



# Panimalar Engineering College



AN AUTONOMOUS INSTITUTION  
(A CHRISTIAN MINORITY INSTITUTION)  
JAISAKTHI EDUCATIONAL TRUST  
ACCREDITED BY NATIONAL BOARD OF ACCREDITATION

Academic Year:  
2022-23

Issue #1

## TECH NEWS

### DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

## EDITORIAL BOARD

### CHAIRMAN

Dr. P. CHINNADURAI, M.A, Ph.D.,  
Secretary & Correspondent

Mrs. C. VIJAYARAJESWARI,  
Director

Dr. C. SAKTHIKUMAR, M.E., Ph.D.,  
Director

Dr. SARANYA SREE  
SAKTHIKUMAR, B.E, M.B.A.,  
Ph.D., Director

### CHIEF EDITORIAL BOARD

Dr. K. MANI, M.E, Ph.D.,  
Principal

Dr. L. JABA SHEELA, M.E, Ph.D.,  
Professor & HOD / CSE  
Department

### STAFF EDITORIAL BOARD

Mrs. D. JENNIFER, M.E.,  
Assistant Professor CSE

### STUDENT EDITORIAL BOARD

Ms. SANDHYA.S  
1st year CSE-C

### DEPARTMENT VISION

To provide an academically conducive environment for individuals to develop as technologically superior, socially conscious and nationally responsible citizens.

### PROGRAM EDUCATIONAL OBJECTIVES (PEOs)

**PEO 1:** Employment/Higher studies: To impart and disseminate sound knowledge to the students on the fundamentals of mathematics and advanced fields of computer science and interrelated disciplines to solve simple and complex engineering problems and train them

to achieve sustainable growth in their professional career. **PEO 2:** Discipline Knowledge: To enhance the ability of students to evaluate the specific requirements of software industry and provide innovative engineering solutions and efficient product designs. **PEO 3:** Individual Skills: To facilitate the students to make use of their technical

competency to identify and appropriate product design, development, testing, maintenance, analysis of problems and provide corrective measures.

**PEO 4:** 3P's Professional, Personality and Presentation: To enable the students to develop strong leadership qualities with aggressive optimism, multidisciplinary skills, excellent communication skills and function as effective and reliable team members giving importance professional and ethical principles.

**PEO 5:** Environment: To inculcate in the students to associate in social networking, pursue continued learning of the latest developments in Computer Science and involve in higher research and contribute to the development of software industry and related engineering fields.

### PROGRAM SPECIFIC OBJECTIVES (PSOs)

**PSO 1:** To inculcate technical skills to analyze, design and implement software's related to algorithms, networking, web services, multimedia, big data analytics and recent topics of varying complexity.

**PSO 2:** To develop the capability to comprehend and solve the interdisciplinary problems appropriate technology with the understanding of contemporary business environment.

**PSO 3:** To develop an ability to utilize the latest technology and platforms to become a triumphant professional, successful entrepreneur and an urge for pursuing higher studies.



### DEPARTMENT MISSION

M1: To develop our department as a center of excellence, imparting quality education, generating competent and skilled manpower.  
M2: To prepare our students with high degree of credibility, integrity, ethical standards and social concern.  
M3: To train our students to devise and implement novel systems, based on Education and Research.



### PROGRAM OUTCOMES (POs)

**PO1 (Engineering knowledge):** Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.

**PO2 (Problem Analysis):** Identify, formulate, research literature, and analyze complex engineering problem reaching substantiated conclusions using first principles mathematics, natural sciences, and engineering sciences.

**PO3 (Design/development of solutions):** Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.

**PO4 (Conduct investigations of complex problems):** Use research-based knowledge and research methods including design experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.

**PO5 (Modern tool usage):** Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities (within their limitations). **PO6 (The engineer and society):** Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the Professional engineering practice.

**PO7 (Environment and sustainability):** Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.

**PO8 (Ethics):** Apply ethical principles and conduct to professional ethics responsibilities and norms of the engineering practice.

**PO9 (Individual and team work):** Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

**PO10 (Communication):** Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and make effective presentations, and give and receive clear instructions.

**PO11 (Project management and finance):** Demonstrate knowledge and understanding of the engineering and management principles and apply these to on as a member and leader in a team, to manage projects and in multidisciplinary environments. **PO12 (Life-long learning):** Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

## Natural Language Processing (NLP)

Natural language processing (NLP) is a branch of artificial intelligence (AI) that enables computers to comprehend, generate, and manipulate human language. Natural language processing has the ability to interrogate the data with natural language text or voice.

### Applications:

- Automate routine tasks
- Improve search
- Search engine optimization
- Analyzing and organizing large document collections
- Social media analytics
- Market insights
- Moderating content



## Latest Technologies in Computer Science

1. 5G Network
2. Artificial Intelligence and Machine Learning (AI & ML)
3. Automation
4. Block Chain
5. Cyber Security
6. Voice Technology
7. Virtual Reality
8. IOT
9. Serverless Computing
10. Biometrics
11. Robotics
12. Virtual reality (VR/Augmented reality (AR))
13. Drones
14. Intelligent Apps
15. NFT (Non-Fungible Token)
16. Big Data Analytics
17. Computer Network

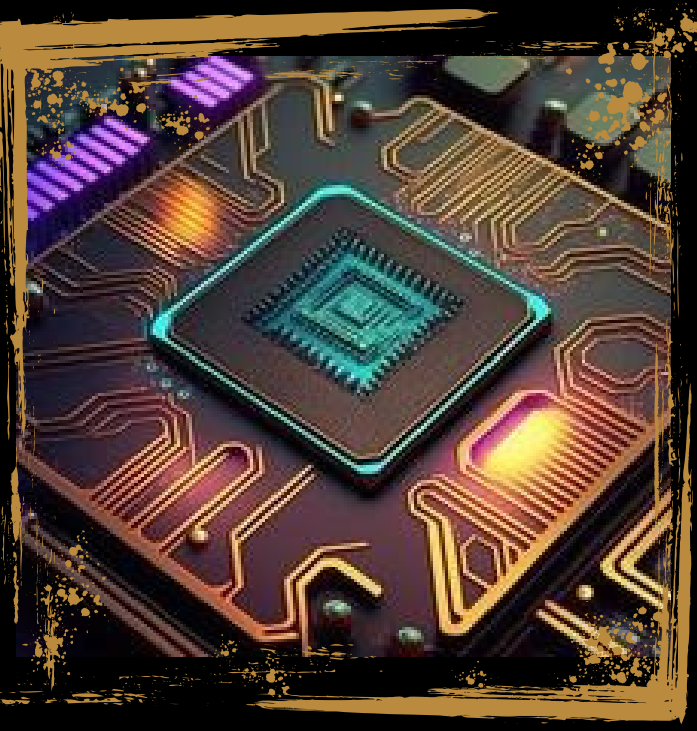


## GAME DEVELOPMENT

Game Development is the art of creating games and describes the design, development and release of a game. It may involve concept generation, design, build, test and release. While you create a game, it is important to think about the game mechanics, rewards, player engagement and level design.







# INTELLIGENT SYSTEMS & ROBOTICS

Intelligent systems in robotics involve advanced algorithms and sensors that enable machines to perceive, learn, and make decisions. This synergy enhances automation, enabling robots to adapt and execute complex tasks efficiently.

# CLOUD AND WEB TECHNOLOGY

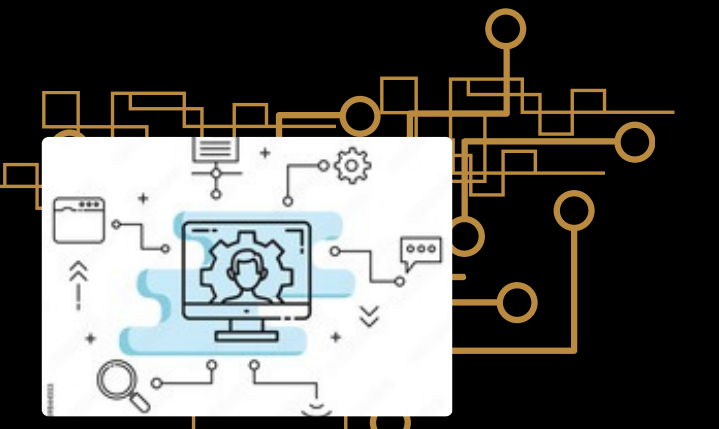
Cloud technology enables scalable, on-demand access to computing resources over the internet, offering flexibility and cost-efficiency. Web technology, the foundation of online communication, facilitates the creation and interaction with content through browsers. Together, they empower seamless connectivity, data storage, and collaborative experiences in the digital realm.

# MACHINE LEARNING AND DATA MINING

Machine learning (ML) is a subset of artificial intelligence that focuses on developing algorithms allowing computers to learn patterns from data and make predictions. Data mining is the process of discovering patterns and knowledge from large volumes of data, utilizing a variety of techniques for analysis and extraction of valuable insights. Together, they contribute to informed decision-making in various domains.

# TECH QUIZ

1. What technology is the foundation for cryptocurrencies like Bitcoin, known for its decentralized and secure nature?
2. Which cutting-edge technology enables computers to simulate human-like learning and decision-making processes?
3. Name the wireless technology standard that promises faster data transfer speeds and reduced latency, enabling technologies like augmented reality and virtual reality.
4. Which popular technology is associated with decentralized applications (DApps), offering a secure and transparent way to execute code?
5. In the context of cybersecurity, what is the term for a malicious software that demands ransom for its release?



# TECH QUIZ ANSWERS

1. Blockchain
2. Artificial Intelligence (AI) or Machine Learning (ML)
3. 5G
4. Blockchain
5. Ransomware

# Student Achievements

1. Team Emerging Programmers won Rs.100000/- in Smart India hackathon for the Problem Statement "Website and Application convergence with MoLE initiatives" Ministry of Rural.
2. Team CodeAlpha won Rs.100000/- in Smart India hackathon for the Problem Statement "Unique Student Identity and student profile system" Ministry of Electronics and Information Technology (MEITY).2022-23.
3. Team Infinity won "BEST INNOVATION AWARD" in HACK O' HOLIC's 3.0 - 2022 event organised by St. Joseph's Institute of Technology, Chennai.
4. Our department students were Runner "POLICE HACKATHON 2022" in "POLICE HACKATHON 2022" event organised by SRM Institute Technology, Chennai, 2022-23.
5. From 29000 applicants to 6 national finalists and 1 winner. our student ABISHEK.R winning the prestigious IET India Scholarship Award 2022 for presenting technological solutions to limit the greenhouse emissions from industries, deforestation, forest degradation and agricultural practices.2022-2023.
6. Our students won District level English speech competition 2022 by Tamilnadu Government. 2022- 2023



# FACULTY ACHIEVEMENTS

1. Dr.L.Jabasheela has received Jury Award & Recognition in Tamilnadu Police Hackathon 2023 has received Best Paper Award Rs.4000 at NITTR-Local Coordinator for STC on development of responsive website & Cyber Crime and Forensic Tools in the year 2023
3. Dr.Tamilvizhi T has received Best Paper Award -The Ninth International Conference on Mining Intelligence and Knowledge Exploration (MIKE 2023) -Norway
4. Dr. R. Jeyapriya has received Excellence Award-certificate in Indian Achievers Forum in recognition of professional achievements and Contribution in Academic in the year 2023
5. Dr.P.J.Sathish Kumar has received Jury Award & Recognition in Tamilnadu Police Hackathon 2023
6. Dr.Tamilvizhi T has received Best Faculty Award in International Kalam Convension 2023

# RIDDLE ANSWERS

1. Keyboard
2. IP Address
3. Screen
4. Password
5. Software
6. Cloud
7. AI



# RIDDLE TIME

1. I have keys but no locks. I have space but no room. You can enter, but you can't go inside. What am I?
2. I'm a string of letters and numbers, unique to each device. Unlock me, and you'll access a world of information. What am I?
3. I'm a window to the digital realm. I'm not made of glass, yet you often stare at me. What am I?
4. I'm a code that guards the entrance. Forget me, and your secrets might be at risk. What am I?
5. I'm not a bug, yet I can be fixed. I'm not a feature, yet I can be improved. What am I?
6. I'm a cloud that doesn't bring rain. I store your data, but you can't touch me. What am I?
7. I help, but I'm not working behind the scenes. I'm not a human, but I understand your commands. What am I?