



# DEPARTMENT OF INFORMATION TECHNOLOGY

## INFO TECH PARK



**INFO TECH SPARK - NEWS LETTER- 2025**

**VOLUME 1 ISSUE 1 JUL-DEC 2025**

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## VISION OF THE INSTITUTION

To make this Institution the unique of its kind in the field of Research and Development activities in this part of world.

## MISSION OF THE INSTITUTION

To impart highly innovative and technical knowledge to the urban and unreachable rural student folks through "Total Quality Education".

## VISION OF THE DEPARTMENT

To make the department of Information Technology the unique of its kind in the field of Research and Development activities in this part of world.

## MISSION OF THE DEPARTMENT

To impart highly innovative and technical knowledge in the field of Information Technology to the urban and unreachable rural student folks through Total Quality Education.

## PROGRAM EDUCATION OBJECTIVE (PEOs)

### **PEO1:** Technical Knowledge

Graduates will be able to identify, analyze and create solutions for real life, industrial and societal needs by applying the principles and practices of Information Technology.

### **PEO2:** Teamwork & Ethics:

Graduates will be able to collaborate effectively and ethically in a multi-disciplinary team as a member & as a leader.

### **PEO3:** Lifelong Learning:

Graduates will be able to adopt the contemporary technologies in the field of Information Technology to provide solutions for challenging environments.

## PROGRAM SPECIFIC OUTCOMES (PSOs)

Engineering Graduates will be able to:

**PSO 1:** Demonstrate technical and interpersonal skills to design and develop IT enable solutions to meet the real time industrial and societal needs.

**PSO2:** Exhibit an ability to adapt to the evolutionary changes in computing.

## PROGRAM OUTCOMES (POs):

Engineering graduates will be able to

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

**PO2: Problem analysis:** Identify, formulate, research literature and analyze complex engineering problems reaching substantiated conclusions using first principles of 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 public health and safety, and cultural, societal, and environmental considerations.

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

**PO5: Engineering tool usage:** Create, select and apply appropriate techniques, resources and modern engineering and IT tools, including prediction and modeling to complex engineering activities, with an understanding of the limitations.

**PO6: The Engineer and the World:** Analyse and evaluate societal and environmental aspects while solving complex engineering problems for its impact on sustainability with reference to economy, health, legal, framework, culture and environment.

**PO7: Ethics:** Apply ethical principles and commit to professional ethic, human values, diversity and inclusion; adhere to national & international laws.

**PO8: Individual and Collaborative Team work:** Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

**PO9: Communication:** Communicate effectively on complex engineering activities with the engineering community and with the society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear Instructions.

**PO10: Project management and finance:** Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.

**PO11: 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.

## **ABOUT THE DEPARTMENT:**

Information Technology is one of the most dynamic fields in the modern world. Information Technology or “InfoTech” evolved when computing and communicating technologies amalgamated. It prepares the students to meet the technical demands of business, government, healthcare, military, education, and other organizations. Information Technology is used in almost every sphere of profession, making the process much easier, by developing competent and effective solutions to real life problems. IT sector is growing at fast pace and creating ample opportunities in India and abroad for deserving candidates having employable skills. Department of Information Technology was established in the year 2001 and has 19 vibrant and well qualified teaching faculty members expertise in various fields of Information Technology who exerts dedicated work to produce high caliber technocrats. Of them, four have completed their doctoral degrees and eleven of them are pursuing their doctoral degrees. The objective of the department is to prepare the students to face challenges in the changing world. IT Professionals will find their career in various key areas like Artificial Intelligence, Augmented Reality, Data Analytics, Networking, Data Management, Multimedia and Computer graphics, Communications, Web Technology, Software Designs, Management and Administration of Systems.

## HEAD OF THE DEPARTMENT:

**Dr. E. Vakaimalar** heads the Department of Information Technology since September 2022. She received her Doctorate in Philosophy under the Faculty of Information and Communication Engineering from Anna University, Chennai. She completed her PG in Computer Science and Engineering in Mepco Schlenk Engineering College from Sivakasi & UG in Computer Science and Engineering from Periyar Maniammai College of Engineering and Technology for Women, Thanjavur. She has 25 years of Teaching Experience. Her area of interest includes Image processing, computer vision and data mining.



# Knowledge Bytes

“Learning technology today builds the future tomorrow.”

- ✚ The first computer bug was an actual insect found inside a computer in 1947.



- ✚ Python programming language was named after the comedy show *Monty Python's Flying Circus*.



- ✚ Strong passwords should contain uppercase letters, numbers, and symbols to improve cybersecurity.



- ✚ Artificial Intelligence is widely used in healthcare, banking, education, and smart devices.



- ✚ Cloud computing allows users to store and access data through the internet instead of local



**Subhiksha S**

**23UIT052**



# Explainable AI (XAI) – The Future of Transparent AI

Explainable AI (XAI) is an emerging technology that helps humans understand how Artificial Intelligence systems make decisions. Unlike traditional “black-box” AI models, XAI provides clear and transparent explanations for predictions and outcomes.

## What’s New in XAI?

- ✚ Real-time AI explanations for faster decision understanding
- ✚ Visual tools like heatmaps and attention maps
- ✚ Bias detection for fair and ethical AI systems
- ✚ Explainable Generative AI for text and image generation
- ✚ Human-friendly AI dashboards for non-technical users

## Applications

- ✚ Healthcare diagnosis
- ✚ Cybersecurity threat analysis
- ✚ Self-driving vehicles
- ✚ Banking and finance
- ✚ Smart recommendation systems

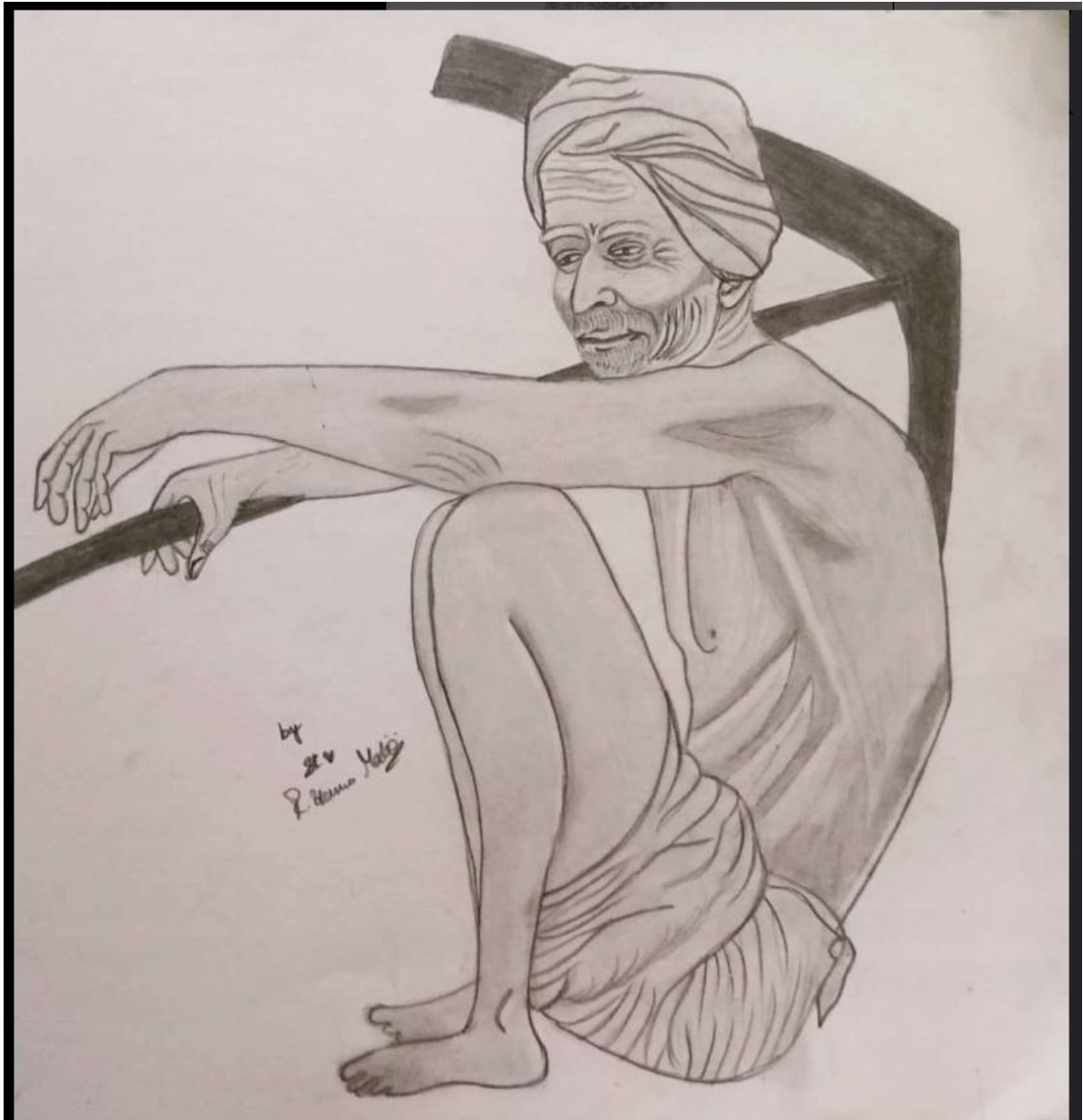
## Why is XAI Important?

XAI improves trust, transparency, fairness, and accountability in AI-powered applications. It helps users understand *why* an AI system made a particular decision.

**NIRANJANA R**

**24UIT066**

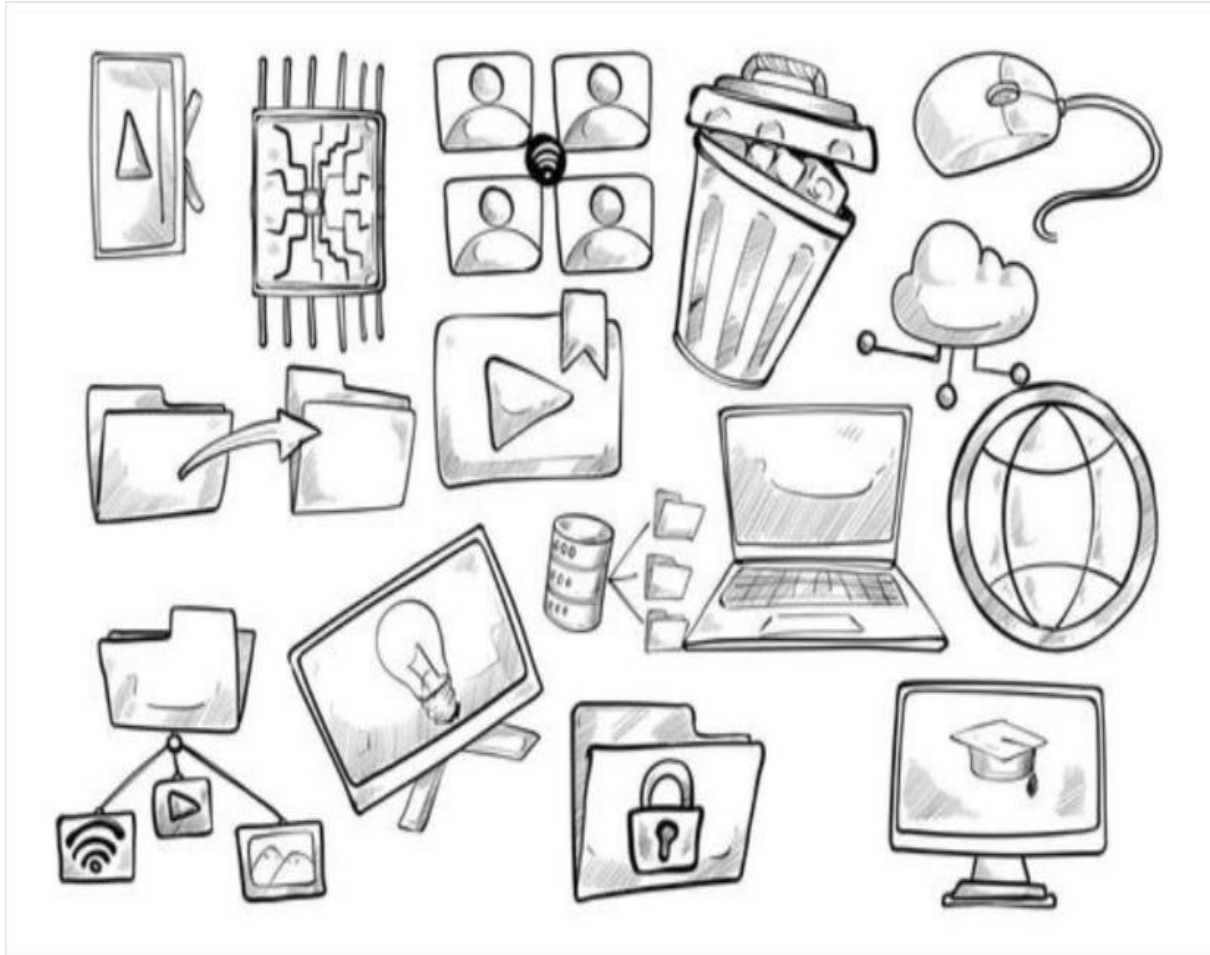
## ART CORNER



**R. HEMA MALINI**

**21UIT042**

## ART CORNER



**P.KAMALIGA**

**24UIT011**

## EVENTS ORGANIZED

### ALUMNI GUEST LECTURES :

S.NO	Name of the Event	Date of the Event	Students Participated (Year and Count)	Resource Person
1	Career Opportunities in Abroad	18.08.2025	III IT A - 48	Er.A.Pavitha, +971-528997568 Batch 2020-2024 pavithraannamalai89@gmail.com IT & Digital Marketing Executive, Trinity Group of Companies,Dubai
2	Gear Up for Placement: your pre-talk to Success	18.08.2025	IV IT - 100	Er. Dhanish D +91-8300275730 Batch 2020-2024 dhanish@6ftechconsultant.com Assistant manager, 6F Tech Consultant India Private Limited, Chennai
3	Career Mapping: Charting Your course to Success	01.08.2025	III IT - 108	Er. Dhanish D +91-8300275730 Batch 2020-2024 dhanish@6ftechconsultant.com Assistant manager, 6F Tech Consultant India Private Limited, Chennai
4	Academic Pathways to research & Industrial Impacts	19.07.2025	II IT B - 50	Dr.S.Haseena +91-9585051828, Batch 2006-2010 haseena.it@gmail.com Senior Software Developer, Multicoreware Inc., Chennai

## EVENTS ORGANIZED

### ASSOCIATION :

S.NO	Name of the Event	Date of the Event	Students Participated (Year and Count)	Resource Person
1	Click -> Code -> Create	08.09.2025 and 09.09.2025	II IT - 55	Mr. A. Pushparaj, Developer, Lithi Infotech, Madurai

## EVENTS ORGANIZED

### VALUE ADDED COURSES :

S.No	Name of the Course	Duration	Year	Company Offered
1.	Deep Learning using Python	21.07.2025 to 26.07.2025	III IT	Mr. M.Muthu Pandi, Freelance, Trainer & Software Developer
2	Java Full Stack Technologies	21.07.2025 to 26.07.2025	III IT	Macvel Software Solutions Pvt Ltd
3	Laravel Framework for Web Applications	21.07.2025 to 26.07.2025	III IT	Thiran360AI

## EVENTS ORGANIZED

### WORKSHOPS:

S.No	Name of the Event	Date	Year	Resource Person Details
1.	Data Science: Data to Decisions	29.09.2025	III IT	Mr.L.Petchimuthu, Data Science, Mobile App and Web Development Trainer, GTec, Palayamkottai.
2	From Prompts to Development: Optimizing Code with AI Tools	08.09.2025 & 09.09.2025	IV IT	Mr. Dhanish, Assistant Manager, & Mr. Sukumar, Software Developer, 6F Tech Consultant India Pvt Ltd
3	Exploring NLP in Everyday Life using Machine Learning Techniques	16.10.2025	III IT	Mr. H. Sithick, Developer & Technical Trainer, VEI Technologies Pvt. Ltd, Chennai.

## FACULTY ACHIEVEMENTS

### NPTEL



**Mrs.V.Deepa Priya, AP/IT**  
**Programming in Java**  
**93% Elite + Gold**

### AWARD



**Dr.S.Akila Rajini, AP/IT**  
**Awarded the GLOBAL GREEN CHAMPION 2025 award by Global**  
**Learners Academy of Development and International Federation for Scientific**  
**Development, UAE**

## STUDENTS CERTIFICATION – NPTEL

S.no	Students Name	Roll no	Certification Name	Duration	Score
1	Janavarshini G	22UIT051	Introduction to Machine Learning	12 weeks	60 (ELITE)
2	Janavarshini G	22UIT051	Programming with Generative AI	8 weeks	49
3	Keerthiga N	23UIT054	Cloud Computing	12 weeks	60(ELITE)
4	Santhi K	23UIT011	Data Base Management System	8 weeks	56
5	Srinidhi V	23UIT079	Data Base Management System	8 weeks	44
6	K Alagu Ishwarya	23UIT075	Data Base Management System	8 weeks	62 (ELITE)
7	Denisha Antony Ramyaa	23UIT019	Data Base Management System	8 weeks	68(ELITE)
8	Raja Sri Varsha R	23UIT033	Data Base Management System	8 weeks	56
9	Seshanth Majel A	24UIT015	Programming In Java	12 weeks	92 (ELITE with GOLD)
10	Jeswin Samuel S	24UIT053	Programming In Java	12 weeks	92 (ELITE with GOLD)
11	Mohammed Ibrahim F	24UIT045	Programming In Java	12 weeks	92 (ELITE with GOLD)
12	Saranya S	24UIT058	Programming In Java	12 weeks	92 (ELITE with GOLD)
13	Sabari Manickam R	24UIT024	Programming In Java	12 weeks	91 (ELITE with GOLD)
14	Kirubhakaran	24UIT047	Programming In Java	12 weeks	77 (ELITE with SILVER)
15	Niranjana R	24UIT066	Programming In Java	12 weeks	88 (ELITE with SILVER)
16	Arthy S	24UIT040	Programming In Java	12 weeks	79 (ELITE with SILVER)

17	S Jeslin Esther	24UIT068	Programming In Java	12 weeks	77 (ELITE with SILVER)
18	Akshaya Harani S	24UIT005	Programming In Java	12 weeks	77 (ELITE with SILVER)
19	Kaviyashree A	24UIT059	Programming In Java	12 weeks	76 (ELITE with SILVER)
20	Gayathri K	24UIT075	Programming In Java	12 weeks	78 (ELITE with SILVER)
21	Gokila J	24UIT071	Programming In Java	12 weeks	76 (ELITE with SILVER)
22	Padma Latha P	24UIT087	Programming In Java	12 weeks	87 (ELITE with SILVER)
23	Darshini N S	24UIT026	Programming In Java	12 weeks	83 (ELITE with SILVER)
24	Abiksha S	24UIT043	Programming In Java	12 weeks	82 (ELITE with SILVER)
25	Dharshini R	24UIT097	Programming In Java	12 weeks	73 (ELITE)
26	M Manikka Karthik	24UIT044	Programming In Java	12 weeks	49
27	Santhosh P	24UIT008	Programming In Java	12 weeks	58
28	Harini K	24UIT090	Programming In Java	12 weeks	71 (ELITE)
29	Vishwa	24UIT089	Programming In Java	12 weeks	56
30	Sai Prasath V	24UIT065	Programming In Java	12 weeks	71 (ELITE)
31	Manikandan S	24UIT017	Programming In Java	12 weeks	71 (ELITE)
32	Dhanush Manikumar K	24UIT042	Programming In Java	12 weeks	71 (ELITE)
33	Ajay Daniel Raj P	24UIT037	Programming In Java	12 weeks	60 (ELITE)

34	Yuvasri	24UIT108	Programming In Java	12 weeks	77(ELITE)
35	V Karthiga	24UIT062	Programming In Java	12 weeks	87(ELITE with SILVER)
36	MOBIN K	24UIT093	Programming In Java	12 weeks	69(ELITE)
37	Princy Shereen N	24UIT054	Programming In Java	12 weeks	90 (ELITE with GOLD)
38	Albina Antony Fathima A	24UIT063	Programming In Java	12 weeks	94 (ELITE with GOLD)
39	Sujitha .M	24UIT076	Programming In Java	12 weeks	87(ELITE with SILVER)
40	Hemadharshini Mv	24UIT100	Programming In Java	12 weeks	62(ELITE)

## STUDENTS PUBLICATION – Journal

Student Name (RollNo.)	Title of the Paper	Name of the Co- authors	Name of the Journal	Volume & Issue No.	Month & Year	Impact Factor	ISSN No.
VISHWAA.T (23UIT061 )	Integration of fixed wing UAVs in Disaster Management Operations	Ms.Sudha P -AP/IT	International Journal of Creative Research Thoughts	13,8	Aug 2025	7.970	2320-2 882

## PRIZES WON BY STUDENTS

Student Name (RollNo.)	Symposium Name	Organizer	From Date - To Date	Event Name	Place
DHARANIR (23UIT092)	VALIANT2K25	AAA COLLEGE OF ENGINEERING AND TECHNOLOGY , Sivakasi	2025-10-08 to 2025-10-08	Paper Presentation	First
MATHIMALA R.K (23UIT022)	Electrosphere-2k25	PSR Engineering College, Sivakasi	2025-09-26 to 2025-09-26	Connection Technical game	First
PRAGATHISH RAJ.T (23UIT003)	GILBERTRON IX™2 K25	PSR Engineering college, Sivakasi	2025-09-26 to 2025-09-26	Quiz	First
VISHAL.V (23UIT009)	Nextgen innovators	KLN COLLEGE OF ENGINEERING, Madurai	2025-09-24 to 2025-09-24	Project expo	First
NAVEEN KUMAR.K.M (23UIT014)	ROOT@W4R CTF 2025	PSNA College of Engineering and Technology, Dindigul.	2025-08-02 to 2025-08-02	Capture the Flag (CTF)	First
KRISHNAKUMAR.N (23UIT024)	TECHFUSION 2K25	PSR ENGINEERING COLLEGE, Sivakasi	2025-10-17 to 2025-10-17	Code	First
KEERTHIGAN (23UIT054)	Valiant 2k25	AAA College of Engineering, Sivakasi	2025-10-08 to 2025-10-08	Paper Presentation	First
SRINIDHI.V (23UIT079)	ELECTRA25	ANNA UNIVERSITY REGIONAL CAMPUS MADURAI	2025-09-27 to 2025-09-27	Paper Presentation	Third
NEHA SHREE.M (23UIT091)	ELECTRA25	ANNA UNIVERSITY REGIONAL CAMPUS MADURAI	2025-09-27 to 2025-09-27	Paper Presentation	Third

DHARUN.R (23UIT089)	ELECTRA25	ANNA UNIVERSITY REGIONAL CAMPUS MADURAI	2025-09-27 to 2025-09- 27	Paper Presentation	Third
KIRTHIKA.M (23UIT068)	TECH VISION	P.S.R. ENGINEERIN G COLLEGE, Sivakasi.	2025-09-26 to 2025-09-26	CON-TACTIX Event	First
VISHWAA.T (23UIT061)	TECHXPLOSI ON25	SRM Madurai College for Engineering and Technology, Sivagangai.	2025-10-14 to 2025-10-14	Paper Presentation	First
VISHWAA.T (23UIT061)	TECHXPLOSI ON25	SRM Madurai College for Engineering and Technology, Sivagangai.	2025-10-14 to 2025-10-10	CON-TACTIX Event	First
PRAGADHEE SHWARAN.M (23UIT113)	Legacy 25	MEPCO SCHLENK ENGINEERIN G COLLEGE, Sivakasi.	2025-09-25 to 2025-09-26	SYMPHONIQUE	First
MANOJ KUMAR.S (23UIT116)	Precision2k25	Sethu Institute of Technology, Kariapatti.	2025-10-15 to 2025-10-15	Paper Presentation	First

## STUDENTS PARTICIPATION – Workshop

<b>Student Name (RollNo.)</b>	<b>Workshop Name</b>	<b>Venue</b>	<b>From Date</b>	<b>To Date</b>	<b>Workshop Type</b>
Sri Dhana Aishwarya M G (24UIT021)	Digital marketing	Four steps training solutions	2025-08-08	2025-08-08	National Level
Jannath Barveen.R (23UIT047)	Data Driven World	Novitech R&D Private Limited	2025-10-02	2025-10-02	National Level

## STUDENTS PUBLICATION – Conference

Student Name (RollNo.)	Title of the Paper	Conference Name	From Date - To Date	Conference Level
Maha Swetha.N (22UIT024) Akshaya T (22UIT099) Gopika B (22UIT086) Harini U (22UIT031)	Nalamaa: AI-Based Wellness Assistant For Elders	2 <sup>nd</sup> International Conference on Global Trends in Engineering And Technological Advancement 2025, Chengalpattu.	10-10-2025 to 25-10-2025	International
Harini U (22UIT031) Gopika B (22UIT086) Akshaya T (22UIT099) Maha Swetha.N (22UIT024)	Nalamaa: AI-based Wellness Assistant for Elders	2 <sup>nd</sup> International Conference on Global Trends in Engineering And Technological Advancement 2025, Chengalpattu.	10-10-2025 to 25-10-2025	International
Hemavarshini K (22UIT042) Santhiya K (22UIT059) Sakthi Priya G (22UIT049)	Smart inhaler monitoring system	2 <sup>nd</sup> International Conference on Global Trends in Engineering And Technological Advancement 2025, Chengalpattu.	10-10-2025 to 25-10-2025	International
Janavarshini G (22UIT051) Hemadharshini R (22UIT096) Nooril Afina T (22UIT056)	Integrated AI Model for Traffic Density Management and Emergency Vehicle Prioritization	International Conference On Innovation In Engineering And Sciences,Kerala.	27-09-2025 to 28-09-2025	International

Vishnulakshmi G (22UIT067) Sherin M (22UIT017) Anisha Yasmin A (22UIT091)	SmartChef - AI powered Recipe generation from food images	2 <sup>nd</sup> International Conference on Global Trends in Engineering And Technological Advancement 2025, Chengalpattu	2025-10-25 to 2025-10-10	International
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## THINK !!!

### Smart Parking Fee Calculator

```
// Smart Parking Fee Calculator
```

```
// Logic Includes:
```

```
// 1. Vehicle Type Detection
```

```
// 2. Parking Duration Calculation
```

```
// 3. Peak Hour Charges
```

```
// 4. Weekend Extra Charges
```

```
// 5. Discount for Electric Vehicles
```

```
// 6. Fine for Over Parking
```

```
import java.util.Scanner;
```

```
    public class SmartParkingSystem {
```

```
        public static void main(String[] args) {
```

```
            Scanner sc = new Scanner(System.in);
```

```
            System.out.println("===== SMART PARKING FEE CALCULATOR =====");
```

```
            System.out.print("Enter Vehicle Type (Bike/Car/Bus): ");
```

```
            String vehicle = sc.nextLine();
```

```
            System.out.print("Enter Parking Hours: ");
```

```
            int hours = sc.nextInt();
```

```
            System.out.print("Is it Peak Hour? (true/false): ");
```

```
            boolean peakHour = sc.nextBoolean();
```

```
            System.out.print("Is it Weekend? (true/false): ");
```

```
            boolean weekend = sc.nextBoolean();
```

```
            sc.nextLine();
```

```
            System.out.print("Is it an Electric Vehicle? (true/false): ");
```

```

boolean electric = sc.nextBoolean();
double fee = calculateFee(vehicle, hours, peakHour, weekend, electric);

System.out.println("\n===== PARKING BILL =====");
System.out.println("Vehicle Type : " + vehicle);
System.out.println("Parking Hours : " + hours);
System.out.println("Total Parking Fee : Rs." + fee);
sc.close();
}

public static double calculateFee(String vehicle,
                                int hours,
                                boolean peakHour,
                                boolean weekend,
                                boolean electric) {

    double ratePerHour = 0;
    double totalFee;
    // Vehicle-based pricing
    switch (vehicle.toLowerCase()) {
        case "bike":
            ratePerHour = 20;
            break;
        case "car":
            ratePerHour = 50;
            break;
        case "bus":
            ratePerHour = 100;
            break;
    }
}

```

```
    default:
        System.out.println("Invalid Vehicle Type!");
        return 0;
    }
    // Base fee
    totalFee = ratePerHour * hours;

    // Peak hour surcharge
    if (peakHour) {
        totalFee += totalFee * 0.20; // 20% extra
    }

    // Weekend surcharge
    if (weekend) {
        totalFee += 50;
    }

    // Electric vehicle discount
    if (electric) {
        totalFee -= totalFee * 0.15; // 15% discount
    }

    // Over parking fine
    if (hours > 10) {
        totalFee += 200;
        System.out.println("Over Parking Fine Applied!");
    }

    return totalFee;
}
}
```

## Sample Output

===== SMART PARKING FEE CALCULATOR =====

Enter Vehicle Type (Bike/Car/Bus): Car

Enter Parking Hours: 5

Is it Peak Hour? (true/false): true

Is it Weekend? (true/false): false

Is it an Electric Vehicle? (true/false): false

===== PARKING BILL =====

Vehicle Type : Car

Parking Hours : 5

Total Parking Fee : Rs.300.0

## Sample Testcase

Vehicle	Hours	Peak Hour	Weekend	Electric	Expected Fee
Bike	2	false	false	false	Rs. 40
Car	5	true	false	false	Rs.300
Bus	8	true	true	false	Rs.1010
Car	12	false	true	true	Rs.760
Bike	11	true	true	true	Fine Applied

**R.KAVIYA**

**22UIT114**

# EDITORIAL TEAM

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