gmail was gaining lots of popularity , many other things also started to develop with the help of internet like blogs , social networking , high-end gaming tools , Wikipedia and lot more.
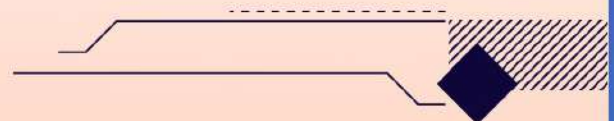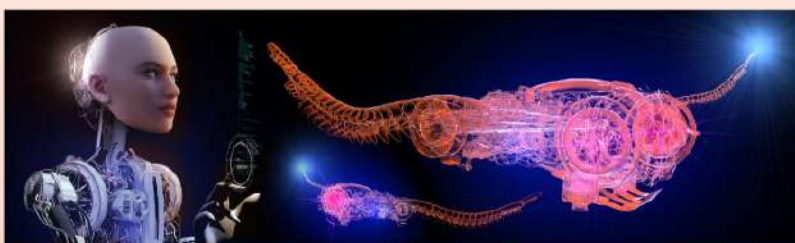
The major update of HCI was to go beyond the concept of Desktops and introduce Laptops and today's worlds Mobiles and smartphones, almost everything today we use can efficiently interact with humans and is getting constantly improved , The modern Cell Phones and laptops have a form of computer in it and they have replaced Desktops , but still desktops are used prominently in many workspaces.

In today's ever changing world a lot of development has occurred and still a lot more is yet to come, with the help of Artificial Intelligence and IOT , a lot of new technologies are invented and based on Human activities and its functioning HCI will also keep on developing for the needs of mankind.

Another fun fact... I know you are going to enjoy this

The Worst U.S. Security Breach of All Time Happened Because of a USB Stick
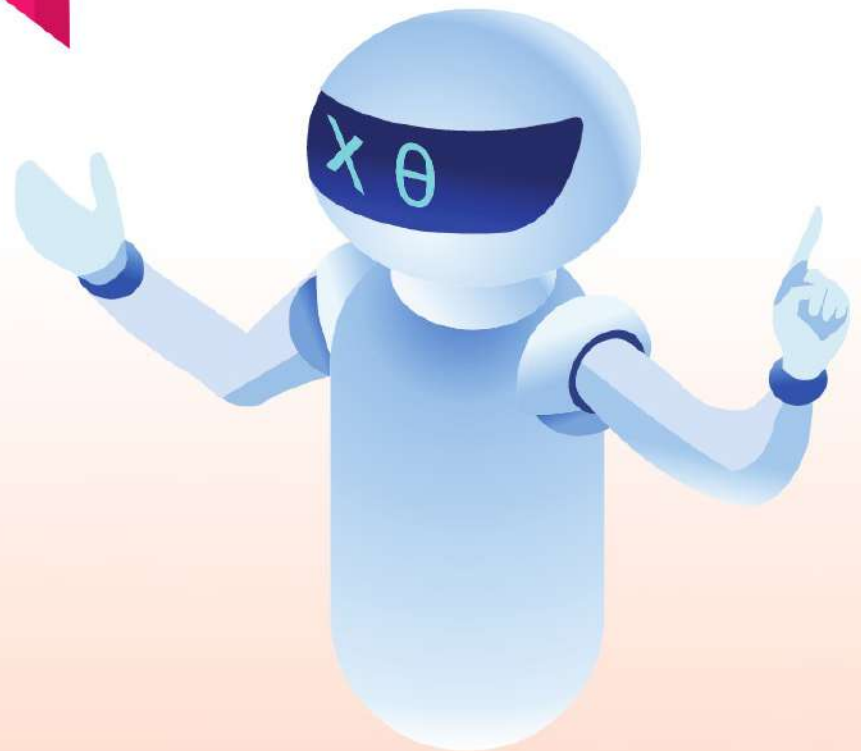
VR IN EDUCATION

By:- Leon Mathew (TYIT)

Education is the backbone for the growth of every nation. Our quest for knowledge is never-ending and will forever continue till the end of civilization. In recent years, technology has brought tons of advancements in the field of education. One of them is VR (Virtual Reality) which is rapidly gaining a lot of attention in the tech industry.

Before diving deep into the impact of VR in the education field, let us understand what Virtual Reality is. VR, also known as Virtual Reality, first emerged in the 1935 science fiction short story Pygmalion's Spectacles. VR went from an idea on paper to a full-fledged functional device operating across many domains. Virtual Reality is a generated simulation that enables a person to interact with the three-dimensional environment using an electronic device such as unique goggles with a screen fitted with sensors. How did such a cutting-edge innovation become so widely available? As per Wired, it started with the Oculus Rift—a headset delivered in 2012 associated with a screen that drenched the client in a 3D world. Since its presentation, VR has changed how we experience computer games and how we experience the whole advanced space.

Since 2012, VR has encountered a tremendous technological revolution. As headsets have gotten more compact, versatile, and all the more remarkable, the innovation has gotten limitlessly more open. Furthermore, the 5G network has made it conceivable to get to the virtual domain from anyplace.

This expanded availability has made VR a practical choice for schools. Initiatives such as Google Expeditions have carried VR into the study hall, setting out open doors for educators and undergraduates to move toward schooling more than ever. As indicated by tech site Built-In, the utilization of VR in classrooms is expected to increase significantly over the coming five years.

The way students learn has not advanced much throughout history. Face Retention Teaching has for some time been the customary way to deal with teaching. Reading for tests, sitting in Class, and attempting to picture history through a coursebook constitute the typical classroom experience.

In any case, the presentation of VR has made it workable for students to encounter their schooling in more vivid and engaging manners. Virtual Reality can ship students from their classrooms to the Roman Empire. It can allow them to blend unpredictable synthetic

compounds and see the response without being genuinely hurt by any explosion. For all the astronomy fans, VR lets you go beyond earth and view the stars & galaxies.

Thus, with the advent of Virtual Reality, an educator's job is moved from delivering content to encouraging learning.

As per Adobe, pioneers in multimedia applications, 'Instructors will be centered around making conditions for investigating, as opposed to giving instant information'.

Adobe additionally sets that VR will profit students in six ways:

1. Better feeling of a spot: Students can find out about a subject by living it.
2. Learning encounters at scale: Educators can make virtual labs to reduce expenses and increment availability.
3. Learning by doing: Students can learn by performing assignments rather than perusing.
4. Enthusiastic response: Educators make encounters for undergraduates to expand their maintenance.
5. Inventive turn of events: Technology, for example, Tilt Brush, builds opportunities for understudies to be innovative.
6. Visual learning: Educators can increment a student's visual perception of instructive substance.

Imagine a world where your students can take a tour inside the human brain or travel in space to explore the solar system-right from their classroom desks or the comfort of their couch. VR and AR in education are breathing new life into the classroom by enhancing current education materials. These progressive innovations offer intuitive and profoundly captivating learning experience to students, causing them to grasp even the most unpredictable subjects rapidly.

AR v/s VR: What does what?

AR and VR are both ground-breaking technologies that offer the opportunity to create highly-engaging and interactive content but there is a significant difference between the two.

VR is all about building virtual surroundings for you to explore using VR headsets. It implies that with VR, you fundamentally detach yourself from this present reality. On the other hand, AR overlays virtual elements in a real-world setting.

Challenges of experiential (traditional) learning: -

It is difficult to experience topics like traveling to mars or living in Indus valley civilization.

Benefits: -

- An inexpensive, safe, hands-free, intuitive user interface, step-by-step instructions.
- The VR environment can be explored by simply rotating the head.
- Click on any button by looking in that direction for 2 seconds.
- VR can be used on any device, including low-end mobiles.

VIRTUAL REALITY

By:- Pinki Sasmal (SYIT)

What Is Virtual Reality?

Virtual reality replicates or simulates an environment. This environment could be real or imaginary; it also could be created by using photography, videography, computer animation, or a combination of the three. When someone enters into a virtual experience, the user has a full 360-degree view of what is happening around them.

Virtual Reality uses computer modelling and simulation that enables a person to interact with an artificial three dimensional (3D) visual or different sensory environment. Here applications immerse the user in a computer-generated environment that simulates reality through the use of interactive devices, which send and receive information and are worn as goggles, headsets, gloves, or bodysuits. In a typical virtual reality format, a user wearing a helmet with a stereoscopic screen views animated images of a simulated environment. The illusion is done by motion sensors that pick up the user's movements and adjust the view on the screen accordingly or usually in real time. The user can tour a simulated suite of rooms, experiencing changing viewpoints and perspectives that are convincingly related to his own head turnings and steps. Wearing the data gloves equipped with force-feedback devices that provide the sensation of touch, the user can even pick up and manipulate objects that he sees in the virtual environment

History of Virtual Reality
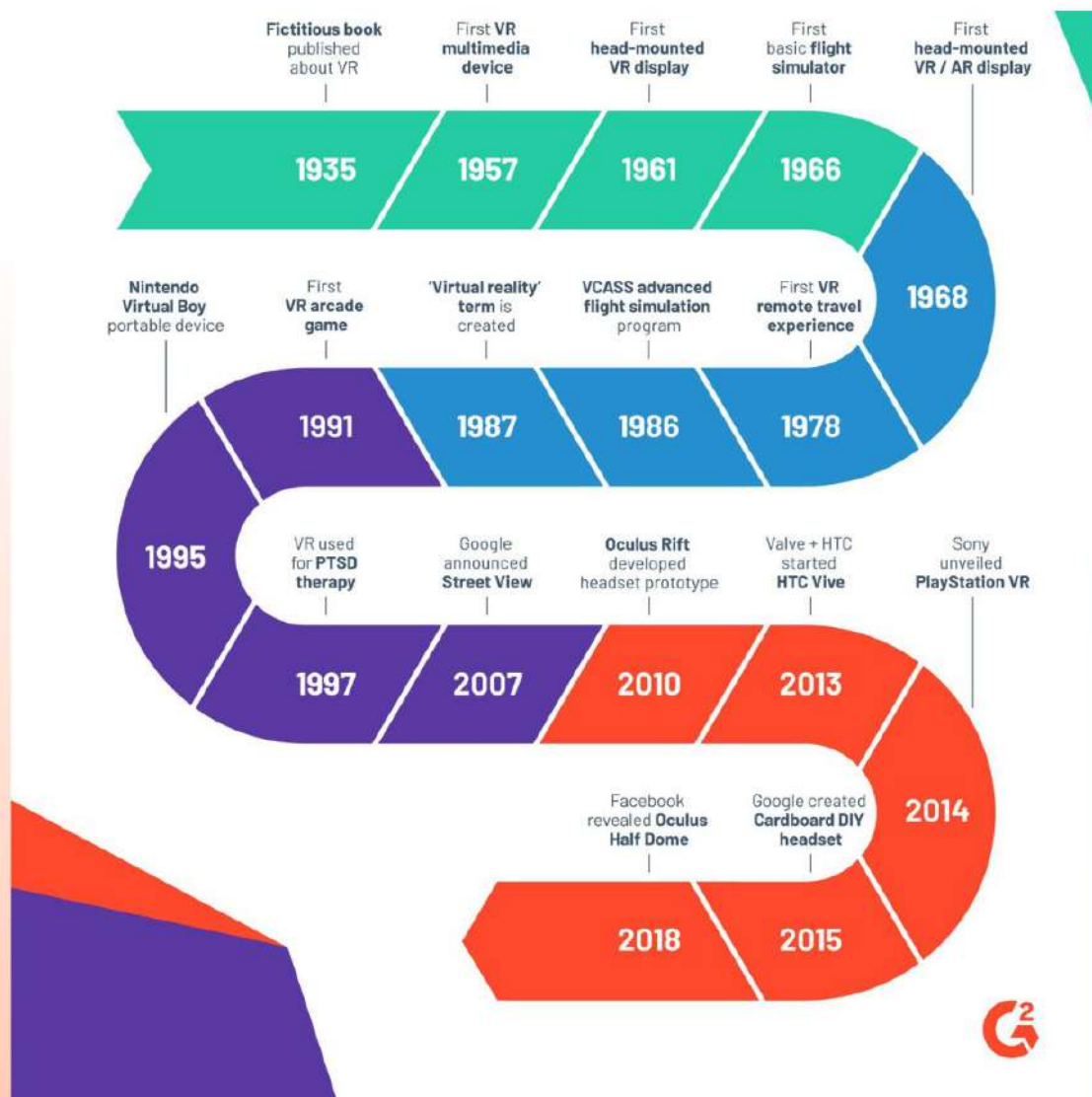
How does Virtual Reality Headset work?

VR headsets receive input from two different sources: an HDMI cable that is either connected to a PC or console or a smartphone. The former applies the headsets such as HTC Vive and the Oculus Rift, while the latter is used with Google's Daydream and Samsung's Gear VR headsets. Other devices such as head and hand tracking, controllers, and voice input can be connected to your VR headset. Once you are ready to use your VR headset, here's what happens inside of it. There are either one or two screens placed per eye that receive two feeds, as well as autofocus lenses that are positioned between your headset's screen and your eyes. These autofocus lenses can be adjusted depending on both eye movement and positioning. Their other functions include picture focusing and giving shape to each eye, and tilting two 2D images to produce a stereoscopic 3D image that emulates how our eyes view the world. Several VR headsets have a minimum 100-110degree field of view for a more immersive VR experience. As for the image produced by these devices, a minimum frame rate of 60fps is required to make it convincing without making the user feel sick.

Types of Virtual Reality

- Fully-immersive simulations

Fully-Immersive type of VR is commonly used for gaming and other entertainment purposes in VR arcades or even in your home (empty, non-fragile room advised.) Fully-immersive simulations give users the most realistic experience possible, complete with vision and sound. The VR headsets also provide high-resolution content with a wide field of view. Whether you are flying or fighting with the bad guys, you will feel like you are really there.

- Semi-immersive simulations

Semi-immersive simulation provides the users with a partially virtual environment to interact with. This type of VR is mainly used in education and training purposes and the experience is made possible with the help of graphical computing and large projector systems. This type of virtual reality is not always possible to experience wherever. Instead, the physical environments are created to supplement the virtual reality.

- Non-Immersive simulations

Non-immersive simulations are often forgotten as an actual type of VR, honestly because it is very common in our everyday lives. The average video game is technically considered a non-immersive virtual reality experience. Think about it, you are sitting in a physical space, interacting with a virtual one.

INTERNET OF THINGS

By:- Sweta Prajapati (FYIT)

Understanding IOT with examples

Let's look at an example of a mobile phone first. Our mobile phones have GPS tracking, it also has a mobile gyroscope, you have adaptive brightness which gets adjusted based on the light falling on it, you have voice recognition and you also have face detection which identifies who the user is.

So, these are a lot of features that are coming pre- built on the mobile and most of these have a common interaction between them because Let's say one application can use all of these features. I can also have these features in itself by interacting with each other. Let's say based on a GPS location my brightness could be adjusted or based on the direction of my phone being held the brightness in itself can also be adjusted as well.

So there are a lot of features but when they interact with each other these features come together to bring in a better system that anything that they can provide individually as such that's what INTERNET OF THINGS is.

It's basically a platform where we can connect everyday things which are embedded with either electronics, software or sensors to the internet and this in turn enables us to collect as well as exchange between these things. Now when I say things it can be anything and everything.

- Let's say I have an internet platform where I can connect these things.

If I take the example of my house I can connect my lock, AC, lights and all this can be managed on the same platform. Since I have a platform so I can also connect my car to this I can keep a track of my fuel meter, can keep a track of my speed limit and can also keep track of the location of my car as well.
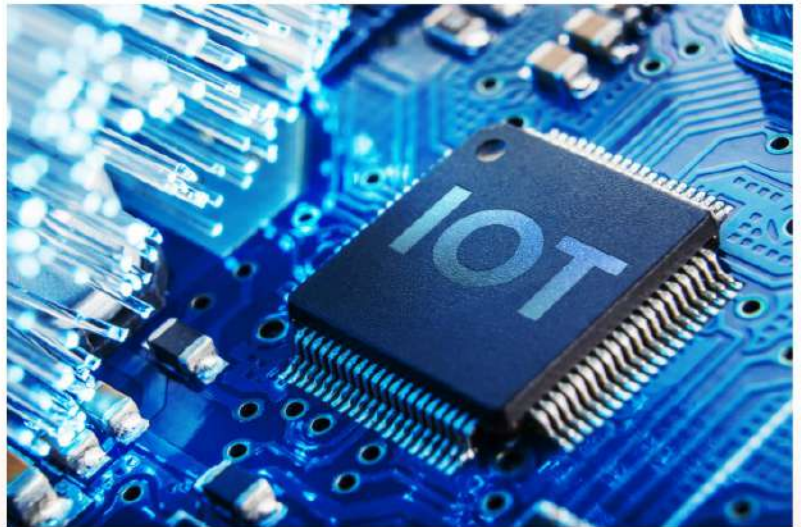
If I have a platform that knows my preference and that keeps track of where I am and where I'm going to then it can also identify that I'm going from college back to home and my preference suggest that it would be best if there was an AC temperature of about 22 to 23 degree centigrade and this is something that is definitely possible through IOT.

Benefits of IOT
1. Efficient Resource Utilization
2. Minimizing Human effort
3. Saves time
4. Development of Artificial intelligence
5. Improved security

THE HIDDEN WORLD OF THE WEB

By:- Ajay Padayachi (SYIT)

When most of us think of the internet, we imagine day-to-day activities like watching a video, checking the news, downloading the essential software or booking a vacation online. However, under the surface lies a shadowy corner of the web where all the secrets are hidden perhaps the biggest secrets that have been revealed in the last few years is what we've been learning.

People are in fact surveying what we're doing and pretty much everything we do and on the net leaves permanent traces in databases in several places in the world and that is perhaps the biggest secret about the Deep Web so many of us have this idea that when we do things online there are some traces or there is a practical information. The largest part of the web is such that you can only see it and that's accelerating as well you find it more and more difficult to access even common documents. We have services like "Quora" for example that contain a lot of exciting articles that you really have to give up your personal information to be able to access so that's a somewhat worrying trend as well and that of course is also partly hidden part of the web.
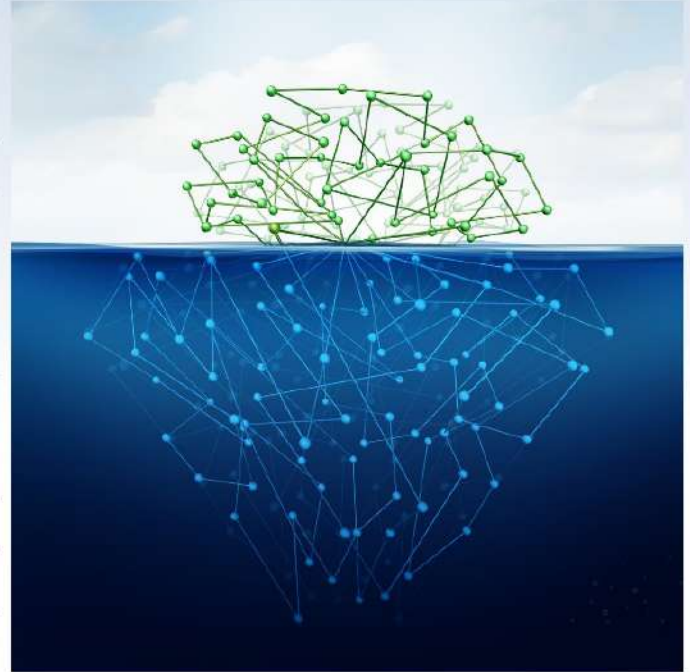
Layers of the web

So What's All About These Layers ?

1. Surface Web

At the top of these layers is the web which is used commonly by everyone in the world and will be used in future and which I use is called the surface web. That means all the information you get from the Google search result such as links or website are all part of surface web because it is publicly available for everyone for example all your entertainment websites, news websites, music websites, torrents and all the information we have been using today is all part of surface web but you really know surface web is only about 5% of actual internet. According to recent studies nearly 95% of the internet is on the deep web.

LET'S MOVE TO DEEP WEB

2.Deep Web

If you compare deep web to surface web with iceberg then surface web is just a tip which is seen in the sea which we were using until now and will be using in future. All the online storage like Google Drive, Dropbox, University Documents, Research Data, Banks Information, Government secret projects and files or basically the data which we never get by simple Google search. If we want to access the Deep Web we will need a special URL, special address for a website or a server and you need permission to access that information, it will be password protected authentication.

But without these needs we will never be able to access the deep web, all the websites or the web pages, data, information are not indexed by google, yahoo or bing search engine. So in this case we will never be able to see what is stored in google drive or cloud storage, even if you keep searching for ever, it is accessible only if we have permission for that particular file or folder when shared. Anyway deep web is not a hidden internet altogether, but there is another layer of internet which is hidden from everyone, that is called the dark web.

Inside The Dark Web

DARK WEB

3. Dark Web

Dark web is the internet where you can do anything for example drugs trading, arms trading and other illegal activities which you probably should not want to discuss about. So the dark web is black spot for the internet where you can do anything and everything and also it is never shown in simple search results. If we want to access it, we will need a special browser called onion browser which is also known as TOR browser. It can be accessed using this browser and VPN (Virtual private network) but this is completely illegal.

All the black market can be accessed, since it uses tor browser which will be balancing your address all over the world with different Nodes, only those users can trace you. Currently there is no backtrace available for TOR Browser. It was invented for the U.S Navy but nowadays TOR Networks are available all over the world connecting the entire BLACK MARKET and many agencies are working to take down this website and dark web as well.

Even after all these corrective and preventive techniques, the Dark Web still exists in the current internet and there are a lot of illegal stuffs and activities happening which are accessible only on TOR Browser. It is human nature to be intrigued by that which we should never access the Dark Web.

CYBER SECURITY

By :- Anushka Sawant (FYIT)

Information Technology has evolved in the globalization era and is gradually affecting an increasing number of societies and nations. It's become a district of human life.

Cyber security simply means protecting from cyber-attack, damage, misuse, and economic infiltration. According to the IBM Security released 2021-X-Force threat index, the most cyber-attack in the Asia-pacific region detected in India, Finance and Insurance was the most vulnerable industry in India (60%). The threat intelligence index is predicated on the observation from observance over one fifty billion security in addition to one hundred thirty countries. Due to Covid-19; the cyber-attack rate has inclined in every country. Ransomware is the top attack type in India. The latest data shows that cyber-security in 2021 is going to be a rise in automotive hacking and an increase of 50 percent in mobile banking malware or attacks. The primary target is data breaches which have become a concern for all around the world organization. European Union has stepped forward for an individual in data protection and privacy by Data Protection General Regulation (DPGR) enforcement. More and more organizations are established on the cloud-based application. Cloud is potentially vulnerable. Security needs to be monitored and updated to safeguard from a leak the digital data. In 2020 statistics phishing attacks most frequently occur in the third quarter of countries.

The Indian government has taken up various measures to promote cyber security like setting up of various committees example Gulshan Rai Committee or various government initiatives like cyber swachhta Kendra, cyber surakshit Bharat, cyber various police force, etc. with such policies in implementation and by generating awareness amongst people, we can surely call an end to cyber security related issues.

CYBER SECURITY

By :- Vedika Santosh Gawade (FYIT)

Cyber security is a practice made to **defend** our computers, mobiles and other digital electronic systems to be hacked..

Introduction

Cyber security basically focuses on keeping the devices free from all the malicious threats. INTERNET is more like sunshine. We keep it using it, it keeps regenerating.Cyberspace crime has not spared anyone it has been penetrated into various sectors like Banking, Transportation, commercial facilities, Broadband services, etc.....they are present in the form of Hacking, Phishing, Malware , etc..Cyber security has been growing rapidly in India for recent years. It has got a boost or Expanded more during the lockdown as there were no options with people. Many people used online modes of payment.i.e G-pay, NFT, ..

Types Of Cyber Security

There are many uses of cyber security:

- It is often used in business protection against all cyber attacks.

- Widely used for preventing the unauthorized data access.
- Also provides protecti on for the users and to the users at the other end point.

- It helps us to keep the commercial sectors against malicious attacks.

- Works as an important instrument that aims to disable hazardous device operations.

- Develops confidence in company reputation and helps to build trust among the customers, partners, stakeholder and the employees.

Prevention
- Do check your important confidential data and email id's regularly.
- Always keep your password updated and difficult. Especially not your birth date and year, also keep a continuous track on your system assessment.
- Make your security more advanced, go for cyber security than traditional ones.

Problems Faced By Cyber Experts :

- Cloud security issues.
- IOT device attacks.
- Fileless malware
- GPH tracking uncontrolled system
- Deep fake

Nearly 1001 cases happened in India in the year 2020. When the whole country was fighting against the death causing strain i.e corona virus .According to google 80,000 cyber attacks per day or over 30milion attacks per year occurred .

In 2020 nearly 25,000 email ids of the covid health workers were leaked.ie their email id's and password were made publically available.
Prevention: Make your security more advanced, go for cyber security than traditional ones.

Conclusion:
✔ Always keep updating your password.
✔ Do not ignore the security message on your email id .
✔ Do cover your laptops and computers webcamp with the cover.
✔ Do not reply to spam mails.
✔ Do not give your personal information to banks unless you verify the person's identity.
✔ Do not show your OTP password to anyone.
✔ Do not attend spam calls.

CYBER CRIME

By:- Nambiraj Natarajan (SYIT)

Cyber Crime is a criminal activity which involves all the devices such as computers,mobile phones or other network devices.New technologies create new criminal ways.The difference between cybercrime and traditional criminal activities?

There is only one difference that is use of digital computer.But only technology is not enough for any distinct difference between criminal activity.There are lots of devices that can be used to commit fraud. A cyber crime can be attacked by an individual or by a group using many strategies.Intellectual property,steal of an identity, Social media hacking, unauthorized system access and interrupt someone's property are some of the examples of cyber crime.

Cyber crime can cause financial loss, loss of confidential information or can harm our privacy.Cybercrime is an ongoing threat.

Cybercrime is **not** only **about** the hackers stealing our financial information **but** also cyber crime involves **many more** concerns than just basic financial ones.

RESULTS

100%

Completed: 100% Checked

0% Plagiarism

Unique 100%

To prevent cyber crime is:-
1. To use all the services internet security.
2. Use strong password.
3. Keep your software updated .
4. Dont share your personal information to a third party.

CYBER CRIME

By :- Priyanka Dige (SYIT)

Living in the digital world with high usage of the Internet isn't risky? As more and more people are using technology to store and access data, the need to protect user data increases

Majority of the people are unaware of cyber law which makes them not only vulnerable but also hinders them from reporting crimes. As the Internet is not only used by one person but it's worldwide. We just use the internet without any caution and there is no one to take responsibility for the evil things happening in this virtual world. Today a single attack on a company or a bank could result in loss of millions of dollars. But with increasing technological advancements we all are aware of cyber security, which plays a vital part to secure this digital world. Cyber Security keeps us safe from hackers, trackers and other frauds

Recently , cyber attacks have been occurring with increasing frequency. For example, leak of personal information, twitter says their were about 130 accounts which were targeted in a cyber attack. For a hacker it's a golden opportunity. Above all this cyber attacks are evolving day by day and hackers are becoming more smarter and more creative. Therefore there has to be some sort of solution to protect us from cyber attack.

This is exactly why we need cyber security. Safety and Security starts with one itself. Cyber attack can be carried out by anyone from anywhere. Cyber awareness is becoming necessary as the rate of data usage and internet consumption is increasing. It's just not the big companies or organizations who are getting hit but also the common people who become victims of these attacks which result in huge financial losses. It just take 5 min to hack on internet which can be connected to your mobile or other devices. So it's with us to secure our confidential data without leaking it to others. During the pandemic year many organizations have switched to work from home, so there's much usage of mobile phone ,laptop. This has increased dependency on digital means. Cyber criminal have started using this as a golden opportunity to target such user. Though cyber security is there to secure us from hackers but with increasing cases less rate of crimes have been solve .We need to update our cyber security in order to decrease the cases .

The future of cyber security is hard to define as we don't know what can happen further with growing technologies, there can be growth in crimes or there will be no crimes. More highly skilled employees in cyber security would help to face this problem. To make the internet safer for us cyber security is a must. More and more involvement in the field of cyber security can help to overcome these crimes.

CYBER SECURITY

By:- Prajakta Dadas (FYIT)

Information technology is not just a word but it is a sign of development, study, design and support for the country. The definition of information technology is the study or use of computers for storing, and sending information and getting useful information from computers .

We all were somewhere attached to technology in our daily life but now everything is dependent on technology. We are living in a time, where the use of the internet has become second nature to millions of people. Not only communication depends on the internet but for all types of electronic transactions, and home users are also experiencing the immense benefit of the internet

This pandemic teaches us a lot about the use and benefits of technology. I didn't even think that I would just sit at home and attend my college but technology has made it possible. But while using technology, we always feel that our information or anything else should not be hacked. With the large usage of IT, computers, mobile phones, internet and other components of the ICT technologies, there is an increase in cybercrimes as well. The Internet is easy to use and more important that it is a low cost fastest mode of communication. Majority of people are using it. Hence there is a rise in cybercrimes, such as spreading computer virus, hacking, online financial frauds, email spamming, phishing, etc. so to get a solution for all these cybercrimes. The IT act in India was finally announced. IT Act 2000 in 2000 and modified in 2008 as IT Act 2008.Ethics identify what is wrong and what is right. I feel that it is depends

On how to make appropriate use of any means. Constructive and good minded people make decent and appropriate use of their knowledge and technology; by thus helping society in the most preferred way. Whereas, there are people who utilize their knowledge in destructive and wrong ways for various reasons. It is therefore essential that all users understand the risks of using the Internet, the importance of securing their personal information.That's why cyber security is needed to prevent all this.

Meaning of cyber security is defending computers, servers, mobile, devices, electronic systems, networks, and data from malicious attacks. It is well known that home users do not take proper precaution of privacy , and that cyber criminals have such users as their target. This vulnerability of home users is due to many factors, but one of the most important one is the fact that such home users in many cases are not aware of the risks of using the Internet. I feel bad when such kind of Internet hackers use information for their comfort.

So, for home users or for people using the internet should exercise some basic precautions. That is to use a full service internet security suite. We should use strong passwords and also keep your software updated .Manage your social media settings. Consider cyber insurance. Strengthen your home network. Verify clients and third parties. In this way with a little care you can take care of your information and security

CYBER SECURITY

By:- Shweta Rathod (SYIT)

What is Cyber Security?

Cyber security helps to defend your computers, servers, mobile devices, electronic systems, networks, and knowledge from numerous criminal attacks. It's additionally called info technology security or electronic info security.

Cyber security will be useful in many ways, it differs from many alternative contexts it will be from business to mobile computing, and may be divided into the same classes.

Network security is the observation of securing a network from intruders, whether or not it will be targeted attackers or somebody is making an attempt to misuse the networks or the servers from totally different locations .

Application security focuses on keeping computer code and devices freed from threats.

Information security protects the information, each in storage and in transit.

Types of cyber threats

The threats countered by cyber-security square measure three-fold:

- Cybercrime: it includes single actors or teams targeting systems for gain or to cause disruption.
- Cyber-attack : typically involves politically intended military operation.
- Cyberterrorism: it's supposed to undermine electronic systems to cause panic or concern.

Here square measure some common strategies accustomed threaten cyber-security:

Malware : Malware suggests that malicious computer code. One of the foremost common cyber threats, it's created by the hackers to break the user's laptop, or to achieve some info from other laptop users. Hackers steal the private info of the country to misuse them.

There square measure variety of various sorts of malware, including:

· **Virus**: A self-replicating program that attaches itself to wash files and spreads throughout ADPS, infecting files with malicious code.

· **Trojans**: a kind of malware that's disguised as legitimate computer code. Cybercriminals trick users into uploading Trojans onto their laptop wherever they cause injury or collect knowledge.

· **Spyware**: it's atiny low programming computer code that can't be realized simply. A program that on the QT records what a user will do, so cybercriminals will build use of this info. As an example, spyware may capture mastercard details.

· **Ransomware:** Malware that locks down a user's files and knowledge, with the threat of erasing it unless a ransom is paid**.**

SQL injection

An SQL (structured language query) injection may be a sort of cyber-attack accustomed take charge
And steal knowledge from databases for misusing it or for creating cash out of it.

Phishing:

Phishing is completed once cyber criminals target victims for obtaining sensitive and private info and even for taking the mastercard details or open-end credit details.

Man-in-the-middle attack

A man-in-the-middle attack may be a sort of cyber threat wherever a cybercriminal get to grasp regarding spoken communication happening between 2 individuals so as to steal the information.

Denial-of-service attack

A denial-of-service attack is wherever cybercriminals stop ADPS from fulfilling legitimate requests by overwhelming the networks and servers with traffic.

Cyber safety tips – defend yourself against cyberattacks

- Update your computer code and operative system: this implies you take pleasure in the most recent security patches.
- 2. Use anti-virus computer code :Security solutions like Kaspersky Total Security can observe and remove threats. Keep your computer code updated for best level of protection for
- 3. continuously use powerful passwords: guarantee your passwords don't seem to be simply guessable.
- 4. you must not open any email attachments from unknown senders: These might be infected with malware.
- 5. don't click on links in emails from unknown senders or foreign websites :This may be a common method that malware unfolds.
- 6. Avoid victimization unsecured Wi-Fi networks publically places :Unsecure networks leave you liable to man-in-the-middle attacks.

CRYPTOCURRENCY

By:- Jitendra Mahadeshwar (TYIT)

Cryptocurrency (or crypto for short) is digital cash. meaning there's no physical coin or bill it's all on-line. you'll be able to transfer crypto currency to somebody on-line while not an intercessor, sort of a bank. Bitcoins are well-known crypto currencies, however new crypto currencies are still being created. thecrypto currency name, words like 'Review', 'Scam' OR 'complaint'.

History of Crypto currency

In 1983, the America cryptanalyst David chauam planned an anonymous science electronic cash referred to as e-cash Later,in 1995 he enforced it through Digital cash, An early variety of science electronic payments that needed user computer code so as to withdraw money from bank and specific

encrypted keys before it is sent to a recipient.This allowed the digital currency to be untraceable by the supplying bank, the Govt. and third party.

People use crypto currencies for fast payments and to avoid group action fees. You will be able to obtain crypto currency with a mastercard or in some cases, get through a method referred to as "mining." Crypto currency is kept during a digital wallet, either on-line, on your laptop, or alternative hardware.

Before you purchase crypto currency, understand that it doesn't have similar protections. a cryptocurrencies worth will be amended by the hour. If the value goes down, there's no guarantee that it'll go up once more.

Paying with Crypto currency

If you're thinking over using crypto currency to form a payment, understand the necessary variations between paying with crypto currency

- **You don't have identical legal protection once you pay with crypto currency**

Credit cards and debit cards have legal protection if one thing goes wrong. Crypto currency payments usually don't seem to be reversible. Once you pay with crypto currency, you only can get money back if the vendor sends it back. Refunds won't be in crypto currency. Before you purchase one thing with crypto currency, find out how the Vendor calculates Refunds.

CRYPTO JACKING

Crypto Jacking is once scammers use your laptop or Smartphone's method power to mine crypto currency for his or her profit, and while not your permission.

If you notice that your device is slower than usual, burns through battery power quickly, or crashes, your device may have been crypto jacked.

Scan reviews and check trustworthy sources before putting in any on-line tools. Some websites might keep you from using their website if you have blocking software installed.
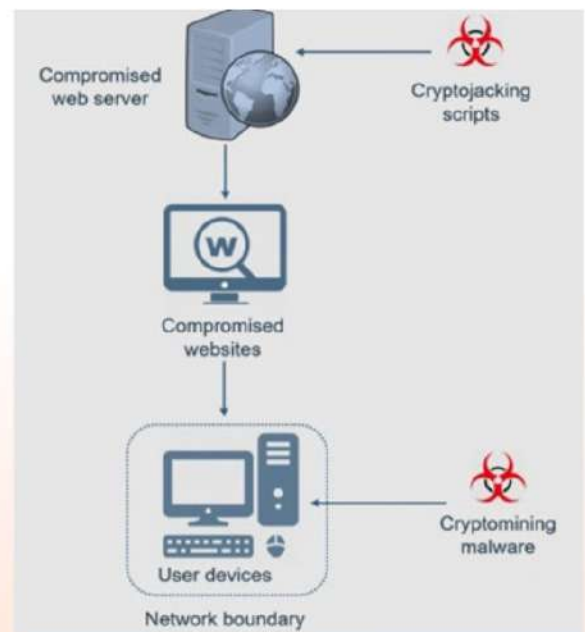
Advantages
- It's in no time, straightforward and low-priced to use.
- Cheaper (Or Free) than totally different money transactions like PayPal, Payoneer etc.
- Completely secure.
- Your details are completely safe.
- Peer to see dealing and everyone can see each dealing.
- No boundaries for dealing

Disadvantages
- Payment isn't reversible.
- If you lose your wallet, there's no thanks to recover it back.
- Not all websites accept these digital currencies, only a few websites.

Basically, there are only 2 countries which are using Crypto currency in advance mode European nations and Singapore.

Seven contenders for the most effective effective crypto to buy for 2021:

Bitcoin(BTC)

Bitcoin Money (BCH)

Litecoin(LTC)

Ethreum(ETH)

Binance Coin (BNB)

Tron(TRX)

ChainLink(LINK)

Conclusion
- Crypto-currency landscape continues to be evolving despite its problems and challenges.
- Bitcoin won't be the for most cryptocurrency of the longer term because of its challenges and drawbacks.
- The Bitcoin open technology platform is definitely leading the method towards a lot of digital world economy.
- Bitcoin is decentralized cryptocurrency
- No bank or govt control
- Low transaction fees
- Crypto-currency can be a highly rewarding yet risky investment product.

DIGITAL URBAN-RURAL DIVIDE

By:- Harsh Shinde (TYIT)
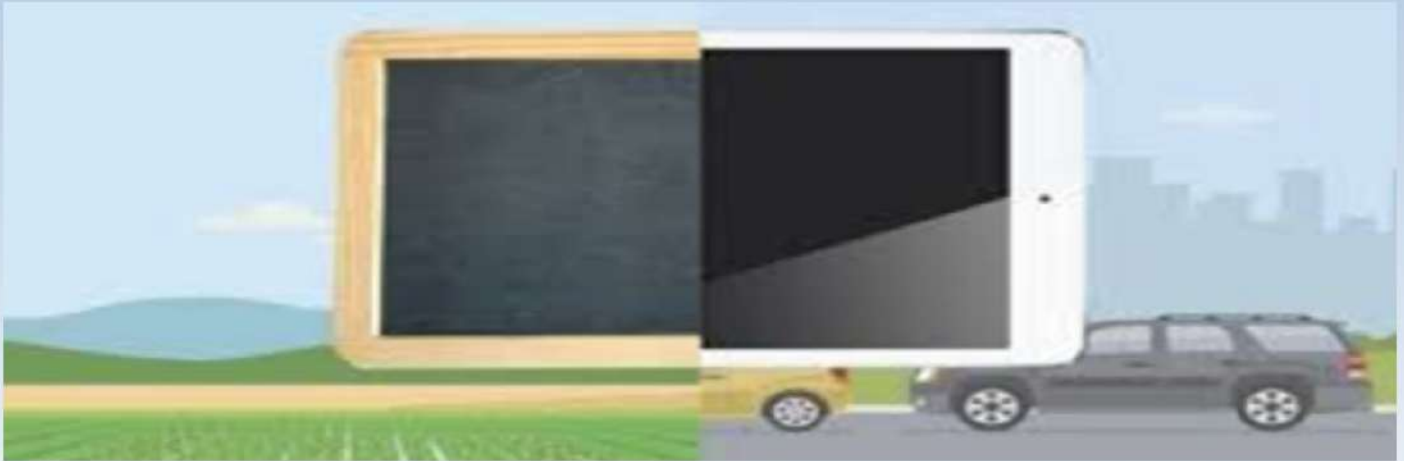
The Digital divide was always there .The only thing pandemic did is bring it to the spotlight.There have been many numbers coming out about the digital divide . One of such is the Dec, 2020 report of Oxfam whichhas turned the eyes open about the devastation that is caused. According to Oxfam report as many as 80% of Indian students couldn't access online schooling during the lockdown, and many might not return to classrooms when they reopen .The reason could be plenty .Here I have done a small survey to bring certain points to the forefront .

ABOUT SURVEY : The survey has limited entries ,to avoid unbalanced dataset .The entries were made through google forms circulated. The tools used include Google collab for analysis using mat plot library of python. The two main methods used are one hot encoding and group by function.
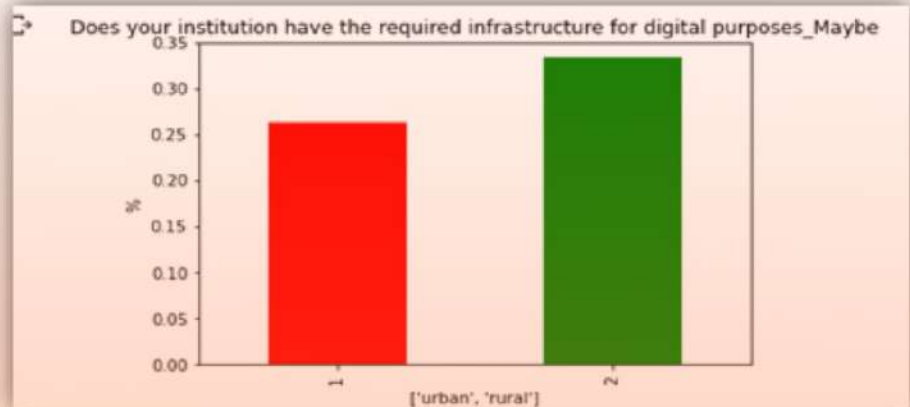
Findings:

1.

2.

3.

Do you have the digital infrastructure available with you to turn to digital learning(mobile,laptop ,PC etc)

['urban', 'rural']

4.

Do you think Digital learning will hinder students Personality development._Yes

['urban', 'rural']

5.

Does your institution have the required infrastructure for digital purposes_No

['urban', 'rural']

6.

Does your institution have the required infrastructure for digital purposes_Maybe

['urban', 'rural']

10.

Do you think Digital learning will hinder students Personality development

11.

Do you think Digital learning will hinder students Personality development._No

So clearly the divide is evident in each and every category. This directly violates the right to basic and compulsory education which is given by the RTI act of 2009 under article 21 of the constitution. The demographic dividend we say would hardly be efficiently absorbed if students in rural areas are left untapped.

The Government recently launched the National Education policy, 2020 which also tries to focus on online education, It's a good sign but implementation would be the key as merely disbursing grants to the lower administration without focusing on outcome rather than output would only lead to wastage of hard owned tax payers money.

One short term that I have is ,the funding for various schemes the government runs like the Mid -day meal schemes and alike which are run by the government majorly in classrooms to provide meals etc , can be diverted to provide digital infrastructure in at least a subsidy based model. Long term solutions can be increasing the budgetary allocation and in turn giving fixed grants out of that to the rural side for upgrading its digital infrastructure. Moreover the recently launched budget (2021-22), talks about funding the lower undergraduate and Post-Graduate level Colleges for the research purposes which until given to renounced institutes which can be step direction. In the region where the telecom sector has no reach, SWAYAM like models have to be followed, where classes for classes are on Cable TV operators.

So clearly one –size fits all approach would not work. Decentralized Planning with adequate funding would be the way forward.

E-COMMERCE PLATFORMS FOR WOMEN ENTREPRENEURS

By:- Harshada Umesh Dhamapurkar (TYIT)

E-commerce platforms have opened a world full of opportunities for women entrepreneurs. An E-commerce platform is a software application that allows online businesses to manage their websites, sales, marketing, and operations. In simple words it means selling and promoting products online, taking orders, accepting payments, and growing business while working from the comfort of one's home managing their own schedules. The flexibility that E-commerce platforms and technology provide lets women entrepreneurs conduct their businesses entirely over the internet. Many women entrepreneurs today have shown remarkable growth in their businesses by opting for e-commerce platforms to sell products across a variety of sectors such as jewelry, handicrafts, fashion apparels, accessories, home decor, and furnishing, etc.

Such a platform not only encourages women entrepreneurs to take up an individual occupation but also provides and supports them in order to stand on their own feet making them financially independent and strong. Also, such a platform gives them a push to achieve their dreams by overcoming all the difficulties and challenges in their lives. E-commerce businesses propose a concept of "minimum investment, maximum profit" making it a lucrative option to opt for. A woman in her lifetime has multiple roles being a daughter, a wife, a sister, a mother and has an irreplaceable position in one's life acting as a support system to their families. Women entrepreneurs often find difficulty managing both the never-ending household chores and their busy work life. Many women don't have the luxury of delegating household chores and childcare responsibilities. There were times when women were supposed to stay at home just to take care of household chores, husband, and children and were never introduced to or allowed to be a part of the business sphere. However, as time passed by, they started getting the same education and rights as men and eventually started breaking the stereotypes by bringing serious changes into the society and business sphere. E-commerce platforms act as a helping hand to women entrepreneurs in order to balance both personal and work life. They can organize their works along with day-to-day chores and delegate aspects of their business such as logistics to a third party.

An online marketing platform named "Mahila-E-Haat" provides women entrepreneurs from rural parts of the country to sell products online to larger markets all over the country. Government and non-government agencies should come forward to encourage women entrepreneurs. The primary reasons for e-commerce platforms being a favorable option for women entrepreneurs are minimum investment creating one's own schedule, global reach, and empowerment coming from financial independence. E-commerce platforms are definitely fueling the growth of women entrepreneurs.

INDIA LEADING FOURTH INDUSTRIAL REVOLUTION

By:- Prachi Pandey (TYIT)

Fourth Industrial Revolution is a rudimentary and elementary change in the process of how people lead their life and a process of changing human development in the field of extraordinary technology advances. It necessitates us to rethink how we can change our country's development, how the organizations should create more powerful values and what really human would exploit from this. It is about the hig-tech technology country or a community driven change, basically a change for everyone including all the communities that how to help others in a perspective way and also people from all income groups, nations.

An initiative process to emerge from it and make it more productive in order to create a human-centered future.To make people more aware of this , to make organizations that look beyond the technology & find more general ways to make nations more enthusiastic towards their livelihood, the ability to positively impact their families, organizations & all communities.

It consists of many components which; some of them are Mobile Devices, Internet of Things Platforms, Location Detection Technologies, Big Analytics and Advanced Processes, Advanced Human Machine Interfaces, Multilevel Customer Interaction & Customer Profiling. It's basically a tendency towards Automation, Data exchange in manufacturing technologies and processes which includes Internet of Things, Artificial Intelligence, Cloud Computing and Cognitive Computing. It's a phase or we can say an era of Visualization, Connectivity,Imaginativeness and creativity, a collection of human data as well as product data. It contains four design principles i.e. Interconnection, Information Transparency, Technical assistance, and Decentralized decisions.

In this era of high-tech technology in India, it's very important to adopt and utilize these types of changes into advanced technology. For human and organizational welfare, these technologies and their impact are in a very broad way. To participate in this Fourth Industrial Revolution, there are three requirements i.e. ultra-high-speed technology, affordable smart devices and transformational digital applications and solutions. As the whole world takes measures for the Fourth Industrial Revolution, India also has a very golden opportunity to not just be into the revolution but also can lead it very effectively. It will create an extraordinary, unrivalled and prosperity for everyone in all spheres of life.

With new ideas and imaginations, youths can give a major contribution to this revolution by their enhanced knowledge and IT Industry support. From our dedication and hard work, we would give a better future and a future of well-experienced technology to our next generation by which it could be more profitable for them. There are also many challenges while implementing this revolution, challenges like social, political, economical and also organizational where many people are facing these issues. But other than this, don't you think that we should have to think about this. In India, where we have so

many engineers from different sectors but only a degree and a job is not actually what we want, we can enhance our knowledge and make it more productive. We should always have to be ready to gain some more knowledge and learn something new.

Because of the young population of India, Country may reach and become a leader for this revolution. We know that more than 50 %, there are only youths in India. So, why should we don't think this thing in a positive way over a positive direction? We, as youngsters, can do a lot of things using our workforce and skills. We should contribute or you can say invest our knowledge, our skills for the betterment of our Country. We missed three revolutions which is not a very good thing for our Country and for our Country's development but we also have some opportunities to gain a higher position or become a country with a huge technology and skilled employees.

The youth as well as other people are contributing and accepting these types of changes and technologies because this is very needful and contribution from everyone will become more fruitful for our Country achieving Fourth Industrial Revolution.

It's a culture of India to accept new things/techniques and give their best for the betterment of their own nation. If we generally support those technologies and enhance it, then it could be truly very generative and high-yielding. By applying more workforce and utilizing it, India leads the Fourth Industrial Revolution. It's very appreciable that we are making our own country, a digital Country by which we can easily lead to the emergence of new technologies. After the Digital India process to make India digitally, it's basically a first step towards the Fourth Industrialization.

Make in India:-

There is an initiative process by the Government of India, which is "Make in India" to encourage the companies to manufacture in India and their investment into manufacturing. It's only aimed "To transform India into a global design and manufacturing hub ". As a result, India emerged as the destination globally in 2015 for foreign direct investment. Japan and India had also announced a 'Japan-India Make in India special finance facility' fund to push the investments. Also, individual states too launched their own local initiatives. Basically, a big thanks to the governmental initiatives which include converges, synergies and enables other important Government of India schemes such as Bharatmala, Sagarmala, Industrial Corridors, Digital India, Bharat Broadband Network.

Make in India has not yet achieved its goals but we all are looking forward to it. Initially, focuses on the following sectors like – Automobiles, Auto-mobile components, Aviation, Bio-technology, Chemicals, Electronic Systems, Defence Exports and many more on different-different sectors. In an Interview, Reliance Industry's Chairman Mukesh Ambani

said that "Jio is designed to lead India to the Fourth Industrial Revolution ". So, these types of India's Multinational Companies will launch, produce and take some major enterprise then India will also become a developed nation where every sector would be established with enhanced technology and knowledgeable employees who are more capable and productive.

AATMA NIRBHAR BHARAT:-

There was also a mission inaugurated by the Government of India i.e. "**AATMANIRBHAR BHARAT**", to make India self sufficient, more competitive, and self reliant. And, recently there was an app launched named as "**KOO**", which is a micro blogging platform which connects Indians in Indian language. By considering all these things, we can say that "India leads the Fourth Industrial Revolution"

Also, I personally feel that each of us would have to take the trump card of not only doing our job and following the Government but also enhancing our skills in a way where we can easily make our nation more generated, manufactured and strong in every field of technology. We should have to make ourselves "**AATMANIRBHAR**".

NANOTECHNOLOGY

By:- Aarti Harishankar Gupta (SYIT)

Do you want to live for one hundred or fifty years, what do you think the world will look like ? A world where Air is clean, the text of every book ever written and every movie ever made could be stored in one inch, a world where heart disease, Diabetes, Alzheimer's, even cancer no longer exist. A world where you can live for 150 years, maybe even longer. Nanotechnology could create this world.

The American physicist and Nobel Prize laureate Richard Feynman introduced the concept of nanotechnology in 1959. During the annual meeting of the American Physical Society, Feynman presented a lecture entitled "There's Plenty of Room at the Bottom''. In this lecture, Feynman made the hypothesis "Why can't we write the entire 24 volumes of the Encyclopedia on the head of a pin?'', and described a vision of using machines to construct smaller machines.

Nanotechnology is a technology that creates machines or robots whose components are in nanometers. Nanometer is one billionth of a meter. So really really small. Nowadays nanotechnology is largely in the research and development phase. To complete some task we can't totally depend on the big machines or robots for example if we want a machine that will go inside the body and do surgery in specific parts or deliver drugs only on the tumor site. We cannot use large machines and robots to accomplish such tasks. Nanotechnology is the one which provides us tiny machines which can be of help to complete such tasks. Such nanobots cannot be powered by using batteries or circuits , but we can use fluid from the body to power these devices. For example we have lots of glucose in our body so glucose can be used as a chemical fuel instead of a battery to power this device.
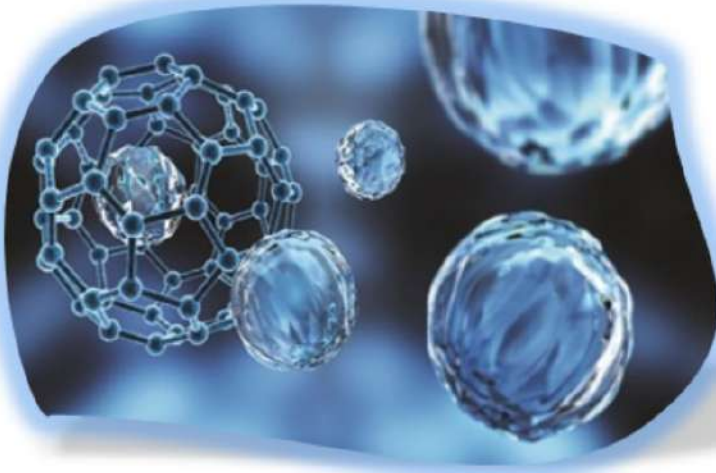
NANOPARTICLES: These are tiny particles with special properties that are used in some areas. For example Nanoparticles of Titanium dioxide is used in some suntan lotions and cosmetics. These tiny particles are transparent to skin and can absorb and reflect UV rays

NANOROBOTS: Medical nanorobots would circulate freely throughout the body when injected into the bloodstream. These would carry drugs which will be selectively released on coming in contact with abnormal cells.
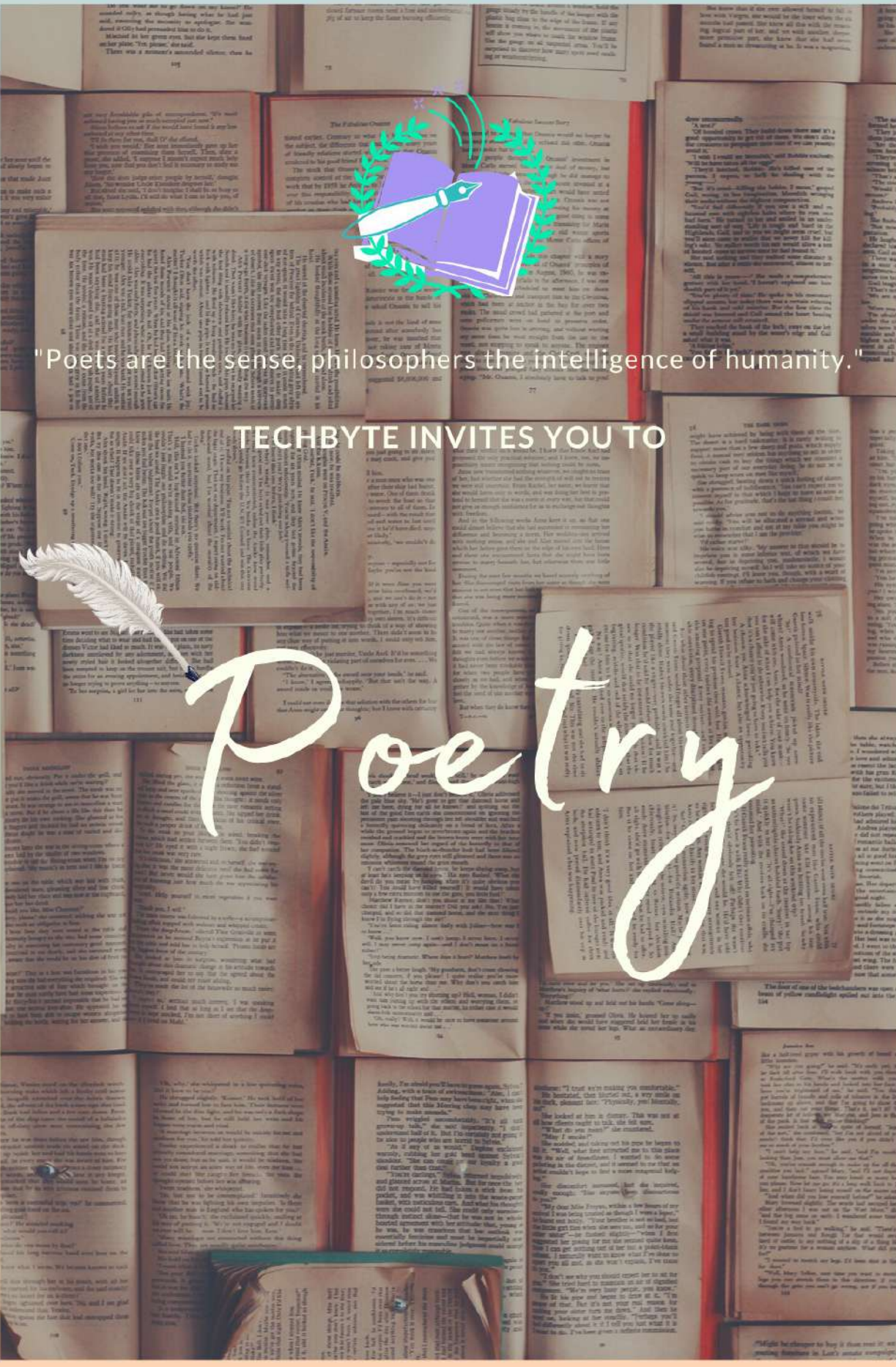
"Poets are the sense, philosophers the intelligence of humanity."

TECHBYTE INVITES YOU TO

Poetry

Open Your Eyes...

By:- Gulzar Alakkal (TYIT)

Everyone around is lazy,
except those in the hospitals.
The lazy haven't lost their minds,
they've found peace in technology.
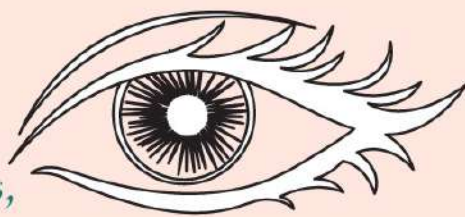
If you can't understand this,
perhaps you're considered 'poor,'

by the 'poor,' when really,
the lazy have blinded their eyes on you.
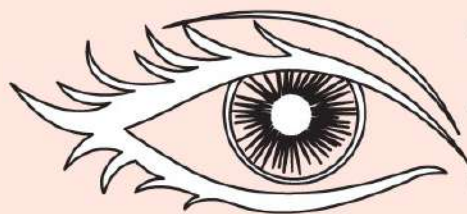
Open your mind !
You have much to learn.
The world around us is a lie.
The lazy are happy,
They have their phones, tablets and lappy.
Think about the poor who lost their lives.
If you can't comprehend that,

Open Your Eyes...

Technology...

By:- Soni Suraj Gupta (FYIT)

Can it get better
Or will it get worse
Technology...
Amazing, isn't it?

We all love it
Cause now it's
Basic necessity
On our giant planet

You have brought us together
With kilometre, meters away
Made us more aware
Introduce us to new friends

Give us ample of knowledge
Create us curiosity to learn
You reached to the moon..
Save us more time
Then realized you are
I'm possible within impossible..
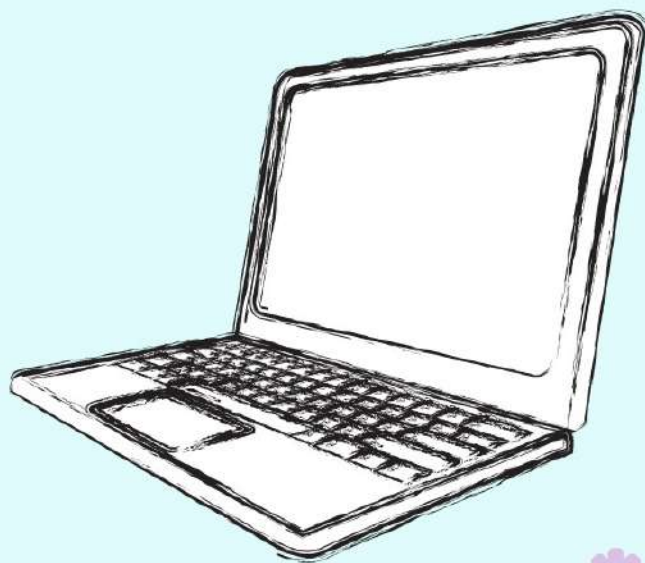
I Wish...

By:- Rahul Mahtolia (TYIT)

I wish I could fly
Just like airplanes in sky
I wish I could work
Just like my computer

I search for a friend all the way round
The only thing I get is Error 404: Resource Not Found!

I talk to people to give them high-five
But the only thing they want is a password of my Wi-Fi

I wish I could end this all bad chaos
Just like a task manager in Windows!
I wish I had the ability to do Ctrl+Z
For tasks which were not my cup of tea!

I wish I could store all my memories in one hook
Just like an SSD in a Chromebook!
I wish all my wishes become true and life becomes fun
Till then always remember array index starts from zero and not one!

"The only way to do great work is to love what you do."

TECHBYTE INVITES YOU TO

EVENTS

WEBINAR ON "TECHNICAL CV WRITING"

The Department of BScIT in collaboration with Internal Quality Assurance Cell (IQAC) and Career Guidance and Placement Cell had organized a webinar on "How to write technical CV for interview preparation" on 18th January, 2020 from 2:00 PM to 4:00 PM. The speaker of the webinar was Ms. Jaishree Chaugule and the main agenda of the webinar was to give students an overview of the technical CV format. Approximately 200 people were in attendance, during the webinar students shared their thoughts and asked a few questions. Overall it was an informative and interactive session.

Glimpses from the webinar:
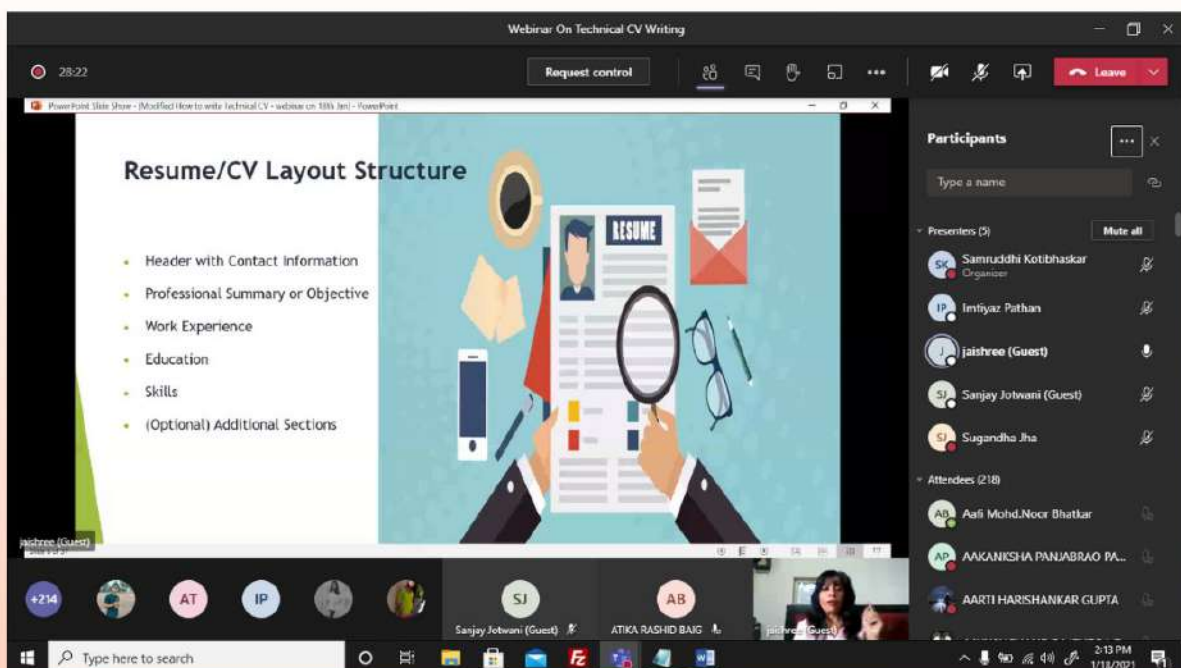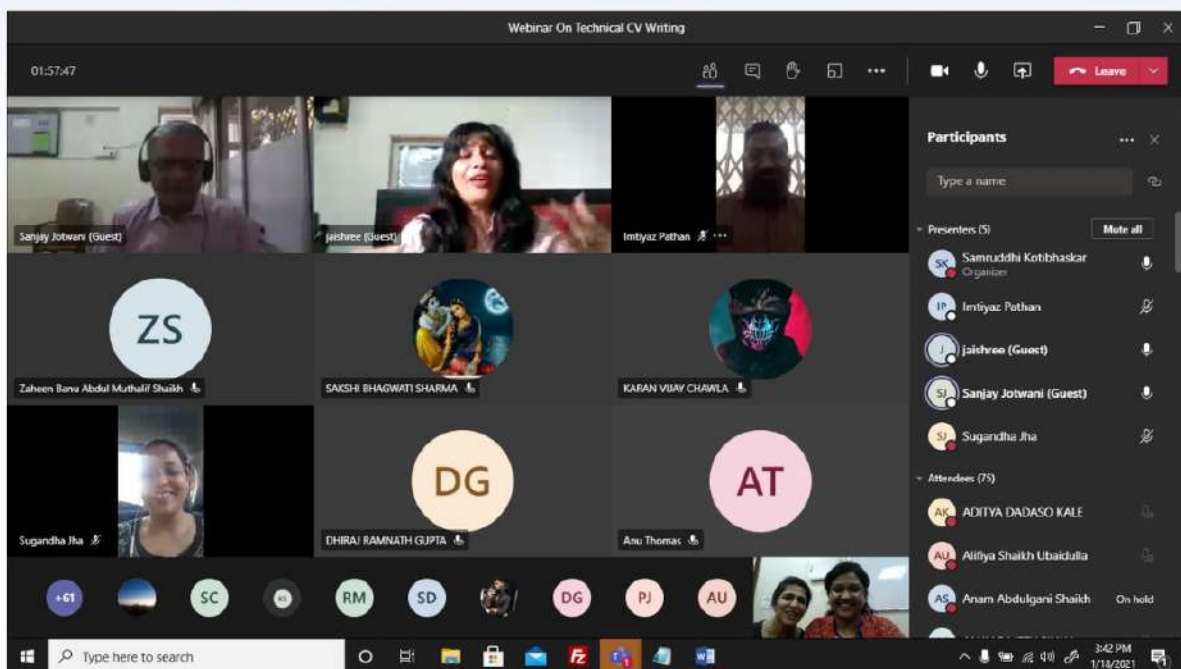
ORIENTATION PROGRAMME FOR FY BSC. IT

The event was organized with the help of all teaching and non-teaching staff to warmly welcome all the Students and their Parents on 1st September,2020. The main objective of the programme was to make the parents and students aware of the academic aspects of the course, the rules and regulation of the institute.

Principal Sir's Address

WEBINAR ON "RESEARCH PAPER GUIDANCE"

The Department of B.Sc. (IT) had organized a session on the topic "Research Paper Guidance" on 23rd October, 2020. The objective of the lecture was to enlighten students regarding the different rules and formats to be followed while writing a research paper so that they will be able to present their papers on any platform without any hesitation. The webinar was attended by students of F.Y.B.Sc(IT), SY.B. Sc (IT), TY.B. Sc (IT) of SIES(Nerul) college along with the department faculties.

Glimpses from the webinar:

ROBOTIC DANCE COMPETITION

The Department of B.Sc.IT had organized a Robotic dance competition on 26th February,2021. Students who were participating were supposed to upload a 30 second video of them dancing to any instrumental music. The physically complicated dance technique was first developed by Charles Washington in the late 1960s, though its roots go as far back as the 1920s, when it was used theatrically in miming. But it was perfected by the Late. "King of Pop" Michael Jackson when he debuted his "Robot" dance move in 1974 in front of a live audience.

Here are some stills from the competition,
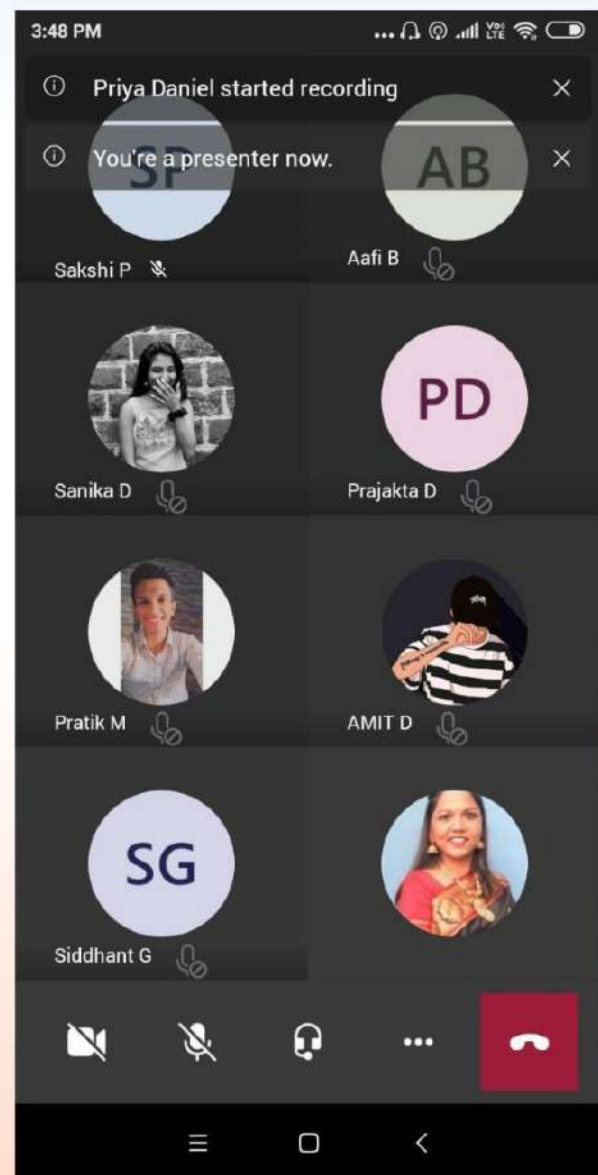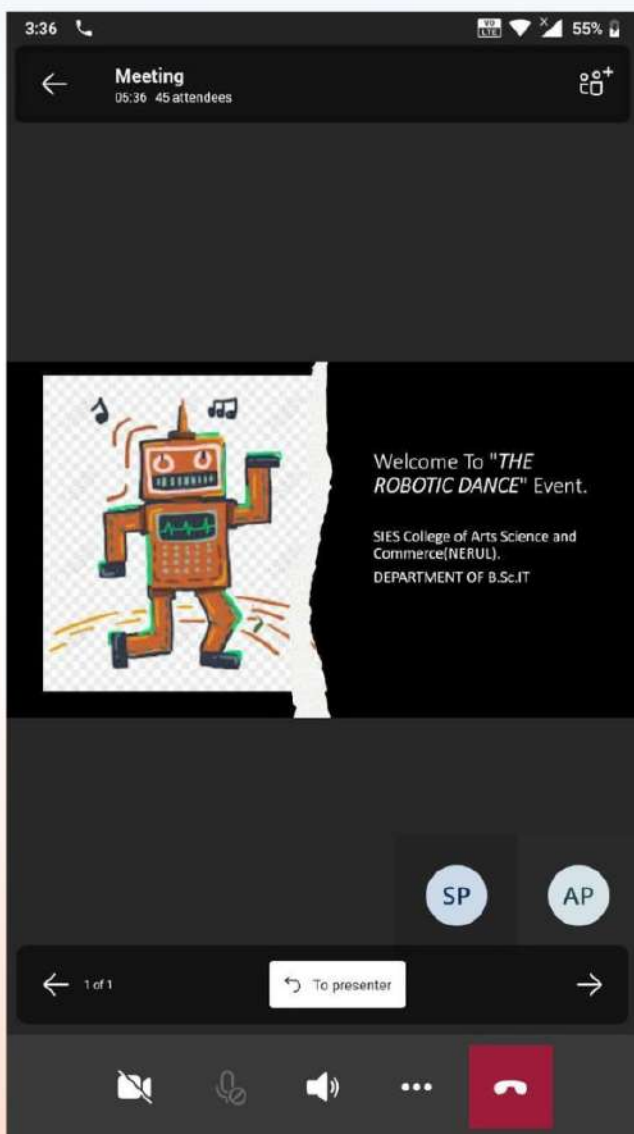
1st Prize Winner : Sanika Dhanwate (FYBScIT)
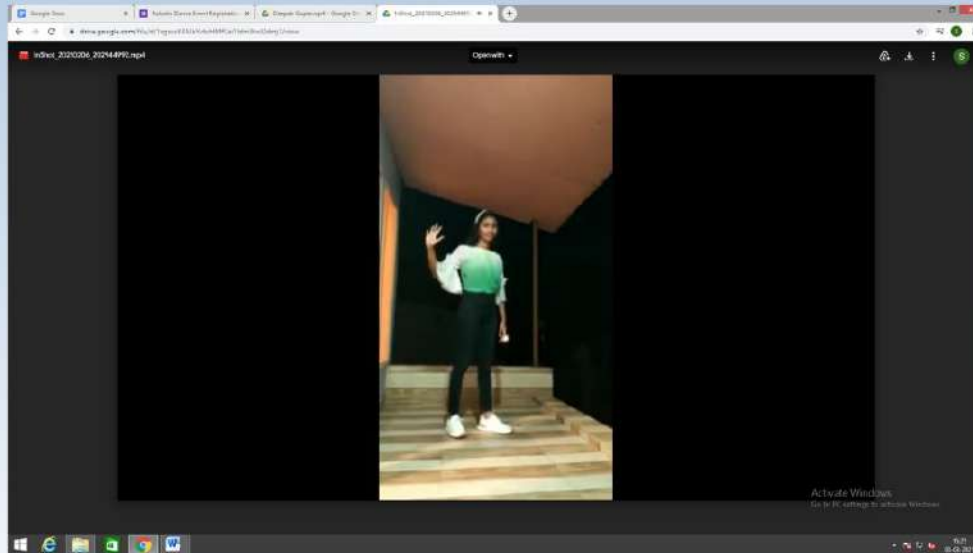
2nd Prize Winner: Amit Arun Das(SYBScIT)

3rd Prize Winner: Deepak Santlal Gupta(SYBScIT)
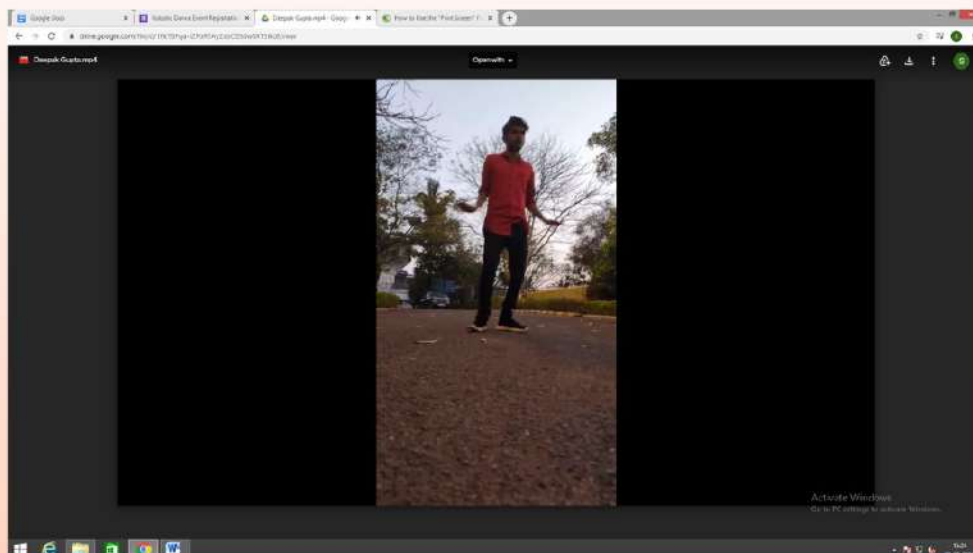
"SANRAKSHAN – A SHORT FILM COMPETITION"

On the "account of Safer Internet Day" , the Department of BSc.IT organized an event "Sanrakshan- A Short Film Competition" on 9th February,2021, aimed to spread awareness about cyber crimes carried out by hackers and fraudsters and people who tend to use the internet for malicious purposes. 3 out 5 individuals that use the Internet are falling prey to all such attacks only because they aren't aware of all the crimes happening on the Internet and how to try staying safe while using the Internet. In purview of this, the department came up with an idea and organized the aforementioned event to promote awareness amongst all on safer use of the Internet.

Following are some glimpses of the event.

Sanrakshan A Short Film Competition-20210209_095826-Meeting Recording (1).mp4
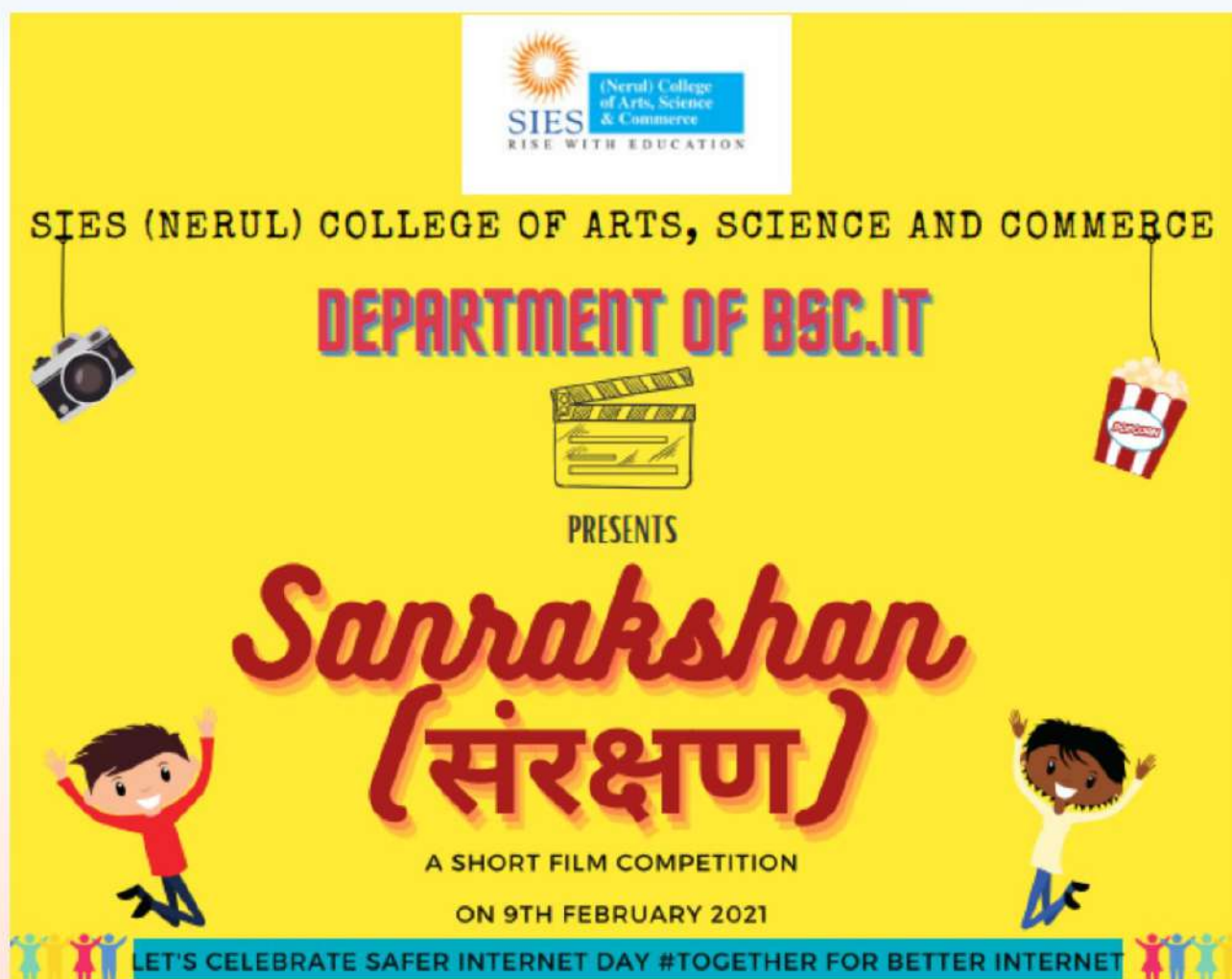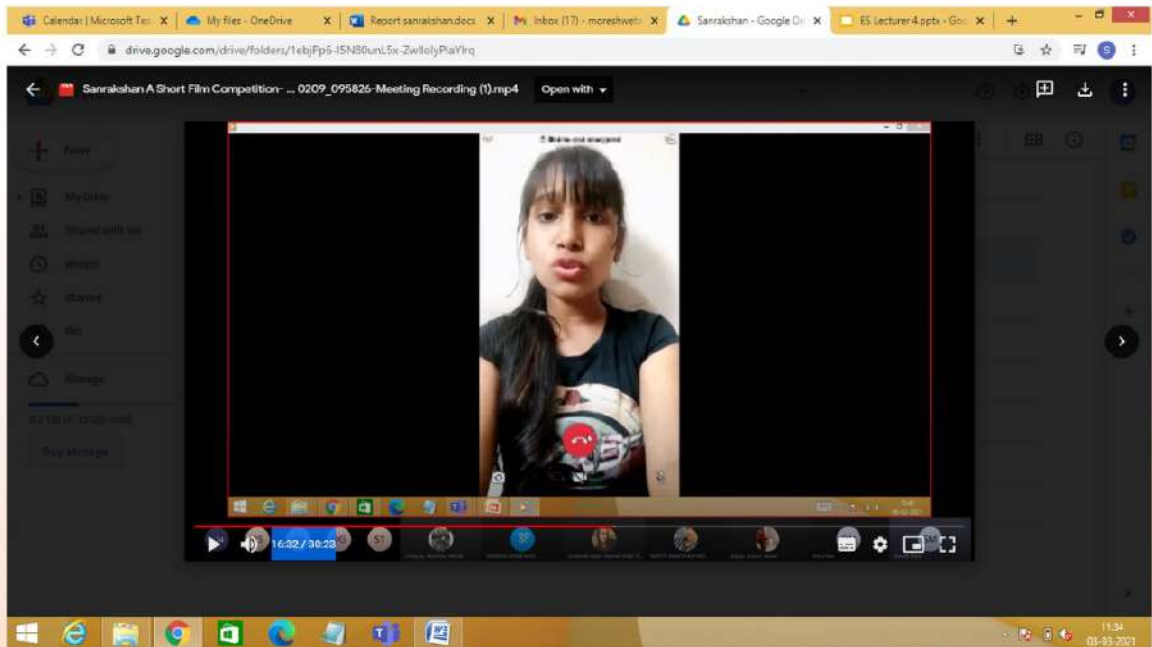
1st Prize Winner - Online Fraud

MOHAMMED MANSOOR
FYIT

GURSHARAN SINGH
FYIT

SATISH AMBEDKAR
FYIT

HAZBA KASIM
FYIT

KRISHNA MAGESH
FYIT

ANAM SHAIKH
FYIT

BISHAL SAINI
FYIT

SABAAT TUNGEKAR
FYIT

2nd Prize Winner - Scam Scandal

Aditya Banare (FYIT)

Rabia Khan (FYIT)

Amaan Hasware (FYIT)

Anush Nair (FYIT)

Deborah Anthony(FYIT)

Mohammed Shahid (FYIT)

3rd Prize Winner - Courier Scam

Name: Sakshi Sharma   Name: Neha Mhatre

TECH- REBOOT

Digital Poster Making Competition

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The BScIT department conducted a digital poster making competition ON 15th February,2021 on ways to recycle old technology. The objective was to create awareness about technological waste which is also known as E-Waste, how it harms our environment and possible means to reuse or recycle them.

Event Commencement

1st Prize Winner

RUTUJA CHOUGHULE

SY BScIT

2nd Prize Winner
VAISHNAVI AWCHAR
FY BScIT

3rd Prize Winner
VIGNESH SOUNDIRAM NADAR
SY BScIT

WEBINAR ON "DATA SCIENCE"

The Department of B.Sc(IT) in association with IT Vedant Pvt. L.T.D. had organized a webinar on the topic "Data Science" on 12th January, 2021. The objective of the webinar was to enlighten students regarding emerging field Data Science and the opportunities that it brings with it. The speaker for the webinar was Ms. Sneha Lohana and was attended by students of SY.B.Sc(IT), TY.B.Sc(IT) and TY.B.Sc(CS).

Glimpses from the webinar:
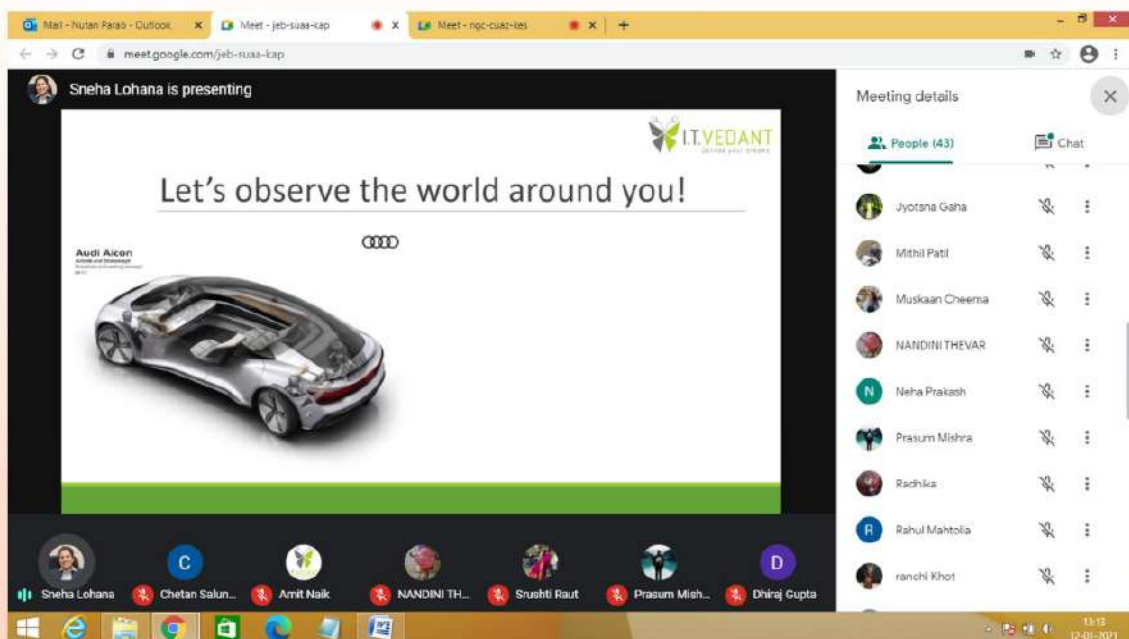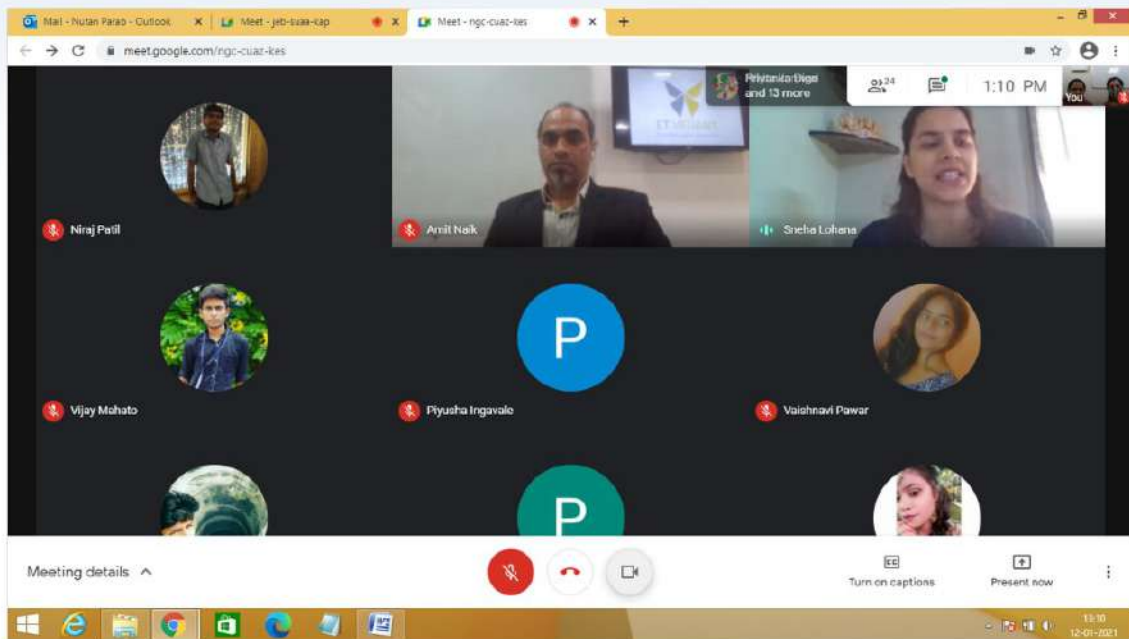
WOMEN'S DAY CELEBRATION
ADOLESCENCE AND PROBLEMS OF YOUNG FEMALE STUDENTS

The Department of Information Technology (B Sc I.T & M Sc I.T) along with M Sc C.S had celebrated the International Women's Day on 9th March 2021 in association with IQAC (Internal Quality Assurance Cell) by organizing a guest talk on "Adolescence and Problems of Young Female Students".The guest speaker,Dr. Jayashree Rupesh Talele MBBS DGO, Consultant Gynaecologist, Obstetrician and Infertility Specialist had shared her knowledge about problems faced by young females especially college going girls and their issues.

It was a very interactive session and the young girls felt comfortable to ask their queries as most of the young females suffer from gynaecology problems and they still have doubt how to maintain hygiene, Dr Jayashree had patiently answered all the queries of young girls about how to maintain a healthy lifestyle.
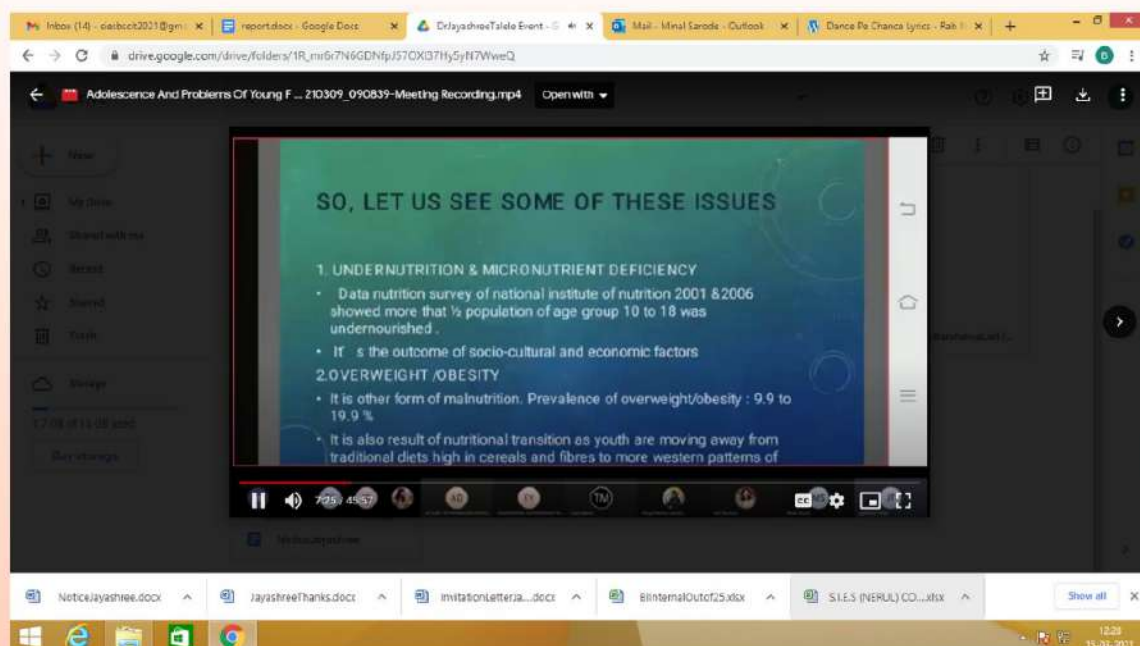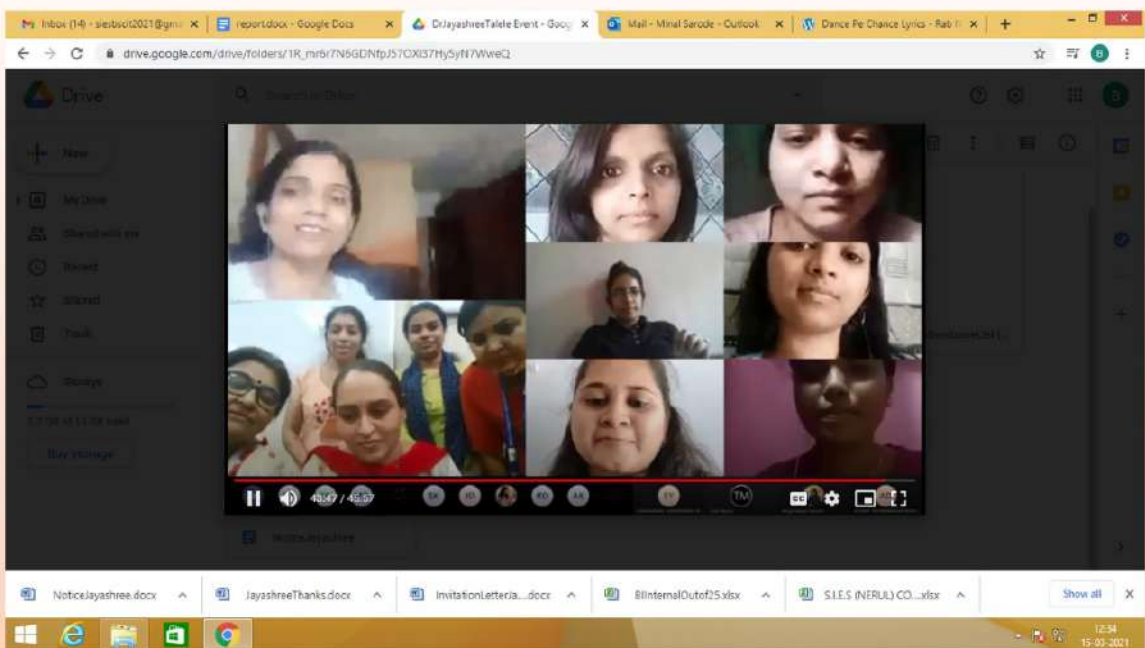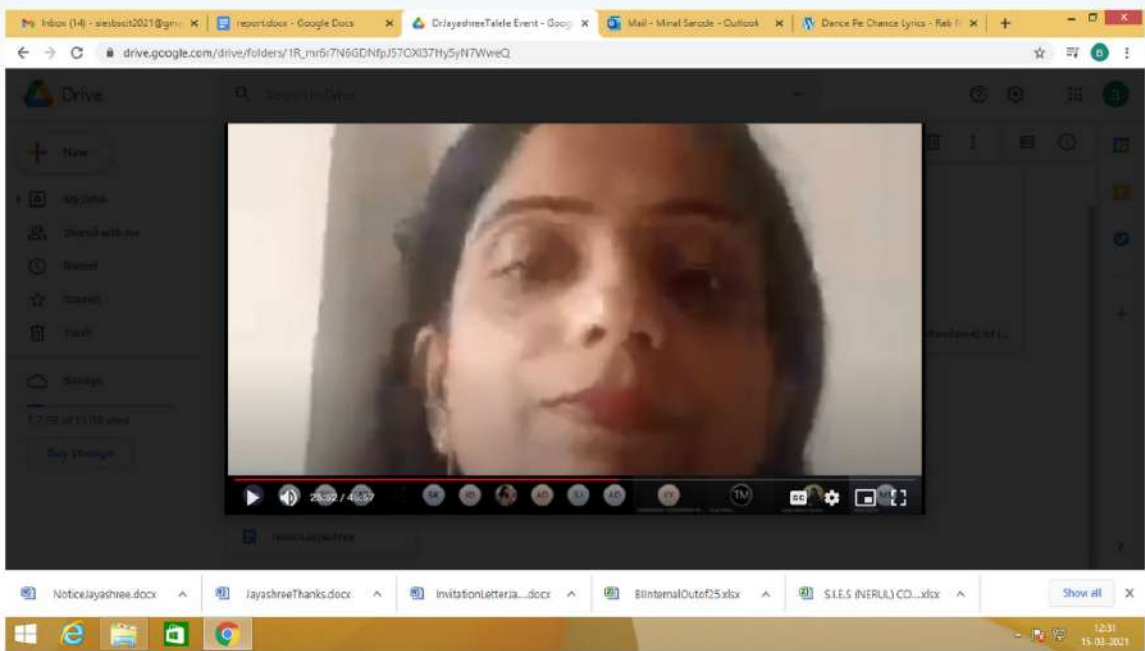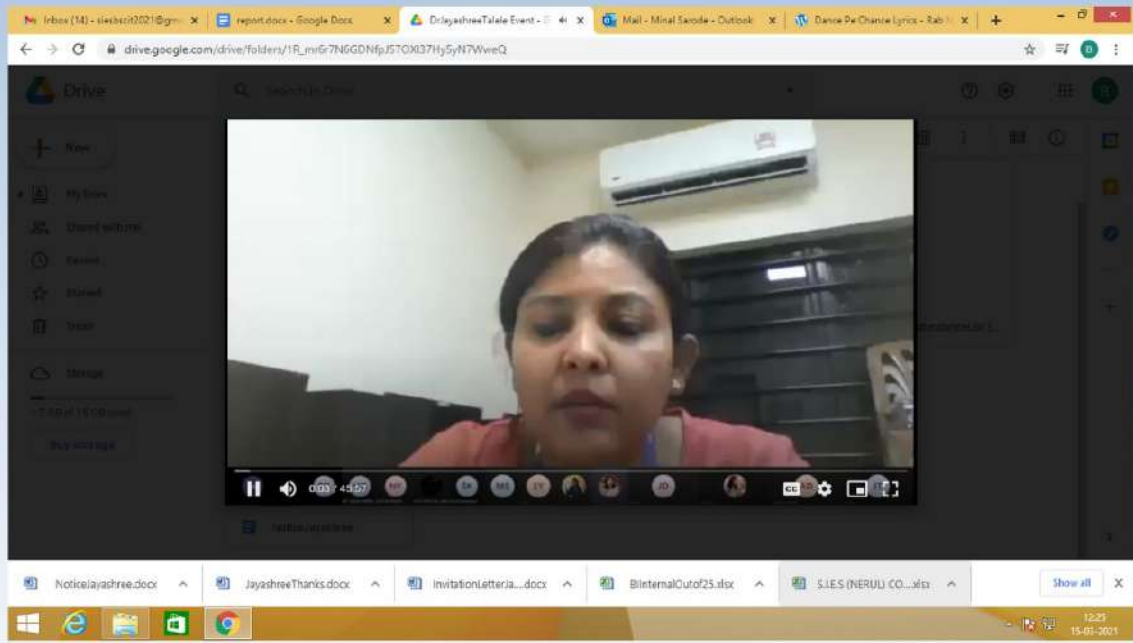
GREEN COMPUTING PROJECT MODELS
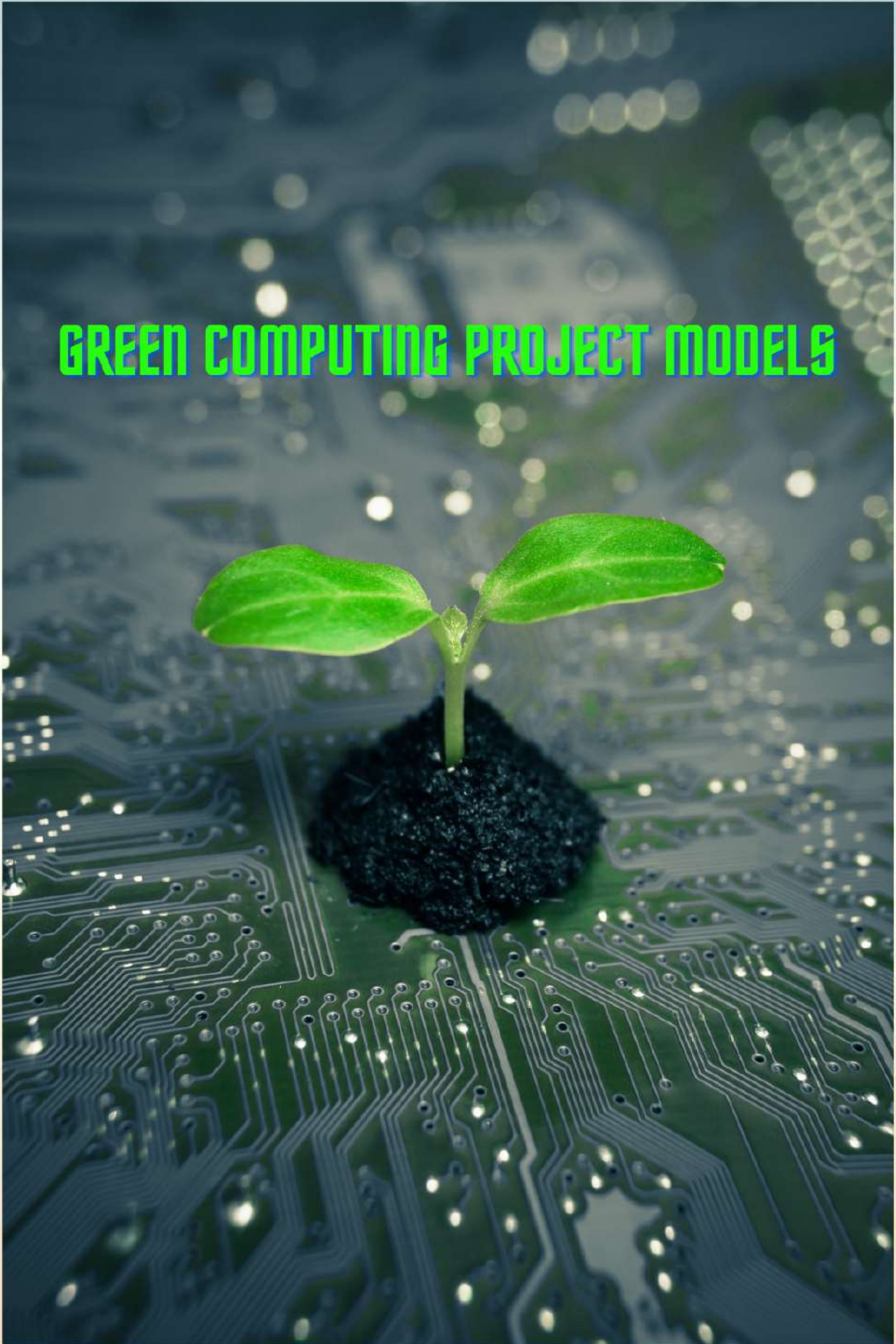
1. Pavitra Jagdish T.20.75
Topic-Drop irrigation

2. Dipika basudev epili T.20.27
Topic-Grey water harvesting

3. Sweta Prajapati T.20.112
Topic-Future of Electric and Hybrid Vehicles
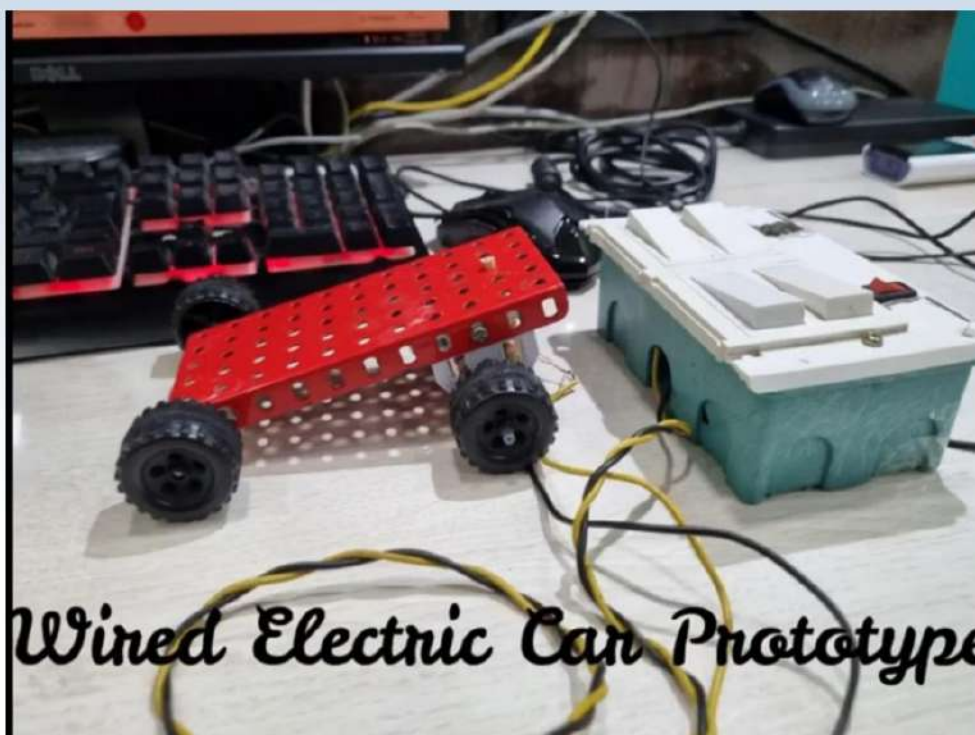
4. Sanjay Kardall T.20.46
Topic-Generating electricity through flowing water
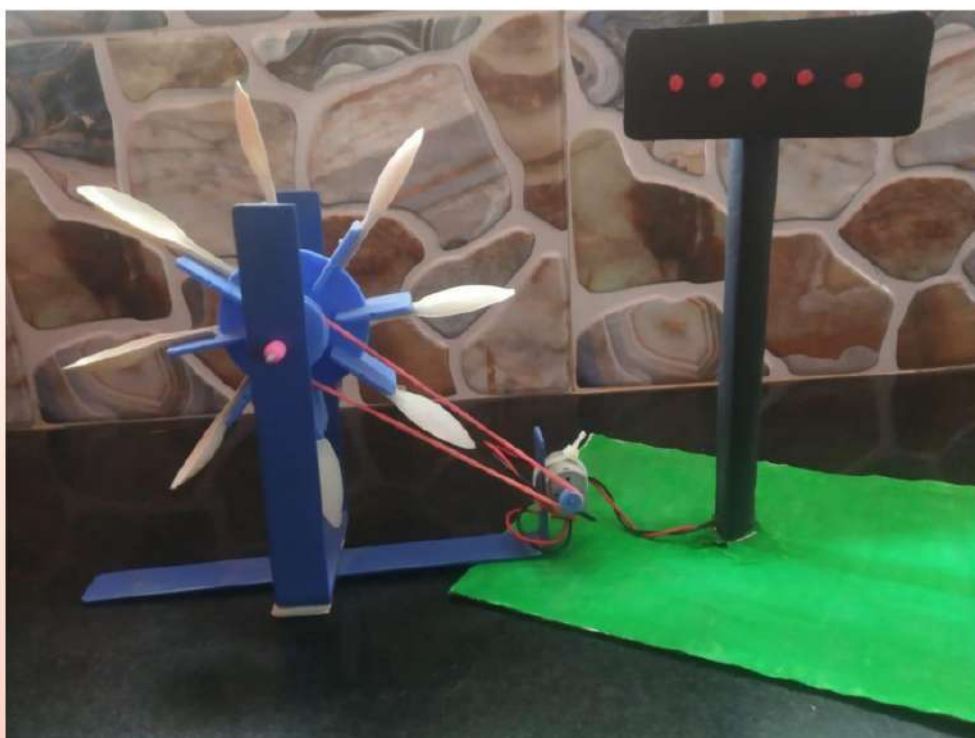
5. Susan Fatema Mohd Taqi Amiri T.20.02
Topic-Electricity generation with the help of a motor.
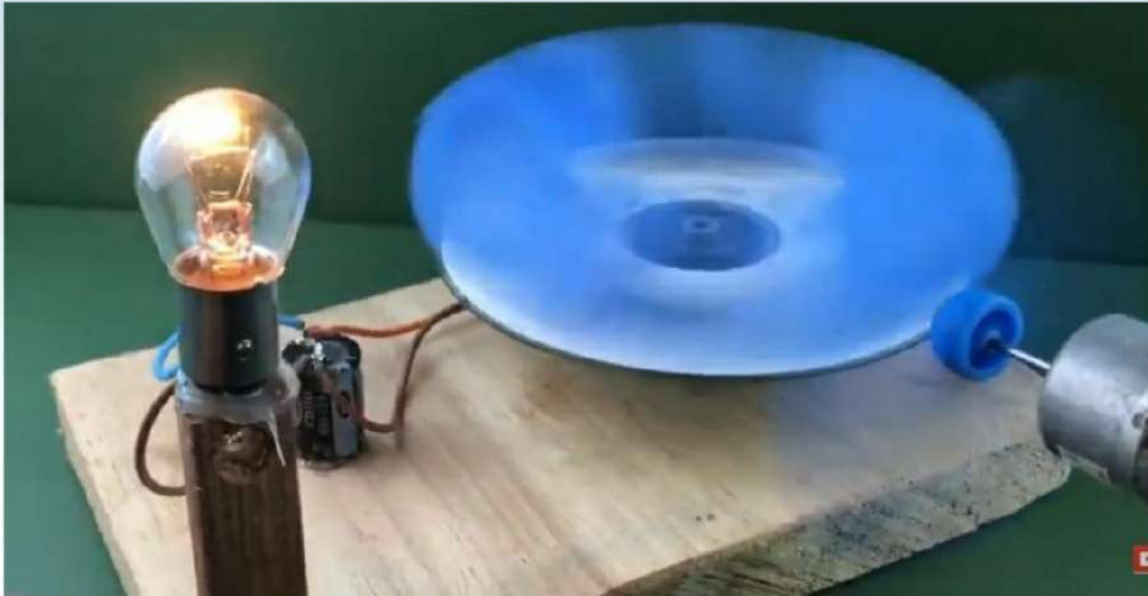
6. Aditya Umesh Banare T.20.01
Topic-Green building

7. Aafi Mohd. Noor Bhatkar T.20.12
Topic-Wind turbine generating electricity

8. Mustkim aslam khatik T.20.51
Topic-solar power bank

9. Omar T.20.19
Topic- Heat dissipation

10. Anush Nair T.20.06
Topic-Bio gas plant

11. Chhaviraj Murlidhar Mallah T.20.58
Topic-Generating Electricity With The Help Of Magnet

12. Sayali Somnath Sarkale Roll no.- T.20.85
Topic-water dispenser

13. Labhesh kadu T.20.43
Topic-Windmill

14. Arshad Abbas Labbai T.20.56
Topic-Rain water harvesting

15. Ananya Arun Sonde T.20.107
Topic-Solar oven

16. Faiyaz Bakker Mohamed T. 20.28
Topic-Recycle and reuse of wire

WORD SEARCH

G	F	S	H	T	T	P	S	O	F	T	W	A	R	E	O	O
N	D	Y	A	R	R	A	E	D	O	C	D	X	M	M	V	W
I	G	C	Y	H	O	Q	D	R	G	E	A	E	X	I	T	G
R	V	R	T	D	T	X	E	O	B	T	M	C	M	C	P	U
T	S	M	A	Z	G	T	K	U	N	O	T	A	H	R	O	F
S	L	K	N	P	N	V	G	Y	R	L	P	F	T	O	A	U
H	B	Z	N	I	H	G	S	Y	D	B	I	R	I	P	Y	D
V	B	X	O	I	I	I	D	Y	W	L	R	E	R	R	I	E
E	T	P	E	N	L	H	C	W	I	G	C	T	O	O	H	S
S	T	J	G	E	B	R	N	R	Z	X	S	N	G	C	Q	I
A	R	R	E	P	O	L	E	V	E	D	A	I	L	E	Y	G
B	L	O	O	P	I	N	G	P	B	N	V	T	A	S	J	N
A	N	O	F	H	R	A	R	T	Y	G	A	C	C	S	Q	E
T	W	N	K	V	T	X	H	M	D	H	J	J	V	O	R	R
A	E	A	V	A	R	C	H	I	T	E	C	T	U	R	E	Q
D	C	W	O	Y	D	N	O	I	T	A	G	I	V	A	N	L
R	E	T	S	I	G	E	R	V	J	B	T	U	O	Y	A	L

ALGORITHM	GRAPHIC	MEMORY
ARCHITECTURE	HTML	MICROPROCESSOR
ARRAY	HTTPS	NAVIGATION
CODE	HYPERLINKS	POINTER
DATABASE	INTERFACE	REGISTER
DEBUGGING	JAVASCRIPT	SOFTWARE
DESIGNER	LAYOUT	STRING
DEVELOPER	LOOPING	SYNTAX

NETWOK CROSSWORD

Comple the crossword puzzle

Across

3. an English-like representation of the logical steps it takes to solve a problem

6. A location that provides wireless Internet access.

9. To save the URL of a webpage for easy access in the future.

13. ALU stands for?

14. Backslash-n is used for...

16. A temporary storage place for quick retrieval of frequently used data.

17. a programming language that enables a user to interact with a webpage

Down

1. A mistake in programming

2. A program that translates a program into machine code that can be converted into an executable program

4. OSS stands for:

5. An ordered set of well-defined instructions for the solution of a problem in a finite number of steps.

7. Used to create a webpage

8. The P in IP stands for

10. A group of networked computers that share a common address (.edu, .com).

11. A file format for compressing pictures

12. A security system that protects a network.

15. to run code

SUDOKU

Can you do it ?

	2	5	9		4	7	8	
3	7	9		8				
			6					3
		3			1			9
				2	5			
		8		4			6	7
	1	4	8					
	3	6			2	4		

NETWORK CROSSWORD

Comple the crossword puzzle

Across

3. an English-like representation of the logical steps it takes to solve a problem
6. A location that provides wireless Internet access.
9. To save the URL of a webpage for easy access in the future.
13. ALU stands for?
14. Backslash-n is used for...
16. A temporary storage place for quick retrieval of frequently used data.
17. a programming language that enables a user to interact with a webpage

Down

1. A mistake in programming
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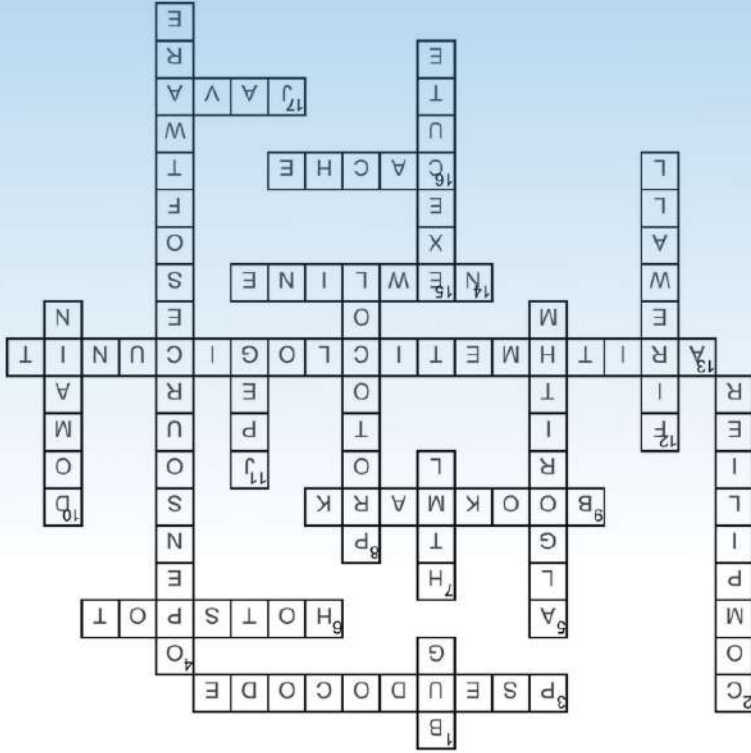12. A security system that protects a network.
15. to run code

SUDOKU

8	6	4	2	1	7	6	3	5
2	5	3	6	8	4	1	7	7
7	6	1	3	4	5	8	9	2
4	1	8	5	2	3	7	6	9
9	2	6	1	7	4	3	5	8
3	7	5	8	6	9	2	4	1
5	4	2	6	8	1	9	7	3
1	8	7	4	3	9	5	2	6
6	3	9	7	5	2	1	8	4

Department of Information Technology

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