



Kongunadu

College of Engineering & Technology
[Autonomous]

MAGAZINE

TECHNO TRAIL

Computer Science and Engineering

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**“Let your Passion for
Problem Solving”**

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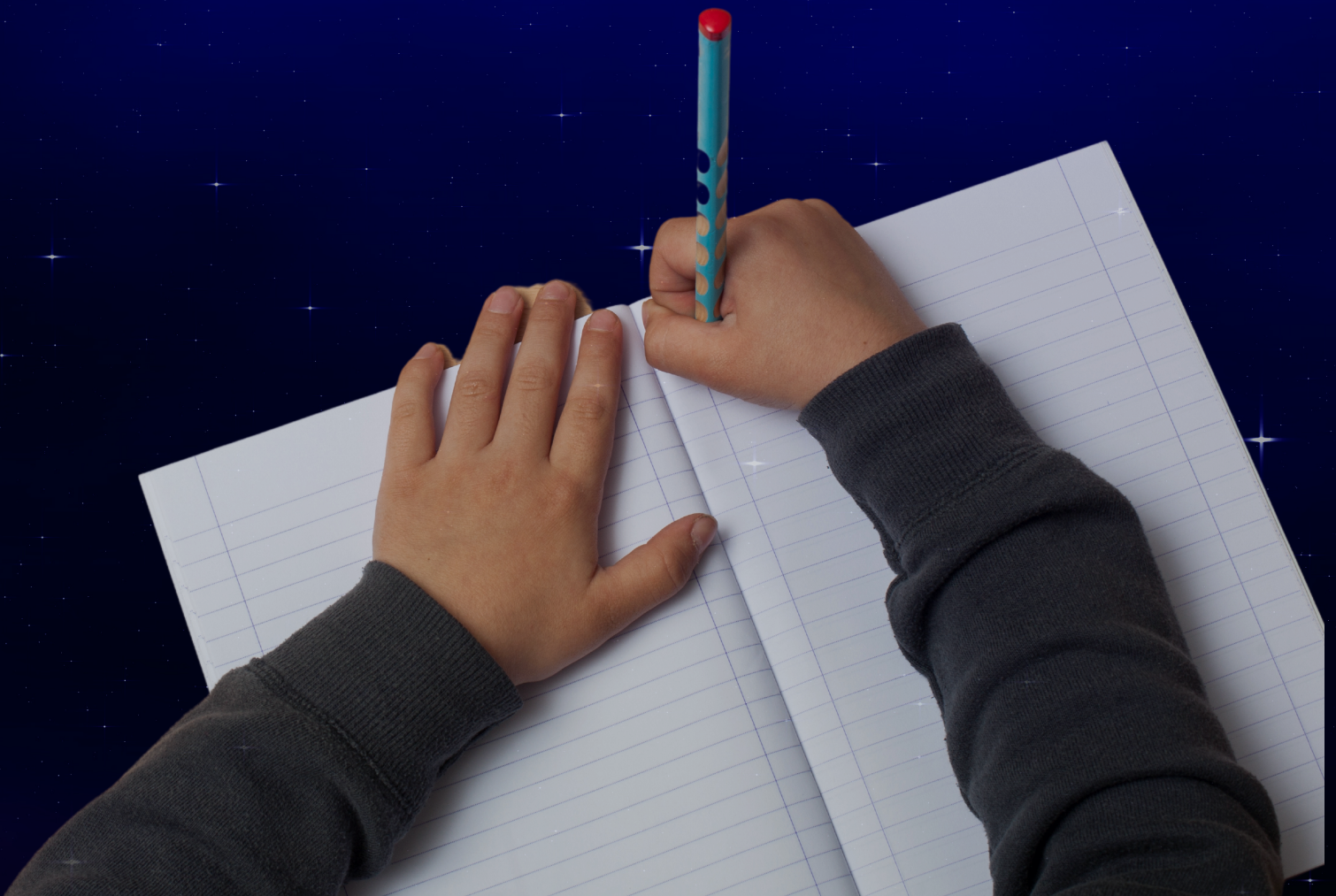
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TECHNICAL PAPERS

SECTION I



ENHANCING WOMEN'S SAFETY A MACHINE LEARNING APPROACH



NANDHITHA SHRI K K
CSE III

ABSTRACT :

Safety concerns, particularly for women, persist as a critical societal challenge. This paper proposes a comprehensive approach to address and enhance women's safety through the integration of machine learning technologies. Leveraging the power of predictive analytics and real-time data processing, our methodology aims to create a robust and intelligent system capable of identifying, analyzing, and preventing potential threats to women's safety.

The paper begins by reviewing the existing landscape of safety measures and their limitations. It then introduces a novel framework that incorporates machine learning algorithms to predict and mitigate risks. The proposed system utilizes data from various sources, such as crime statistics, geospatial information, and user-generated reports, to generate accurate risk assessments in specific locations and timeframes.

Furthermore, the paper explores the implementation of wearable devices and mobile applications as integral components of the safety system. These technologies serve as real-time communication tools, providing immediate assistance and notifying relevant authorities in case of emergencies. Additionally, they facilitate continuous data collection, contributing to the refinement and improvement of the machine learning models over time.

Ethical considerations, user privacy, and the importance of community involvement are also discussed to ensure the responsible and effective deployment of the proposed safety system. The paper concludes by emphasizing the potential impact of this machine learning-based approach on empowering women, fostering safer communities, and paving the way for future advancements in the intersection of technology and public safety.

In conclusion, the proposed machine learning-based system presents a promising solution to enhance women's safety. By amalgamating predictive analytics, real-time communication tools, and community involvement, the system aims to address the multifaceted challenges associated with ensuring women's security. The methodology undertaken to develop this system underscores the importance of robust data collection, thoughtful preprocessing, and the strategic selection of machine learning algorithms.

The evaluation results demonstrate the system's efficacy in providing accurate risk assessments and timely notifications. The integration with wearable devices and mobile applications further empowers individuals by offering a direct line of communication in emergency situations.

UNRAVELING THE INTRICACIES OF QUANTUM COMPUTING : A TECHNOLOGICAL ODYSSEY



GRACESHON J S

The relentless pursuit of computing prowess has led us to the frontier of quantum computing—a realm where classical bits give way to quantum bits (qubits), and the rules of classical physics bow to the principles of quantum mechanics. This technical article embarks on an exploration of quantum computing, delving into its underlying principles, technological challenges, and transformative potential.

INTRODUCTION :

The introduction sets the stage by highlighting the limitations of classical computing in solving complex problems and introduces the promise of quantum computing as a paradigm shift. It briefly outlines the core concepts of superposition and entanglement that form the foundation of quantum computation.

THE QUANTUM ENIGMA :

This section elucidates the fundamental building blocks of quantum computing—qubits. We delve into the unique properties of qubits, such as superposition and entanglement, which enable quantum computers to perform parallel computations and exhibit an exponential increase in computational capacity.

QUANTUM GATES AND CIRCUITS: NAVIGATING STATES:

Exploring quantum gates and circuits, this section elucidates how quantum operations manipulate qubits to perform computations. It provides a technical understanding of quantum gates, drawing parallels with classical logic gates while showcasing the quantum advantage in solving certain problems.

QUANTUM ALGORITHMS: EXPONENTIAL SPEEDUP:

The article discusses prominent quantum algorithms, including Shor's algorithm for integer factorization and Grover's algorithm for database search. It unravels the inherent parallelism that enables quantum algorithms to outperform classical counterparts exponentially in specific computational tasks.

QUANTUM DECOHERENCE AND ERROR CORRECTION:

The article discusses prominent quantum algorithms, including Shor's algorithm for integer factorization and Grover's algorithm for database search. It unravels the inherent parallelism that enables quantum algorithms to outperform classical counterparts exponentially in specific computational tasks.

The concept of quantum supremacy is explained, delineating the threshold where quantum computers surpass classical computers in solving certain problems. It discusses recent experiments and achievements in the quest for quantum supremacy and their implications for the future of computing.

NON TECHNICAL PAPERS

SECTION III

THE PURSUIT OF HAPPINESS

Once upon a time in a quaint village nestled between rolling hills, there lived a young woman named Maya. Despite the picturesque surroundings, Maya couldn't shake the feeling that something was missing from her life. She longed for a sense of purpose and the elusive feeling of happiness.

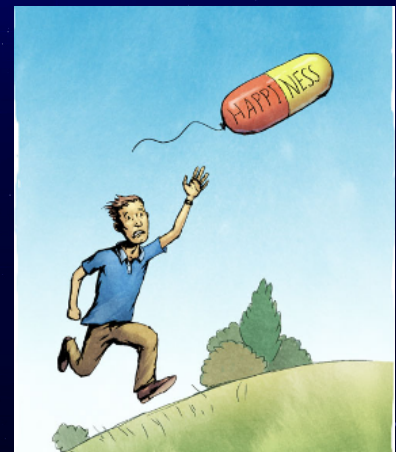
One day, as she strolled through the village market, she encountered an elderly man known for his wisdom. Intrigued, she approached him and shared her yearning for happiness. The old man, with a twinkle in his eye, handed her a small, ornate box. "This box," he said, "holds the key to your pursuit of happiness. But remember, the true treasure lies not in the box itself but in the journey it will take you on."

Intrigued, Maya opened the box to find a simple, shimmering seed. The old man explained that this seed represented the potential for happiness, but Maya must nurture it with experiences, kindness, and gratitude for it to blossom. Excited about the prospect of her quest, Maya set off on her journey, embracing every moment and seeking joy in the little things. She helped her neighbors, learned new skills, and savored the beauty of nature that surrounded her. As days turned into months, Maya noticed a transformation within herself. The seed had grown into a flourishing plant, mirroring the happiness that had blossomed in her heart. Her genuine smile and contagious positivity began to uplift the entire village.

Word of Maya's journey and the magical seed spread far and wide. People from neighboring villages sought her guidance on their pursuit of happiness. Maya, now realizing the profound impact of her experiences, shared the wisdom she had gained. In time, Maya became a beacon of happiness, not just for herself but for others as well. The village, once touched by a subtle melancholy, was now alive with laughter, camaraderie, and the shared joy of living in the present. And so, Maya's pursuit of happiness became a timeless story, reminding all who heard it that happiness is not a destination but a journey, and the true magic lies in sowing the seeds of joy along the way..



Manonmani
CSE II



ACHIEVEMENTS

SECTION IV



Fundings Awarded



Dr J Yogapriya
Prof/CSE & Dean(R&D)

Dr. J. Yogapriya, Principal Investigator, along with **Dr. C. Saravanabhavan** and **Dr. P. Preethi**, is leading a project titled "Assistive System to Impart the Fertility Stage of Women from Remote Provinces using Nano-based Wearable Device." The project has secured funding of **₹26,23,720** from **DST SERB POWER Grant, New Delhi**.



Dr C Saravanabhavan
Prof/CSE & Head



Dr P Preethi
ASP/CSE

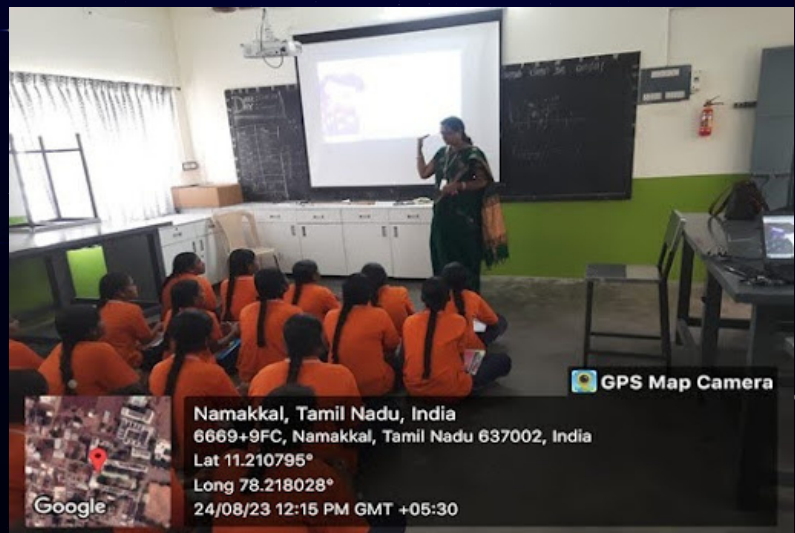
ICSSR CSE Seminar



Department of Computer Science and Engineering, as they proudly hosted a three-day National Level Seminar, sponsored by the Indian Council for Social Science Research (ICSSR). The seminar, themed 'AI for Computational Social Science and Digital Humanities,' unfolded through a dynamic physical mode, drawing eager participation from students, faculties of diverse institutions, and industry professionals. Explore the intersection of artificial intelligence and the social sciences, as experts and enthusiasts converged to explore the limitless possibilities in this captivating event.

INNOVATION & ENTREPRENEURSHIP OUTREACH PROGRAM

Experience the power of innovation and entrepreneurship as Kongunadu Innovation Council, in collaboration with the Department of Computer Science and Engineering, Dr. J. Yogapriya, presents an exclusive IIC Calendar Activity. Witness the transformative Innovation & Entrepreneurship Outreach Program held at Bharathi Vidhyalaya Matric Higher Secondary School in Reddipatti on August 24, 2023.



ATL TINKERING LAB TRAINING

Embark on a journey of knowledge and inspiration with Kongunadu Innovation Council, in collaboration with the Department of Computer Science and Engineering, as they organize an enlightening Orientation cum Mentoring Session for ATL-linked Government Higher Secondary School in Balasamudram on September 14, 2023. Join us in fostering a culture of innovation and learning.



HACKATHONS



Abilesh Kumar S
CSE IV

The IT and CSE department students from Kongunadu College actively took part in Grand Finale of SIH 2023 hosted at Noida College of Engineering and Technology, UP.



Graceshon J S
Kavinya Harini S
CSE III

Runner-Up in Cognizant Digital Nurture
Technoverse 2023 - Hackathon

INDIVIDUAL ACHIEVEMENTS

FIRST PRIZE IN PAPERIO



Premalatha V K
CSE III

FIRST PRIZE IN POSTER DESIGNING



Vishweshwar R
CSE III



Nandhitha Shri K K
CSE III

WINNERS OF CODE CRACK



Sajin T
CSE III



Jeevapandiyan S
CSE II



Chandru S
CSE II

SPORTS ACHIEVERS - MEN

KABADDI Zone Winners



Ragul M
CSE IV

CRICKET Zone Winners



Vishva H
CSE III

Bharath K
CSE II

Jebastin A
CSE IV

Ashwin Kanna V
CSE II

HANDBALL Zone Third



Joan Dsouza A
CSE IV

Girinath K
CSE II

KHO KHO Zone Winners



Abimanyu S
CSE II

VOLLEY BALL Zone Third



Bhaarith R
CSE II

HAMMER THROW Zone Second



Girinath A M
CSE II

SPORTS ACHIEVERS - WOMEN

BASKET BALL Zone Winners



Ragavi K G
CSE III

TABLE TENNIS INTERZONE THIRD ZONE WINNERS



Subha P
CSE II



PHOTOGRAPHY



Mohammed Halith M
CSE IV



Srikanth B
CSE IV





Vignesh P
CSE IV

க வி தை

“ஆத்துல புது வெள்ளம் ...

ஆனந்தம் கொண்டு வரும்...

சேறு சகதியெல்லாம் காணாம போயிருக்கும்...

கரையில் அய்யனாரு காவலுக்கு காத்திருக்கும்....

மறுகரையில் அத்தி மரம் பழம் விழுந்து நிறைஞ்சிருக்கும்...

எல்லாமே அழுச்சுப் போட்டு

சீமைகருவேல இப்ப செழிப்பாக வளர்ந்திருக்க

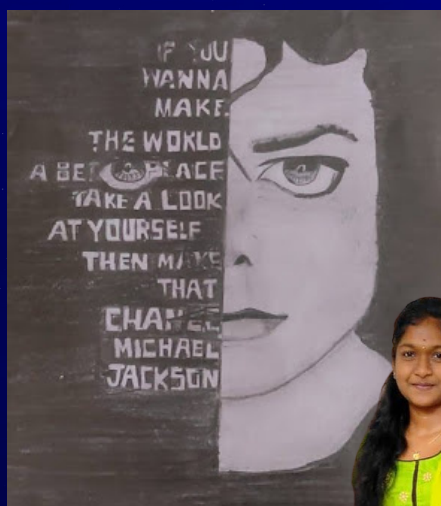
யாருக்கும் லாபமில்லை...

இதை சரியாக்க வழியுமில்லை”



Subhashini R
M.E (CSE)

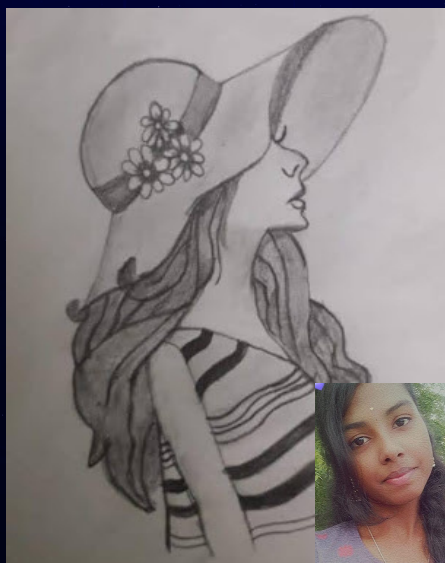
ART WORKS



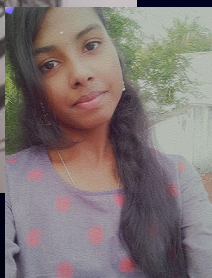
Vedharsha
CSE II



Priyanka D
CSE II



Priyadharshini N
CSE II



Sivabharathi A
CSE II



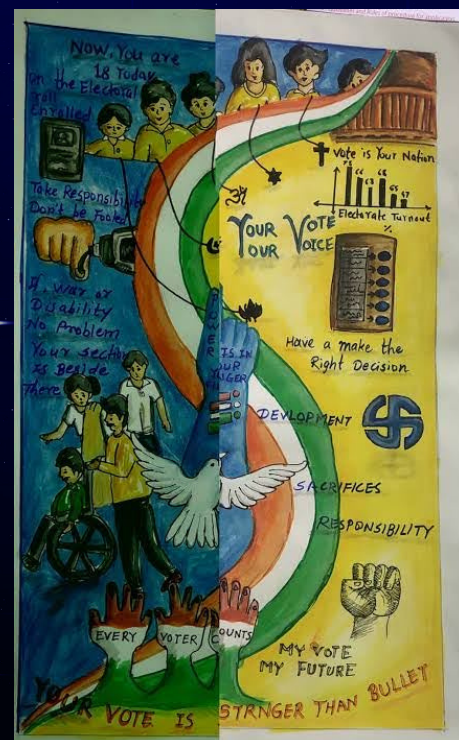
POSTER MAKING



Kelda A
CSE II



Nandhitha S P P
CSE II



SHORT FILM



Gowtham S
CSE II

Ashley Jude A
CSE II

BLOOD DONARS



Pragadeeswaran S
CSE II



Adithayan R
CSE III



Kabilan D
CSE III