CHITRARA

2023-24

DEPARTMENT OF ECE
BGSIT

Vision and Mission of the Institution

Vision:

BGSIT is committed to the cause of creating tomorrow's engineers by providing quality education inculcating ethical values.

Mission:

1. Imparting quality technical education by nurturing a conducive learning environment.
2. Offering professional training to meet industry requirements.
3. Providing education with a moral - cultural base and spiritual touch.

Vision and Mission of the Department

Vision:

To develop high quality engineers with technical knowledge, skills and ethics in the area of Electronics and Communication Engineering to meet industrial and societal needs.

Mission:

1. To provide high quality technical education with up-to-date infrastructure and trained human resources to deliver the curriculum effectively in order to impart technical knowledge and skills.
2. To train the students with entrepreneurship qualities, multidisciplinary knowledge and latest skill sets as required for industry, competitive examinations, higher studies and research activities.
3. To mould the students into professionally-ethical and socially-responsible engineers of high character, team spirit and leadership qualities.

Program Educational Objectives:

PEO1.	Have a successful technical career in industry and pursue higher studies and research.
PEO2.	Utilize their knowledge and skills to propose solutions as lectronics and Communication Engineer to solve societal problems with ethical values.
PEO3.	Display multidisciplinary professional and leadership qualities and adapt to lifelong learning.

TECHNICAL ARTICLES

Infrastructure Unraveling the Power of Software-Defined Networking: Revolutionizing Communication

Software-Defined Networking (SDN) emerges as a revolutionary approach to network management, offering unparalleled flexibility and control in an increasingly complex digital landscape. At its core, SDN decouples the control plane from the underlying network infrastructure, enabling centralized orchestration and programmable management of network resources. By abstracting network intelligence into software-based controllers, SDN empowers organizations to dynamically adapt to evolving demands, optimize performance, and streamline operations. Traditional networking architectures are often rigid and cumbersome, hampering agility and hindering innovation. With a centralized controller providing a unified view of the network, administrators can define and enforce policies, allocate resources, and respond to changing traffic patterns in real-time, ensuring optimal performance and resource utilization across the entire infrastructure. Beyond operational enhancements, SDN catalyzes innovation and accelerates the deployment of advanced network services and applications. By abstracting network functions from underlying hardware, SDN enables rapid service chaining, network slicing, and integration with emerging technologies such as cloud computing, edge computing, and Internet of Things (IoT). This agility fosters experimentation, facilitates service differentiation, and empowers organizations to deliver innovative solutions that meet the evolving needs of users and applications. As SDN continues to evolve, its transformative impact will extend across industries, driving digital transformation and shaping the future of networking.

Jeevan Gowda H R
Mithun S
6th sem B sec

Article about Comedy

There is too much hype about the future with a fully developed AI. It is said that AI will transform work as we know it. I agree with that wholeheartedly! What I disagree with is the way they say it will make people redundant. If we designed a system to make our lives easier, better, more efficient and more productive, how could we possibly be on the losing end of it? I'll write a discourse about the future of work later, but today I want to begin with something that remains a mystery in the development of AI. You won't believe it jokes! AI still can't make jokes by itself.

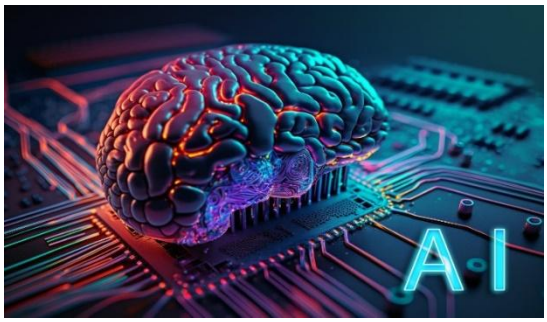
There was an incident last year on Good Morning Britain where a robot made a joke. But you can tell it was premeditated. And of course, they had to stay in a particular line of questions for the system to keep flowing. But seriously, why can't AI make a joke? I believe the answer is just as simple; because it is AI! From the post tagged earlier, I explained in a very simple manner AI, machine learning, deep learning, big data. The system learns to think from data. It is based on the trends and patterns from the data that the AI makes decisions. The decisions have to be logical and defined. AI is just basically an efficient decision-making machine. It is can be taught to think but it cannot create thought beyond the patterns and trends from the data it receives.

The big problem of stuff like comedy and jokes is how to explain it to the system. It is not a logical end result. Telling the system a bunch of jokes and telling the system to find the patterns is a dead end. Many times, what constitute jokes to us are things from our experience that we can relate to in a particular way. If we cannot teach the system the experience of laughter, then to make a joke is a mirage.

BHUVAN B S

6TH SEM A SEC

“Demystifying Artificial Intelligence: Exploring its Evolution, Applications, and Future Trends”



Artificial Intelligence (AI) has emerged as one of the most transformative technologies of the 21st century, revolutionizing industries and reshaping the way we live, work, and interact with technology.

The Evolution of AI:AI traces its roots back to the 1950s when pioneers like Alan Turing and John McCarthy laid the groundwork for the field with their groundbreaking work on computational intelligence and machine learning. Over the decades, AI has undergone rapid evolution, fueled by advances in computing power, data availability, and algorithmic innovation.

Applications of AI:

AI has permeated virtually every industry, offering solutions to a wide range of challenges and opportunities. In healthcare, AI-powered diagnostic systems and predictive analytics are revolutionizing disease detection, treatment planning, and personalized medicine. In finance, AI-driven algorithms are optimizing trading strategies, detecting fraud, and automating customer service. In manufacturing, AI-enabled robots and automation systems are enhancing productivity, quality control, and safety on the factory floor.

Key Technologies Driving AI Advancements:

Several key technologies are driving the advancement of AI and expanding its capabilities. Deep learning, a subset of machine learning inspired by the structure and function of the human brain, has emerged as a dominant force in AI research and application, powering breakthroughs in image recognition. Natural language processing, and speech recognition. Reinforcement learning, another branch of AI, enables machines to learn optimal behavior through trial and error, leading to impressive achievements in areas like game playing and autonomous systems. Additionally, advancements in hardware, such as GPUs and TPUs, are accelerating

the training and inference of AI models, making complex computations more accessible and efficient than ever before.

Some of the advantages of artificial intelligence (AI):

1. Automation
2. Improved Decision Making
3. Cost Reduction
4. 24/7 Availability
5. Personalization
6. Enhanced Efficiency and Accuracy
7. Innovative Solutions
8. Scalability

Nithesh M

6th sem c sec

Wireless Power Transfer

Wireless Power Transfer (WPT) is a cutting-edge technology that promises to revolutionize the way we charge and power electronic devices. By eliminating the need for cumbersome cords and plugs, WPT offers a convenient and efficient solution for keeping our gadgets juiced up and ready to go. At its core, WPT works through electromagnetic induction or resonance, where energy is transmitted wirelessly from a power source to a receiver. This technology holds immense potential across a wide range of applications, from charging smartphones and tablets to powering medical implants and even enabling wireless charging for electric vehicles.

One of the key advantages of WPT is its ability to provide a seamless charging experience without the hassle of plugging and unplugging devices. This not only

enhances convenience for users but also reduces wear and tear on charging ports, prolonging the lifespan of electronic devices. Moreover, WPT enables greater flexibility in device design, allowing for waterproof and ruggedized products that are not hindered by exposed charging ports. As the demand for mobility and connectivity continues to rise, WPT emerges as a game-changer in powering the next generation of wireless devices and IoT ecosystems.

However, despite its many benefits, WPT also presents challenges such as limited range and efficiency loss over distance. Researchers and engineers are actively working to overcome these hurdles by developing more efficient WPT systems and exploring new technologies such as beamforming and resonance tuning. As these advancements continue to evolve, WPT holds the promise of transforming the way we think about power delivery, ushering in a future where charging is as effortless and ubiquitous as Wi-Fi connectivity.

Nithin L

8th sem

"Unraveling the Mysteries of Blockchain: Beyond Cryptocurrency"

Blockchain technology has long been synonymous with cryptocurrencies like Bitcoin and Ethereum. However, its potential extends far beyond digital currencies, revolutionizing various industries with its decentralized, secure, and transparent nature. In this article, we delve into the intricacies of blockchain technology, exploring its fundamentals, real-world applications.

Fundamentals of Blockchain:

At its core, blockchain is a distributed ledger technology that records transactions across a network of computers in a secure and immutable manner. Each

block in the chain contains a cryptographic hash of the previous block, creating a chronological and tamper-proof record of transactions.

How Does a Blockchain Work?

You might be familiar with spreadsheets or databases. A blockchain is somewhat similar because it is a database where information is entered and stored. But the key difference between a traditional database or spreadsheet and a blockchain is how the data is structured and accessed.

A blockchain consists of programs called scripts that conduct the tasks you usually would in a database: Entering and accessing information and saving and storing it somewhere. A blockchain is distributed, which means multiple copies are saved on many machines, and they must all match for it to be valid.

The blockchain collects transaction information and enters it into a block, like a cell in a spreadsheet containing information.

Beyond Cryptocurrency:

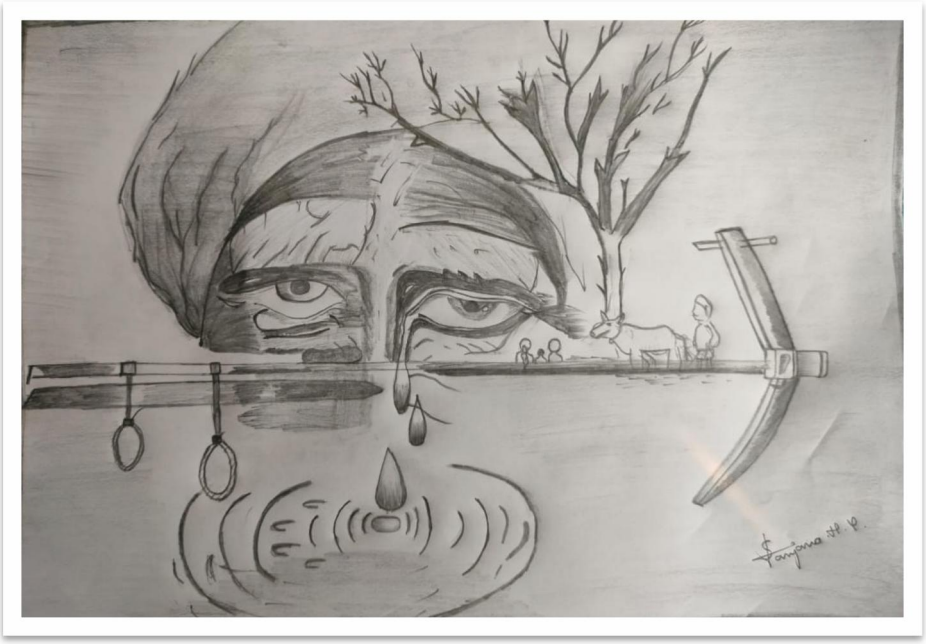
While cryptocurrencies remain a prominent application of blockchain technology, its potential reaches far beyond digital money. Industries ranging from finance and supply chain to healthcare and real estate are leveraging blockchain to streamline processes, enhance security, and foster innovation.

1. Supply Chain Management:
2. Digital Identity Verification:
3. Smart Contracts:
4. Decentralized Finance (DeFi):
5. Healthcare Data Management:

Rajashekar K S
6th sem C sec

ARTS GALLERY

The **Journey of Life:** In the vast expanse of time, we wander, seeking meaning in every step we take, Each moment a fleeting glimpse of wonder, As we journey through life's endless wake. We climb the mountains, face the storms, and in the depths of darkness, find our light, For every trial, a lesson to be born, Guiding us through the darkest night. So let us embrace this journey we're on, With courage, grace, and steadfast might, For in the end, when all is said and done, We'll find our way to the morning light. **Chitra T S** **6TH SEM A SEC**	ಹೂವಿನಂತೆ ಸುಂದರವಾಗಿ ನೀವು ನಗುತಿದ್ದೀರಿ, ನಾನು ನಿಮ್ಮಕಾಣುವ ಹಾಗಿದ್ದೇನೆ, ನನ್ನ ಮನಸ್ಸು ಕದಲಿಹೋಗುತಿದ್ದೆ ನಿಮ್ಮಮುಗ್ಧ ನಗುವನು ಕಂಡು ನನ್ನಹೃದಯ ಮೆಲುಕುತಿದ್ದೆ।	ತುಳಿತ ಬಹುಮಾನವಾಗಲಿ ನಮ್ಮವಿಜಯ, ಜೀವ ಸಮರ್ಪಿಸೋಣ ನಮ್ಮಶಕ್ತಿಯನು ಅದರಲಿ। ಹರಿಯುತಿಹ ನೀರು ಜಲಕೀರ್ತಿಯಾಗಲಿ, ನಮ್ಮಕಥೆಯ ಪಿಥ ಬದುಕು ನಿತ್ಯ ಜೀವಂತವಾಗಲಿ।



Sanjana HY
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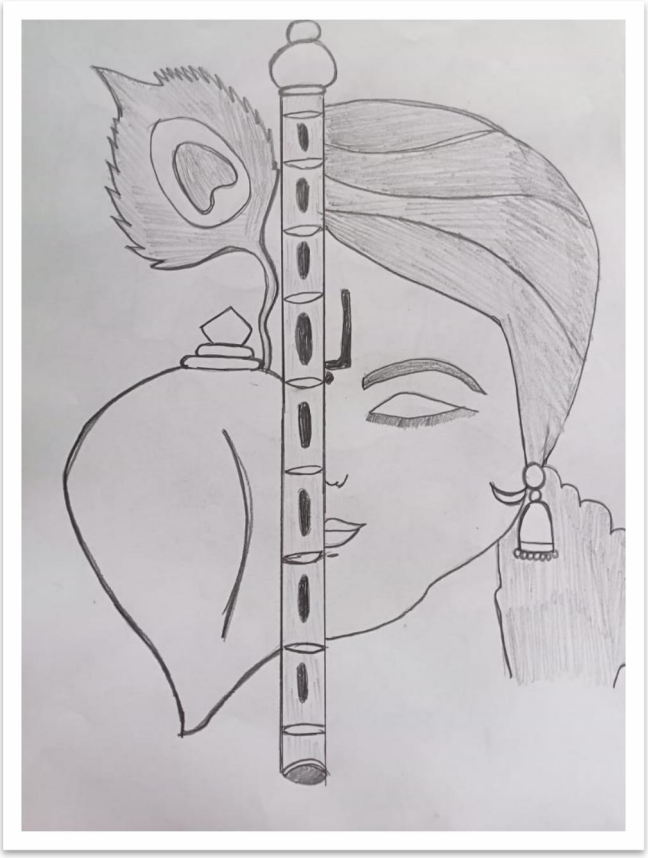
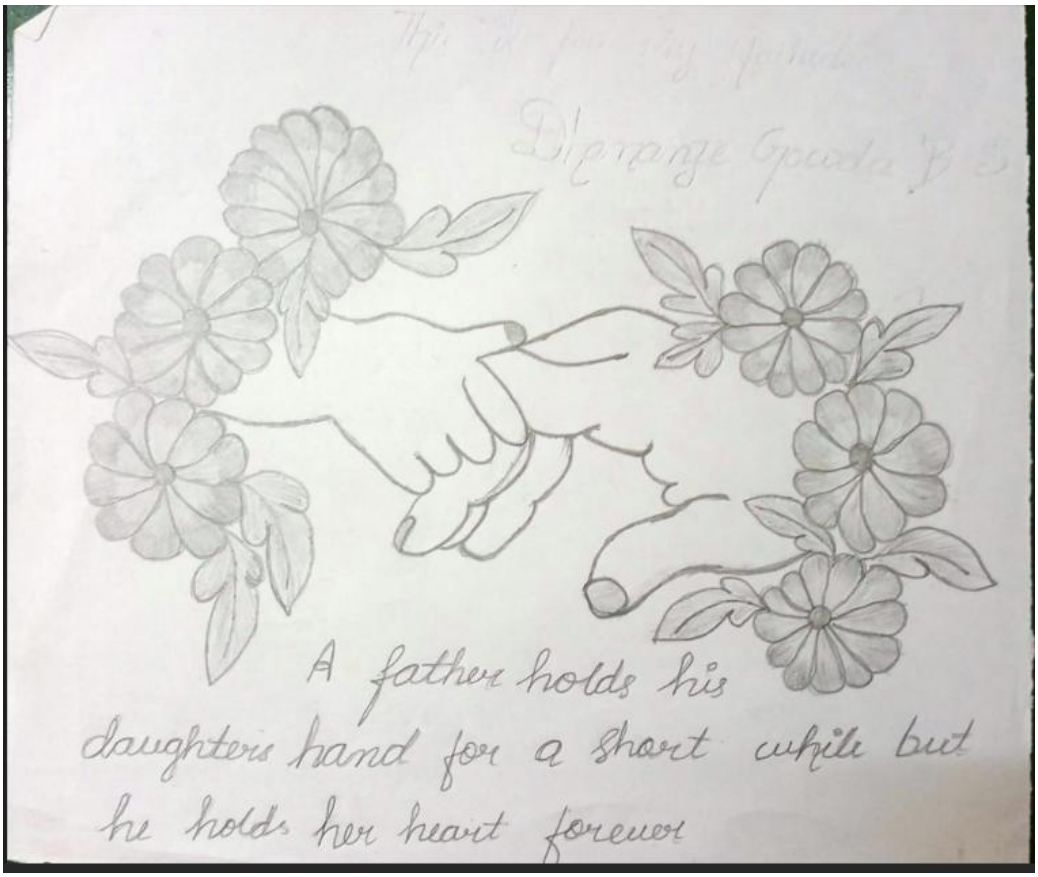


Priya
6th sem

Sinchana A P,
4TH SEM



Yogeshwari D

22ECE177

Roopashree Y R
6th sem 'C' sec

Deekshith N S
4th sem A Sec

"ಅಮ್ಮ"

ನನ್ನ ಮೊದಲ ಮಾತು. ನಿನ್ನ ಹೆಸರೇ ತಾನೆ
ಪುಟ್ಟ ಅಂಬೆಗಾಲನಿಟ್ಟು ನಿನ್ನೆಡೆಗೆ ಕೈ ಚಾಚಿ ಬರುವೆನೆ.

ಜಾರಿ ಬಿದ್ದಾಗಲೆಲ್ಲ ನನ್ನ ಕೈ ಹಿಡಿದು ನಡೆಸಿದೆ.
ಹಸಿ ಮಣ್ಣಿನಂತೆ ಇದ್ದ ನನ್ನ ಶಿಲ್ಪವಾಗಿ ಮಾಡಿದೆ.

ಜೀವನದ ಪಯಣದಿ ನಾ ಸಾಗಲು ಮುಂದೆ.
ನೀ ನೆರಳಾಗಿ ಬಂದೆ ಸದಾ ಬೆನ್ನ ಹಿಂದೆ
ಕಲ್ಲು ಮುಳ್ಳುಗಳ ದೂರ ಸರಿಸುತ್ತ ಬಂದೆ.
ದಾರಿ ದೀವಿಗೆಯಾಗಿ ಬೆಳಕ ಹರಿಸುತ ನಿಂದೆ.

ತ್ಯಾಗ, ಪ್ರೀತಿ, ಮಮಕಾರಕ್ಕೆ ನೀನೇ ಮೂರ್ತಿ ರೂಪ.
ನಿನ್ನ ಪ್ರೇಮ ಸಾಗರದ ನಡುವೆ ನಾನೊಂದು
ಸ್ವಾರ್ಥ ದ್ವೀಪ.

ನೀಲಿಮೆಯಂದು ನಲಿವ ಉಕ್ಕುವ ನಿನ್ನ ಪ್ರೀತಿ ಕಡಲು.
ಇಂದ್ರನು ಹುಡುಕಿ ಹೋದರು ಸ್ವರ್ಗ ನಿಂದು. ಮೇಲು.

ಜಗದ ಒಲವ ಬಣ್ಣಿಸಲು ಕವಿಗಳು ನೂರು ಬೇಕೆ?
ಅಂದದ್ದರದ ಮಹಾದಿವ್ಯ "ಅಮ್ಮ" ಎಂಬ ಪದಕೆ. . . .

Doresh m.g.

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