



# NANDHA ENGINEERING COLLEGE

**AUTONOMOUS**

ERODE 52.

APPROVED BY AICTE, NEW DELHI. AFFILIATED TO ANNA UNIVERSITY, CHENNAI.  
ACCREDITED BY NAAC A+ GRADE



**DEPARTMENT OF  
COMPUTER SCIENCE AND ENGINEERING  
(CYBER SECURITY)**



**PROUDLY PRESENTS  
TECHNICAL MAGAZINE '24  
VOLUME 1, ISSUE: 02**







# T A B L E O F C O N T E N T S

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# **NANDHA ENGINEERING COLLEGE**

## **(AUTONOMOUS)**

### **VISION:**

- To be an Institute of excellence providing quality Engineering, Technology and Management education to meet the ever changing needs of the society.

### **MISSION:**

- To provide quality education to produce ethical and competent professionals with social responsibility.
- To excel in the thrust areas of Engineering, Technology and Entrepreneurship by solving real world challenges.
- To create a learner centric environment and improve continually to meet the changing global needs.

## **DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING**

### **[ CYBER SECURITY ]**

### **VISION:**

- To develop a pool of high caliber Professionals, Researchers and Entrepreneurs in computing and cyber security to meet the ever-changing needs of a secured society.

### **MISSION:**

- To provide quality education to produce Computer Science and Cyber Security professionals with social responsibility.
- To excel in the thrust areas of Computing and Cyber Security by solving real-world challenges.
- To create a learner centric environment and improve continually to meet the global secure computing needs.

**Dr. U. S. RAGUPATHY**  
**Principal**

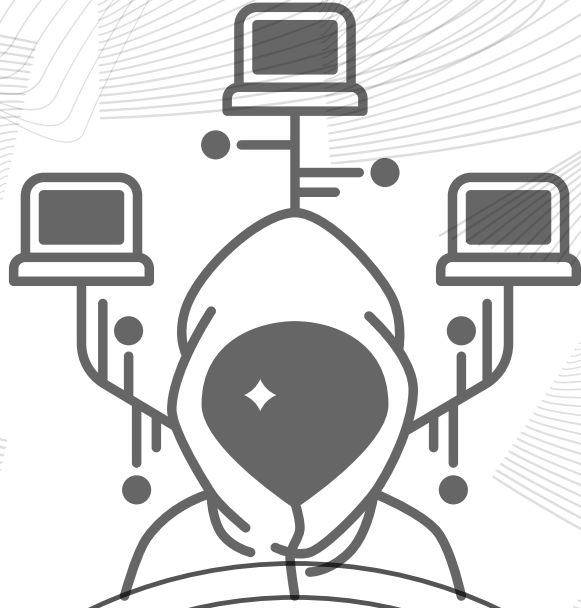


It gives me immense pleasure to welcome you all to Nandha Engineering College (Autonomous), an eco-friendly campus that strives with a goal to attain excellence by empowering students with sound knowledge, wisdom and experience. Our strength lies in creating pleasant ambience with an excellent infrastructure, qualified and experienced faculty, commitment to personal care, motivation to excel in academic/extracurricular activities and continuous interaction with industry.

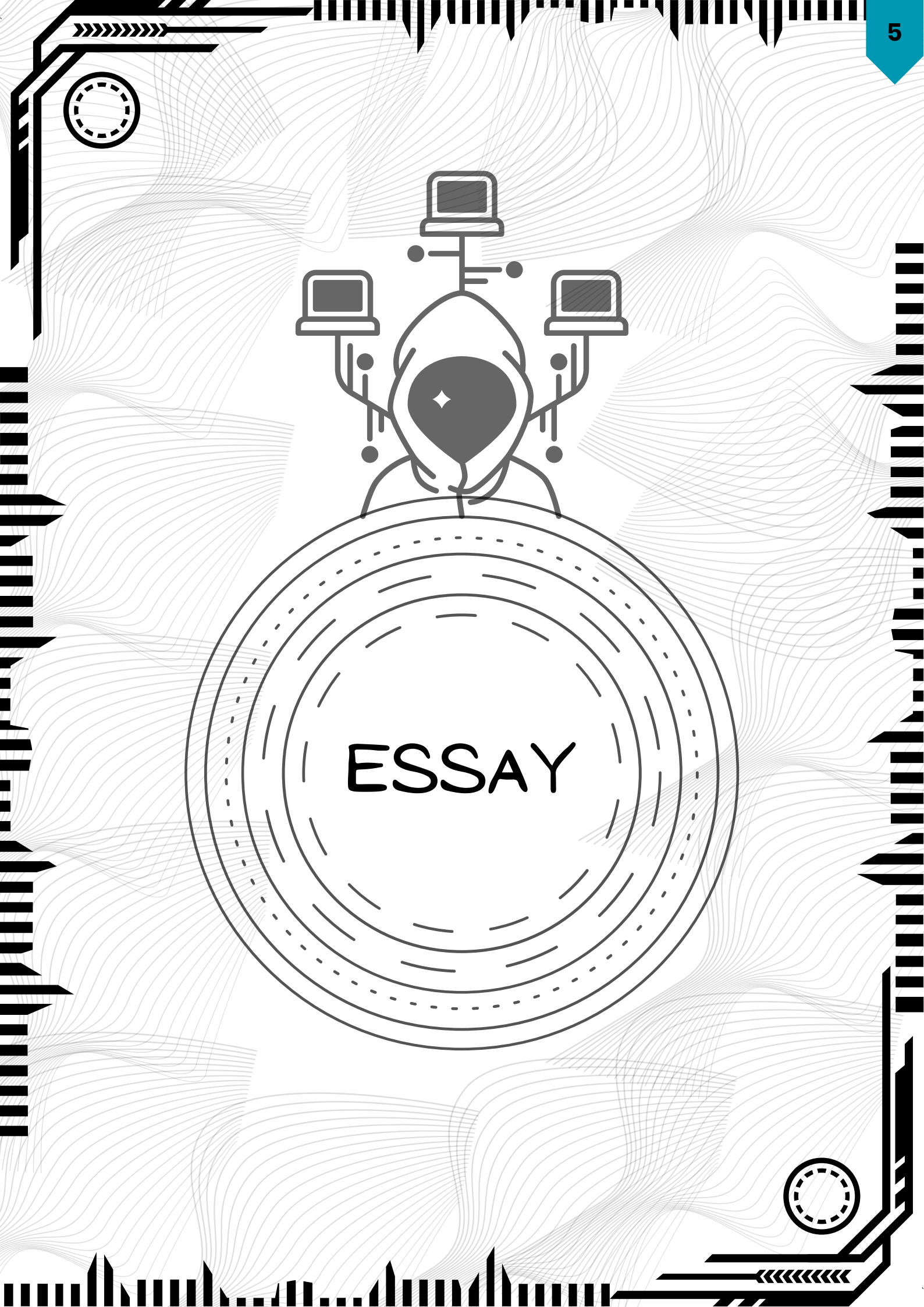
**Dr. S.PRABHU**  
**Head of the Department**



It fills my heart with immense joy to witness the incredible excitement surrounding the upcoming publication of the Cyber Security Departments magazine. This eagerly anticipated magazine will undoubtedly provide aspiring engineers with a vast platform to showcase their technical acumen and express innovative ideas with pen and paper. In this moment of celebration, I extend my heartfelt congratulations to the dedicated faculty, staff, and students who have poured their tireless efforts into bringing this remarkable magazine to fruition. Together, they have crafted a masterpiece that will undoubtedly inspire and leave a lasting impact on all who read it.



# ESSAY





## Denial-of-Service (DoS) Attacks

Denial-of-Service (DoS) attacks continue to pose a significant threat to individuals, businesses, and organizations worldwide. This article explores the various types of DoS attacks, their impacts on target systems, and effective prevention strategies to mitigate their effects. The proliferation of internet-connected devices and the increasing reliance on online services have made DoS attacks a prevalent threat in today's digital landscape. Understanding the nature of these attacks is crucial for both cybersecurity professionals and everyday users to safeguard against potential disruptions.

### Types of DoS Attacks:

#### Volumetric Attacks:

These floods target network bandwidth, overwhelming the target system with a high volume of traffic.

**Protocol Attacks:** Protocol-based attacks exploit vulnerabilities in network protocols, such as TCP, UDP, or ICMP, to disrupt communication between devices.

#### Application Layer Attacks:

These attacks target specific applications or services, exploiting vulnerabilities to exhaust system resources or disrupt functionality.

**Distributed Denial-of-Service (DDoS) Attacks:** DDoS attacks involve multiple compromised devices coordinated to target a single system or network, amplifying the impact and making mitigation more challenging.



## Prevention Strategies:

### 1. Network Monitoring:

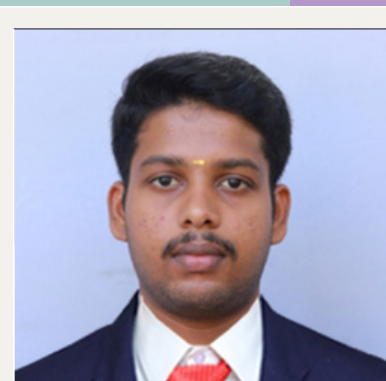
Implementing robust network monitoring tools helps detect and mitigate DoS attacks in real-time.

### 2. Traffic Filtering:

Employing traffic filtering techniques, such as rate limiting and access control lists (ACLs), can help mitigate the impact of volumetric attacks.

## Conclusion:

Denial-of-Service attacks pose a persistent threat to the stability and security of online systems. By understanding the different types of attacks and implementing proactive prevention measures, organization.



**Kishore.A**  
II year



# The Crucial Role of Digital Forensics in Modern Investigations

In today's digital age, where much of our lives are intertwined with technology, the realm of crime has likewise evolved. Criminal activities now leave digital footprints that can be as telling as physical evidence. Enter digital forensics, a field dedicated to unraveling the mysteries concealed within digital data. From cybercrimes to civil disputes, digital forensics plays a pivotal role in uncovering the truth and delivering justice.

Digital forensics has its roots in traditional forensic science but has rapidly adapted to the complexities of the digital world. With the proliferation of computers, smartphones, and other digital devices,

the need to investigate digital evidence became paramount.

## The process of digital forensics :

### Identification:

The first step is identifying the digital evidence relevant to the investigation, whether it's located on a computer, mobile device, or cloud storage.

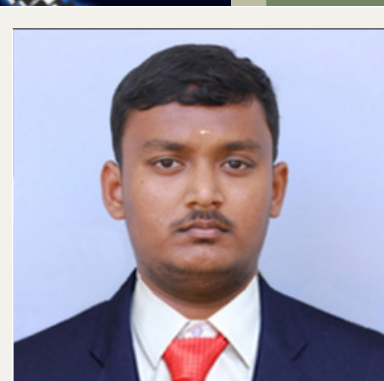
### Collection:

Digital evidence must be collected in a forensically sound manner to preserve its integrity and maintain its admissibility in court. This often involves creating forensic images of storage media to prevent tampering or alteration.

**3. Analysis:** Digital forensics experts meticulously analyze the collected evidence, employing specialized tools and techniques to extract, interpret, and correlate data. This stage aims to uncover insights, patterns, and anomalies that may shed light on the investigation.

**4. Documentation:** Throughout the investigation, detailed documentation is maintained to record the actions taken, findings, and conclusions reached. This documentation is crucial for presenting evidence in court and ensuring transparency in the investigative process.

In conclusion, digital forensics plays a vital role in modern investigations, uncovering digital evidence that can make or break a case. As technology continues to evolve, so too must the methodologies and techniques of digital forensics to ensure justice is served in an increasingly digital world.



**JEEVANANTHAM S**  
**II-YEAR**



# IoT Cybersecurity Breaches and the Imperative for Action

## IoT Cybersecurity

### Introduction :

In an era where connectivity reigns supreme, the Internet of Things (IoT) has emerged as a transformative force, interweaving digital intelligence into the fabric of our daily lives. However, as the IoT landscape expands exponentially, so too does the shadow of cyber threats.

This article delves into the escalating menace of IoT cybersecurity breaches, shedding light on the vulnerabilities pervading this interconnected ecosystem and the urgent need for robust defense mechanisms.

### 1. Unveiling the IoT Landscape :

Examine the sprawling IoT ecosystem, encompassing an array of interconnected devices spanning industries, homes, and infrastructure. From smart appliances and wearable gadgets to industrial sensors and autonomous vehicles, IoT devices permeate every facet of modern society, heralding a new era of convenience and efficiency. Yet, this pervasive connectivity also exposes a multitude of entry points for cyber adversaries to exploit, amplifying the risk of security breaches.







## 2. Vulnerabilities Under the Surface :

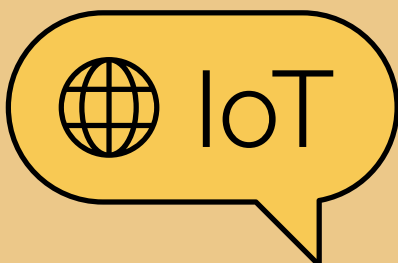
Peel back the layers to uncover the vulnerabilities plaguing IoT devices and networks. Delve into common security loopholes, including weak authentication mechanisms, unencrypted

communications, and the lack of timely software updates. Illustrate how these vulnerabilities serve as fertile ground for malicious actors to infiltrate IoT ecosystems, launching attacks ranging from data breaches and ransomware infections to botnet enslavement and industrial sabotage.

## 3. The Impact of Breaches :

Illuminate the far-reaching repercussions of IoT cybersecurity breaches, transcending mere financial losses to encompass broader societal implications. Explore the erosion of consumer trust in IoT devices, the compromise of sensitive personal and

corporate data, and the disruption of critical infrastructure services. Case studies and real-world examples lend depth to the discussion, underscoring the tangible human and economic costs incurred in the wake of successful IoT attacks.



**VINUPRASANTH T**  
**II-YEAR**

# The Trojan Horse

## Introduction :

In the realm of cybersecurity, few threats loom as ominously as the Trojan horse malware. Named after the deceitful wooden horse in Greek mythology, this insidious form of malware infiltrates systems under false pretenses, wreaking havoc from within. Understanding its workings is paramount in the ongoing battle to safeguard digital landscapes. The term "Trojan horse" originates from the legendary tale of the Trojan War, where the Greeks employed a massive wooden horse to gain entry into the fortified city of Troy, ultimately leading to its downfall. In the digital realm, a Trojan horse operates similarly, disguising itself as benign software or files to gain access to a system. Over time, Trojan horse malware has evolved in sophistication and capability.



## Impact and Consequences :

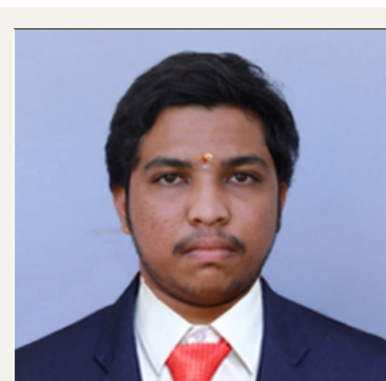
- 1. Data Theft:** Trojans may exfiltrate sensitive information such as login credentials, financial data, or personal documents, compromising user privacy and security.
- 2. System Compromise:** Trojans often grant attackers unauthorized access to infected systems, allowing for remote control and manipulation of critical functions.
- 3. Botnet Formation:** Infected devices may be co-opted into botnets, vast networks of compromised machines utilized for malicious purposes such as distributed denial-of-service (DDoS) attacks or spam dissemination.

## Defense and Mitigation Strategies:

- 1. Antivirus Software:** Deploying reputable antivirus solutions capable of detecting and removing Trojan infections is essential in bolstering system defenses.
- 2. User Education:** Educating users about common phishing tactics and safe browsing habits can mitigate the risk of unwittingly executing Trojan-laden files.

### Conclusion:

Trojan horse malware represents a formidable and pervasive threat in the ever-evolving landscape of cybersecurity. By understanding its origins, modes of transmission, and impact, organizations and individual.



**RAGAVAN S**  
**II-YEAR**





# POETORY





## THE POVERTY OF ALONE

Alone, amidst the silence deep,  
Where shadows dance, where secrets keep.  
In the echo of a whispered sigh,  
A solitary soul, beneath the sky.

The world around, a distant hum,  
Yet within, a quiet drum.  
Alone, but not forgotten, see,  
In solitude, we're wild and free.  
To wander through the labyrinthine night,  
To seek the stars, to embrace the light.

In solitude, we find our strength,  
In solitude, we go to great lengths.  
To listen to the whispers of our soul,  
In the solitude, we find our goal.

So, fear not the quiet, the empty space,  
For in solitude, we find our grace.  
Alone, but not truly so,  
In solitude, our spirits grow.



**KISHORE A**  
**II-YEAR**





## The Tranquil Garden

In a lovely garden, where roses grow bright,  
Under leafy arches, lilies pure and white,  
A fragrant place, untouched by winter's chill,  
The soft breeze whispers, moving all things still.

Bees hum gently, sipping from each bloom,  
Among the flowers, their colors all in tune.

The nightingale sings sweetly in the shade,  
Its song a comfort as the day does fade.

This peaceful spot, where beauty always reigns,  
Heals every heart and soothes away its pains.



**BHANUJA K**  
**III YEAR**

## உணர்வுகளின் கலை

கலைநயத்தால் மயங்காத மனம் எதும்  
 இங்கு காவியத்தால் மயங்குவது ண்டோ!  
 மனதால் உணராத கலை... எதும்  
 இங்கு மதியால் உணர்வது ண்டோ!  
 கலைகளால் காணாத இன்பம் ஏதும்  
 இங்கு கண்களால் காண்பது ண்டோ!  
 கவிசுவையால் பரவுகின்ற  
 இக்கலைகளைப் போற்றாத வள்ளல்கள்  
 உண்டோ!...

"கலைகளைக் காப்போம்  
 உலகெங்கும் பரப்புவோம் !! "



**KARSNA K G**  
**III-YEAR**

குறளில் ஒரு துளி

கொற்றவன் அவையில்  
கற்றகல்வி மேன்மைபெற  
யாவர்க்கும் விடைநவில...  
உற்றதுணை பெற்றகல்வியே!

சீர்மிகு சிந்தனையோடு  
அவையஞ்சாமல் வாதம் செய்து....  
நன்னெறி இதுவென உரைத்துச்  
சொல் பிறழாமல் .... ஏற்றமாய்  
மறுமொழி செப்புதல்  
சாலச்சிறந்தது என்பதன் பொருட்டு

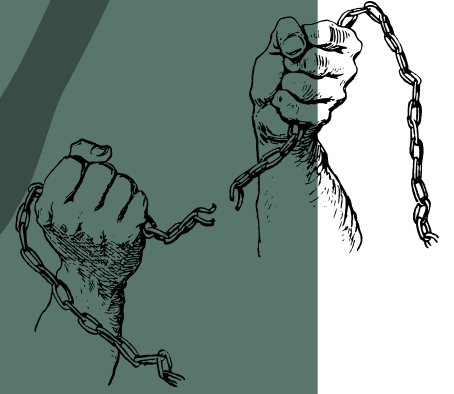
மறுமொழியை மாற்றாய்க்  
கொணர்ந்து தீர்க்கமாய்ப்  
பறைசாற்ற....  
எண்ணமெல்லாம் ஏற்றம்பெற  
“கற்றல் வேண்டும்”....  
“கசடறக் கற்றல் வேண்டும்”!



**SUBITHA P S**  
**II-YEAR**

## விடுதலை

சிறகுகள் சிறையிலிடுவதற்கு அல்ல  
 சிறகடித்து சிகரம் தொடுவதற்கு  
 கோடி என கொடுமையிலும்  
 வாடுகின்ற வறுமையிலும்  
 பட்டினியிலும் பஞ்சுத்திலும்  
 ஆற்றல் இழக்கின்றான் அடிமை  
 அடிமை ஆவதும் கொடுமை  
 அடிமைபடுத்துதலும் கொடுமை  
 ஆக்க பிறந்தவனாக மனிதன் இருக்கலாம்  
 பிறரை ஆளப் பிறந்தவனாக அல்ல  
 அடிமை என்னும் அவளம் நீங்க  
 மக்களிடையே மாற்றங்களும்  
 மனசாட்சியின் தோற்றங்களும் வேண்டும்  
 கட்டிவைக்கும் அடிமைதனத்தை கட்டவிழ்த்து  
 உலகில் உயர்வுக்காக உரிமை வேண்டி  
 உணர்த்தி நிற்போம்  
 அண்டத்தின் அழிவிற்கு  
 அடிமைத்தனம் ஆணிவேராகும்  
 உயிரேன ஒலித்து  
 அடிமைத்தனம் ஒழித்து  
 அமைதி பெறுவோம் இவ்வுலகுக்கு !!



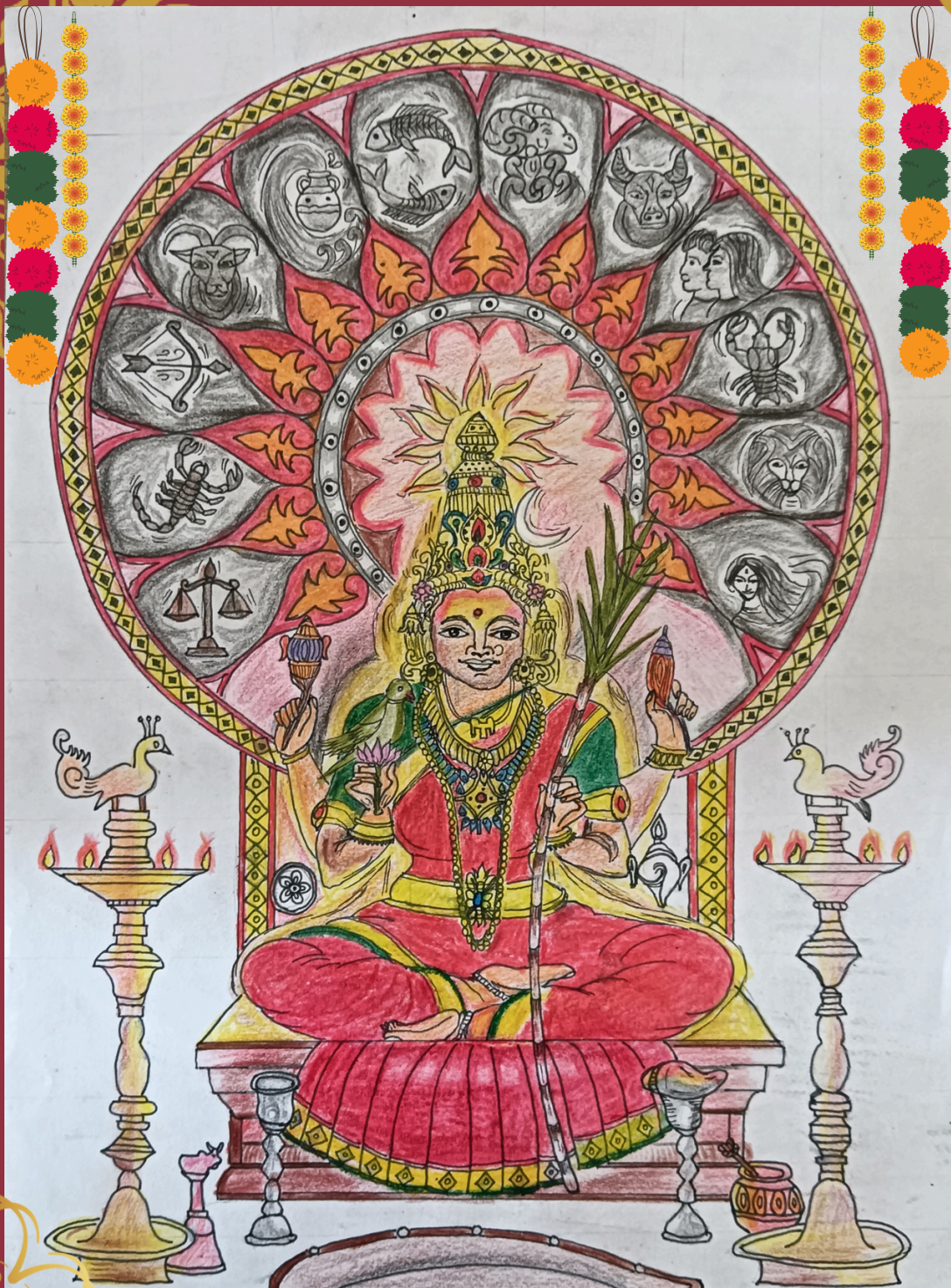
**SABARISH N V**  
**III YEAR**





# ARTFUL WHIMSY

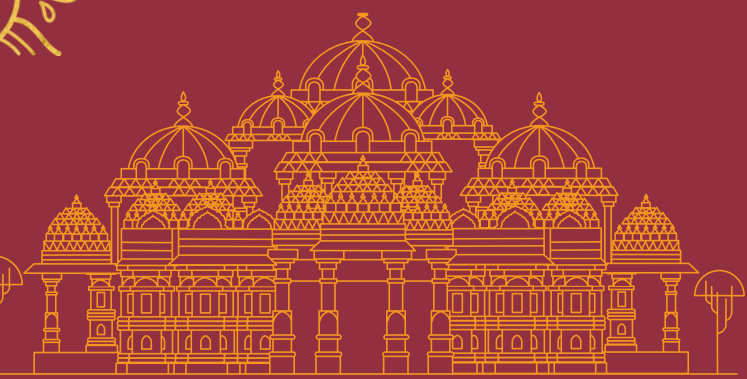




“Divine Representation of Goddess Kamakshi”



SAKTHI VEL G  
III - YEAR







“The Joy of a Canine Smile”



**GOWTHAM S**  
**III - YEAR**





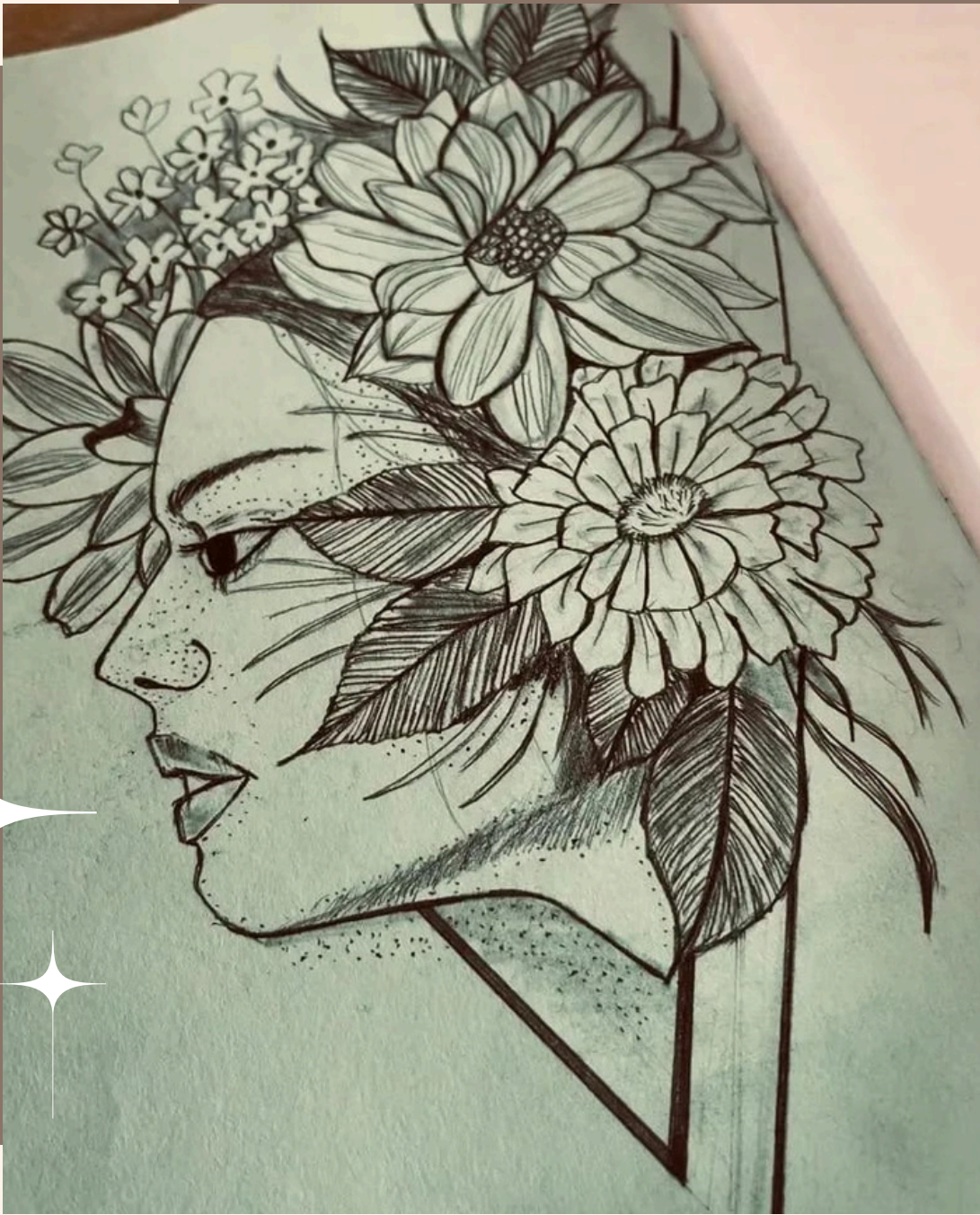


**“The Bond of Motherhood“**



**HEMALATHAA V  
III - YEAR**





“The Blossoming Soul”



**ROSHINI T M**  
**III - YEAR**



BE SAFE.....

GENERATE STRONG PASSWORD

INFORMATION.....

DO NOT SEND YOUR PERSONAL INFORMATION ON INTERNET

Keep Track on Your Digital Footprint

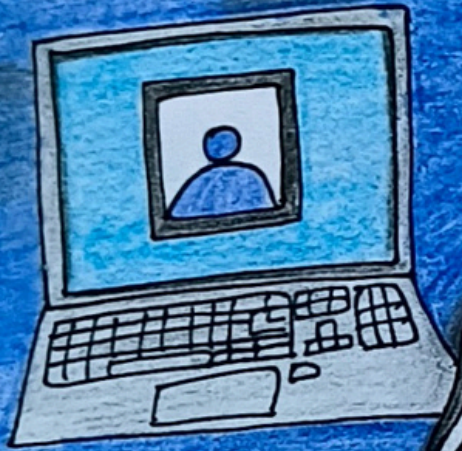
CONTACT BLOCKED

~~CYBER BULLING~~



YOU WON A LOTTERY OF 1 CRORE !!!

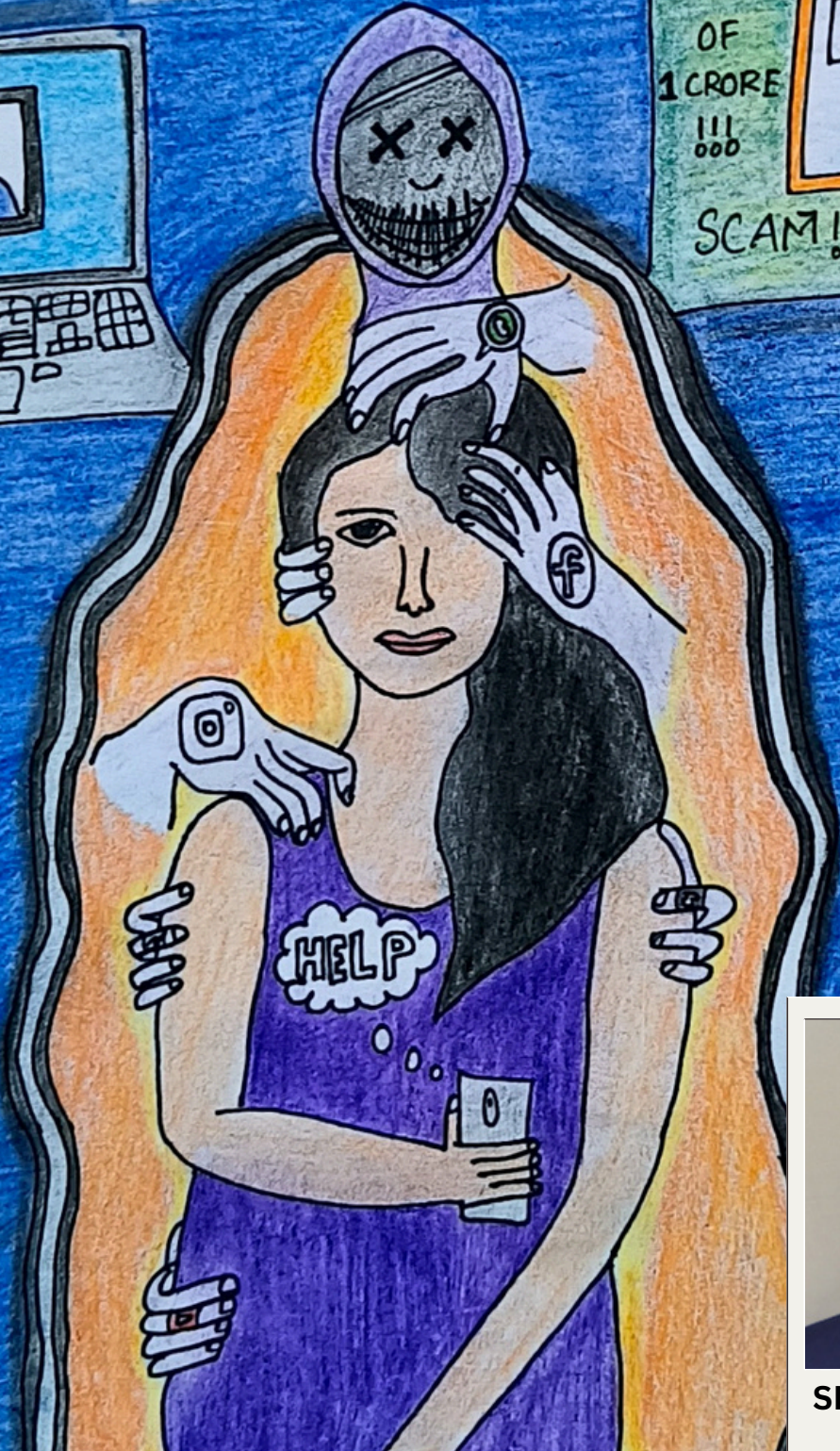
SCAM!!



UNKNOWN LINK

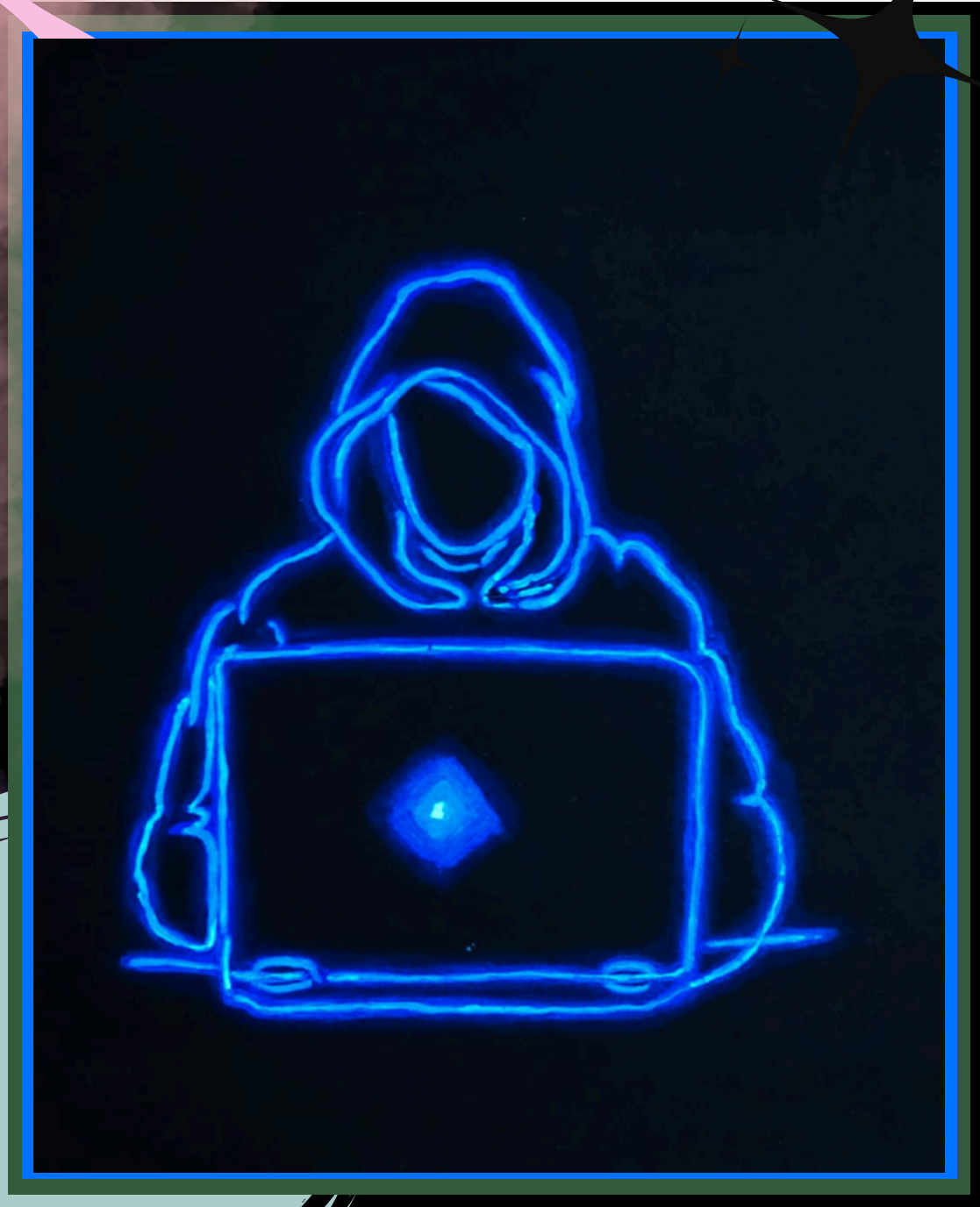


CLICK CAUTIOUSLY



SIVAGURUNATHAN M III - YEAR





**“The Enigmatic Blue  
Phantom of Cyberspace“**



**DAYANITHI S V  
III - YEAR**

# WOMEN 'S DAY CELEBRATION



On March 8, 2024, we celebrated International Women's Day at Nandha Institutions with our esteemed faculty members. The occasion was marked by a cake-cutting ceremony, where all the women faculty joined together in a moment of joy and camaraderie. The Principal and Administrative Officers conveyed their heartfelt wishes and gratitude to the women faculty, recognizing their contributions and dedication



# CULTURAL FEST RHYTHM '24



**NANDHA**  
Engineering College (Autonomous)  
Erode - 638 052.  
(Approved by AICTE, New Delhi, Affiliated to Anna University, Chennai, Accredited by NAAC with A+ Grade)

**Cultural Fest**  
*Rhythm'24*

MARCH  
**22**  
2024  
10:00 AM  
Nandha Auditorium

**Event Juries**  
E - Grade Dance Studio, Chennai.

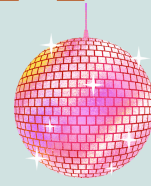


On March 22, 2024, we celebrated Rhythm'24, a vibrant cultural event. A highlight of the day was a captivating dance performance by first and second-year students, who collaborated to deliver a thrilling routine based on a horror theme. Their performance became the centerpiece of the event, leaving the audience in awe.



LET'S  
Dance

# ANNUAL DAY DJ NOON



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ACCREDITED BY NAAC A+, PERUNDURAI - ERODE MAIN ROAD, 638052 - TAMIL NADU.

A CULTURAL FEST  
**ANNUAL DAY - 2024**

**DJ NOON**  
WITH  
**DJ SUMAN**  
MARCH 27  
NANDHA AUDITORIUM  
STARTS AT 2 PM

PRINCIPAL  
Dr. U.S. BAGUPATHY

EVENT COORDINATORS  
Dr. M.K. MURTHI Ms. S. BRINDHA

STUDENT COORDINATORS  
Mr. V. SUDHAN  
Ms. A. SELIN PRINCY



On March 27, 2024, our auditorium came alive with an electrifying DJ Party featuring the dynamic beats of DJ Suman. Students lit up the dance floor, enjoying an afternoon filled with high-energy music, vibrant lights, and non-stop fun!





## PONGAL CELEBRATION '24

Nandha Engineering College celebrated Pongal Day on January 12 with joyous festivities. The event showcased traditional Pongal rituals and cultural performances. Students and faculty came together to mark the occasion with enthusiasm. Various activities and competitions added to the festive spirit of the celebration. Overall, it was a memorable day filled with cultural pride and camaraderie.





**Dr.S.Prabhu**  
**HEAD**

**DESIGNER  
BOARD**



**Mrs. S. Krithika**  
**AP/CSE(CS)**

**EDITORIAL  
BOARD**



**Bharani dharan.R**  
**III-Year**



**Jananivasan.R**  
**III-Year**



# FACULTY

# MEMBERS



**Dr.S.Prabhu**  
HOD



**Mrs.B.RajaRajeswari**  
AP/CSE(CS)



**Mrs.S.Krithika**  
AP/CSE(CS)



**Dr. N. Nagajothi**  
AP/MATHS



**Mr.M.Santhosh Kumar**  
AP/CSE(CS)



**Mrs.LNANTHINI**  
AP/CSE(CS)



**Ms.K.M.Madhumitha**  
AP/ENGLISH



# SUPPORTING STAFF



**Gokul S**  
**Office Assistant**



**Prabhu B**  
**Lab Technician**



**Haris.K**  
**Secretary**

**Varishini.S**  
**Join Secretary**



**Bhanuja.K**  
**Treasurer**



**Dayanithi.S.V**  
**Join Treasurer**



# EXECUTIVE MEMBERS



**Nithiya.B**  
II-Year



**Pradeep.U**  
II-Year



**Rahul Aravindh.M**  
II-Year



**Jerom Pal Singh.D**  
II-Year



THANKS!

FROM THE DEPARTMENT OF CSE

CYBER SECURITY



