

# Techy Verse 2.0



# Techy Squad

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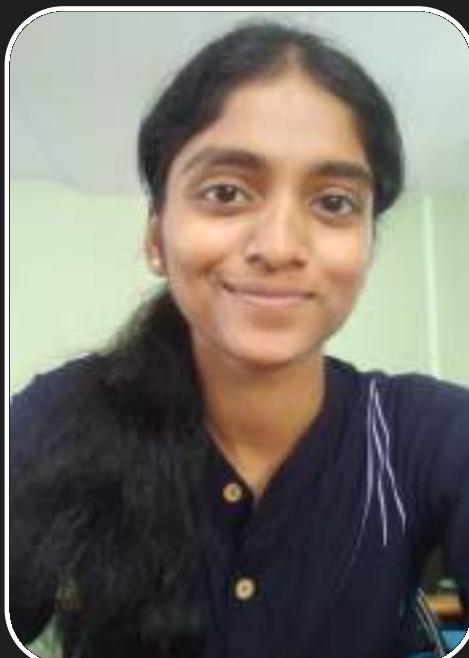
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# Editorial Note

Welcome once again to the 2nd edition of “Techyverse” the student magazine of TKRCET. As mentioned in the 1st edition, the magazine endeavours to capture the creativity of the young student community.



We all know that “The Pen is mightier than the Sword”. Writing is an art and a craft that needs to be developed through deliberate practise and study over a period of time.

Benjamin Franklin once said:

“Either write something worth reading or do something worth writing”

A college magazine is one of the best platforms for a student to express his or her thoughts. We need to begin to write. We need to take chances. It may be bad, but that’s the only way we can do anything really good.

The skill to communicate good ideas brilliantly in a way that appeals to the readers or the audience is an onerous task. I congratulate our student creative writers and the faculty who have enthusiastically contributed and helped me in compiling the magazine

***“My best wishes for the entire endeavour.”***

***-A Pramod Reddy***  
*(Assistant professor Dept-CSE)*

# Content

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# Message from Chairman

As chairman of the Institution, I deeply appreciate the active participation of all the students and faculty who are responsible for bringing out this magazine “TECHYVERSE”, 2023.



The TKR Educational Society is committed to provide quality education in a congenial and salubrious environment along with the most sophisticated infrastructure. The faculty's teamwork in producing an innovative curriculum helps to bring out the inherent technical skills and innovative of the students at the highest possible levels.

We focus in developing not only the academic talents of students but also their emotional quotient. They are trained to be resilient, caring, adaptive, reflective and open-minded. This develops confidence in them to take risks and become enterprising. Our mission is to prepare our children not merely for economic independence but also to face life's challenges with confidence and ingenuity.

College magazines encourage students to think and write. The young talent finds its first exposure through this medium. The magazine also records the various achievements and activities of the Institution. This magazine, I am sure, is successful in achieving these objectives.

***“My best wishes for the entire endeavour.”***

***-Teegala Krishna Reddy***  
***(Chairman)***

# Message from Secretary

Creativity is centered around original thought and knowledge which unleashes potential and is an integral part of 'idea generation'.



Innovation on the other hand, is used to turn the creative idea that one comes up with into a viable solution. A genuine researcher is one who keeps generating ideas and transforms them into viable solutions.

The human brain constantly reorganises itself. It's tailor-made for learning. The brain's two hemispheres function differently. Theory says that people are either left-brained or right-brained, meaning that one side of their brain is dominant.

If you're mostly analytical and methodical in your thinking, then you're left-brained. If you tend to be more creative or artistic, you're right-brained.

While engineering activities triggers the left side of the brain, activities related to art, literature, music etc activates the right side of the brain.

Writing, Compiling and editing articles for the college magazine activates the student's right side of the brain and makes him or her imaginative, intuitive, artistic. It leads to the psychological and emotional growth of the students.

***"My best wishes for the entire endeavour."***

***-Dr. T. Harinath Reddy***  
(Secretary)

# Message from Treasurer



The TKR Educational Society is unwavering in its commitment to make learning an amicable and enjoyable experience by implementing an integrated approach with the right blend of academic, extracurricular and sports activities.

We aim to build the all-round personality of each student, that goes beyond just academics.

This college magazine TECHYVERSE 2023 showcases the ingenuity, the collaborative teamwork and industry of our students. Working for the magazine meliorates the imagination and creativity and artistic talent of the students.

Today's students are tomorrow's nation builders. The fine qualities that the student's imbibe and the technical skills that they will learn to apply would be a major contribution to the society and ultimately the nation.

***“I am elated that TECHYVERSE 2023 has greatly helped the juvenile writers to express their literary talent and motivated them to work as a team.”***

***-T. Amarnath Reddy  
(Treasurer)***

# Message from Principal



Dear Students,

It gives me immense pleasure to pen down a few words as a prologue for our inhouse college magazine “TECHYVERSE”.

The magazine is meant for bringing out the potential writing talent of the students as a part of your personality development.

It is a matter of great pride for the college that the students have made outstanding progress in academic, co-curricular and extra-curricular activities.

The mission of the college is to empower the students with knowledge, experience, life values and skill to tackle global competition. The college aims and has been successful to a large extent in becoming a prime centre for knowledge enhancement and career development.

Our honorable president and missile man Dr. Abdul kalam once said

*“Thinking is the capital  
Enterprise is the way  
Hard work is the solution”*

Thinking and hard work should go hand in hand and success is assured. Dream big, work hard and never give up

***“I extend my warm wishes to the editorial team and students on the publication of “TECHYVERSE” and I also wholeheartedly wish you to continue with this journey on the part of excellence.”***

***-Dr. D. V. Ravi Shankar  
(Principal)***

# Message from Vice Principal

I feel extremely happy to speak to you through this college magazine, as TKR College of Engineering brings out the Annual college magazine, for the academic year 2021-22.



Publishing a magazine is a herculean task. The college has grown over the years but has not aged; it continues to be prestigious, pursuing excellence and professionalism. It has provided and continues to provide an ideal environment for each one of you to blossom into fine flowers, whose fragrance should spread wherever you go.

The memories of days spent in the college will remind you of the quality of care, upbringing and value system, which will help you shape your entire life. The experience of life teaches us the universal truth that there are “no shortcuts to hard work and no gains without pains”.

**-Dr. A. Suresh Rao**  
(Vice principal)

# The rise of AI engineering

K Madhan Netha

22K91A6785 (CSD)

*“Machine Learning and software engineering too. The basic work of an AI ENGINEER is to bulid an AI product by training it with several data sets and making use of machine learning”*



Unlike meta, virtual reality(VR), and augmented reality(AR), AI is not just a boom or any hype, it's more than any hype. It's a reality and unlike VR or AR it hasn't really taken much time to come in use for humans. It's already being used extensively by people.

AI ENGINEERING is creating innumerable job opportunities with all security for the future.

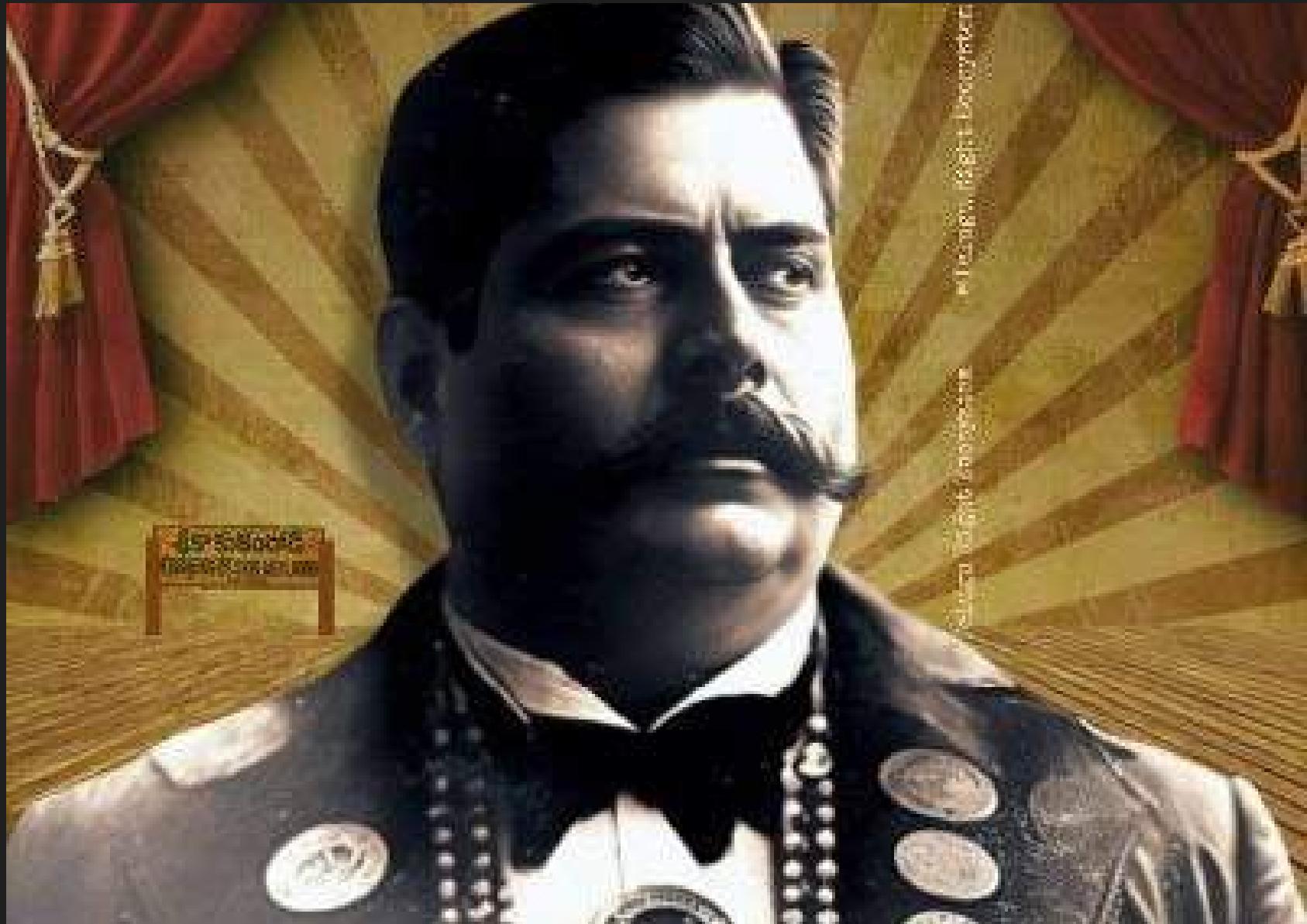
## WHAT IS AI ENGINEERING?

AI ENGINEERING is the process of designing, developing, and testing AI systems. It includes knowledge of many skills like data engineering, Machine Learning and software engineering too. The basic work of an AI ENGINEER is to bulid an AI product by training it with several data sets and making use of machine learning models

# The mighty indian hercules: Kodi Rammurthy

Anonymous

*"The Nation's first wrestler who dominated wrestling tournaments throughout Punjab and International He was an Indian bodybuilder who earned enormous respect for India in the field of wrestling"*



SHRI KODI RAMMURTHY NAIDU was Born on April 1882, Veeraghattam in Andhra Pradesh. He was died on 2 February 1942 in Balangir, Odisha "THE MIGHTY INDIAN HERCULES

The Nation's first wrestler who dominated wrestling tournaments throughout Punjab and International He was an Indian bodybuilder who earned enormous respect for India in the field of wrestling. Naidu dominated wrestling tournaments throughout Punjab as well as internationally.

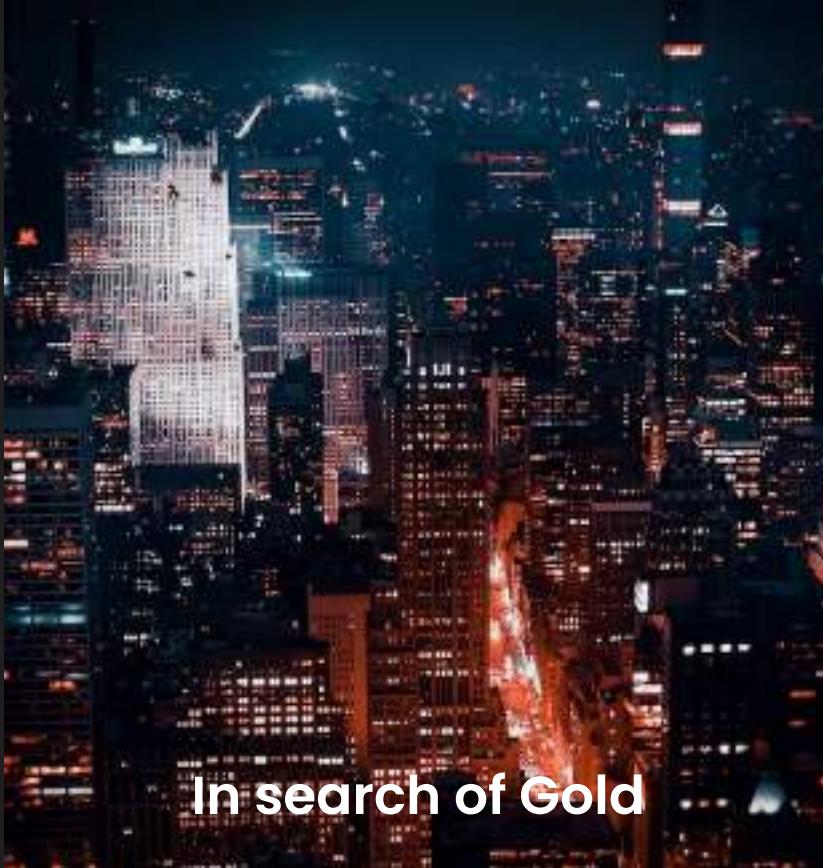
He got profound knowledge in Vayu Stambhana (air- resistance) and Jala Stambhana (water resistance). He was awarded with the title of Kaliyuga Bhima by the King George V of the United Kingdom. He established a circus and earned a lot of money but donated it to the charitable trusts contributed a lot in the Indian independence movement.

# Light Pollution

G Shiva Reddy

21K95A0514 (CSE)

***"Light pollution is a growing problem that is caused by the excessive use of artificial light. It is a type of environmental pollution that affects both human health and wildlife"***



Every body knows about air pollution, water pollution, soil pollution, sound pollution and are aware of them but no one knows about light pollution and its effects.

Light pollution is a growing problem that is caused by the excessive use of artificial light. It is a type of environmental pollution that affects both human health and wildlife. Light pollution can be defined as the excessive use of artificial light that results in a loss of darkness in the night sky.

There are several types of light pollution, including skyglow, glare, and light trespass. Skyglow is the brightening of the night sky over urban areas, caused by the reflection of artificial light off the atmosphere. There are several ways to reduce light pollution, including using energy-efficient lighting, installing motion sensors or timers, and shielding outdoor lights to prevent light from shining onto neighbouring properties. The use of dark sky friendly lighting, which directs light downward instead of upward, can also help to reduce light pollution. Use natural light as much as you can.

Reducing light pollution doesn't have to mean eliminating lights. Outdoor lighting just needs to be directed where it is needed, when it is needed. And critically, any outdoor lights should be amber-coloured, rather than the white/blue LEDs that disrupt the circadian rhythms of humans and wildlife alike.

In conclusion, light pollution is a growing problem that affects both human health and wildlife. It is caused by the excessive use of artificial light and can have a negative impact on the environment. There are several ways to reduce light pollution, including using energy-efficient lighting, shielding outdoor lights, and using dark sky friendly lighting. It is important that we take action to reduce light pollution and preserve the beauty of the night sky for future generations. Because of light pollution we are missing the beauty of a star-studded sky.

# Latest trends in Tech

Vishal Marnar

**“5G networks can enable the development of new technologies such as autonomous vehicles and smart cities”**



Technology is constantly evolving, and there are always new advancements and innovations being developed. In this article, we will briefly discuss some of the latest technology trends that are shaping our world.

## Artificial Intelligence (AI)

Artificial Intelligence is transforming industries such as healthcare, finance, transportation, and education. With the help of machine learning, natural language processing, and deep learning algorithms, AI can analyze vast amounts of data to derive insights and make predictions. AI-powered chatbots are becoming increasingly common in customer service, while in healthcare, AI is being used to develop more accurate diagnostic tools.

## Blockchain

Blockchain technology is a decentralized, distributed ledger that is used to record transactions and maintain transparency and security. It has the potential to disrupt industries such as finance, healthcare, logistics, and more. In finance, blockchain can facilitate secure and fast transactions without the need for intermediaries. Blockchain-based smart contracts can automate complex processes and reduce transaction costs.

## 5G Networks

5G networks are the next generation of wireless technology, providing faster and more reliable internet connectivity. 5G technology can offer speeds up to 100 times faster than current 4G networks, with lower latency and higher bandwidth. 5G networks can enable the development of new technologies such as autonomous vehicles and smart cities.

## Virtual and Augmented Reality (VR/AR)

Virtual and Augmented Reality technologies are transforming the way we experience the world. VR allows users to experience a completely immersive environment, while AR overlays digital information onto the real world. In industries such as gaming and entertainment, VR/AR can create unique experiences that were previously impossible.

In conclusion, these are just a few of the latest technology trends that are shaping our world. As these technologies continue to develop and mature, they will revolutionize various industries and provide new opportunities for innovation and growth. It is important for individuals and businesses to stay updated with the latest technology trends to remain competitive and successful in the ever-changing digital?

***"The Secret has been a popular self-help guide and has inspired many people to adopt a more positive mindset and take control of their lives"***



"The Secret" is a self-help book written by Rhonda Byrne, which was published in 2006. The Secret revolves around the idea of the law of attraction, which suggests that positive thinking and visualization can lead to positive outcomes and success in life. The book discusses the power of positive thinking, gratitude, visualization, and other practices to attract success, wealth, and happiness into one's life.

The Secret has been a popular self-help guide and has inspired many people to adopt a more positive mindset and take control of their lives. "The Secret" has become a cultural phenomenon and has been the subject of many discussions and debates.

"The Secret" is based on the idea that the universe is made up of energy, and that we can attract positive or negative things into our lives through the power of our thoughts and emotions. According to the book, if we focus our thoughts and emotions on positive outcomes, we can attract those things into our lives.

"As you learn The Secret, you will come to know how you can have, be, or do anything you want. You will come to know who you really are. You will come to know the true magnificence that awaits you in life."

The Secret presents a series of techniques and practices to help readers harness the power of the law of attraction. These include positive affirmations, visualization, gratitude, and mindfulness. The Secret also emphasizes the importance of taking action towards our goals and staying open to opportunities that may come our way.

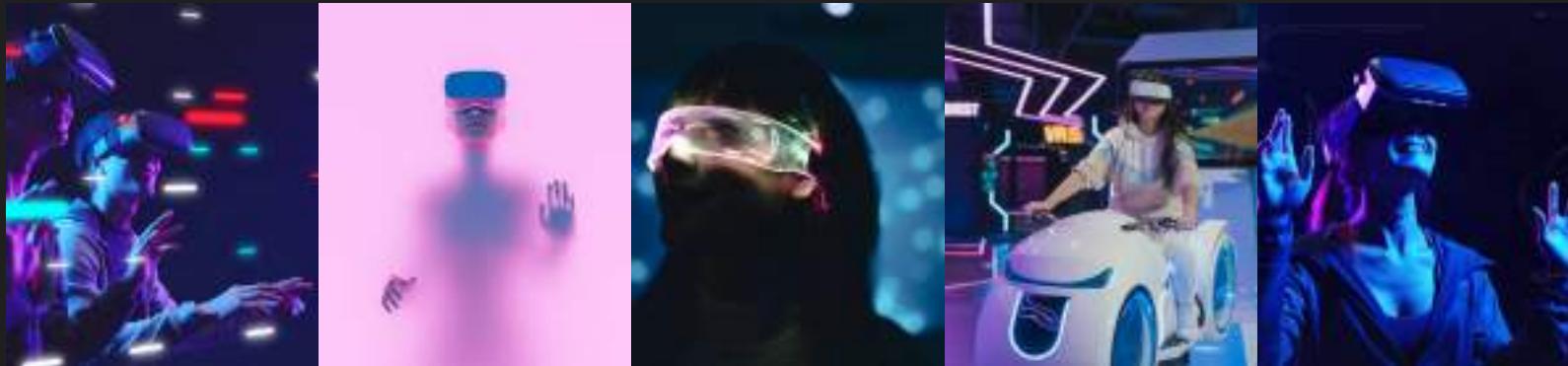
"The Secret" has become a cultural phenomenon and has influenced many people to adopt a more positive mindset and take control of their lives. The Secret has spawned a number of related products, including a documentary film and a follow-up book by Rhonda Byrne called "The Power."

# Virtual reality (VR)

**J Ashwik**

21241-CE-017

***"Off late VR is being used in different fields, as for gaming , military training architectural design , education , learning and social skills training"***



As we know already, Virtually Reality is attracting the attention of users, and it may be the next largest stepping stone in Technological innovation.

VR is a Computer generated environment and makes us feel like we are immersed in surroundings with scenes and objects that appear to be realistic. This graphical environment is created through a device known as a virtual reality headset or helmets and makes us feel like we are somewhere else and It's special software produces images, sounds, taste, sense of smell, touch etc. We feel like we are part of another world. However, the whole environment in this Technology is not real.

In the last 20 years, 100s of researches were exploring this area. However, the concept of VR was formed in 1960s and the first commercial VR tools appeared in the late 1980s. The first Stereoscope was invented in 1838, using twin mirrors.

In 1956, Morton Heilig's wanted to see how people could feel and enjoy when they were "in" The movie. He was from the Hollywood motion picture industry and invented sensorama. Heilig also invented a head mounted display device in 1960, and named it as TELESPHERE MASK.

Ivan Sutherland In 1965, invented "the ultimate display", a head - mounted device and he said that it would serve as a Window into the virtual world.

At NASA Ames research Center in 1980s , the Virtual Interface Environment Work station (VIEW) system invented a head-mounted device with gloves to enable the Haptic interaction. The most advanced VR technology in our generation is Varjo XR - 3. It delivers the most immersive mixed reality experience ever constructed. It is a low cost virtual reality (VR) technology attracting the attention of the users.

Off late VR is being used in different fields, as for gaming , military training architectural design , education , learning and social skills training , simulations of surgical procedures etc...

Mark Zuckerberg bought Oculus for two billion dollars (1,54,96,27,00,000 INR) .

Currently, many other companies, such as Sony, Samsung, HTC, and google are making huge investments in VR technology. VR is a simple concept with lots of hard work by many scientists and it is made of screens, and computer systems connected together and it has a psychological feeling of "being there". I think VR is our next generation.

# Nanobots can connect our brains to the internet

V Shravani  
21R91A04P5 (ECE)

***“Nanobots are also capable of providing full immersion virtual reality and making people feel like they're really in another place”***



We have often seen nanobots depicted in movies like big hero 6 but recently they are becoming a reality. Let's look what they are and the promise that they hold in the context of biotechnology and some of the latest research happening around the globe.

The origin of "Nanobots" is commonly attributed to Richard Fineman a scientist in the Manhattan project the man behind the theory of Quantum computers and a pivotal mind in quantum physics.

SO, WHAT IS NANO?

NANOTECHNOLOGY is the science engineering and technology conducted at the nano scale which is about 1 to 100 nanometre's. A Nanometre is a million times smaller than the length of an ant. Now let's take at the state of the art, researchers at the university of San Diego develop nano robots capable of cleaning of toxins from blood generated by harmful bacteria. These nano robots are about 25 times smaller than the width of a human hair. Nano bots are typically ingested in pill form or introduced to the body through the other means.

In future, nanobots will be replacing smartphones and VR glasses. It's possible to send nanobots directly into people's brain and connect their neocortices to the internet and various cloud services. This is giving users of these nanobots constant access to all the information in the world and the ability to access it instantly. This is also giving those users picture perfect memory in regards to the video, image, text and audio data they can access. This is resulting user's upgrading their brain's memory capacity by a millionfold.

Nanobots are also capable of providing full immersion virtual reality and making people feel like they're really in another place. This is due to the nanobots controlling incoming and outgoing brain signals. Various companies will be emerging that are using nanobots to mimic all types of experiences that are controversial and recreational. As a result of these innovations, we will be witnessing an explosion of creativity when comes to music, art, movies, shows and of new inventions.

# Who is Elon Musk...?

Sandeep K  
20K91A0587 (CSE)

***"The company has become a major player in the automotive industry, and Musk has become a vocal advocate for electric vehicles and other forms of renewable energy"***



Elon Musk is a well-known entrepreneur and business magnate. He is the CEO of several companies, including SpaceX, Tesla, Neuralink, and The Boring Company. Musk was born in South Africa in 1971 and later moved to the United States, where he attended the University of Pennsylvania and eventually founded several successful tech companies.

Musk is perhaps best known for his work with SpaceX, which aims to make space travel more affordable and accessible. Under his leadership, SpaceX has successfully launched and landed multiple reusable rockets, with the ultimate goal of establishing a permanent human settlement on Mars.

At Tesla, Musk has played a key role in the development of electric cars and sustainable energy technologies. The company has become a major player in the automotive industry, and Musk has become a vocal advocate for electric vehicles and other forms of renewable energy. In addition to his work with SpaceX and Tesla, Musk has also founded Neuralink, a company focused on developing advanced brain-computer interfaces, and The Boring Company, which aims to reduce traffic congestion through the construction of underground tunnels.

Musk is known for his bold and often controversial statements and his willingness to take on big challenges in pursuit of his vision for a better future. He has been recognized with numerous awards and accolades for his work in technology and entrepreneurship.

# Nano and Bio technology

V Saidhulu  
22R95A0259 (EEE)

***“Biotechnology can be used to develop crops that are more resistant to pests and diseases, leading to more sustainable and efficient agriculture practices.”***



Nanotechnology is another field that is expected to have a significant impact on the future. Nanotechnology involves the manipulation of matter at the atomic and molecular level. This technology has the potential to revolutionize fields such as medicine, energy, and electronics. In medicine, nanotechnology can be used to develop more precise and targeted treatments for diseases, while in energy, it can lead to more efficient and cost-effective solar panels and batteries. Finally, biotechnology is another area that will see significant development in the future.

Biotechnology involves the use of living organisms to develop new products or processes. Advances in biotechnology will have implications for fields such as agriculture, medicine, and environmental sustainability. For example, biotechnology can be used to develop crops that are more resistant to pests and diseases, leading to more sustainable and efficient agriculture practices.

## FUTURE TECHNOLOGY ADVANTAGES:

- the coming years, we can expect to see ground-breaking advancements in fields like artificial intelligence, robotics, nanotechnology, and biotechnology that will fundamentally change the way we live, work, and interact with the world around us.
- One of the most significant technological trends in the future is artificial intelligence (AI). AI is the development of computer systems that can perform tasks that typically require human intelligence, such as visual perception, speech recognition, decision-making, and natural language processing. We are already seeing AI-powered applications in areas such as healthcare, finance, education, and transportation, and we can expect to see even more widespread adoption in the coming years

In conclusion, the future of technology is bright, and we can expect to see significant advancements in areas such as artificial intelligence, robotics, nanotechnology, and biotechnology. These advancements will have far-reaching implications for society and will fundamentally change the way we live, work, and interact with the world around us. As these technologies continue to evolve, it is essential that we consider their potential impact on society and work together to ensure that they are used for the greater good.

# My Journey in the Kitchen: A Personal Exploration of the Art of Cooking

G Satwik Reddy  
20K91A0557

*"I discovered that the right combination of spices could transform a simple dish into a culinary masterpiece"*



Cooking has always been a part of my life. Growing up, I watched my mother and grandmother whip up delicious meals in the kitchen with ease. However, it wasn't until I moved out on my own that I truly began to appreciate the art of cooking. Over the years, I have discovered that cooking is not just about feeding oneself, but it is a creative outlet that brings me joy and satisfaction. In this article, I would like to share my personal journey in the kitchen and the lessons I have learned along the way.

When I first started cooking, it was out of necessity. As a college student living on a tight budget, eating out was not an option. I quickly realized that cooking my own meals was not only cheaper but also healthier. At first, my meals were simple - Maggie noodles or scrambled eggs. But as I gained confidence in the kitchen, I began to experiment with different ingredients and flavors.

One of the things I love about cooking is the opportunity to explore different flavors. I would often spend hours researching new recipes or experimenting with different spices and herbs. I discovered that the right combination of spices could transform a simple dish into a culinary masterpiece. I also learned that cooking is not just about following a recipe but also about trusting my instincts and making adjustments to suit my taste.

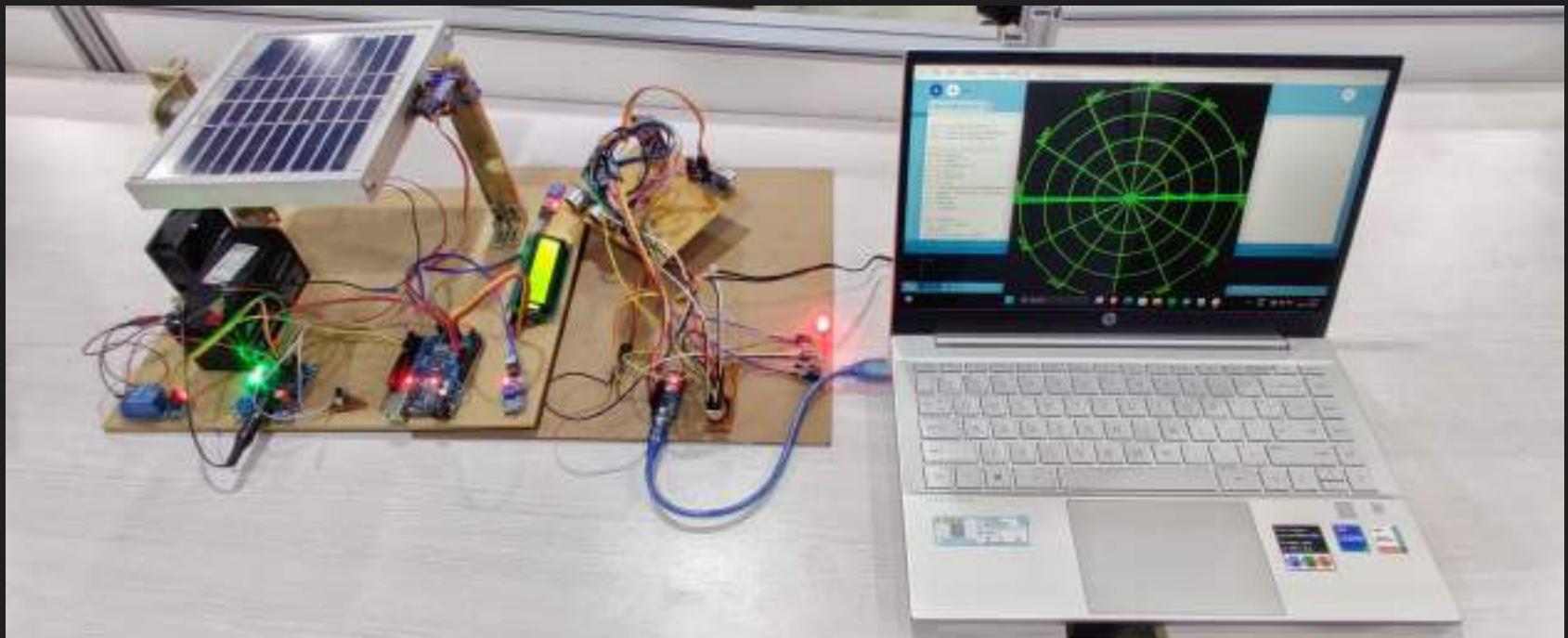
Ofcourse, not every dish I made turned out perfectly. I remember the burning of omelette, undercooking chicken, and under seasoning dishes. But instead of getting discouraged, I learned from my mistakes. I would read up on cooking techniques and ingredients, and practice until I got it right. I realized that cooking is a process and that even the best chefs make mistakes.

As I continued to cook, I began to share my creations with family and friends. I loved seeing their reactions to my dishes and the joy it brought them. Cooking became a way for me to connect with people and to show them that I cared. I also enjoyed the challenge of cooking for larger groups and experimenting with different cuisines.

In conclusion, my journey in the kitchen has been a personal exploration of the art of cooking. I have learned that cooking is not just about nourishing the body, but also about nourishing the soul. It has taught me patience, perseverance, and the joy of creating something from scratch. I hope that this article inspires others to discover the joy of cooking and to embark on their own culinary adventures.

# ARDUINO IOT SYSTEM FOR DEFENCE ENHANCEMENT

***"Enhancing Defence Capabilities with an Arduino-based Solar Energy Tracking and Ultrasonic Sonar System Controlled via IoT"***



In today's world, technology has played a significant role in enhancing our defence capabilities. The need for renewable energy and advanced sensing systems has become more critical than ever before, and it is crucial to develop cost-effective solutions that can address these challenges. The proposed project, "Enhancing Defence Capabilities with an Arduino-based Solar Energy Tracking and Ultrasonic Sonar System Controlled via IoT," aims to provide a comprehensive and innovative solution that combines solar tracking and ultrasonic sensing technology to meet the increasing demand for sustainable energy and advanced sensing capabilities.

The project's main objective is to design and develop an Arduino-based solar tracking system using LDR sensors and a Servo motor that can track the sun's position and adjust the solar panel's angle accordingly, increasing energy harvesting efficiency. The system's second objective is to create an Ultrasonic Sonar System controlled by Arduino and ESP32 cam that can detect objects in a 360-degree field view and send live streaming to an IoT Server. Additionally, the system features an automatic Laser shooting mechanism that can expand its potential applications in security and defence.

The solar tracking system uses LDR sensors to detect the sun's position and guide a Servo motor to adjust the solar panel's angle. This system eliminates the need for manual intervention and can adjust the solar panel's angle in real time, ensuring maximum exposure to the sun's rays. This approach is more affordable than other tracking mechanisms such as GPS, compass, or accelerometer, making it a cost-effective solution for maximizing energy harvesting. The Ultrasonic Sonar System controlled by Arduino and ESP32 cam is the second major component of the proposed system.



The system uses ultrasonic waves to detect objects in a 360-degree field view and sends live streaming to an IoT Server. This feature makes it suitable for a wide range of applications, including surveillance, mapping, or navigation. The system's ability to provide a live 360-degree field view enhances situational awareness, making it a valuable tool for defence and security purposes. The third major component of the system is the automatic Laser shooting mechanism. This feature expands the system's potential applications in security and defence. The laser can be used to detect and target objects, making it a valuable tool for military operations or border security. The system's architecture is based on the Arduino UNO Microcontroller, which is a cost-effective and widely available platform that provides a user-friendly interface for controlling the system's components.

The system's IoT connectivity enables remote monitoring and control, making it a valuable tool for defence and security purposes. The proposed system's unique features set it apart from existing solar tracking and ultrasonic sensing systems. The use of LDR sensors in the solar tracking system provides a cost-effective solution for maximizing energy harvesting, which is more affordable than other tracking mechanisms such as GPS, compass, or accelerometer. The Ultrasonic Sonar System's ability to detect objects in a 360-degree field view and send live streaming to an IoT Server makes it suitable for a wide range of applications, including surveillance, mapping, or navigation. The system's automatic Laser shooting mechanism expands its potential applications in security and defence. The system's low-cost, indoor design makes it accessible to a wide range of users, including military personnel, security agencies, and civilian users.

The proposed system's versatility and potential for various applications make it a valuable tool for enhancing our defence capabilities. In conclusion, the proposed project, "Enhancing Defence Capabilities with an Arduinobased Solar Energy Tracking and Ultrasonic Sonar System Controlled via IoT," aims to provide a comprehensive and innovative solution that combines solar tracking and ultrasonic sensing technology to address the increasing demand for sustainable energy and advanced sensing capabilities. The system's unique features, such as LDR sensors in the solar tracking system, live streaming of a 360-degree field view, and automatic Laser shooting mechanism, make it unique and suitable for the Defence sector.



**Afreeen**  
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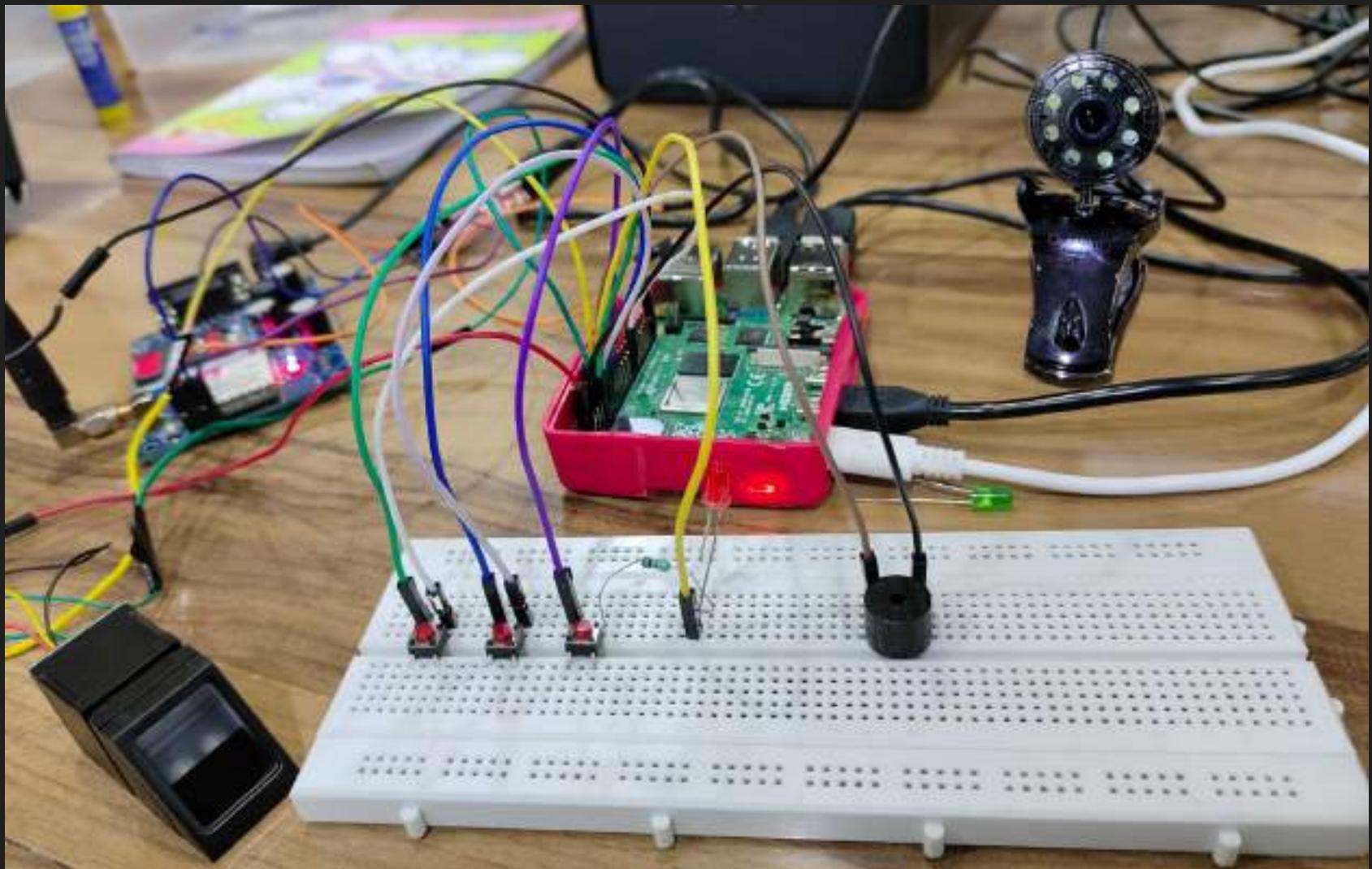
**Musharaf**  
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**Manideep**  
19K91A04F7

# BIOMETRIC BASED ELECTRONIC VOTING SYSTEM

*“The project is centered on a Biometric verification-based electronic voting system that allows voters to cast their vote by verifying their identity through fingerprint scanning”*



As technology advances, it has become increasingly important to integrate it into our democratic processes to ensure fair and secure elections. The Biometric verification-based electronic voting system is a prime example of how technology can be used to enhance the voting experience while ensuring the security of the process. In this article, we will discuss about a project that focuses on such system.

The project is centered on a Biometric verification-based electronic voting system that allows voters to cast their vote by verifying their identity through fingerprint scanning. The project makes use of a SQLite database to store voter details along with their fingerprints. Once a voter verifies their identity through the fingerprint scanner, they are granted access to the voting system. The voting system displays a list of political parties, and voters can cast their vote by pressing the button next to their preferred party.



One of the significant advantages of this system is the accuracy and security it provides. The use of biometric verification ensures that only eligible voters can cast their vote, and the system can detect any instances of fraud or impersonation. Additionally, the use of a database to store voter details ensures that the voting process is more efficient and accurate.

Another notable feature of this system is the use of alert messages to notify voters that their vote has been cast successfully. This feature not only adds an extra layer of security but also ensures that voters have peace of mind knowing that their vote has been registered and counted.

Furthermore, the system stores voting results in a database and presents them in the form of an Excel sheet. This feature ensures that the voting process is transparent, and results can be easily accessed and analysed by the authorities.

We are also working on integrating face recognition technology to add an extra layer of security to the system. This feature would ensure that the voter is who they claim to be by matching their face to the one on their identification card.

Overall, the biometric verification-based electronic voting system provides a fast, secure, and efficient way to conduct elections. The system eliminates the possibility of fraud, provides transparency, and ensures that every vote is counted. As technology continues to advance, it is vital to use it to improve our democratic processes and ensure that every vote counts.

# VOTE.

# TKR Centre for Research and Innovation

***“TKR Center for Research and Innovation for the smooth conduction of R&D experiments”***

JNTUH recently accorded Research Centre for CSE Department, which was established in the new TKR Center for Research and Innovation. The following are the photographs of the facilities available (computers, high speed server) and additive manufacturing lab and also research labs for Electrical and Electronics Engineering and Electronics and Communication Engineering departments.



Additional Facilities available for R&D center:

1. Center for VLSI design
2. Center for Machine Learning & Data Science
3. Additive Manufacturing Lab for Design thinking
4. PCB designing

The additional equipment's which are available in the existing laboratory will be deployed in the new TKR Center for Research and Innovation for the smooth conduction of R&D experiments. The lab is intended to create willingness to the students to make an effort and take a chance instead of assuming that their efforts won't pay off. The hands-on work culture will train them to learn from their mistakes and will make them resilient. Scientific discovery in the past clearly indicate that constant efforts trigger serendipity.

TKR Research center is a platform for the students to think and act relentlessly. Interactions in these labs not only get them the PhD degree but also orient the young students and make them entrepreneurs to tap on indigenously available raw material and create products that are cost effective, superior in quality and consumer friendly.

A Total of nine projects proposals were applied from various departments for DST CRG and SRG project grants

Recently MSME projects for a total worth of Rs. One crore were approved by the competent authority



## **TKR College of Engineering and Technology R&D sanctioned and on-going research projects from various Funding Agencies:**

Dept.	Name of the Principal Investigator	Funding Agency	Title of the Project	Tenure	Amount	Status
S&H	Dr. B. Rajini Kanth	DST SERB NEW DELHI	Determination of MPIS on CoNiAl FSMA for Sensors and Actuators	3 years	17.04L	Completed
MECH	Dr. Suresh Akella/Dr. D.V. Ravishankar	TEQIP-III, JNTUH Procs.	Development of mobile Air conditioner with eco friendly refrigerant 134a	1 year	3L	Completed
EEE	Dr. K. B. Raju, Coordinator, EEE Department	AICTE	EEE MODROBS	1 year	12.8 L	Completed
ECE	Dr. M. Girish Kumar	DST SERB NEW DELHI	Quality of Signal Improvement in Prominent GNRFET based ternary logic system for futuristic dielectric inserted MLGNRs for Integrated Circuit Designs	2 years	13.464L	On going
CSE	Dr. A. Suresh rao/Dr. B. Vishnu Vardhan	TEQIP-III, JNTUH Procs.	Minimallistic Approach to Predict Cardiovascular Diseases using various risk factors that go undiagnosed till advanced stages	1 year	2.6L	Completed
CSE	Dr. G. Madhu/Dr. B. Sunil Srinivas	TEQIP-III, JNTUH Procs.	Automatic Diagnostic Model for Detection of Malaria parasites from Microscopic images	1 year	2.98 L	Completed
MECH	Dr.D.V.Ravi Shankar and Perike Enosh	MSME	Unmanned surface vehicle for defense and civilian application	20L		On going

# Ethics in AI

***“Artificial intelligence is an overall term describing a set of different kinds of techniques to make computers behave in some kind of intelligent fashion”***

AI is expected to bring significant and diverse benefits to society – from greater efficiency and productivity to tackling a number of difficult global problems, such as climate change, poverty, disease, and conflict. AI technologies shape our societies. They have an enormous impact on our daily lives. At the same time, multiple legal and societal issues have revealed the potential of these technologies to produce undesirable impacts. Algorithms can enhance already existing biases. They can discriminate. They can threaten our security, manipulate us and have lethal consequences. For these reasons, people need to explore the ethical, social and legal aspects of AI systems. There is a common call for the ethics of AI – meaning how are we to develop and use this technology in an ethically acceptable and sustainable way? What are the ethical and moral principles we should adopt and follow?

Artificial intelligence is an overall term describing a set of different kinds of techniques to make computers behave in some kind of intelligent fashion. There is no agreed definition of AI, but in general the ability to perform tasks without supervision and to learn so as to improve performance are key parts of AI.

Machine learning is a big topic in AI. Machine learning is a set of algorithms which by themselves learn to make decisions or to structure data. Supervised and unsupervised learning are based on data, while reinforcement learning is where the algorithm uses trial and error to learn to make sequences of decisions.

Ethics seeks to answer questions like “what is good or bad”, “what is right or what is wrong”, or “what is justice, well-being or equality”. As a discipline, ethics involves systematizing, defending, and recommending concepts of right and wrong conduct by using conceptual analysis, thought experiments, and argumentation

## **The three subfields of ethics:**

1. Meta-ethics studies the meaning of ethical concepts, the existence of ethical entities (ontology) and the possibility of ethical knowledge (epistemology).
2. Normative ethics concerns the practical means of determining a moral (or ethically correct) course of action.
3. Applied ethics concerns what a moral agent (defined as someone who can judge what is right and wrong and be held accountable) is obligated or permitted to do in a specific situation or a particular domain of action

AI ethics is a subfield of applied ethics. Nowadays, AI ethics is considered part of the ethics of technology specific to robots and other artificially intelligent entities. It concerns the questions of how developers, manufacturers, authorities and operators should behave in order to minimize the ethical risks that can arise from AI in society, either from design, inappropriate application, or intentional misuse of the technology.

**These concerns can be divided into three-time frames as follows:**

- Immediate, here-and-now questions about, for instance, security, privacy or transparency in AI systems
- Medium-term concerns about, for instance, the impact of AI on the military use, medical care, or justice and educational systems
- Longer-term concerns about the fundamental ethical goals of developing and implementing AI in society

### **From machine ethics to the ethics of AI**

For a long time, AI ethics was taken to mean mostly machine and roboethics. These cover the study of the ethical codes of artificial moral agents. As research fields, they are based on a scenario where machines can one day be responsible for ethically relevant choices, and can even be possibly considered as ethical agents or autonomous moral agents. As a comparison, animals are generally not considered moral agents. We don't judge a squirrel's behaviour as right or wrong, and we don't assume they have the capacity to know the difference

Machine and roboethics span from the development of ethically responsive autonomous vehicles to the design of ethical codes for moral autonomous agents.

**Isaac Asimov (1942) famously proposed “three laws of robotics” that would guide the moral action of machine**

- A robot may not injure a human being or, through inaction, allow a human being to come to harm.
- A robot must obey the orders given it by human beings except where such orders would conflict with the First Law.
- A robot must protect its own existence as long as such protection does not conflict with the First or Second Laws.



**DR. K.S.R. RADHIKA**

*Prof. Department of CSE*

# Boost Engineering Reading amid Digital Challenges

*“The economic and societal potential of such systems is vastly greater than what has been realized, and major investments are being made worldwide to develop the technology.”*

Reading is a complex cognitive process of decoding symbols in order to build or deduce meaning. Reading occupies a key role in almost every course of study. Over the centuries, the concept of reading has acquired tremendous change.

Reading is an essential skill that ensures success in academic learning. Researchers on reading report strong support for the positive relationship between the students' reading process and their ability to comprehend what they are reading. Further, the reading process and reading ability will help students excel academically.

The objectives and practices for reading comprehension and studying are complimentary. To study and store the information in memory, initially, the reader should understand the meaning of the information. Many studies have found that the good reader is capable of identifying key points in the text and so they predict reading skills as a vital skill for successful studying. Students who are sensitive to the main points in reading can answer subjective questions efficiently.

## **Reading and the Engineering Students:**

Acquiring the necessary knowledge and skills in their field is crucial for engineering students, and a critical factor in achieving this is having good reading ability. Here are some reasons why reading ability is essential for engineering students.

**Comprehension of the technical concepts:** Engineering literature is often dense, and technical, and requires a high level of reading comprehension. A strong reading ability allows students to grasp complex concepts and technical jargon, making it easier for them to understand and apply the knowledge in their field.

**Research and Development:** Reading is essential for research and innovation in engineering. Engineers need to stay up-to-date with the latest technological advancements and industry trends. Reading technical literature helps students to keep up with the latest innovations and ideas in their field, providing them with insights that can inspire creative problem-solving.

**Professional Progress:** Engineering students need to have excellent reading skills to keep up with professional development opportunities, such as attending conferences, workshops, and technical training sessions. Reading materials on new advancements in their field is essential to stay relevant and competent.

Good communication: Engineers are often required to communicate technical information to various stakeholders, including clients, colleagues, and regulatory agencies. A strong reading ability allows students to interpret technical literature and communicate ideas and concepts more effectively, which is crucial in engineering.

Career Perspective: Reading ability is essential for career advancement in engineering. Engineers who can read technical literature, understand it, and apply it to solve real-world problems are in high demand in the industry. Good reading skills can also help engineers to gain professional certifications, promotions, and recognition in their field.

### **The todays' Digital Content:**

Engineering students today have access to an unprecedented amount of information in the digital world. With just a few clicks, they can access technical literature, research papers, academic journals, and other relevant information from anywhere in the world.

This easy access to information has transformed the way engineering students learn and conduct research. It has expanded the scope of what is possible, allowing them to discover new ideas, technologies, and methods that they might not have otherwise encountered.

Digital tools, such as search engines, online databases, and e-libraries, have made it easier for engineering students to find and access relevant information quickly. They can also collaborate with other students and researchers from around the world, share information, and work on joint projects.

Furthermore, the availability of information has made it easier for engineering students to stay up-to-date with the latest technological advancements, industry trends, and best practices. This has enabled them to develop innovative solutions that are both practical and efficient.

### **Challenges with the Digital Content:**

Engineering students are often required to read vast amounts of technical literature to acquire the knowledge and skills necessary for their field. However, in today's digital age, the challenge of reading and comprehending technical content has become even more significant. The rise of digital content has provided engineering students with an abundance of information, but it has also created new challenges for them to improve their reading abilities. Here, I will explore some of the challenges that engineering students face in improving their reading abilities on digital content and provide some tips on how to overcome them.

Excess Information: One of the most significant challenges that engineering students face is information overload. With so much information available online, it can be overwhelming for students to sort through all the data and determine what is relevant to their studies. The sheer volume of information can also lead to a lack of focus and concentration, making it challenging to read and comprehend technical content.

To overcome this challenge, it is important for engineering students to develop good reading habits. They should set aside a specific time of day for reading and create a quiet and distraction-free environment. It is also helpful to break down reading materials into smaller sections and focus on one section at a time. By doing so, students can improve their ability to concentrate and retain information.

**Digital diversion:** Another challenge that engineering students face is digital diversion. With the rise of social media and instant messaging, it can be difficult to stay focused while reading technical content. Digital distractions can lead to a lack of concentration and retention of information, making it challenging for students to learn and understand complex concepts.

To overcome this challenge, engineering students should consider turning off their phones and other electronic devices while reading. They should also use digital tools that help them stay focused, such as website blockers or productivity apps. By minimizing digital distractions/diversions, students can improve their ability to concentrate and retain information.

**Lack of reading comprehension skills:** Many engineering students struggle with reading comprehension skills. Technical literature often contains complex concepts and technical jargon that can be difficult to understand, especially for students who are not native speakers of the language in which the literature is written.

To overcome this, engineering students should focus on building their vocabulary and understanding technical jargon. They should also use online resources, such as dictionaries and online forums, to clarify any confusing terms or concepts. It is also helpful to practice reading comprehension exercises regularly to improve their ability to understand technical literature.

**Lack of engagement with the material:** Engineering students may struggle to engage with technical literature due to its dry and dense nature. This lack of engagement can lead to a lack of motivation to read and comprehend the material, making it challenging to learn and retain the necessary knowledge.

To overcome this challenge, engineering students should find ways to make the material more engaging. This can be done by finding real-world examples that relate to the concepts being studied or by working with peers to discuss and analyse the literature. It is also helpful to take breaks and engage in other activities to refresh the mind and maintain motivation.

Finally, it is preferable to use printed materials and standard textbooks for reading. When reading digital materials, it is recommended to prepare notes and use them as a reference.



**Dr. Vempati Krishna**  
HOD & Prof. Department of CSE(DS)

# TENACITY : THOMAS ALVA EDISON

*“He also discovered polymycin another anti biotic very widely used. He Failariasis (Elephant Leg) very common in india”*

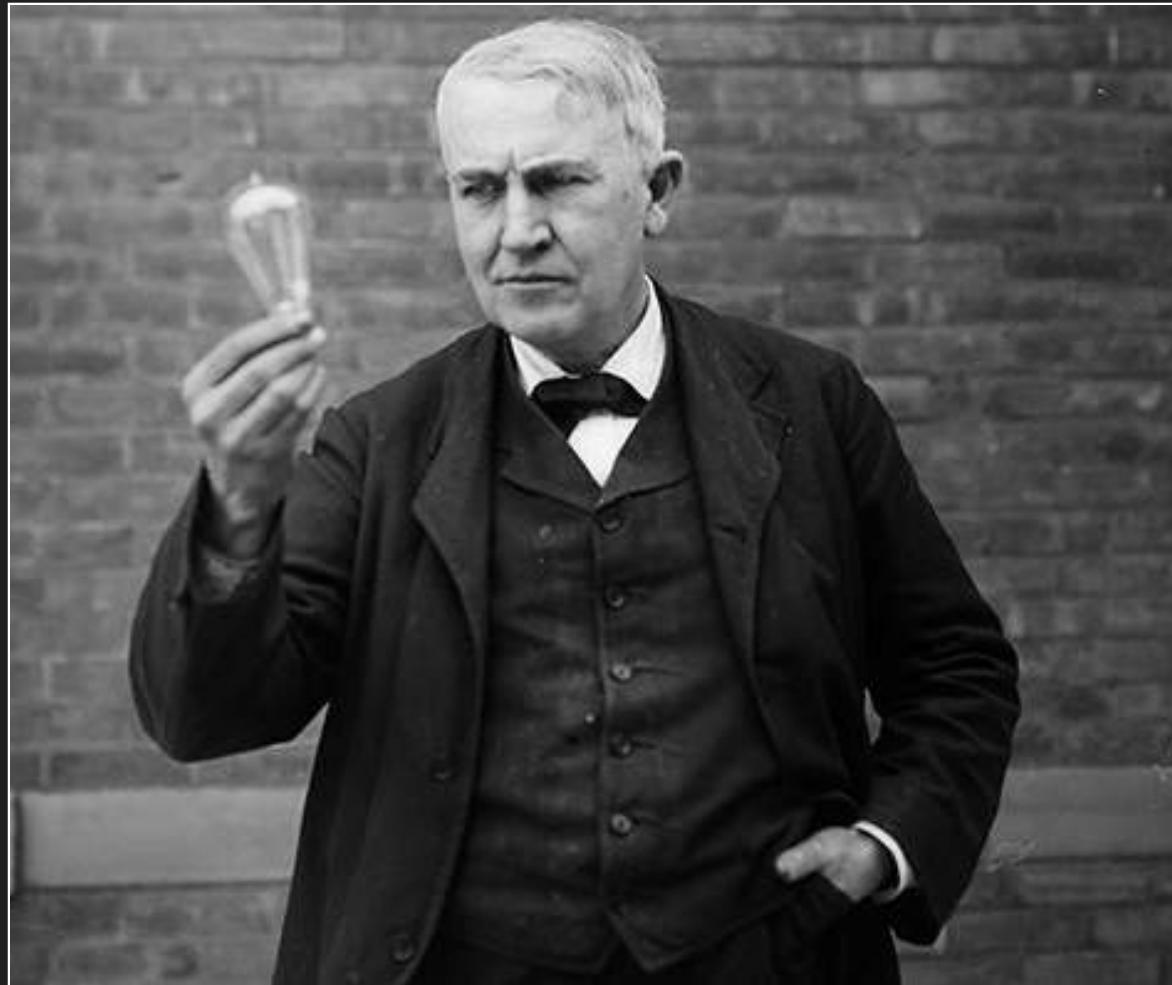
Tenacity is the courage, mettle, resolution or spirit to resist hardship and an unwillingness to admit defeat. The life of Thomas Alva Edison illustrates perfectly what tenacity is. Edison's son Charles writes about an event in his father's life in his book titled “The electric Thomas Edison”. One December evening Edison lab caught fire. Spontaneous combustion had broken out in the film room. Within moments all the packing compounds, celluloid for records, film and other flammable goods got burnt with a whoosh...

Edison was 67 and that was no age to begin anew. Rather than saying, “Oh God, what did I do to deserve this?”, 67 years I have faithfully lived my life, and this is what I get in return. Edison said optimistically called all the employees together. “We are rebuilding!” One man told to leave all the machine shops in the area. Another, to obtain a wrecking crone from a rail road company. Later on Edison explained, “You can always make capital out of disaster. We've just cleared out a bunch of old rubbish! “We'll build bigger and better on these ruins”. It is said that Edison failed 2774 times and then reached a working design of an electric light bulb.

This is a small illustration of Edison's tenacity. Steve jobs, the founder of apple computers was said to struggle to succeed from his birth. Some of the challenges he faced were not being wanted by his birth parents, struggling with pancreatic cancer, and getting fired from the company that he created. Jobs overcame these challenges and led the world into a new era of technology. Steve Jobs hit the first road block of his adult life when he decided to drop out of college as he has no idea what he wanted to do with his life. But he strongly believed that life would turn out alright. He slept on the floor of a friend's room and would return coke bottles for the 5cent deposits in order to survive and by food.

He attended classes in calligraphy, which he thought had no bearing in his life. Little did he know at the time that this would be the present for the customizable fonts and spacing for the iconic Macintosh computer. Steve as fired by the company (apple) that he had founded. But Steve realized overtime that his firing from Apple was the greatest thing that ever happened to him. After that he created one of the most successful animation studios ever.

Dr. Yellapragada Subba Rao was one of the brightest Scientist the worlds of medicine witnessed hailing from Andhra Pradesh, India. A famous writer Doran Antrim observed in 1950 – “you're probably never heard of Dr. Yellapragada Subba Rao. Yet because he lived you may be alive and are well today. Because he lived you may live longer”. Yellapragada's discovery of tetracycline saved millions of lives during the surat 1994 plague outbreak. Doxycycline today his one of the frontline antibiotics for many chest infections. He also discovered polymycin another anti biotic very widely used. He Failariasis (Elephant Leg) very common in india. He developed Vitamin B12 Every cereal sold in the united states is fortified with Vitamin B12. He developed Methotrexate, a cancer drug also used in treating “Rhumatoid Arthritis”



This drug was first used in children with blood cancer. A man with so many discoveries, he deserved a Nobel Prize, but being an Indian nationalist, he was even denied an MBBS degree by the Britishers. Through his father he got registered as a Physician at Harvard Medical School, but unfortunately worked as a chemist as that was the category, Indians could get in the USA then. Later, he was denied a faculty position at Harvard but none of these deterred his brilliant accomplishments.

The famous and highly successful people's crowning achievements arises from a drive and determination as much as ability persistence and certitude are the bridges that fill the gap between failure and success. If a person wants to succeed, her or she should never be scared of failure, If you Fail often and learn from your mistakes, The more times you fail, the closer you are getting to success. Nelson Mandela once said, "Do not judge me by my success, judge me by how many times, I fell down and got back up again".



**DR. M. Sudha Menon**

*Prof. Department of H & S*

# Cyber Security Physical Systems

*“The economic and societal potential of such systems is vastly greater than what has been realized, and major investments are being made worldwide to develop the technology.”*

Cyber-Physical Systems (CPS) are integrations of computation, networking, and physical processes. Embedded computers and networks monitor and control the physical processes, with feedback loops where physical processes affect computations and vice versa. The economic and societal potential of such systems is vastly greater than what has been realized, and major investments are being made worldwide to develop the technology. The technology builds on the older (but still very young) discipline of embedded systems, computers and software embedded in devices whose principle mission is not computation, such as cars, toys, medical devices, and scientific instruments. CPS integrates the dynamics of the physical processes with those of the software and networking, providing abstractions and modelling, design, and analysis techniques for the integrated whole

Earlier, CPS focused on dynamics (evolution of system state over time), whereas the latter focus on processes of transforming data. Computer science, as rooted in the Turing-Church notion of computability

CPSs are wireless networks, so easy to configure without layout of any topology, anyone can enter in to the network and leave the network, hence it is prone to intruders. They can do what they wanted to do in the network with malicious activities. So, it is required to concentrate on security issues.



**Dr. M. Narendra**  
Prof. Department of CSE

# Sports

***"TKRCET encourages sports and games explicitly for overall development of the student. A sprawling green cricket ground caters the purpose. The play ground is available for different sports"***

TKR Educational society has well equipped play grounds for cricket, basket ball, Volleyball, badminton etc. All the sports activities are constantly monitored by a qualified Physical Director Mr.P.Jhonsen. Various competitions are conducted on the eve of Independence Day, Republic day and College Annual day.

TKR Group of Institutions received the best sports award twice from among all the colleges in Telangana State.

The campus has a sprawling of lush green play ground of 5 acres with fled lights for cricket, football and other outdoor sports. An indoor badminton court, a modern basketball court and separate game rooms have been allotted for indoor games like table tennis, caroms and chess.

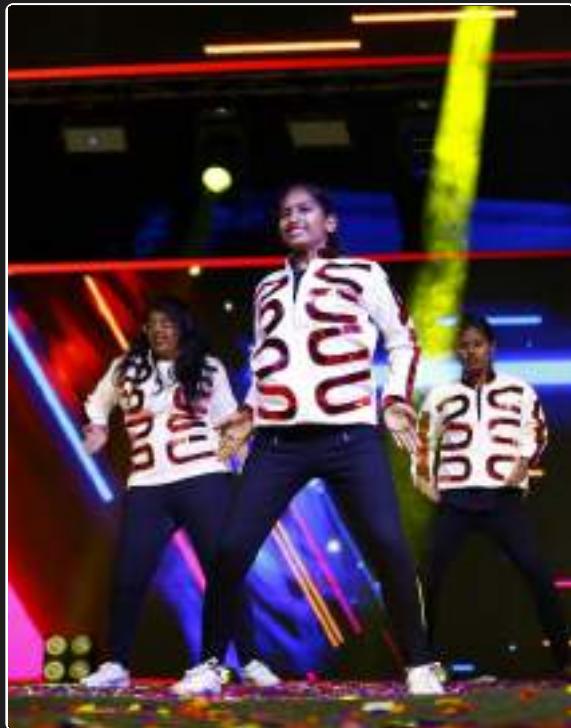
TKRCET encourages sports and games explicitly for overall development of the student. A sprawling green cricket ground caters the purpose. The play ground is available for different sports. Day and night National/ International semi-final and final cricket matches of various leagues are being conducted.

Mr. P.JOHNSON, Physical Director is the head of the Department. He is a trained coach by Australian Cricket Academy. He along with his team encourages the students to participate in extra curricular activities. Under their guidance, Mr. Ashwat Reddy, student of B.Tech III year from Computer Science & Engineering department was selected for under-19 Indian team, which visited Australia for cricket match.



# EVENTS

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# Love is Eternal!

***“One day while she is sleeping she had a dream, she met a boy who saved her from trouble”***

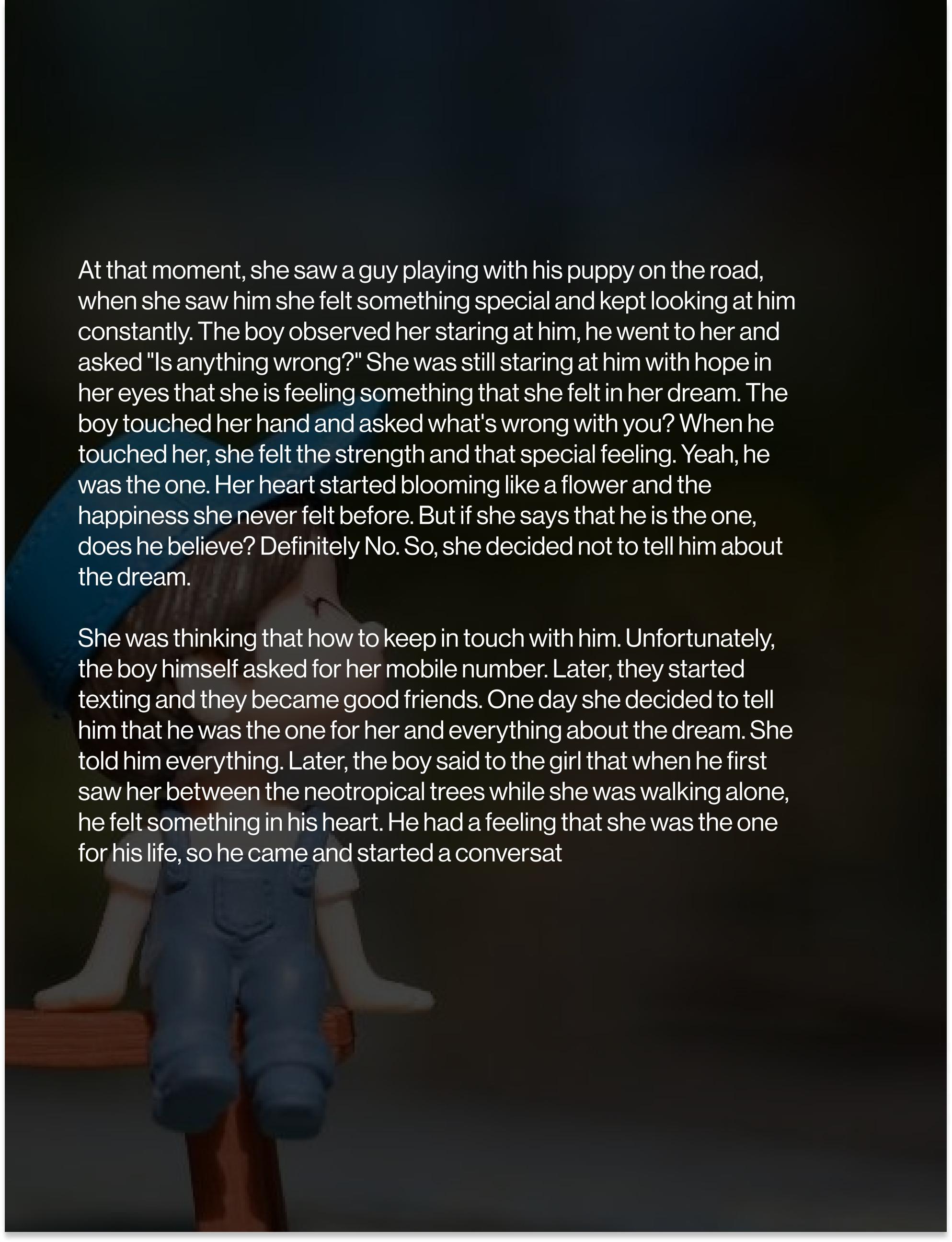
Love...it's a beautiful feeling. Every living creature on earth makes love and they live because of love. It's not about the persons falling for each other but the SOULS falling for each other makes a true love that never ends.

Have you ever heard of falling in love with a person whom you never saw and even don't know whether they exist in this world? Yes, it happens.

A girl who doesn't believe in love, she only thinks of her future and follows her passion. One day while she is sleeping she had a dream, she met a boy who saved her from trouble. She feels safe when that boy is around her, she felt a special feeling that she never felt before like some strength she gains when he holds her hand. This is a dream but she really fell for him in her dream and also in her real life. This would be somewhat cringe to hear how a person falls in love in a dream without knowing about that person.

When she woke up, she doesn't remember his face but she feels the feeling when she felt when he was around her...this is silly to hear but she has totally fallen for him. When she share this with her friends they didn't believe how can it happen i.e., falling in love with a person that appears in a dream. But she strongly believes that he exists in this world and she will reach him one day definitely. **HE WAS IN HER HEART AND IN HER SOUL, BUT TO THE EYES OF OTHERS HE WAS UNKNOWN!**

Years passed, and she completed her graduation and went abroad for a job. But she still believes that she will meet that boy(dream boy). After a year, it was springtime, she was walking alone between the beautiful neotropical trees thinking of the dream boy. As the flowers fall slowly, the hope of meeting him falls.



At that moment, she saw a guy playing with his puppy on the road, when she saw him she felt something special and kept looking at him constantly. The boy observed her staring at him, he went to her and asked "Is anything wrong?" She was still staring at him with hope in her eyes that she is feeling something that she felt in her dream. The boy touched her hand and asked what's wrong with you? When he touched her, she felt the strength and that special feeling. Yeah, he was the one. Her heart started blooming like a flower and the happiness she never felt before. But if she says that he is the one, does he believe? Definitely No. So, she decided not to tell him about the dream.

She was thinking that how to keep in touch with him. Unfortunately, the boy himself asked for her mobile number. Later, they started texting and they became good friends. One day she decided to tell him that he was the one for her and everything about the dream. She told him everything. Later, the boy said to the girl that when he first saw her between the neotropical trees while she was walking alone, he felt something in his heart. He had a feeling that she was the one for his life, so he came and started a conversat

# Jaunting on my way

***“Despite the risks and dangers of biking, I continued to pursue my passion, always wearing helmet and protective gear and taking every precaution to stay safe on the road.”***

I'm currently a perusing student at TKR, apart from my studies ever since I was been fascinated by the freedom and thrill of riding on two wheels. As I grew older, my passion for biking only grew stronger, and eventually decided to make it a hobby.

From Day-1 at this college, I always tend to be involved in many communities as possible, and this habit of participating in many events builds confidence in me. These interests became known in the biking community as a skilled and experienced rider, Moto-traveller. I also being a part of the Biking Club - “MORAL BIKER’S CLUB”, where all bike enthusiasts come under a single roof.

What are the benefits of being a Bike Enthusiast? This could be probably questioned by everyone I guess, let me say something... Riding a Bike is always Therapy. Riding KMS and Miles from Home, somewhere in between the Journey I lose all my Stress and Depression, those distances give me Happiness and this Journey of being a rider introduced me to the Community and I encountered many riders irrespective of their Age, Gender, and Lifestyle.

Despite the risks and dangers of biking, I continued to pursue my passion, always wearing helmet and protective gear and taking every precaution to stay safe on the road. I knew that there was nothing else in the world that could give him the same feeling of freedom and excitement as riding on my motorcycle

Over time, My passion for motorcycles turned into a new lifestyle. Also formed close bonds with other bikers, and they would often embark on long journeys together, exploring new places and facing new challenges. I always thought that riding motorcycles would always be a part of who I'm , and would continue to ride with the same passion and dedication for many coming years..!

***"Riding is a Therapy"***



Bikers also have a unique sense of style. Leather jackets, boots, and bandanas are staples of biker fashion, but every rider has their own twist on the classic look. Whether it's a vintage leather vest or a modern racing suit, bikers take pride in their appearance and use fashion to express their individuality.

Being a biker is about more than just riding a motorcycle. a way of life that's built around a love of the open road, a passion for adventure, and a strong sense of community. Bikers are a diverse group of people, but they all share a common bond through their love of riding. So, whether you're a weekend warrior or a hardcore road warrior, being a biker is a unique and rewarding experience that's hard to match.

***"The best journey's answer questions that in the beginning you didn't even think to ask"***

In addition to motorcycle Biking, there are other opportunities for sports riders to make a career out of their passion. Stunt riding, for example, involves performing tricks and stunts on a motorcycle, often in front of live audiences. Freestyle motocross, on the other hand, involves performing high-flying tricks and jumps on a specially designed course.

In Conclusion, A career as a sports rider can be an exciting and rewarding path for those who have a passion for riding and a competitive spirit. With hard work, dedication, and a commitment to safety, sports riders can achieve their goals and make a name for themselves in the industry

# Library as a Learning Resource Centre

***“The vision of the Library, is to become one of the pioneers in the state in the field of information resources, services and technology applications”***

The Central Library at TKR College of Engineering & Technology is well established in the year 2002 with modern facilities. The Library is located the second and third floor of the central block. The total built up area is 1510(sqm). It is a duplex model with the seating capacity for 300 members. The library is operated an open access system kept open from 09:00 AM to 6:00PM on all working days. The library uses DDC classification system. Library facilitates readers access resources.



The Library has a rich collection of 92,232 Volumes with 11,140 Titles cater to the needs of Engineering & Technology, Computer, Management and Communication in addition the library subscribes for National, Inter National and Online Journals along with Magazines.

All in house operations of the library are computerized and use the NEWGEN LIB Integrated Library Management Software with barcode, WEB OPAC that provides easy access to library resources. The Central Library comprises six departmental libraries collectively supporting the teaching, Research and extension programs of the college.

Central library acts as a knowledge hub for the academic activities of our Institution with a mission to provide knowledge gateway to the user community with the state of the technology

The Central library provides excellent library facilities for all the students and faculty members, such as sufficient books, proper seating and reading facility, proper classification and arrangement of books..

## Digital Library and OPAC:

- Digital Library: In the Library & Information Centre, the Digital Library was established with 30 Multimedia systems with high speed Internet connection, Wi-Fi enabled. All the Non-Book Materials (e-Resources) online journals, Scanned Documents can be stored in the Digital format. Anyone can access any Information about the online process in the Digital Library.
- OPAC (Online Public Access Catalog) with this catalogue one can search the Library Database (Stocks) to know the status of the Library Books.

The Library staff provides user awareness programs like Orientation, exhibitions, conducted workshops and seminars regularly

***“The mission of the Library, is to provide excellent information resources quality services and facilities to meet the research, teaching and learning need of the college”***



### **Subscribed e-resources (Online access):**

IEEE (ASPP): All Society Periodicals Package is available online or in print and provides to the IEEE core collection of 220 Full Text of Technical journals/transactions proceedings with back files access since 2007 onwards in the field of Electrical, Electronics, Mechanical, Computer, Telecommunication and other specific subjects.

DELNET: (Developing Library Network) is a major resources sharing network in India connecting more than 7700 Institutions in 33 states of India. The main object of the DELNET is to promote resource sharing among the member libraries. Delnet has a developed discovery portal, knowledge gainer portal and vision portal. The World's largest e-books collection of Primary Source of e-Books for academic libraries. It is designed to support academic research at all levels and subject areas by providing around 20 Lakhs e-Books.

e-Shodh Sindhu INFLIBNET-N-LIST:(Information and Library Network-National Library & Information Services Infrastructure for Scholarly Content) N-List consortium with access to 6000+ e-journals, 1,64,300+ e-Books and 6 Lakhs e-books through NDL(National Digital Library of India)

### **Special initiatives of the**

#### **Library:**

- Provides Articles by experts in News papers.
- Provides Employment and carrier information.
- Displays different programs and achievements from various departments.
- Publish and maintain the news bulletin i.e. “Punascharana” yearly guide.
- Conducts every year orientation program for freshers.
- OPAC (Online Public Access Catalog) with this catalogue one can search the Library Database (Stocks) to know the status of the Library Books.

***“A CAPACITY AND TASTE FOR READING GIVES ACCESS TO WHATEVER HAS  
ALREADY BEEN DISCOVERED BY OTHERS”***

# Placement Cell

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***"MNCs and national companies. It is a matter of great pride for the Institute that it organizes Job Fair at regular interval"***

The Training and Career Development Cell of TKRCET is dedicated to guide undergraduates, graduates, and alumnae on their respective career paths. No matter where you are on this journey, we are here to help. We offer a wide range of career services including career counseling, workshops, information sessions, industrial trainings and employer site visits/industrial visits. The cell emphasizes the students to be aware of the prevailing placement scenario and motivates them to work towards their respective goals.

The TPO Cell here is a student-centered support service: it offers one-on-one counseling appointments, consultations throughout the career planning process, and assistance with goal-setting and goal achievement through a variety of career exploration activities. Our goal is to provide lifetime tools and skills for professional development, job search success, and career satisfaction. The Cell consistently attracts the best companies for fresher hiring in Diploma, Engineering and Masters Engineering, Management and Pharmacy. In addition Liaisoning for Industrial Training & Placement, Guest/Expert Lectures, Workshops & Seminars, entrepreneurship & personality development etc, is the prime importance for the cell.

The college has very strong links with the industry and continues to receive generous support from various organizations. The college provides opportunities for interaction between students and representatives of the Industry to facilitate placement in suitable jobs. The Institute puts in tremendous efforts to get its outstanding scholars recruited at the MNCs and national companies. It is a matter of great pride for the Institute that it organizes Job Fair at regular intervals to ensure gainful employment opportunities for the students.

The Cell works diligently to provide an environment of Career Development for the TKRCET students through Campus Recruitment Training Programs (CRT) that would enable them to understand the requirements of corporate & industrial world.

We at TKRCET, help students become job ready which is the 1st step towards a fulfilling career. We do so by empowering those with all the real world skill sets through Value added Courses that today's competitive corporate environment demands. Conducting training workshops on topics ranging from CV building, Group Discussions to high impact presentations & interview handling skills, domain specific training; we will offer all. In simpler words, we will make our students 'Employable'

We will also conduct management development trainings such as leadership & motivation, art of business communication, corporate grooming & etiquettes and many more that help a candidate prepare for the sea of opportunities ahead.

The TCDC-TPO has signed up MOU's with organization like CodeMax Technologies and UST Global to establish the Center of Excellence to enhance the students and Faculty by training on latest technologies, conducting FDP's to the faculties and also implementing the Train The Trainer program, so that the faculty will also be able to enhance their technical skills and in turn put their efforts in the academics to groom the students on latest trending technologies.



The TCDC-TPO cell has signed an MOU with EducateNXT to train the students of Data Science and AIML students on Dual Certification Program in Python & AIML. This program is exclusive for emerging technology courses to emphasize the students with the Industry 4.0

The TPO Cell is also focused on student entrepreneurship programs in collaboration with T-Hub and other technology organizations in mentoring the students on new ideas in developing new prototypes and incubates them and collaborates with industry to mentor students on technical and also get seed funding through MSME's and Atal incubation center's through university collaborations.

### **Achievements of TCDC-TPO cell in past 5 years:**

1. 150+ Organizations have hired students from across all the branches of Diploma, Engineering, M.Tech and MBA
2. More than 3000 students across 5 years got hired in various top MNC's like Amazon, Wipro, Cognizant, TCS, Razorpay, Capgemini, Infosys, MindTree, L&T Group, etc...
3. Highest Salary being 18.95 LPA and Lowest being 4.25 LPA
4. More than 5,000 students got trained through different career development programs throughout the 5 years
5. 20+ Corporate MOU's have being signed to collaborate with industry to enhance the student career development towards focusing on industry 4.0
6. 30+ corporate connects through workshops, seminars, FDP's and Train The Trainer Programs
7. Both Corporate and Government Collaborations have been made to bridge the Gap between Industry, academia and Institutions.
8. More than 500+ certification programs have been executed to the students to make them industry ready.
9. Focused participation of the students in various Hackathons, Competitions, Technical Fests, and Seminars etc...made them self reliant and confident enough to face the corporate and industry.
10. Not only focusing on placements but also grooming the students on higher education through various collaboration with institutes and achieving the best admissions into Top Universities across the world and also getting into Top notch B-Schools in India and abroad.
11. The TCDC-TPO cell focuses also on enhancing the students and motivating them to apply for Union Public services and also to the local government technical jobs.

# National Cadet Corps

## NCC in TKR Educational Society:

- NCC in, TKRES was established in 2016. Now, TKRES NCC has recognized as subunit of Telangana naval unit .
- TKR NCC is providing opportunities to the youth for their all-round development with sense of duty, commitment, dedication, discipline and moral values so that they become leaders and useful Citizens.

***“43 Cadets received B certificate  
15 Cadets received C certificates  
12 Cadets received gold medals  
10 Cadets received silver medals”***

## CAMPS by TKR Cadets:

- Cadets of TKRES have attended various camps and got exposure to the different environment and circumstances.
- The camps include RDC, LRDC, CATC, AINSC, ship attachment, INA SW, Ek Bharat Shrest Bharat (EBSB), Trekking camps, Advanced Leadership Camp and many more.

## Activites:

- Independence day and Republic day parade in the college premises
- Polio Drives
- Statue Cleaning Drive
- Blood Donation Camps
- Firing Events
- Navy Day Event and Many more



## Training at TKR:

- NCC cadets of TKRES under rigorous training in different areas like Firing, Sailing, Boat Pulling, Drill, Semaphore, Rigging, Ship Modelling, Tent Pitching, etc., which includes basic military training of armed forces.
- NCC cadets are constantly trained not only physically but also in leadership aspect which is helpful for them in all walks of life



***“Unity and Discipline”***

# National Service Scheme



The NSS UNIT TKRCET was formed in the year 2004 with a vision to build the youth with the mind and spirit to serve the society and work for the social uplift of the down-trodden masses of our nation as a movement. The National Service Scheme has been functioning with the motto "NOT ME BUT YOU" in view of making the youth inspired in service of the people and hence NSS Aims Education through Community Service and Community Service through Education.

The NSS Unit TKRCET organizes events such as Blood Donation Camp, Health Camp, Women's Day, Dental camps, Voters Day, Yoga Day, Swatch Bharat, Clean and Green programs, Drug Awareness Program, visiting the orphanages, Conducting essay writing, elocution and debate on various social related topics, cancer awareness program etc.

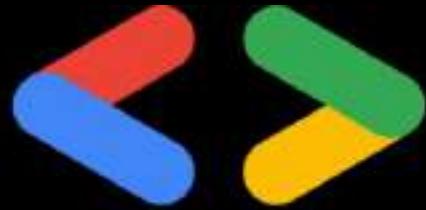
The NSS unit has MOUs with reputed organizations to conduct various social activities. Every year The NSS Unit TKRCET adopt at least two villages and conduct a vast survey on the major problems of the village and organize the events for the development of the village. The NSS Unit TKRCET have received another 2nd NSS Unit granted by JNTUH in the year 2018 as an appreciation for organizing the NSS activities. The NSS Unit TKRCET have also received many awards from JNTUH, Durgabai Deshmukh Hospitals and from other social organizations. Recently The NSS Unit TKRCET have received the award from Governor of Telangana for donating highest number of blood units to Red Cross Blood bank.



The NSS unit TKRCET received an Award from honourable governor of Telangana Dr.Tamilisai Soundararajan in the program organised at RAJ BHAVAN on 14.06.2022 for donating maximum number of Blood to the RED CROSS BLOOD society, Hyderabad .The works of NSS UNIT were highly appreciated.



# GDSC



## Google Developer Student Clubs

The motto of Google Developer Student Clubs (GDSC) is "Learn. Build. Share." This motto reflects the core values of the program, which is to empower students to learn new skills, build innovative projects, and share their knowledge and experiences with others.

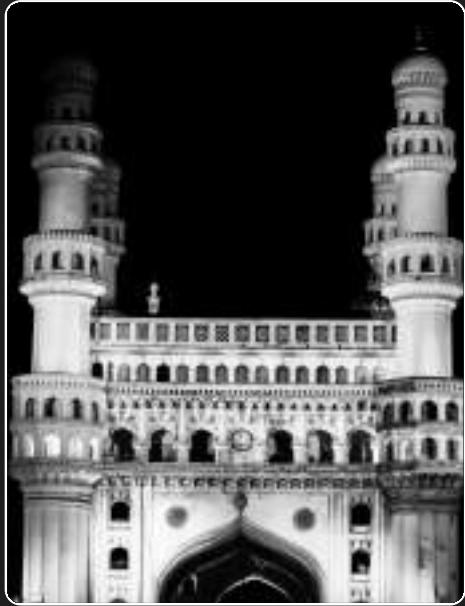
Harshavardhan(19K91A0592) started the Google Developer Student Club (GDSC) in our college in 2021 and has since devoted his time to building an effective core team that has made significant contributions to the development of their peers. Under his leadership, the club has introduced a coding culture in the college and organized a range of technical events and sessions.

The events and activities organized by him and his team have been diverse and engaging, including Android Study Jam, 30 Days of Google Cloud, and other useful technical sessions. These events have provided students with opportunities to enhance their technical skills and knowledge, explore their interests in technology, and network with other like-minded students.

In 2022, Revanth (21K91AO508) was selected as the lead of the Google Developer Student Club (GDSC) in our college. Under his leadership, along with his team, they conducted a full-day offline machine learning workshop.

The workshop organized by the GDSC team was a great opportunity for students to enhance their knowledge and skills in the field of machine learning. The event was well-structured and informative, with practical demonstrations and hands-on exercises for students to gain experience in the field.

# Click Crew



**Varagani Teja**  
21K95A0351



 **V Shravani**  
21R91A04P5



 **P Shiva Kumar**  
20K91A0337



 **Mummadi Fanendra Chary**  
20K91A0330



 **J Ashwik**  
21241-CE-017



 **Kamble Akhilesh**  
19R91A0203



**Chakri Kollu**



**K Manisharan Reddy**

21241-ME-080



**Dheepak Korvi**

20K91A0591



**Goli Shiva Reddy**

21K95A0514



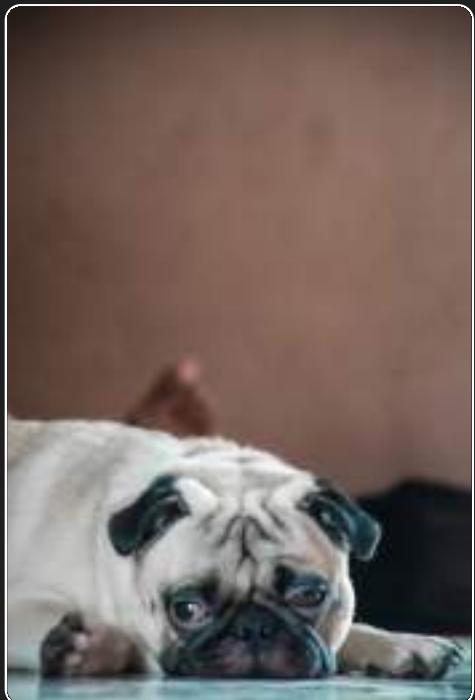
**G Sai Vishwak**

21K91A0747

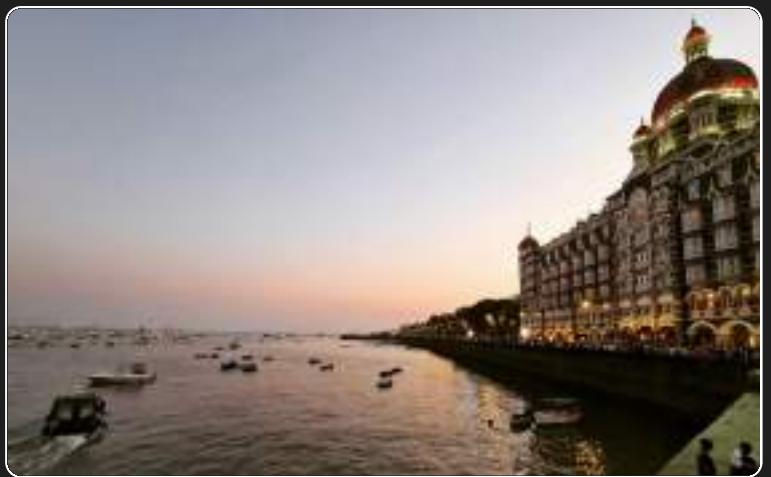


**Chukka Avinash**

21K91A0456



 **G Rakesh**  
20K91A0450



 **Abhinay**  
21241-CE-051

# Art Work



**Pallavi  
Medaraboina**



**Mummadi Fanendra Chary**  
20K91A0330

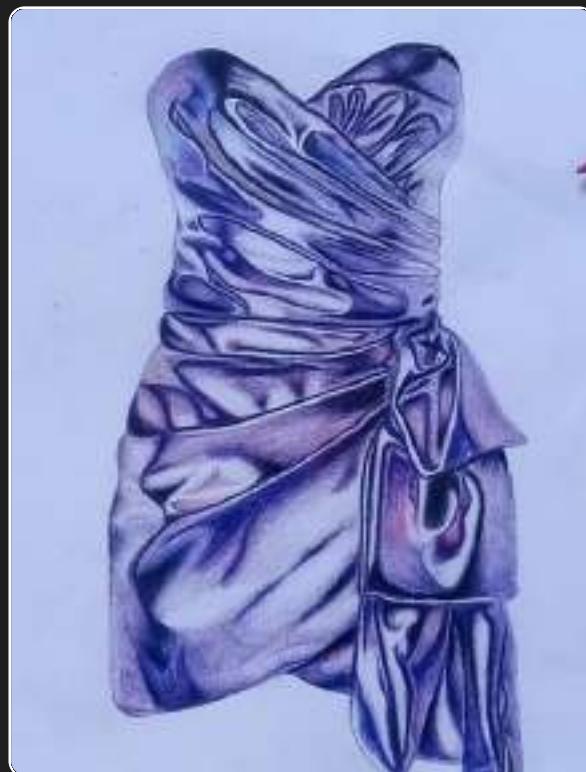
 | **P Pavani**  
21K91A05J9



 | **Mekhala Bharath Kumar**  
20K91A0240



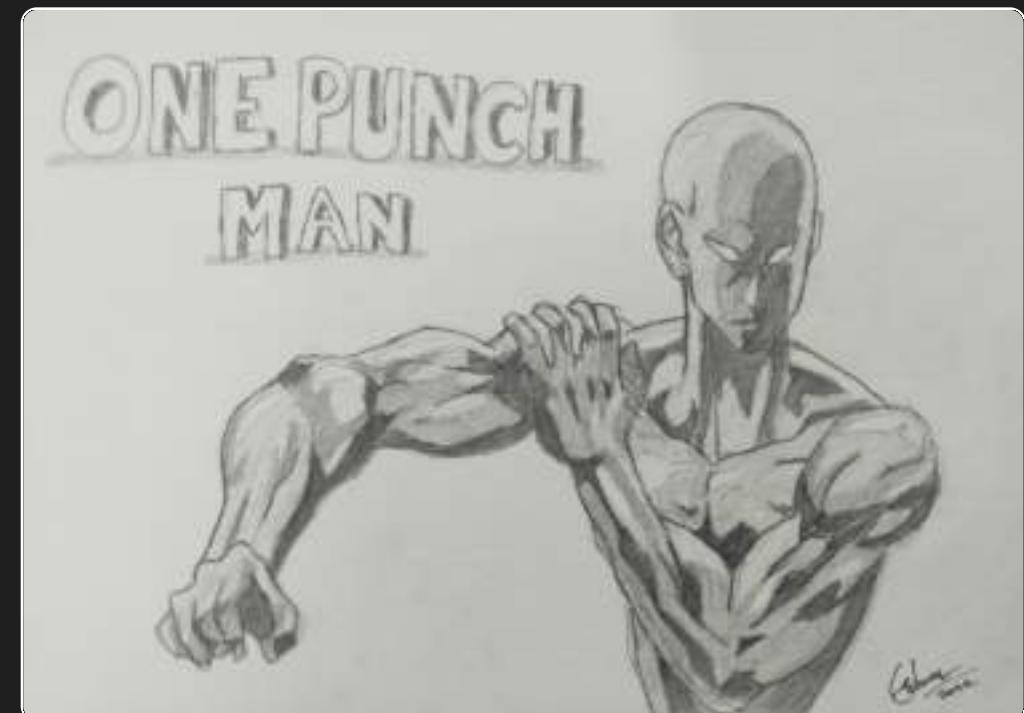
 | **Noorein Fatima**  
22K91A1298



 | **J Harshitha Priya**  
22K91A6664



**Aishwika  
Kiran**



**Eshwar  
Chandra**



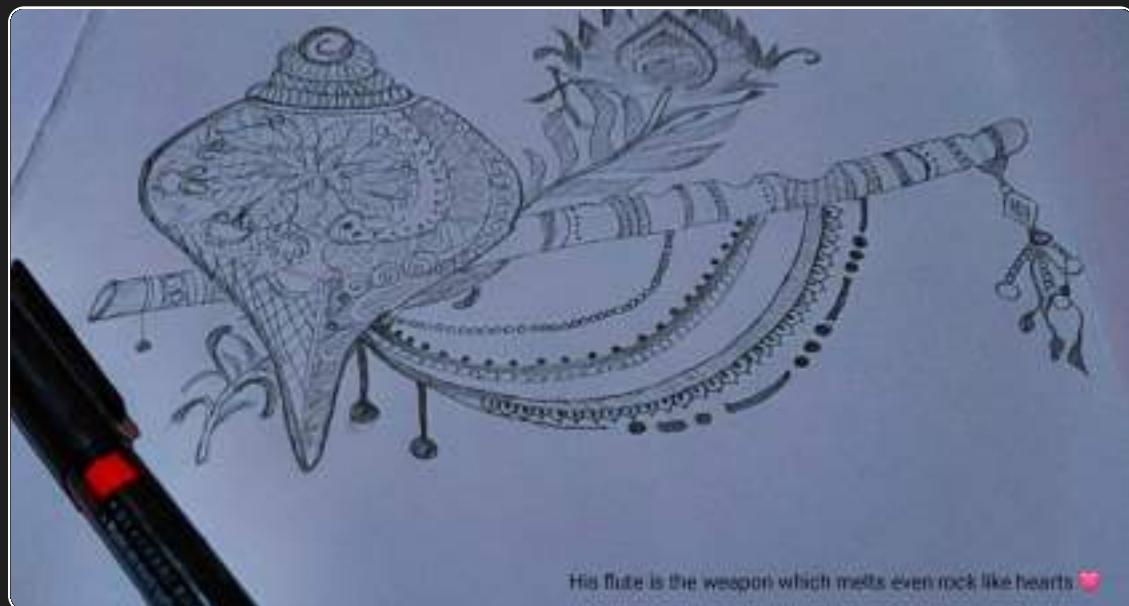
[Logo] | **Gudala Sreeya**  
21K91A0592

[Logo] | **J Ashwik**  
21241-CE-017





|r| | **V Shravani**  
21R91A04P5



|r| | **B Durga Bhavani**  
20K91A0535

# The Survivor...

They are the scars from wars,  
From the internal battle of you and them,  
They reflect the pain,  
They symbolise your bravery.  
Your tears don't make you weak,  
They show that you've been strong  
For too long..  
Your silence isn't cowardice,  
It's just you giving yourself sometime  
So be proud of those scars,  
They show that you've won many wars. Your fear doesn't make you weak,  
It's a sign of you dealing with abuse.  
Your shaky hands don't make you powerless,  
They just show so how much  
you've been suppressed.  
Your injured body doesn't  
make it beautiful any less,  
Those bruises just show how bad they were,  
It's not you, it's their sick minds,  
Your scars, your pain,  
Just proves that right.  
So believe in yourself,  
You are strong,  
It's them in the wrong,  
Your scars make you strong.  
And your pain shows your worth,  
Don't let it get to you,  
Because in the end,  
You're the survivor  
Who came out much,  
more stronger



# My super hero..

Take my little hands in yours  
Teach me wrong from right  
Read me bed time Stories  
And tuck me each night  
Fill my mind with wonder  
And my little heart with love  
Teach me about the creator  
how he sent me from above  
help me to always understand  
The things I need to know  
For it's you who I'll be watching  
Each day as I grow  
And I'll want to be just like you  
When I'm all grown-up somebody  
So take my little hand in yours  
And lead me on my own way!!!

**V.Shravani**  
21R91A04P5(ECE)



# కవిత్వం, తెలుగు చమత్కారం!

---

శ్రీయమైన సువర్ణకు!

వర్ణచీర్ణ సంఖలాంటి నిన్న చూసినప్పటి నుండి

నేను శ్రాసలేని ఏద్వంలా

మాటలు లేని గద్వంలా

నిరంతరము నీ ద్వాసలోనే ఉంటున్న

నీ మనసు మతేబం

నీ సాగసు శార్ధలం

వేతికితే తెలసించి

ఏద్వ భాగ అంతశ్రాణంగా

గద్వ భాగమంతగా!

-అష్టాత వ్యక్తి



# Tum..

Mera ghuroor  
Meray sar ka taj hotum  
Andelhay raho me  
Apnaypann k ahsaas ho tum  
Meray khushi k saathi hotum  
Meray dukhoo k hamsafar hotum  
Meray din ka aaghaaz ho tum  
Raat ka anjaam ho tum..



**Mohammad Saqlain Danish**  
21K91A05G5(CSE)

# **Tum ho..**

Log sapnay dekhte hongay saat me,  
Meray sapno ke wajahh tum ho..  
Log hastay hongay saat me,  
Par meray khushi ke wajah tum ho..  
Log chaltay hongay saat me, Par meray  
wajood ka waseela tum ho..  
Par meray khadmo k nishaan tumho..  
Log waqt bitatay hongay saat me,  
Par meray waqt k mainay tum ho...  
Log ek dujay k bim aduray zaroor hongay,  
Par meray wajood ka waseela tum ho

# **Life..**

life is a solved mystery,  
admits unsolved puzzles.  
life is an incomplete favour,  
giving us the most favourable conditions.  
life is a sweetest memory,  
showing us the bitterest truths.  
life is a known destiny,  
through unknown routes.  
life is a melodious song,  
teaching us the lyrics.  
life is a beautiful journey through adverse  
stops

# Exam life of an engineering student

```
friends = True
bunks = True
exams=True
backlogs=True
```

while friends and bunks:

```
    print("Friends who bunk together, an adventure awaits"))
    print("Skipping class, and avoiding their fates")
    print("Laughs and memories, made along the way")
    print("And in the end, no regrets to pay")
    print("The thrill of the moment, the excitement of fun")
    print("A break from studying, for everyone")
```

if exams or backlogs:

```
    one_day_batting = True

    print("If exam is here, the fear is near.")
    print("Days of stress and endless books,")
    print("The day before the exam, we start to study")
    print("But with one day batting, we feel set.")
    print("But when exams loom, what else to prove?")
    print("Cramming all night, with notes and books")
    print("One day batting, a risky move")
    print("Hoping to remember, every detail and nooks")
    print("It may be stressful, it may be tough")
    print("But don't give up, don't huff and puff")
    print("For with hard work, and a bit of luck")
    print("You'll pass the exam, without getting stuck, ")
```

else:

```
    print("Finally, a break,")
    print("With the memories of our struggles forever endless,")
    print("But we made it through, with our heads held high,")
```

```
print("The life of an engineering student, ")
print("Is a journey that's tough but always wise.")
print("Until the next semester, when we start all over again.")
print("The life of an engineering student, never an end.")
```

</>Goli Shiva Reddy  
</>21K95AO514



# Alumni Experiences

“

Hello! I am Mounika Nanganoor an ECE graduate from TKR College of Engineering and Technology in the year 2018.

My graduation journey from this college has been motivational and entertaining. This college has provided a lot of guidance to my life.

Having an from electronics background back then it was difficult for me to pursue a career in the core field, but the motivation and technical support provided by our faculties and administration made it possible for me to build my career.

Theory sessions and laboratory sessions provided by the department were appropriate. Along with curriculum activities, workshops and technical events were also conducted in the college where everybody could learn and share technical knowledge.

Recruitment training was also provided by the college management where we could brush up our basics and communication skills.

Apart from this, we had Sport fests and cultural activities every now and then, The College management has always encouraged students to participate in all kinds of technical and non-technical fests and has awarded prizes to the outstanding performers and to the campuses.

Talking about Infrastructure of this college, it is very spacious, well-ventilated and we get to witness lots of greenery too. This college has a very good library as well as a digital library and you get to spend quality time with books here.

Those four years of my life were thrilling, joyous and irreplaceable.



**Mounika**

14K91A04D1

“

I am Sneha Rayala. I completed my graduation from TKR College in 2018. I am writing this to share my college life experience in all those 4 years. The premises of TKR College is very clean and green. It maintains green to reduce the footprints of carbon, and the college indirectly teaches the students how important it is to maintain greenery for a healthy life.

TKR college has the best infrastructure facilities, labs, library, canteen, and playground. College is a phase where we learn things practically by using new technologies with the help of faculty. I attended workshops that were frequently conducted by college management. By attending workshops, I gained knowledge practically and how to use the new tools.

Our college has the best library with a rich collection of journals, textbooks and magazines. Fortunately, I used to visit the library whenever I had free time. Here I started referring to many books through which I built my concepts independently which helped me a lot for my Gate preparation and also at the time of my comprehension viva.

Attending labs where we used to write different programs gave me a basic idea of the subject for practical analysis. Our college gives importance to sports and cultural events as well.

Here I met different personalities and different cultures of people all over the world. These experiences taught me to be self-reliant.

Our college promotes art and culture and also gives importance to festivals. I got to know the importance of art and culture after attending all these festivals like Rangoli, Holi, Bathukamma, Ganesh Chaturthi, and the traditional day.

Organizing fests in each department allowed students to share ideas and to gain knowledge in various areas. The college also conducts Annual Day, Shizney for rejuvenating students, so that they show more enthusiasm in their studies.

I developed my personality and confidence faculty, seniors and friends by constantly interacting with them. All those four years helped me greatly in upgrading my skills to embark on a new journey in life.

**Sneha Rayala**  
14k91A04H4



# Lecture by Mr. Ratan Tata



“Don't just have career or academic goals. Set goals to give you a balanced, successful life. Balanced means ensuring your health, relationships, mental peace are all in good order. There is no point of getting a promotion on the day of your breakup. There is no fun in driving a car if your back hurts.

Shopping is not enjoyable if your mind is full of tensions. Don't take life seriously. Life is not meant to be taken seriously, as we are really temporary here. We are like a prepaid card with limited validity. If we are lucky, we may last another 50 years. And 50 years is just 2,500 weekends. Do we really need to get so worked up? ... It's OK, Bunk few classes, score low in couple of papers, take leave from work, fall in love, fight a little with ur spouse... It's ok... We are people, not programmed devices..! "Don't be serious, enjoy Life as it comes"



# TKR college of engineering & Technology.

