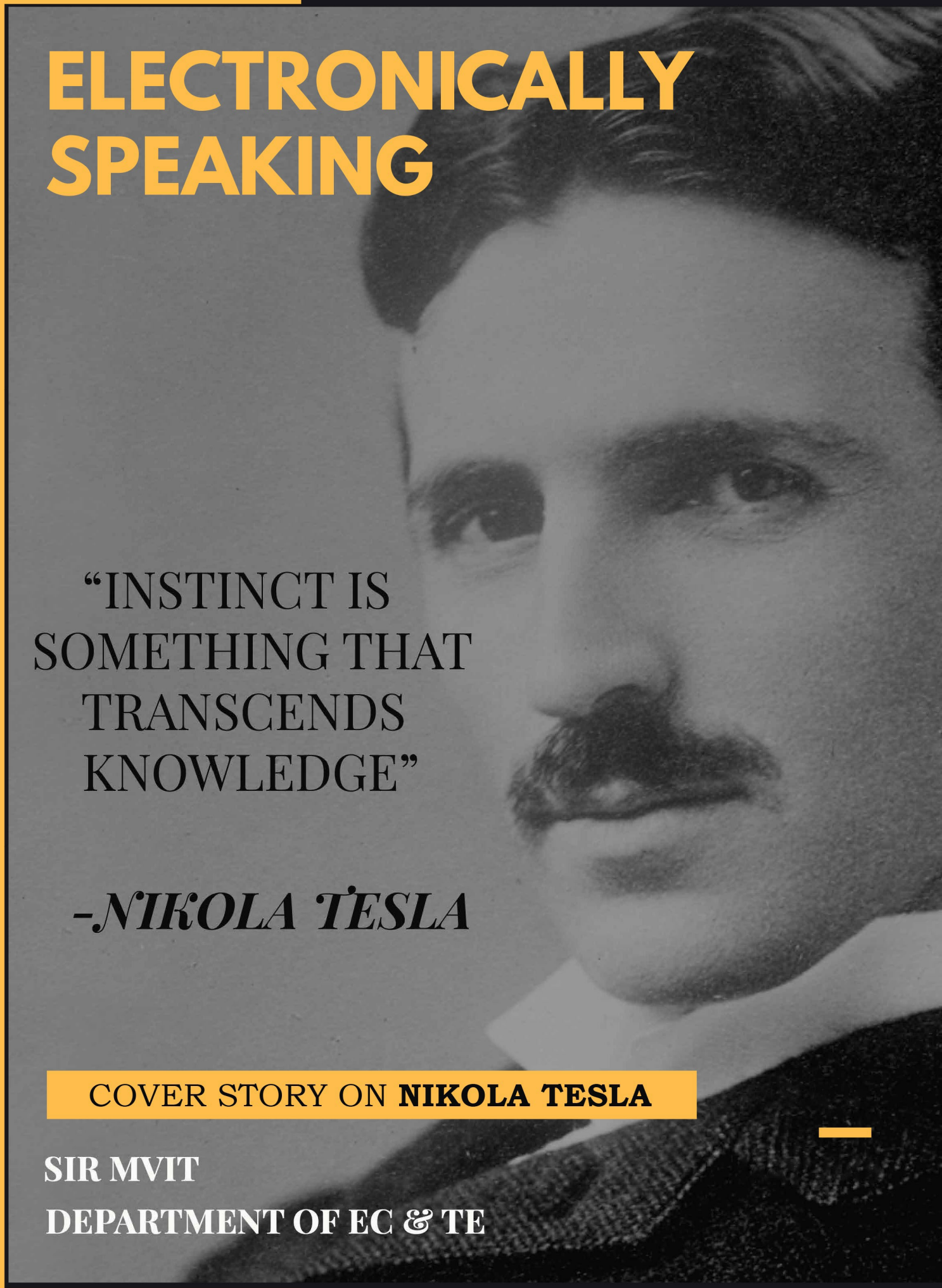
ELECTRONICALLY SPEAKING



"INSTINCT IS SOMETHING THAT TRANSCENDS KNOWLEDGE"

-NIKOLA TESLA

COVER STORY ON **NIKOLA TESLA**

SIR MVIT

DEPARTMENT OF EC & TE

SIR MVIT

MISSION

To be a center of excellence in technical and management education concurrently focusing on disciplined and integrated development of personality through quality education, sports, cultural and co-curricular activities.
To promote transformation of students into better human beings, responsible citizens and competent professionals to serve as a valuable resource for industry, work environment and society.

VISION

To impart quality technical and management education, provide state-of-art facilities, achieve high quality in teaching-learning & research and encourage extra & co-curricular activities.
To stimulate in students a spirit of inquiring and desire to gain knowledge and skills to meet the changing needs that can enrich their lives.
To provide opportunity and resources for developing skills for employ ability and entrepreneurship, nurturing leadership qualities, imbibing professional ethics and societal commitment.
To create an ambience and nurture conducive environment for dedicated and quality staff to upgrade their knowledge and skills and disseminate the same to students on a sustainable long-term basis.
To facilitate effective interaction with the industries, alumni and research institutions.

ECE DEPARTMENT

VISION

To yield qualified and well trained students in the field of Electronics and Communication engineering to light needs of the society and to shape them into competent engineers thorough with core knowledge and provide innovative services.

MISSION

To provide the need based technical education and encouraging, research and development through industry interaction.
To impart quality and value based education to raise satisfaction of all stake -holders & society.
Encourage students to become self-motivated, problem solving individuals who can find and understand the knowledge needed to be successful in the profession.

TE DEPARTMENT

VISION

To impart quality education to students with sound knowledge of fundamentals and mould them into competent Engineers to meet the needs of Engineering profession.

MISSION

To equip future professionals with techniques and knowledge to handle technical challenges in the engineering domain.
To build outstanding professionals with high ethical standards and immense social responsibility to face global competition.

CHIEF EDITOR'S NOTE

After a long time, the ship of "Electronically Speaking" finally returns to its loved ones. During this long hiatus, our readers must have been fascinated by the magnificent things happening around them and must be awaiting those who would express these beautiful phenomenons to their visionary souls.

The Team "Electronically speaking" is back with a completely new look and design for our readers. We are introducing new and exciting features in our departmental magazine such as mind-boggling riddles and crosswords. We have also given a tribute to the scientific legends like Nikola Tesla and Stephen Hawking. Every reader has a unique way of expressing their thoughts and expressions and we from 'Electronically Speaking' try our best to accommodate and appreciate that.

This time we have a whole new bunch of talents from both the branches and it was because of their immense contribution, that the magazine came to life. The main aim of our newsletter is to provide a platform to the budding writers who are seeking an opportunity to express themselves, both in the technical as well as non-technical fields.

We hope our readers enjoy the magazine as much as we did while designing it.

AVIRAJ ROY

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PRINCIPAL'S MESSAGE

I am immensely pleased to pen a message for the News letter " Electronically Speaking 2K21" that the Department of Telecommunication and Electronics Engineering are bringing out. I am sure, this news letter will serve as an ideal means of recording as well as connecting you with the various activities and accomplishments of these dynamic departments. The department of TE & ECE are fore runner in creating an innovative learning environment among staff and students to going beyond portals of class room and excel in different technical and co-curricular events. I hope and pray that the learn and apply climate will transform everyone to move forward and face the future with confidence. I take this opportunity to express my deep sense of appreciation to the members of the editorial team for all their good efforts in publishing it.

Dr. V.R. MANJUNATH

Dr.R.Sundaraguru
ECE HOD

It gives me immense pleasure and joy to welcome the newsletter " Electronically Speaking " ,released by highly motivated budding engineers of ECE & TE departments. Creativity has no limit, it goes beyond all boundaries. Education is a sharp device to make people more creative and imaginative to bring out the best of the young minds. 'Electronically Speaking' is one of the important channels for expression of the creative imagination and spirit of the students. Every human being is destined to contribute for the growth and development of the society he lives in.A life worth living is the one which is partly set apart for the welfare of people around him. To live for oneself alone is against the harmony of the universe. This is a productive technical material and subsidiary skill developing too for the students. We are very grateful to our management and principal for their support and encouragement.

I hereby congratulate the editorial board for leading the task and wish them an enhancing experience in journalism.

Dr.E.Kavitha
TE HOD

I am very proud and privileged to bring out the magazine "Electronically Speaking" sculpted by the students of Telecommunication Engineering and Electronics and Communication Engineering .

This newsletter serves as a platform for the students to exhibit their literary,technical and creative skills.In the life of an engineering student the learning boundaries are not decided by the curriculum but by the attitude and ambition of them.

The higher the aim ,the more the reach and our magazine showcases a sample of these thought processes. I congratulate the editorial team,writers,designers,printer and all those who are part of the magazine directly and indirectly.

I congratulate all the students and faculty for their tireless effort to bring out the best of them in the form of Electronically Speaking .

All the very best.

INTELLIGENT SILICON

Imagine this, you get up in the morning, half asleep. You look into your mobile phone to see your notifications. What is happening inside it is a modern day marvel. A piece of plastic, metal and silicon is churning out 0's and 1's that has the ability to make calls, send messages, listen to music, play images and videos, connect with the world, take pictures and record audio and video. The device you hold in your hand is orders of magnitude faster, smaller and better than the computer that put a human on the moon. All thanks to the tremendous growth of computing power, advancement in semiconductor manufacturing (Moore's Law- which put more and more transistors on a chip) and efforts of engineers and scientists around the world.

Now the conventional hardware is developed around Von Neumann model which is a centralized one. This presents a scalability problem. In recent years, many experts believe that the Moore's law is going to be dead. Hardware using the current architecture will begin to tackle with a nasty reality that is the fundamental law of quantum mechanics – you can't make a transistor smaller than an atom. Making things worse are their limitations fundamentally in energy consumption, heat and memory bandwidth. That begs the question-Is this the best we can do? Apparently not. The answer lies in a whole new computing paradigm that is in the brain of the person reading this – the Brain.

This new computing paradigm is called Neuromorphic Computing or Neuromorphic engineering which tries to mimic the computing process of the brain. New breed of chips have been developed that operate like the brain. The brain is a truly fascinating thing (Fun fact: When you are reading this, your brain is essentially reading about itself!). The brain is capable of performing impressively fast and massively parallel processing. Keep in mind, that the inspiration to create simplistic hardware models of the neuron is limited, which some neuroscientists have also criticised.

Their argument is that, to really emulate the brain, one must successfully emulate its faculties, copying synapses down to the molecular scale; the behaviour of neurons is influenced by the interactions of dozens of ion channels and thousands of proteins. This is the very fact that makes this approach a fundamentally better one. Neuromorphic computing research is an interdisciplinary effort of computer scientists, engineers, neuroscientists and mathematicians. These brain-inspired chips have been proven to use one thousandth of computing power and to be much more efficient in AI applications like autonomous driving and adaptive robotics.

There are research efforts underway by major chipmakers like Intel, IBM and DARPA backed national labs (US Defense Advanced Research Projects Agency) in the US to produce the next generation Neuromorphic hardware. One of the most recent accomplishments in the Neuromorphic computing has come from IBM research, namely, a biologically inspired chip ("TrueNorth") that implements one million spiking neurons and 256 million synapses on a chip with 5.5 billion transistors with a typical power draw of 70 milliwatts. Intel debuted its latest Neuromorphic chip – Loihi at the Consumer Electronics Show in Las Vegas earlier this year.

It is interesting to see where all this leads to. We as Engineers, have the chance to be part of this AI revolution.

- BHARGAVA S

-JULY 10th is celebrated as NIKOLA TESLA DAY!

NIKOLA TESLA

- The Serbian engineer spoke 8 languages.

-Had an unyielding and steel trap photographic memory and an insane ability to visualize even the most COMPLEX machinery.

-HE WAS MYSOPHOBIC and used 18 napkins to clean his dining room.

-Tesla was an ENVIRONMENTALIST

-Performed advanced calculus , physics equations in his MIND and memorised entire book at a time.

“Our virtues and our failings are inseparable, like force and matter. When they separate, MAN IS NO MORE."

LET THERE BE LIGHT

A son of a priest from Serbia broke all the norms as he invented things he dreamt of. He abandoned the world around him because he was busy soldering together a new one. He was **NIKOLA TESLA**, born on a summer night in 1856 during a storm to which his mother countered prophetically, ***"He'll be the child of light"***. Tesla's interest in electrical invention was spurred by his mother (Djuka Mandic) who invented small household appliances in her spare time. Tesla's father, Milutin Tesla, was a Serbian orthodox priest and a writer. He wanted Nikola to join the priesthood but Nikola's interests lay squarely in science.

Tesla's education began at home and later attended gymnasium Carlstadt, Croatia where he showed early signs of intelligence such as memorizing entire books, doing integral calculations and storing logarithmic tables in mind!

"The gift of mental power comes from god, divine being, and if we concentrate our minds on that truth we'll become in tune with this great power."

Later, Tesla studied math and physics at the Technical University of Graz, where one day he found himself in an ongoing debate with his physics professor. It was on a new gramme dyanamo which employed direct current and could be used as both a motor and generator. This yielded the idea of electromagnetic field and hypothetical motor powered by ac current which he thought should work. The thoughts obsessed him, he lost focus on his curriculum, sleeping habits started killing him and was prone to nervous breakdowns. In 1882 he ultimately got the idea of a brushless ac motor making the first sketches of its rotating electromagnets in the sand of the path.

At the age of 28 having high dreams he moved to New York to assist Edison and to work together on ac current. However,Edison who gained popularity for his dc current saw this as a competition but quickly hired Tesla to make improvements in his dc generation plants where he offered him a sum of $50000 if he succeeded. The potential of so much money appealed mightily to the impoverished immigrant. After months of experimentation, Tesla presented a solution and asked for his reward. Edison demurred,saying,***"Tesla, you don't understand our American humour"***. It was only a matter of time until their differences led to conflict, engendering Tesla to part his ways from Edison.

"If god brings you to it, he'll bring you through it."

Determined Tesla, in 1887 met two investors who agreed to back the formation of the "Tesla Electric Company". He was provided with the laboratory, in Manhattan where he produced three complete systems of ac machinery for single phase, two phase and three phase currents also made experiments with four and six phase currents. Mostly he invested his time on experimenting 'Tesla Coil' which is the basis of radio and TV today, carbon button lamp, on the power of electrical resonance, and on various types of lighting.

Tesla and Company, realizing the importance of the work accomplished so far began seeking for investors. In 1888, among others, George Westinghouse head of Westinghouse Electric Companyv was interested. He used Tesla's ac system to light the world's Columbian exposition of 1893 in Chicago. During his adventures blinding half of the world with science, Nikola Tesla harnessed the power of Niagara Falls into the FIRST hydroelectric power plant.

With the breakthrough provided by Tesla's patents, a full scale industrial war erupted. The rivalry between Edison and Tesla existed for years, and even became to known as ***"The War of the Currents"***. In effect was the future of industrial development in the US, whether Westinghouse's ac or Edison's dc would be the chosen technology. Tesla eventually won the war in the great Hall of Electricity where the polyphase system of ac power generation and transmission was proudly displayed and helped bring electricity to the US. From that point onward more than 80% of all the electrical devices ordered in the US were for alternating current.

The Serbian American engineer and physicist Tesla made dozens of groundbreaking discoveries in the production, transmission and application of electric power. He crafted amazing new inventions at the same rate that some people change their socks.

One of Tesla's most infamous inventions was his supposed "earthquake machine", which he talked about to the New York World-Telegram in 1935, according to Rex Research. Tesla claimed his device could fit "in an overcoat pocket".

Electromagnetic and ionizing radiation was heavily researched in the late 1800's, but Nikola Tesla researched the entire gamut. One of his most celebrated inventions was the 'Tesla Coil', in the year 1891, the same year he received the US citizenship.

Tesla coil is a circuit that transforms energy into extremely high voltage charges at high frequencies, creating powerful electrical fields capable of producing spectacular electrical arcs that could be seen from 10 miles away. The Tesla coil put out electrical energy without harming humans.

The first remote controlled model boat with patent no. 613809 exhibited in 1898 was his origination. This invention did not gain popularity as it was far too ahead of time. The idea of remote controlled tanks is now exploited for the same reason as to save lives during war which was the underlining thought of Tesla during this creation.

The inventor held a myriad of more visionary ideas, a few involving concepts such as wireless power also known as the Terrestrial Waves. In 1900 he was funded by a group of investors that included financial giant J.P. Morgan He experimented on man-made lightning for sharing information and providing free electricity throughout the world wirelessly which enabled him to prove that the earth could be used as a conductor. Using this discovery, he was able to light 200 lamps without wires from 25 miles away. Also in 1901 Tesla began work on the project in Earnest, designing and building a lab with a power plant and a massive transmission tower on a site on Long Island, New York, that became known as Wardenclyffe.

Most people think of Thomas Edison as the inventor of light bulb but Nikola developed and used fluorescent bulbs in his lab some 40 years before industry 'invented' them. Edison just improved upon the ideas of 22 other men who pioneered the light bulb before him. In Tesla's entire life he encountered such betrayal but he remained focused. One such invention is radio which is believed to be developed by Guglielmo Marconi.Transmission and receiving of radio signals was demonstrated by Nikola back in 1893. It is clear that, while Tesla struggled to provide the world with an easier and more efficient way of living, others were trying to cheat him out of well-deserved money and patents.

It was the funding which Marconi got from Edison and help, to patent the work on radio leading him to bag the Nobel Prize in 1909 in the field of physics.

Nikola quoted once, ***"I don't care that they stole my idea…I care that they don't have any of their own"***

These events led investors to lose faith in Tesla and eventually they stopped funding Tesla's project. He never experienced truly stable moral and monetary support, even though his work was of paramount importance Tesla had no choice but to abandon the project. The Wardenclyffe staff was laid off in 1906, and by 1915 the site had fallen into foreclosure. Two years later Tesla declared bankruptcy and the tower was dismantled and sold for scrap to help pay the debts he had accrued.

His money long gone, Tesla spent his later years moving from place to place leaving behind unpaid bills. Eventually he settled in at a New York hotel where his rent was paid by Westinghouse and was solely dependent on milk and biscuits. Near the end of his life, Tesla became fixated on pigeons especially a white female. This pigeon followed him and Tesla believed the bird understood him better than the humans. Once he saw two powerful beam of light in the bird's eye. He later said, "Yes, it was a real light, a powerful, dazzling, blinding light, a light more intense than I had ever produced by the most powerful lamps in my lab".The death of the pigeon in Tesla's arms made him perceive that his series of inventions are over. Nikola Tesla never truly received the respect he deserved. On the morning of Jan 7th, 1943 he was found dead at the age of 86 in his room. Few years after his death in 1960, Nikola Tesla was honoured by a unit named after him having symbol ***'T'***, used for measuring Flux Density during the General Conference of Weights and Measures.

Innovation runs in Tesla's blood. Tesla once wrote: "My mother was an inventor of the first order and would, I believe, have achieved great things had she not been so remote from modern life and its multifold opportunities. She invented and constructed all kinds of tools and devices and wove the finest designs from thread which was spun by her."

He credited both his parents' influence for his success. The legacy of the work Tesla left behind him lives on to this day. In 1994, a street sign identifying ***"Nikola Tesla Corner"*** was installed near the site of his former New York City laboratory, at the intersection of 40th Street and 6th Avenue. Tesla's statue was unveiled on Long Island in 2013 and the Wardenclyffe site has been converted into the ***Tesla Science Centre***. And of course, there is Elon Musk's famous Tesla Company, which follows Nikola's path by developing new technologies for the future. Though Nikola Tesla struggled throughout his life, the history books will look back on him fondly.

When Tesla reflected on his life, his work, his battle with Edison and his contributions to the world he wrote, ***"The progressive development of man is vitally dependent on invention…its ultimate purpose is the complete mastery of mind over the material world, the harnessing of forces of nature to human needs. This is the difficult task of the inventor who is often misunderstood and unrewarded. But…let the future tell the truth and evaluate each one according to their work and accomplishments. The present is theirs; the future for which I have worked, is mine"***

- ES TEAM

Applications and values of Deep Learning

Artificial intelligence (AI) stands out as a transformational technology of our digital age. Questions about what it is, what it can already do—and what it has the potential to become—cut across technology, psychology, politics, economics, science fiction, law, and ethics. AI is the subject of countless discussions and articles, from treatises about technical advances to tabloid headlines about its effects. Even as the debate continues, the technologies underpinning AI continue to move forward, enabling applications from facial recognition in smartphones to consumer apps that use AI algorithms to detect diabetes and hypertension with increasing accuracy. Indeed, while much of the public discussion of AI focuses on science fiction-like AI realization such as robots, the number of less-noticed practical applications for AI throughout the economy is growing apace and permeating our lives.

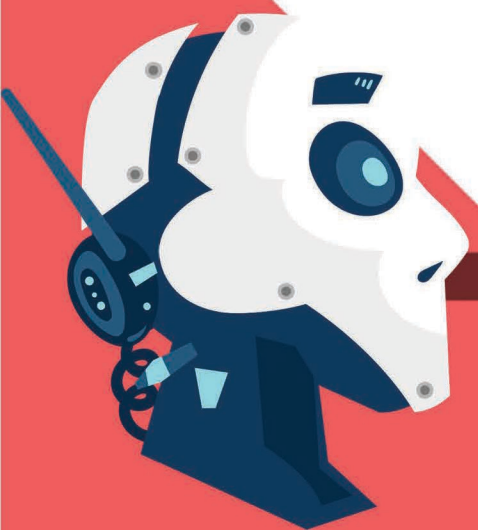
"With massive amounts of computational power, machines can now recognize objects and translate speech in real time. Artificial intelligence is finally getting smart."

Top 10 enterprises Using AI:
i) Google
ii) Nvidia
iii) Daimler Mercedes Benz
iv) IBM
v) Amazon
vi) Microsoft
vii) salesforce
viii) Facebook
ix) Apple
x) Intel

Let us go deep into the top rated applications of Deep Learning revealing its potential.

1) Automatic Colorization of Black and White Images:

Image colorization is the problem of adding color to black and white photographs. Traditionally this was done by hand with human effort because it is such a difficult task. Deep learning can be used to use the objects and their context within the photograph to color the image, much like a human operator might approach the problem. A visual and highly impressive feat. This capability leverages of the high quality and very large convolutional neural networks trained for ImageNet and co-opted for the problem of image colorization. Generally the approach involves the use of very large convolutional neural networks and supervised layers that recreate the image with the addition of color.



2)Automatic Machine Translation :

Google Translate app – heard this app ? What does it do ? The following explains the procedure behind this app. This is a task where given words, phrase or sentence in one language, automatically translate it into another language. Automatic machine translation has been around for a long time, but deep learning is achieving top results in two specific areas:

i) Automatic Translation of Text.

ii) Automatic Translation of Images.

Text translation can be performed without any pre-processing of the sequence, allowing the algorithm to learn the dependencies between words and their mapping to a new language. Stacked networks of large LSTM recurrent neural networks are used to perform this translation. As you would expect, convolutional neural networks are used to identify images that have letters and where the letters are in the scene. Once identified, they can be turned into text, translated and the image recreated with the translated text. This is often called instant visual translation.

3) Automatic Handwriting Generation :

This is a task where given a corpus of handwriting examples, generate new handwriting for a given word or phrase. The handwriting is provided as a sequence of coordinates used by a pen when the handwriting samples were created. From this corpus, the relationship between the pen movement and the letters is learned and new examples can be generated ad hoc.

4) Enabling Technologies :

Intel – The computer Legend invests a lot of revenue in the field of Deep learning and AI to make our life simpler and smarter. Recently it has come up with a AI driven test system system that detects bacteria in water. Obtaining clean water is a burning problem in major parts of the globe. Manual testing and confirming a clean water source typically requires expensive test equipment and analysis of the results. This solution had a lot of impact in the regions where access to clean water is a continuing problem.

5) Generating Image Descriptions :

We are all used to see computers automatically classify our photos. For example, Facebook can automatically tag your friends. Similarly, Google Photos can automatically label your photos for an easier search. In fact, take a state-of-the-art network and train it on ImageNet, the biggest database of labelled image and it will be able to classify objects better than a PhD student who trained on the same task for over 100 hours. But these are just labels, and Deep Learning allows taking it several steps forward and describe all the various elements in a photo. In a work by Andrej Karpathy and Li Fei-Fei, they trained a Deep Learning network to identify dozens of interesting areas in an image and write a sentence to describe what happens in each area. This means that the computer not only learned to classify the elements in the photo, but to actually describe them with English grammar.

These are just a few. List goes on .....

- PHANINDAR RAVI P
DEPT. OF ECE

One step back... A Catapult to Future

"The transistor was probably the most important invention of the 20th Century, and the story behind the invention is one of clashing egos and top secret research."

This is a quote made famous by journalist Ira Flatow. On the 70th anniversary of it's inception, it is worth rolling back the years, 1947, to be precise, when the vacuum tube had it's run and the world was on the lookout for the next big thing in semiconductor electronics. It was in Bell Labs, AT&T, New Jersey, where it was to be created, by William Schokley. He'd been working on it for a decade, successful at working out the theory but failing at developing a working model.

John Bardeen and Walter Brattain were called in, under Schokley's tutelage to handle the engineering and development, which they did in a relatively short time of two years, to come out with the point contact transistor on December 23rd, 1947. Their mentor however developed the first modern bipolar junction transistor a year later and they were to be collectively recognized for their efforts in 1956 with the Nobel Prize in Physics and when you consider the transistor being inducted in the list of IEEE milestones in 2009, you might as well say, they very much deserved it.

The essential usefulness of a transistor comes from its ability to use a small signal applied between one pair of its terminals to control a much larger signal at another pair of terminals.

This property, called its gain, enables it to produce a stronger output signal which is proportional to a weaker input signal, as in an amplifier.

Bipolar transistors are aptly named because they conduct by using both minority and majority carriers. It is a combination of two junction diodes and is formed of either a thin layer of p-type semiconductors put between two n-type semiconductors —an n-p-n transistor or two p-type semiconductors sandwiching a thin layer of n-type semiconductor—a p-n-p transistor. This design produces p-n junctions, a base collector region and a base-emitter region separated by a thin region called the base.

The main key to the development of the transistor was the further comprehension of the process of electron hole mobility in a semiconductor. It was noted that if the flow of electrons from the emitter to the collector could somehow be controlled, an amplifier could be constructed. Brittain started working on building such a device and as the team worked on the problem, hints of amplification appeared. The system worked at times but then ceased unexpectedly at other times. The electrons in any one piece of the crystal would migrate about due to it nearby charges. Electrons would cluster at the surface of the crystal where they could find the opposite charge. A small amount of charge on any location on the crystal would cause them to be pushed away from the surface. A small amount of electrons would accomplish what was needed .

Brittain's understanding solved the problem of needing a very small control area to some degree. They figured a single large area could be used instead of needing two seperate semiconductors connected by a common but tiny region. The emitter and collector leads would both be placed together on the top with the control lead placed at the base. The electrons or holes would be pushed out, when current was applied to the “base” lead, across the block of the semiconductor and collect on the far surface. The junction version of the above described point contact transistor was developed later to enjoy three decades of market domination in the design of discrete and integrated circuits.

When you consider that in 1963, the price of a transistor cost as much as a new tire for your car, you have to be pretty jaded not to be awed by how cheap and ubiquitous transistors have become. Today, the Taihu Light Supercomputer, ranked number one in the TOP500 list of fastest supercomputers, has 10 billion transistors in each of its 40,000 processors.If you think about it, 400 trillion is a really huge number and that’s precisely how many transistors we’ve managed to cram into one computer.

Due to their inherent speed advantage over FETs, bipolar circuits are widely used for high performance master-slice and custom logic and for high speed static memory arrays. For logic,traditional circuits such as TTL logic and emitter-coupled logic are still mostly used but new circuit technologies such as integrated injection logic or merged transistor logic and Schottky logic have been devised to manage the VLSI technology constraints.Significant progress can be expected through technology extensions such as dielectric isolation, multilayer metalization, and polysilicon techniques, in addition to shrinking the devices to 1/spl mu/m dimensions or below.

As we see Moore’s Law in action in everyday electronics, it is worth taking notice of replacing graphene with silicon. Graphene based transistors can run at higher frequencies and more efficiently than silicon transistors. Graphene integration has many uses, such as support membranes for transmission electron microscopy and in gas sensors because the effect of gas molecules that land on graphene are measurable.

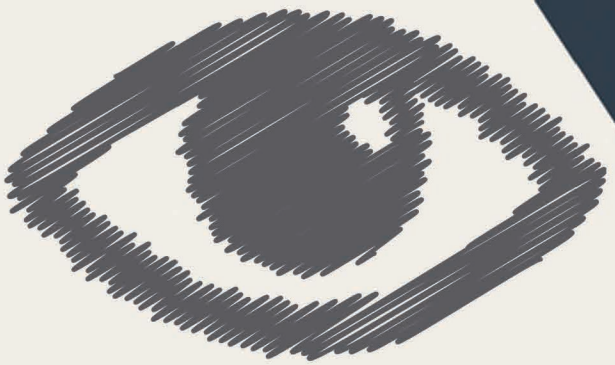
Although graphene is seen as the material of tomorrow, initial research points to a fruitful future. A research team led by Professor Andre Geim of the Manchester Center of Mesoscience and Nanotechnology built a graphene transistor with features such as the ability to operate at room temperature, a size one atom by 10 atoms wide, extreme sensitivity and the ability to operate at incredibly low voltages.

This only means that graphene based transistors could be a fast low power successor to the silicon transistor and enable advances in microchip technology at electron speeds, 10000 times greater than in silicon. Also the capacity of properties improving, with lesser size unlike other materials coupled with room temperature operation would allow miniaturization of ICs to levels no one has scaled ever before.

We have seen where we came from, where we stand and where we are headed in the transistor technology and solid state physics. The question thus arises, what do we do about it? Technology at the leading edge changes so rapidly that you have to keep yourself updated even after graduation. I think the most important thing is having good fundamentals. Steve Jobs on being asked where we are pointed to in the future of technology replied, “I don’t know”. Nobody knows the answer to this and the best way to answer this question in my opinion is creating the future ourselves as we equip ourselves here in college, with the skills we need to achieve the same.

“Stay Hungry... Stay Foolish!”

NITIN JOSEPH



BLUE EYES TECHNOLOGY - MONITORING HUMAN OPERATOR AND INTELLIGENCE SENSING SYSTEM

Blue Eyes is a technology conducted by the research team of IBM at it Almaden Research Centre (ARC) in San Jose, California since 1997.

What is Blue Eyes Technology ?

Blue eyes technology makes a computer understand, sense human feelings, behaviour and also enables the computer to react according to the sensed emotional levels. The aim of the blue eyes technology is to give human power or abilities to a computer, so that the machine can naturally interact with human beings as we interact with each other. It basically intends to create a 'Chitti' from the movie Robot.

How will this technology work?

With the help of speech recognition and facial recognition systems, computers gather information from the users and start interacting with them according to their mood variations. Computer recognizes your emotional levels by a simple touch on the mouse and it can interact with us as an intimate partner. The machine feels your presence, verifies your identity and starts interacting with you and it will even dial and call to your home in any urgent situation. This is because of "Blue Eyes" technology. The "BLUE EYES SOFTWARE" is the backbone of this whole new revolution. The software continuously supervises the operator's physical and psychological conditions and invokes itself to respond to the operator in accordance with the received inputs. Thus making sure the person has a human like feeling with an inanimate object.The hardware consists of a central system unit (CSU) and data acquisition unit (DAU). Microcontroller- ATMEL 89C52 is the heart of the data acquisition unit. Bluetooth technology is provided for the coordination and communication between the two units.

What makes the Blue Eyes Technology a unique and a major breakthrough in the field of AI ?

The steps involved for designing such type of computers are given below.

1. Process of giving sensing capacity.
2. Human Emotion detection or Affect Detection.
3. Respond appropriately and properly.

1. Detecting human emotions/ Affect Detection:

In Blue Eyes technology, the machines have the ability to identify the minor variations in the moods of human beings. For implementing the Affective Computing we need Emotion Sensors. These emotion sensors are the heart of this major breakthrough. Just like how humans are considered dead without emotions, similarly even this software is nothing without its emotion sensing capabilities.

2. Process of giving sensing capacity:

Blue Eyes uses voice recognition software, cameras and biometric sensors to understand and respond to the emotional levels of humans. The voice recognition software used can not only perceive what is being spoken but also the tone as to how it is said. Thus the message as well as the tone doesn't change, hence producing a human voice feel. High resolution cameras are used for tracking minute facial expressions, hand gestures and eye movements. Biometric sensors are used for measuring and analyzing the muscle tension, body temperature, blood pressure and other physiological gesture correlated with emotions.

Types of Emotion Sensors used in Blue Eyes Technology:

For Hand - Emotion Mouse: Emotion Mouse is an input device to track the emotions of a user by a simple touch on it. The Emotion Mouse is designed to such a level of precision that it can not only evaluate but also identify the user's emotions just by a simple touch when he/she is interacting with computer.

For Eye - Expression Glass: Expression Glass is an alternative for the usually available machine vision face or eye recognition methods. By analyzing pattern recognition methods and facial muscle variations, the glass senses and identifies the expressions such as interest or confusion of the user. The prototype used for this glass uses piezoelectric sensors.

The Simple User Interest Tracker (SUITOR): The Simple User Interest Tracker is a revolutionary approach towards the design of machine having the ability to maintain an intimate relationship between the humans and the computers. The SUITOR continuously analyzes the user and determines the location of his eye focus on the personal computer screen. It has the ability to determine the topic of interest of the user and also according to this it delivers the appropriate data to a handheld device.

A boon or a bane to the upcoming future?

BLUE EYES' technological approach assures a convenient technique, that simplifies the life by supporting more elegant and user friendly provision in computing devices. This technology can be adopted in all working places, where the operator's attention is continuously available. This technology has the ablility to record and monitor the user's physiological condition by a technical approach. Its aim is to provide a machine or system having sensory and perceptual abilities like human beings and support healthy stress free surroundings where the computers and humans can work together as intimate partners. This technology if used in the right manner, can be used to track the health of a person and ensure that he is both physically and mentally fit. But this will also slowly devoid the user of interacting with humans. Just like how today each and everyone of us are addicted to using smartphones to get everything at the touch of a button. Humans will start depending more and more on the computer for human interaction. That day is not too far when this technology might enter into our homes, and simplify all our tasks thus making us even more lazier.

VARSHA N

BLOCKCHAIN IN TELECOM INDUSTRY

Blockchain is currently a hyped technology that has the data analysts in their places working hard to understand blockchain's potential in different industries. In almost all industries, officials are exploring its impact on their services. The CSP(Communication Service Provider) industry is no exception.

Blockchain technology has the potential to disrupt the business models and increase the efficiency. Technicians, decision-makers and analysts should now take more time to discover new possibilities of this technology so that there is an increase in terms of revenue and along with cost reductions.

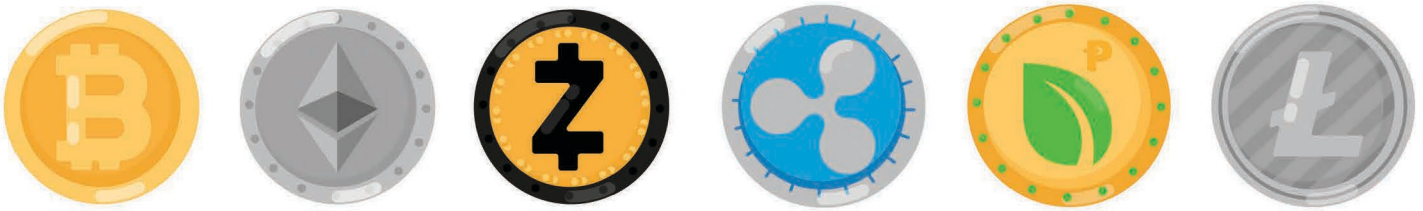
What is blockchain?

Its key characteristics are that it is completely digital, updated almost in real time, chronologically-stamped, cryptographically sealed, irreversible and auditable, fewer third parties and distributed ledger which forms the basis of this technology. Unlike a centralized model, blockchain is decentralized and thus provides greater trust at the expense of confidentiality and processing performance. Every member in the network has the access to verify the transaction and thus the authority is not under a single auditor but within the members of the network. Consensus of network and cryptographic methods are used to validate transactions. As researched, a decentralized storage is bound to be failure-resistant. If there is a failure in the node, that particular node is eliminated and the information remains available. Every time information is added it is immutable. The method of record-keeping in blockchain prevents reversing of transaction once added.

CSPs have traditionally owned the style of peer-2-peer chain either in the customer or company scenarios.

Why does telecom sector need blockchain?

With the decreasing revenues and increasing demands for the high-bandwidths, there is a need to reduce the cost and find an alternative for revenue generation.



BITCOIN ETHEREUM ZCASH RIPPLE PEERCOIN LITECOIN

CSPs will realise its greatest potential when they use it in their core management services thus providing themselves plenty of opportunities to reduce costs and increase revenues. Four cases that are very important to this sector are Fraud Management, identity and data management,5G implementation and secure IoT connectivity.

Fraud Management:
By encrypting the data exchange within networks, fraud can be reduced. Application software to detect and prevent fraud are thus not necessary and there is a relative reduction in losses due to fraud.

Identity, as a service:
An additional revenue can be generated by implementing eSIM for identity management which reduces the cost. A cryptographic identity can be provided rather than physical component which helps in easy management.

5G Implementation:
To realise the 5G promise of ubiquitous access across various networks, CSPs should be able to handle a diverse heterogeneous network. Blockchain provides a new generation of technology selection mechanism to create efficient solutions.

IoT connectivity:
Blockchain can provide an error-free peer to peer connection between thousands of machines or IoT devices with reduced cost-efficient self-managed networks. A mesh network is formed by a large number of nodes. Now these blockchain nodes are embedded by IoT sensors which verify every block being changed in blockchain.

Anything that is picked from the nook and corner of this world has its own merits and demerits.Blockchain is no exception. Thus the challenges to be faced for its implementation are As node in a blockchain holds all the historical data,the size of blockchain at each node makes it unsustainable. Many alternatives are being explored in this regard. Conforming to the existing data standards in the terms of data structure and transport of information can prove to be an initial hurdle. Proper regulatory framework definitions are required for the implementation of data agreements as smart contracts.

In a nutshell, blockchain proves to be an efficient way of data security, data storage and revenue management services.

- JAYANTHA MARYAM

STEPHEN HAWKING

Stephen Hawking is a world-renowned British theoretical physicist, known for his contributions to the fields of cosmology, general relativity and quantum gravity, especially in the context of black holes. In the 1960s and 1970s, he worked on ground-breaking theorems regarding singularities within the framework of general relativity, and made the theoretical prediction that black holes should emit radiation (known today as Hawking radiation). He has also published several works of popular science in which he discusses his own theories and cosmology in general, including the runaway bestseller “A Brief History of Time”, and has come to be thought of as one of the greatest minds in physics since Albert Einstein. In his own words: “My goal is simple. It is complete understanding of the universe, why it is as it is and why it exists at all”.

In 1968, he joined the staff of the Institute of Astronomy in Cambridge, where he remained until 1973, and began to apply the of thermodynamics to black holes by means of very complicated mathematics. In the late 1960s, he and his Cambridge friend and colleague, Roger Penrose, applied a new, complex mathematical model they had created from Albert Einstein's General Theory of Relativity which led, in 1970, to Hawking proving the first of many singularity theorems. This theorem provided a set of sufficient conditions for the existence of a singularity in space-time, and also implied that space and time would indeed have had a beginning in a Big Bang event, and would end in black holes. In effect, he had reversed Penrose's idea that the creation of a black hole would necessarily lead to a singularity, proving that it was a singularity that led to the creation of the universe itself.

In collaboration with Brandon Carter, Werner Israel and David Robinson, he provided a mathematical proof of John Wheeler's so-called "No-Hair Theorem", that any black hole is fully described by the three properties of mass, angular momentum and electric charge, and proposed the four laws of black hole mechanics, similar to the four classical Laws of Thermodynamics. From analysis of gamma ray emissions, he also suggested that primordial or “mini black holes” would have been formed after the Big Bang.

In 1974, Hawking and Jacob Bekenstein showed that black holes are not actually completely black, but that they should thermally create and emit subatomic particles, known today as Hawking radiation, until they eventually exhaust their energy and evaporate. This also ,

resulted in the so-called “Information Paradox” or “Hawking Paradox”, whereby physical information (which roughly means the distinct identity and properties of particles) appears to be completely lost to the universe, in contravention of the accepted laws of physics. Hawking defended this paradox against the arguments of Leonard Susskind and others for thirty years, until famously retracting his claim in 2004.

Hawking’s ground-breaking research resulted in considerable fame and celebrity. In 1974, at the age of 32, he was elected as one of the youngest ever Fellows of the Royal Society. He was created a Commander of the Order of the British Empire (CBE) in 1982, and became a Companion of Honour in 1989. He has accumulated twelve honorary degrees, as well as many other awards, medals and prizes, including the Albert Einstein Award, the most prestigious in theoretical physics. He also became well-known among a wider audience, especially after his 1988 international bestselling book “A Brief History of Time”, and its follow ups “The Universe in a Nutshell” (2001) and “A Briefer History of Time” (2005).

He continued lines of research into exploding black holes, string theory, and the birth of black holes in our own galaxy. His work also increasingly indicated the necessity of unifying general relativity and quantum theory in an all-encompassing theory of quantum gravity, a so-called "theory of everything", particularly if we are explain what really happened at the moment of the Big Bang. As early as 1974, his theory of the emission of Hawking radiation from black holes was perhaps one of the first ever examples of a theory which synthesized, at least to some extent, quantum mechanics and general relativity. Never afraid to court controversy, he even began to question the Big Bang theory itself in the 1980s, suggesting that perhaps there never was a start and would be no end, but just change, a constant transition of one "universe" giving way to another through glitches in space-time. He developed his "No Boundary Proposal" in collaboration with the American physicist Jim Hartle. Under classical general relativity, the universe either has to be infinitely old or had to have started at a singularity, but Hawking and Hartle’s proposal raises a third possibility: that the universe is finite but had no initial singularity to produce a boundary. The history of this no-boundary universe in "imaginary time" can perhaps be best envisaged using the analogy of the surface of Earth, with the Big Bang equivalent to Earth’s North Pole, and the size of the universe increasing with imaginary time as you head south toward the equator.

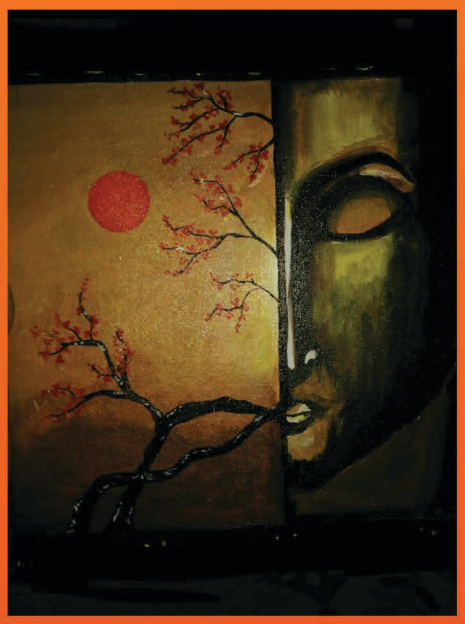
Hawking's views on the existence of God have been the subject of much debate, especially since his 1988 "A Brief History of Time" in which he mused that the discovery of an overarching theory of everything would allow us to "know the mind of God", which some people have interpreted as literal and some as literary. However, in his 2010 book "The Grand Design" he states unequivocally that "spontaneous creation is the reason there is something rather than nothing, why the universe exists, why we exist. It is not necessary to invoke God...to set the universe going".

Stephen Hawking died at age 76 on March 13, 2018.

- AYUSHI

“INTELLIGENCE IS THE ABILITY TO ADAPT TO CHANGE”

ART GALLERY



Seema Hegde

Pramod Rao K

Neha Sharma

Vinutha S

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Manasa S Kumar

Suraj Shivkumar

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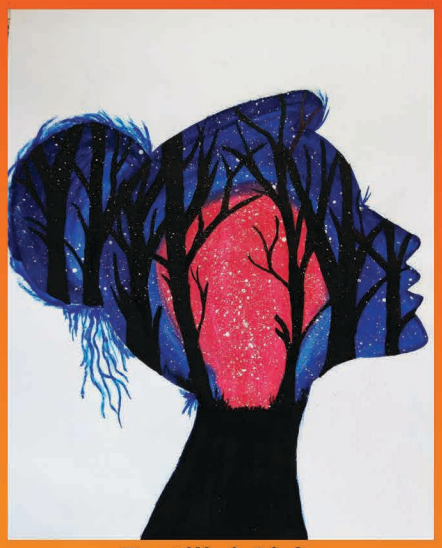
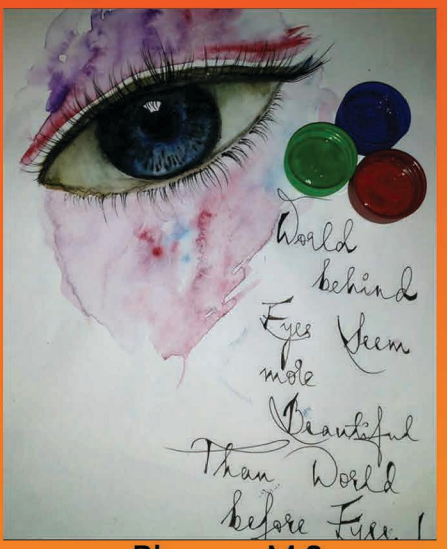


Pratilipi Aich

Suraj Shivkumar



Bhavana M.S

Suraj Shivkumar

Suraj Shivkumar

Aravind Kumar M

Rohit Renukarya

Rohit Renukarya

JOB PROSPECTS

FOR EC AND TE ENGINEERS

A layman's imagination of an ECE/TE, is a man working on an integrated chip in a sophisticated lab. In fact, most of us, ECE undergraduates stay oblivious to the plethora of job opportunities available to us after the completion of our course, isn't it? We end up believing the stereotype that there aren't many core jobs for us in the market. Well it's high time we break this stereotype. Let me take you through a short tour where we explore our ECE/TE domain together, and try to find the right fit for us in the corporate world.

Hardware/Circuit design engineer (both analog and digital)

Integrated circuit designs laid the foundation of all the leading semiconductor companies like Intel, Qualcomm, Samsung, Texas Instruments, etc., and thus Design Engineers are the most sought-after people by these organisations.They look for ECE engineers that have a strong hold on circuit concepts (linear & non-linear), control theory, signals & systems, device physics, semiconductor processing, digital signal processing, power electronics, VLSI, HDL & VHDL.

Embedded Software Engineer

Integrating software engineering with non-computer devices leads to the formation of embedded systems. These systems are typically popular in medical science, consumer electronics, manufacturing science, aviation and automotive sectors. A typical embedded system requires a wide range of programming tools, microprocessors and operating systems. Embedded software engineering, needs to be tailored to the needs of the hardware that it has to control and run on. Thus one must have proper understanding of non-computer hardwares (like microprocessors,microcontrollers,PLDs etc) along with various kinds of softwares (C, C++, ADA to name a few.) and operating systems (such as Nucleus RTOS, Linux, Windows CE, TreadX, OSE, etc.). With advancements in technology, the demand of Embedded software developers is on the rise. Almost every company working on IoT platforms or aforementioned sectors is looking for skilled Embedded Software Engineers.

Network/Network Security Engineer

Network engineers work with an organisation's computer network. LANs, WANs, intranets, extranets, VLANs are few examples of such data networks. These engineers must have skills to analyze where communications are going to be needed, create plans for the network, be up-to-date on the latest technology, understand and determine the hardware and wiring needs for buildings. Besides this they are also involved in the provisioning, deployment, configuration, and administration of many different pieces of network and security related hardware and software viz. firewalls, routers, switches, various network monitoring tools, and VPNs (virtual private networks). These engineers also regularly perform network-based security risk assessments, and they occasionally help design new infrastructure solutions as a company expands or replaces its system architecture.

Telecommunication Engineer

These engineers design and install equipments used for transmitting wired phone, cellular, cable, broadband data, satellite communications and internet. Their day-to-day responsibilities can include working with copper or fiber optic cabling, complex networks and switching systems. Telecommunications engineers may be employed by wired and wireless telecommunications companies, engineering consulting firms or government agencies. Telecom engineers play a vital role in any organisation as they make communication possible between companies, countries or devices. A telecommunication engineer must be well versed with all modes of communication (from cellular to satellite communication), switching systems, bandwidth requirement of various systems and networking concepts.

R&D Engineer

Research and Development refers to the innovative activities undertaken by corporations or governments in developing new services or products, or improving existing ones. It constitutes the first stage of development of a potential new service or the production process. New product design and development is more often, than not, a crucial factor in the survival of a company. In a global industrial landscape that is changing fast, firms must continually revise their design and range of products. This is necessary due to the fierce competition and the evolving preferences of consumers. Without an R&D program, a firm must rely on strategic alliances, acquisitions, and networks to tap into the innovations of others. So if you are passionately-curious about everything around you and love experimenting with the latest technology, then this field is perfect for you. R&D engineers are engaged in extensive study and implementation of latest technologies (eg. Practical Quantum Computers, Self-Driving Trucks, Artificial Intelligence, etc). They are the think tanks of any organization, striving towards excellence and bringing something new to their customers.

With the evolution of the computer age, Electronics & Communication has crept into every sphere of human life, thus increasing its scope manifolds. So, whether it is a reputed private organisation like Qualcomm or a deemed government agency like ISRO, an Electronics & Telecommunication engineer will always be an integral part of the organization.

- AKSHARA MEHROTRA

ಸ್ತ್ರೀ ಶೋಷಣೆಯಿಂದ ಪೋಷಣೆಯ ಕಡೆಗೆ.

ಕಂಠದಲ್ಲಿಯೇ ನಾಲ್ಕು ತಂತಿಯುಳ್ಳ ಇವಳ ಪರಿ,
ಉದುರುವ ಪ್ರತಿ ಮುತ್ತು ಸಹ ಗಾನಮಂಜರಿ.
ಸುರಕ್ಷೇತ್ರದಲ್ಲಿ ಪಡೆದಿರುವಳು ಭಾಗವತಿಯ ಉಪಾಧಿ,
ಸಪ್ತಸ್ವರಕ್ಕೂ ಇವಳೇ ಮಹಾಸನ್ನಿಧಿ.
ಸಂಗೀತದ ರಸದೌತಣಕ್ಕೆ ಹಿನ್ನಲೆ ಧ್ವನಿ ಆದಳು ಈಕೆ,
ಆದರೂ ಇವಳ ಬದುಕಿನ ಸರಿಗಮ ಅಪಸ್ವರಿತವೇಕೆ?

ಚೆಲುವುಳ್ಳ ನವಿಲಿನಂತೆ ನರ್ತಿಸುವ ಚಿತ್ತಾರ,
ಪ್ರತಿಯೊಂದು ಹೆಜ್ಜೆಯೂ ನಿಸರ್ಗದ ಮಡಿಲಿಗೆ ಅಲಂಕಾರ.
ನೃತ್ಯರಂಗದಲ್ಲಿ ರಂಗಸಜ್ಜಿಕೆ ಮಾಡುವ ಸಾಮರ್ಥ್ಯ,
ನವರಸಗಳ ರಾಸಾಸ್ವಾದನೆ ಸವಿಯುವ ಸಾರಥ್ಯ.
ಸಕಲ ನಾಟ್ಯಮಂದಿರಗಳ ದೇವತೆ ಈಕೆ,
ಆದರೂ ಇವಳ ಕಾಲಲ್ಲಿ ಸರ್ಪಣಿ ಏಕೆ?

ಸರಸ್ವತಿಯ ಜ್ಞಾನಾಂಶ ಹೊಂದಿದ ಈ ವಣಿತೆ,
ಸಮಸ್ತ ವಿದ್ಯಾ ಪಾರಂಗತೆ.
ವಿನಯ ಹರಡುವ ಈ ಜ್ಞಾನದಾತೆ,
ವಿದ್ಯಾರಣ್ಯದಲ್ಲಿ ಲೋಕಪೂಜಿತೆ.
ಆರಾಧಕರ ಬಾಳನ್ನು ಬೆಳಗುವಳು ಈಕೆ,
ಆದರೂ ಇವಳ ಪಾಲಿಗೆ ಧ್ರುವತಾರೆ ಇಲ್ಲವೇಕೆ?

ಪುರುಷಪ್ರಧಾನ ವರ್ಗದಲ್ಲೂ ಉನ್ನತ ಶಿಖರ ಏರುವವಳಿಗೆ ವಂದನೆ,
ಹಿಮೆಯ ಅಂಚಲದಲ್ಲಿ ಮಾಡುವಳು ದೇಶದ ದಿಗ್ಪಾಲನೆ.
ಪ್ರಾಣಭಯವ ತ್ಯಜಿಸಿದ ಕೆಂಡಸಂಪಿಗೆ,
ದೇಶಭಕ್ತಿಯಲ್ಲಿ ಅರಳಿದ ಮಲ್ಲಿಗೆ.
ಮೃತ್ಯುವಿಗೆ ಕಹಿ ಊಟ ಬಡಿಸುವಳು ಈಕೆ,
ಆದರೂ ಇವಳ ಪಾಲಿಗೆ ಕೃತಜ್ಞತೆಯ ಸಿಹಿ ಊಟವಿಲ್ಲ, ಏಕೆ?

ಮಮತೆಯ ದೇವಿಯಾದ ಜನನಿ,
ತುಂಟಾಟದ ಗೂಡಾದ ಭಗಿನಿ,
ಬಾಳ ದಾರಿಯಲ್ಲಿ ಸಂಗಾತಿಯಾದ ಪತ್ನಿ,
ಪ್ರಪಂಚದ ಕೇಂದ್ರಬಿಂದು ಆದಳು ಈಕೆ,
ಆದರೂ ಸುಪುತ್ರಿಯ ಜನನಕ್ಕೆ ಸಂತಸವಿಲ್ಲ, ಏಕೆ?

ಬನ್ನಿ, ಈ ಸ್ವರಾಗಿಣಿಯ ಜೀವನಕ್ಕೆ ಹೊಸ ಸಂಗೀತ ಕೊಡೋಣ.
ಈ ನರ್ತಕಿಯನ್ನು ಬಂಧನಮುಕ್ತ ಗೊಳಿಸೋಣ.
ಬನ್ನಿ, ಈ ಅಪ್ಸರೆಯನ್ನು ಕಳಂಕ ರಹಿತ ದೃಷ್ಟಿಯಿಂದ ನೋಡೋಣ.
ಈ ವಿದೂಷಿಯ ಮಾರ್ಗವನ್ನು ದರ್ಶಿಸೋಣ.
ಬನ್ನಿ, ಭ್ರೂಣ ಹತ್ಯೆಯ ಕುಪ್ರಥೆಯನ್ನು ಅಳಿಸೋಣ.
ಹೆಣ್ಣನ್ನು ಪೋಷಿಸಿ, ಓದಿಸಿ, ಗೌರವಿಸಿ, ಪ್ರಗತಿಯ ಡಂಗುರ ಸಾರೋಣ.

Priyanka Krishna

SHE

They say sky's the limit,
But themselves deny to admit.
She dreams of independence,
But is looked down as repentance.
A victim of brutality,
Yet the soul of her family.
Nourishes everything with love and care,
She has that strength, to bare.
With a smile on her face,
She keeps running the endless race.
A holy salute to her,
Who indeed is a true saviour!

- UNNATI KHARE

बस यूँ ही!

बस यूँ ही आज दिल किया तो,
गुनगुनाने लगे |
जो अधूरी खुशियां थी उन्हें,
धीरे धीरे पाने लगे |

न जाने क्यों कब और कैसे,
लगने लगा है कुछ ऐसे|
दिल से जुड़ी है वो सारी यादें,
वो मीठी मीठी प्यार भरी बातें |

बस यूँ ही!
बस यूँ ही बैठे-बैठे ख्वाहिशों,
कि अनहद में जाने लगे |
चलते-चलते हर मोड़ पर,
अपनी किस्मत आज़माने लगे |

रिश्तें जज़्बातों से बनाये जाते हैं |
ज़बरदस्ती केवल तोड़े जाते हैं |
हाथ में हाथ लिए साथ चलने के,
सभी लायक नहीं हो पाते हैं |

बस यूँ ही!
बस यूँ ही दुनिया के इस खेल में चुपचाप,
अपना भाग निभाए जा रहे हैं |
खुशियों को अपनाने के साथ ही,
गम का भार भी उठा रहे हैं |

आज सभी पास होकर भी दूर हैं,
दोस्तों कि कमी में दुश्मन भरपूर हैं |
न जाने इनमे से किस चेरे में है असलियत,
इन नकाबों को हटाकर बस चाहें हम बरकत |

बस यूँ ही!
बस यूँ ही नज़रों पर परदा डाले
सवेरे से शाम तक,
सपनो कि दुनिया में गोता
लगते रहे बेधड़क |

धीरे-धीरे सितारों भरी शाम का हुआ एहसास,
अंदर ही अंदर लगने लगा कुछ ख़ास |
बादलों पर बैठ सितारों को छूना चाहा,
के तभी दिल ने कुछ चुपके से कहा-
बस यूँ ही,
बस यूँ ही,
बस यूँ ही...

-प्रतिलिपि

EVERY END HAS A BEGINNING

You know what the most interesting part of this whole journey is? You do not know how will the next moment unfold. You may lose all that you have in the next moment. Or you may have all that you have always wondered . I do not know what are you going through right now. But, I do know, whatever is it, it will be okay. We cry over situations we can't control, people we can't have, degrees we can't attain, friendships we can't maintain but, we fail to see there are so many better things waiting for us. Do you have any clue how small this moment will feel 10 years from now? How you will see every dot getting connected?

Everything you give to the universe comes back to you- it may change its form, but it comes back. The selfless love you gave to the wrong person will come back from the right people. The hard work you put on that unfulfilled dream will create something powerful beyond your expectations.

You have got to keep living, Keep living your life. The best is yet to come. You are too young to decide it to be the end. It is never the end unless you make it. If you think it to be the end, don't you feel every end has a beginning too?

BLESSED

Realise how blessed you are. You have everything in this minute and even if you don't, you have the guts to pursue it and that is so much of what it takes. You have a beautiful world around you. You have people who you want to be with. You have this wonderful nature, some really good books in the shelf, you have all of it. Do you see that?

Life gets tough at times. Unpredictable things happen in middle of our most organised plans. You think it is all sorted when boom- everything is so different. You cry, shout and realise it won't be the same again. You see your relationships break, dreams shatter and you feel- that's it. This is the end.

But you know what, one fine day you find yourself having your morning tea looking out of the window and realising how all of this makes sense. You see how strong you have become. You remember everyone who stood by you and you feel how blessed you are- to have come out of the storm- better and stronger. Trust me it isn't easy, but once you start counting your blessings with gratitude, you become strong enough to bear it.

I Dream Of A Home

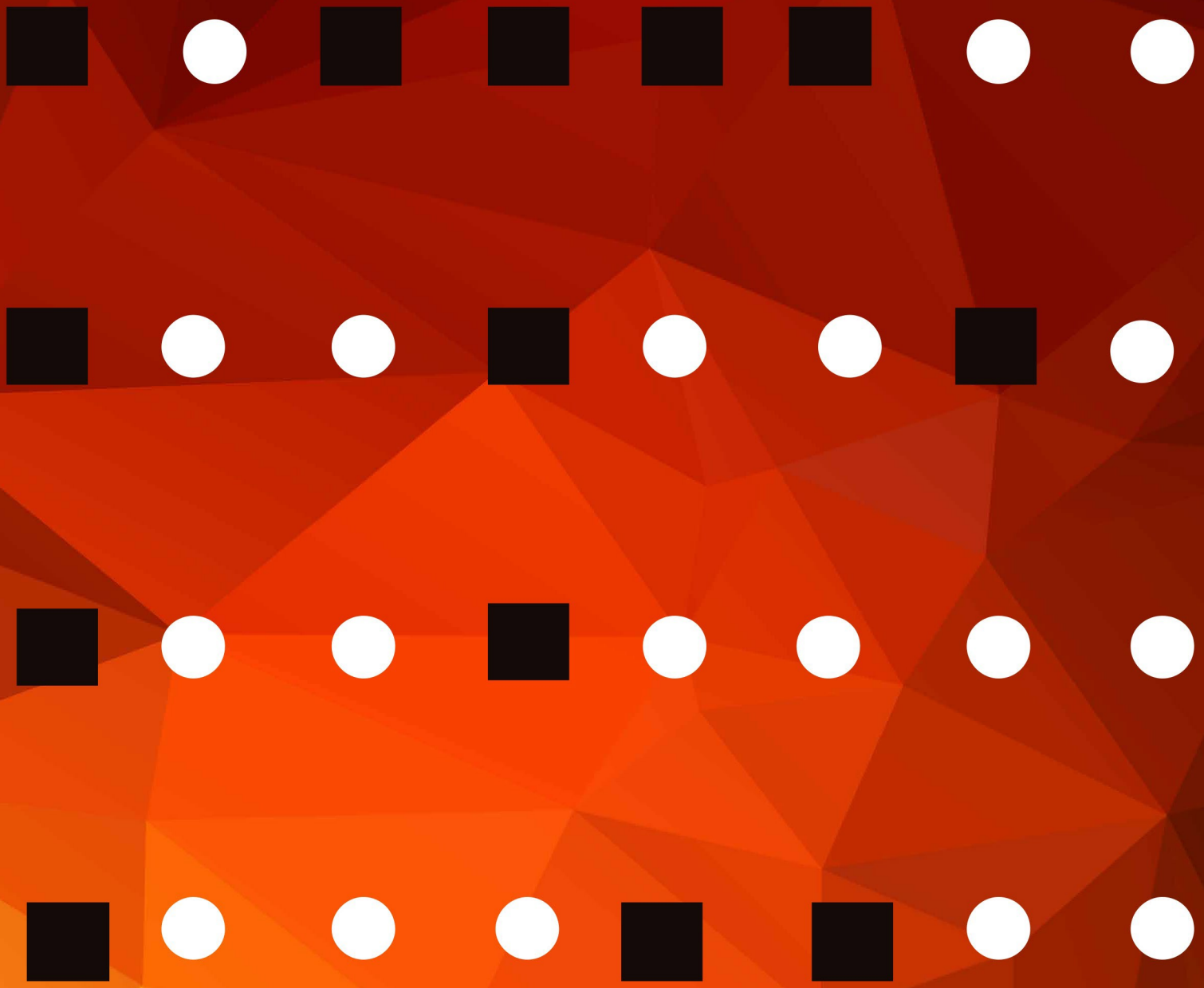
In a world where gender dominates our existence as human beings, I dream of a home, where a sister tells her brother-its okay to cry, to weep, to express, to speak, to ask for help when you are weak. None of this makes you less of a man. It makes you a human.

I dream of a home where a brother tells her sister to take a stand for her, makes her believe in her strength, tells her she is no less than him, tells her not to respect men just because they are born as men, but to find one who gives her space to grow, to learn and to do all that she has ever wanted to.

I dream of a world, where we are humans before men, women, engineers, doctors. I dream of a world where you are you, I am I before being a mister or a miss..

- PRIYANKA GUPTA

DECODE IT



HINT

Decode a word from the above code and claim your prize. Scan the QR code to submit your answer.

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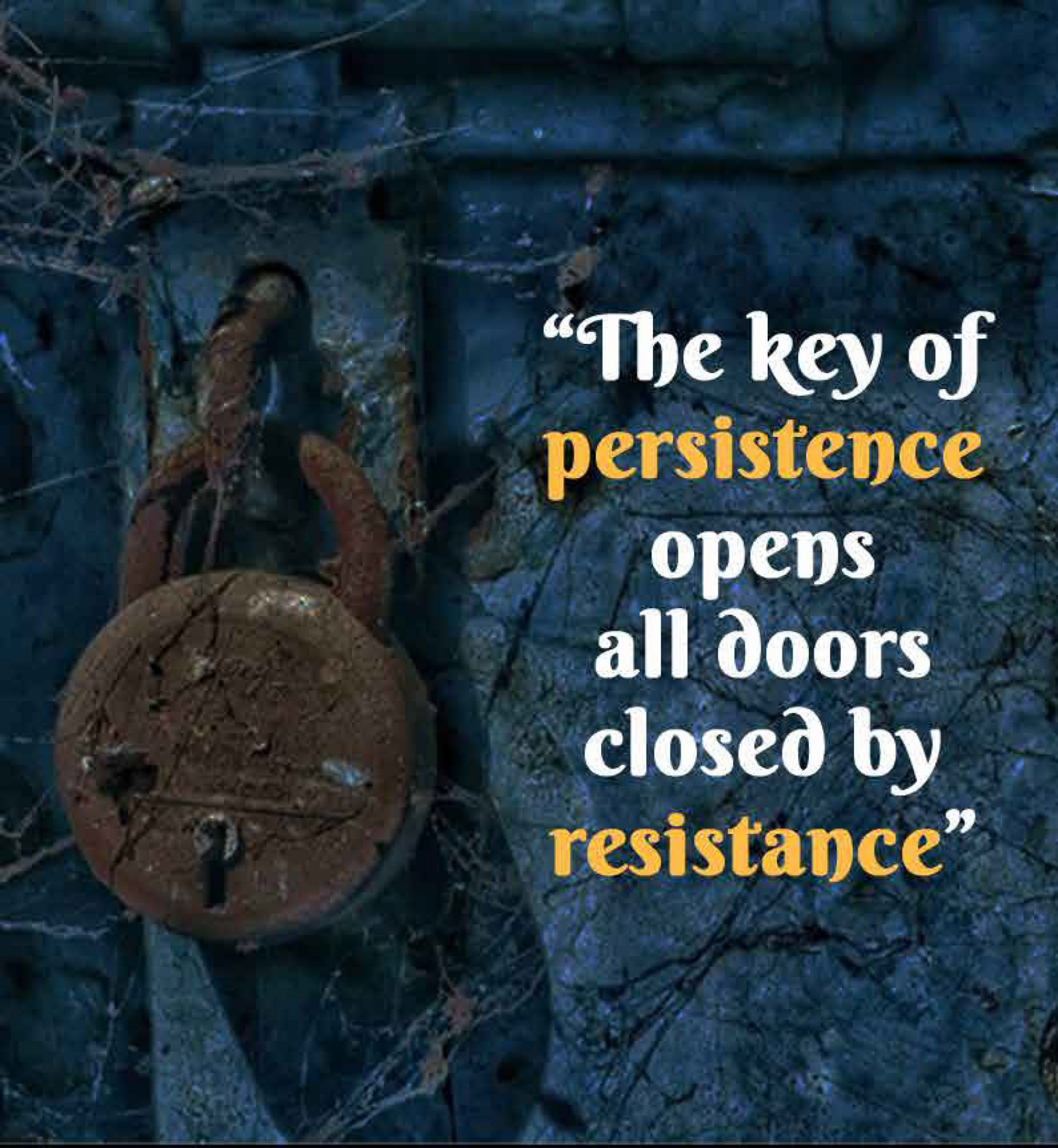

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