



# PANIMALAR ENGINEERING COLLEGE

An Autonomous Institution - ( JAISAKTHI EDUCATIONAL TRUST)

Affiliated to Anna University, Chennai  
Approved by AICTE, UGC FOR 2(f) & 12(B) STATUS  
ACCREDITED BY NATIONAL BOARD OF ACCREDITATION(NBA)

## CAMPUS CONNECTOR



2023 - 2024

### DEPARTMENT OF ARTIFICIAL INTELLIGENCE & DATA SCIENCE



# IEEE



## IEEE COMPUTER SOCIETY



INSTITUTION'S INNOVATION COUNCIL  
(Ministry of Education Initiative)

### ABOUT

The department of artificial intelligence and data science showcases its commitment to excellence through faculty upskilling, student achievements, impactful research, industry collaborations, and outreach initiatives aligned with emerging technologies and global sustainable development goals.

### SUSTAINABLE DEVELOPMENT GOALS





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News and Views Around

## DEPARTMENT OF ARTIFICIAL INTELLIGENCE AND DATA SCIENCE

Volume 1

Issue 1

November 2023

### EDITOR'S NOTE

Dear Readers,

Greetings from the Department of Artificial Intelligence and Data Science, Panimalar Engineering College. This newsletter highlights the key events of the semester and the achievements of our students and staff. We sincerely thank Dr. S. Malathi, Head of the Department, for her constant support and guidance in making this issue possible.

### INSTITUTE VISION

To transform the budding engineers into academically excellent, highly intellectual and self-disciplined engineering graduates to mould them as good citizens with the spirit of integrity and morality that would cater to the needs of our nation.

### INSTITUTE MISSION

- To impart quality education with high standards of excellence in engineering and technology.
- To provide an excellent infrastructure in a serene and conducive atmosphere that would motivate the students in their pursuit of knowledge in the field of engineering and technology.

### CONTENTS

1. Vision, Mission, PEOs, PSOs AND POs
2. Dept. Achievements/Recognitions
3. Faculty Interactions and Certifications
4. Student Achievements
5. Events Conducted
6. Value Added Courses
7. Faculty Publications and IPRs
8. Research and Consultancy
9. Club Activities
10. Forth Coming Events

### DEPARTMENT VISION

To produce high quality creators and ethical engineers for innovative technology in the field of Artificial Intelligence and Data Science.

### DEPARTMENT MISSION

- M1:** To develop the department as a center of Artificial Intelligence for significant breakthroughs in advancing the promise of human-machine systems that can address complex cognitive tasks.
- M2:** To impart quality and value-based education and contribute towards the innovation of computing Data Science for the translation of data into information to support and improve decision making.
- M3:** To produce ethical engineers and researchers by inculcate the values of humanity and courage in producing relevant solutions to address business and societal challenges.

### PROGRAMME EDUCATIONAL OBJECTIVES(PEOs)

#### PEO 1: Mastering AI and Data Science for Human Machine Synergy

To enrich knowledge to the engineering students with cutting-edge technologies like Artificial Intelligence and Data science and enable them to develop innovative solutions to solve complex problems in various sectors and to enhance the synergy between humans and intelligent systems for optimal performance.

#### PEO 2: Fostering Interdisciplinary Research Innovation and Ethics

To engage the students in advanced research with special focus on AI and cultivate a deep knowledge of ethical frameworks that will contribute to the development of fair and accountable systems that prioritize societal well-being.

#### PEO 3: Pathways to Professional Excellence

To enable the students to secure successful careers through strong technical expertise and skill sets and drive them to pursue lifelong learning with integrity- driven mindset and become successful entrepreneurs.

### PROGRAMME SPECIFIC OUTCOMES (PSOs)

#### PSO 1 : AI Driven Innovation

Graduates should be able to evolve AI based efficient domain specific processes for effective decision making in several domains such as business and governance domains.

#### PSO 2 : Data-Driven Decision Making Insight

Graduates should be able to arrive at actionable fore sight, insight, hind sight from data for solving business and engineering problems.

#### PSO 3 : Societal Intelligence Solutions

Graduates should be able to create, select and apply the theoretical knowledge of AI and Data Analytics along with practical industrial tools and techniques to manage and solve wicked societal problems.

## Programme 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, review 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 the public health and safety, and the cultural, societal, and environmental considerations.

- **PO 4: 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.

- **PO 5: Modern 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.

- **PO 6: 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.

- **PO 7: 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.

- **PO 8: Ethics:**

Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

- **PO 9: Individual and team work:**

Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

- **PO 10: 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 design documentation, 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 one's own work, 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

## EDITORIAL BOARD

**Chief Editor:**

**Dr. S. MALATHI**

**Faculty Editor:**

**Mrs.S. SRINIDHI**

**Student Representatives:**

**P. Dinesh II AI&DS-C, V. Manikandan II AI&DS-C**

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**Department Achievements/Recognitions**



Organized a tree plantation drive to promote environmental responsibility and enhance campus greenery. The initiative encouraged student participation in creating a sustainable and eco-friendly campus.



To enhance global engagement, our department signed an MoU with The University of Memphis, School of Public Health, Memphis, TN, USA.



Entered into an MoU with DeepSphere.AI to set up a Generative AI incubation centre. The centre will support startups, applied research, and hands-on industry exposure.



The AR/VR Lab was set up using premium imported equipment for advanced applications in association with PragRobotics.



Doctoral research in AI and Data Science is actively carried out by 11 scholars at the research center. The center serves as a hub for advanced inquiry and technological innovation.



SIGNED MOU WITH STEPS Software Solutions Pvt. Ltd., Chennai, to bridge the gap between academics and industry.

**Faculty Achievements**



Prof. Dr. A. Joshi received "Best Professor Award" in the Global Iconic Awards event GIA 2023



The staff members have successfully obtained NPTEL certifications in diverse courses, including Python for Data Science, Deep Learning, and more. Additionally, many have accomplished courses on CodeChef.



Faculty Interactions and Certifications



Inspirational talk on the upcoming trends of "Generative AI" delivered by Prof Dr.S.Malathi in Nascomm Summit held at bangalore



Prof Mrs S Vimala shares her experience on Turnitin's AI tool usage and benefits in Chennai summit, 2023



Dr. K. Jayashree gave guest lecture on Machine Learning Techniques in Panimalar Institute of Technology on April 9 2023



Prof Dr W Gracy Theresa, acted as resource person for National Level Webinar on "Big Data Analytics – A New Era" in Malla Reddy Institute of Engineering and Technology, Hyderabad. Resource person for ATAL FDP on "Big Data and Analysis" in BNM Institute of Technology, Bangalore. Resource person for short term course "Database and Machine Learning using R Programming" in Kings Engineering College.



Prof Dr W Gracy Theresa received Best Presentation award in Faculty abroad Program at Shinawatra University - Thailand



Prof Dr.S. Malathi delivers a presentation on a method in software cost estimation at an International seminar in Dubai.



Dr. S. Malathi, Panimalar Engineering College, IEEE Councillor & Dr S.Hemamalini Panimalar Engineering College, IEEE Coordinator , as a team had received "Best Student Branch Councillor Award" from IEEE Madras Section

## Student Achievements

### STUDENTS ACTIVITIES REPORT

| S. NO | NAME OF THE ACTIVITY   | COUNT |
|-------|--|-------|
| 1     | TECHNICAL SKILL - VALUE ADDED COURSES<br>NPTEL ONLINE CERTIFICATION COURES | 16    |
| 2     | TECHNICAL SKILL - VALUE ADDED COURSES                                      | 15    |
| 3     | STUDENTS PUBLICATIONS IN CONFERENCES                                       | 08    |
| 4     | STUDENTS PUBLICATIONS IN JOURNALS  | 01    |
| 5     | WORKSHOPS  | 03    |
| 6     | STUDENTS PARTICIPATED IN CODING CONTESTS                                   | 05    |
| 7     | STUDENTS PARTICIPATED IN IEEE-XTREME<br>CONTEST                            | 98    |
| 8     | COPYRIGHTS OWNED BY STUDENTS   | 08    |

## Student Placement and Internship

### Placement Details

| S.No. | Roll No.     | Name of the student | Company Placed | CTC      |
|-------|--------------|---------------------|----------------|----------|
| 1.    | 2020PECAI152 | Rijo Benny          | Accenture      | 4.5 LPA  |
|       |              |                     | Hexaware       | 4 LPA    |
| 2.    | 2020PECAI128 | Anandh S.P.         | Hexaware       | 4 LPA    |
| 3.    | 2020PECAI115 | Pavithra. D.        | Hexaware       | 4 LPA    |
| 4.    | 2020PECAI102 | ClorinHaffrin.S.    | T Machine      | 3.6 LPA  |
| 5.    | 2020PECAI111 | Murugeswari.A.      | Renault Nissan | 4.25 LPA |
| 6.    | 2020PECAI104 | Dharshini.M.        | Accenture      | 4.5 LPA  |
| 7.    | 2020PECAI122 | SowmyaSurapaneni    | Persistent     | 5 LPA    |

### Internship Details

| S.No. | Year     | NO. OF STUDENTS DOING INTERNSHIP |
|-------|----------|----------------------------------|
| 1.    | III YEAR | 120                              |
| 2.    | IV YEAR  | 54                               |

## Academic Toppers

### SEMESTER II

| S.No. | Reg No.      | Student Name     | GPA  |
|-------|--------------|------------------|------|
| 1     | 211422243325 | SWARNA LATHA .D. | 9.39 |
| 2     | 211422243120 | JEEVIKA SREE N   | 9.35 |
| 3     | 211422243149 | KAVIYA V         | 9.35 |

### SEMESTER: IV

| S.No. | Reg No.      | Student Name | GPA  |
|-------|--------------|--------------|------|
| 1     | 211421243141 | SAMYUKTHA J  | 9.38 |
| 2     | 211421243050 | GHAYATHRI T  | 9.33 |
| 3     | 211421243100 | MONISHA R    | 9.33 |

### SEMESTER: VI

| S.No. | Reg No.      | Student Name      | GPA   |
|-------|--------------|-------------------|-------|
| 1     | 211420243036 | NESHANTHINI V     | 9.47  |
| 2     | 211420243053 | SOWMYA SURAPANENI | 9.565 |
| 3     | 211420243016 | FREN.C. L         | 9.505 |

### Student participation in co-curricular activities

| S. No | Student Name           | Position           | Event Name         | Venue                                     | Date       |
|-------|------------------------|--------------------|--------------------|---|------------|
| 1     | Dinesh P               | Best Paper Award   | Paper Presentation | Dr. M.G.R. Education & Research Institute | 31-08-2023 |
| 2     | Praneeth Kumar Reddy I |                    |                    |   | 31-08-2023 |
| 3     | Manikandan V           |                    |                    |   | 31-08-2023 |
| 4     | Gokul Krishnan G       | First              | Hackathon          | Panimalar Engineering College             | 05-10-2023 |
| 5     | Farman Batcham         |                    |                    |   |            |
| 6     | Dharani Kumar P Y      |                    |                    |   |            |
| 7     | Naveena Shivastra X    | Second             | Hackathon          | Panimalar Engineering College             | 05-10-2023 |
| 8     | Shirliya               |                    |                    |   |            |
| 9     | Swetha S               |                    |                    |   |            |
| 10    | Sugha Sris G           | First              | Quiz               | Panimalar Engineering College             | 04-10-2023 |
| 11    | Medha J                |                    |                    |   |            |
| 12    | Jennathul Zulfiya      |                    |                    |   |            |
| 13    | Abdul Fadhi M          | Second             | Quiz               | Panimalar Engineering College             | 04-10-2023 |
| 14    | Aathif Jameel P A      |                    |                    |   |            |
| 15    | R. Fayaz Ahmed         | First              | Coding Contest     | Panimalar Engineering College             | 26-07-2023 |
| 16    | P. Dinesh              | Second             | Coding Contest     | Panimalar Engineering College             | 26-07-2023 |
| 17    | P. Shalini             |                    |                    |   |            |
| 18    | R. R. Varshini         |                    |                    |   |            |
| 19    | S. Dhanush Hariharan   | Best Student Award | IEEE Events        | Panimalar Engineering College             | 13-10-2023 |
| 20    | Jennathul Zulfiyya B   |                    |                    |   |            |

## Student Certifications

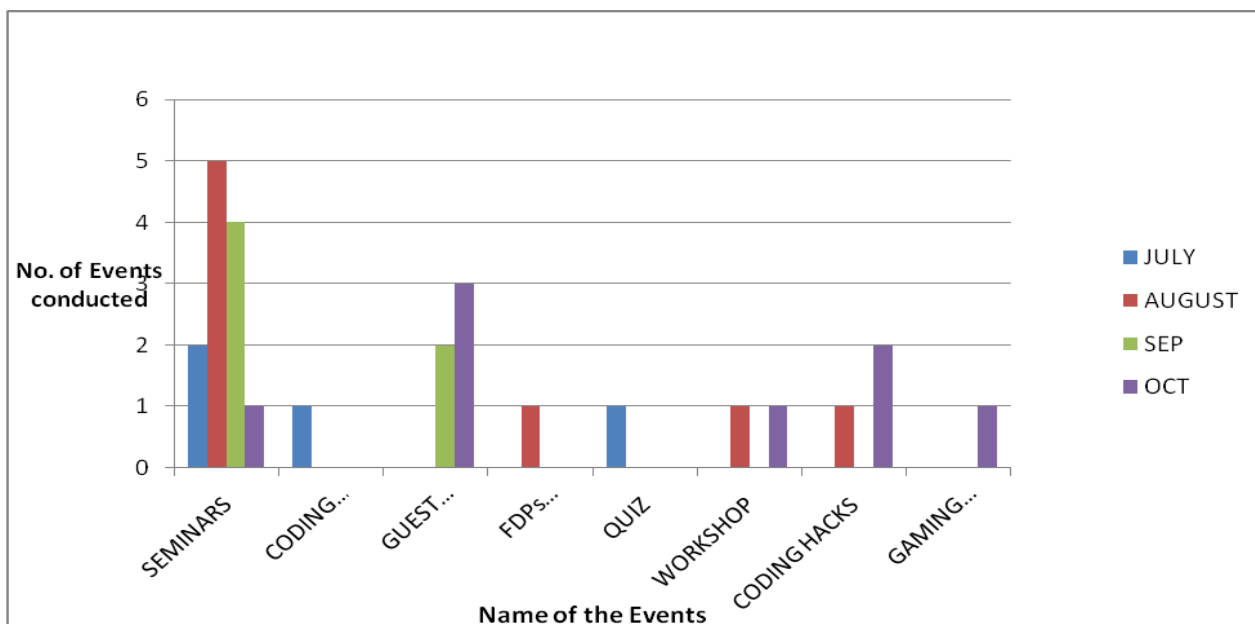


Through industry and national platforms, 320+ students achieved NASSCOM certification, and 14 students gained NPTEL certification in key data science courses.

### Student Publications

| S. No | Student Name           | Conference Publications | Copyrights |
|-------|------------------------|-------------------------|------------|
| 1     | S. Dhanush Hariharan   | 5                       | 1          |
| 2     | V. Manikandan          | 2                       | 1          |
| 3     | Dinesh P               | 1                       | 1          |
| 4     | Praneeth Kumar Reddy I | 1                       |            |
| 5     | Adrian Calvin          |                         | 1          |
| 6     | Jeffery Mathew         |                         | 1          |
| 7     | Deveshwaran Sridharan  |                         | 1          |

### Events Conducted



## IEEE DAY Achievement Awards

IEEE Day was conducted on 4.10.23 and 5.10.23 for both Technical and Non-Technical events. Many students actively participated in various events and received awards.



## IEEE Extreme Competition

# PANIMALAR ENGINEERING COLLEGE

BANGALORE TRUNK ROAD, VARADHARAJAPURAM,  
Poonamallee, Chennai, Tamil Nadu 600123

28.10.2023 SATURDAY  
PANIMALAR STB: 14231  
REGION 10: MADRAS SECTION

AI & DS department, Tamil Nadu, India  
PANIMALAR ENGINEERING COLLEGE, Varadharajapuram, Tamil Nadu 600123, India  
Lat 13.051811°  
Long 80.677066°  
28/10/23 11:50 AM GMT +05:30

AI & DS department, Tamil Nadu, India  
PANIMALAR ENGINEERING COLLEGE, Varadharajapuram, Tamil Nadu 600123, India  
Lat 13.051811°  
Long 80.677066°  
28/10/23 11:06 AM GMT +05:30

AI & DS department, Tamil Nadu, India  
PANIMALAR ENGINEERING COLLEGE, Varadharajapuram, Tamil Nadu 600123, India  
Lat 13.051811°  
Long 80.677066°  
28/10/23 11:02 AM GMT +05:30

AI & DS department, Tamil Nadu, India  
PANIMALAR ENGINEERING COLLEGE, Varadharajapuram, Tamil Nadu 600123, India  
Lat 13.051811°  
Long 80.677066°  
28/10/23 10:58 AM GMT +05:30

The IEEE Xtreme Programming Competition was successfully conducted at Panimalar Engineering College, engaging students in a global coding challenge.

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### Faculty Development Programme



### Consultancy Projects

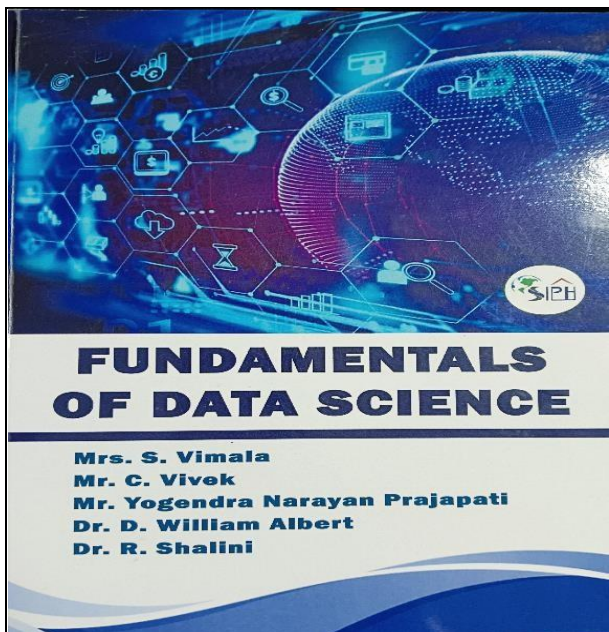
- **Dr. K. Jayashree and Dr. S. Malathi** developed an **AI-based facial recognition system** for worked with **Hyundai Via Ltd** aimed at streamlining attendance tracking and payroll management for contract employees in a manufacturing setup.
- **Dr. A. Joshi and Dr. W. Gracy Theresa** partnered with **Copral Energy Pvt. Ltd.** to create “**Copral SmartWeb,**” an intelligent website that adapts content based on user behaviour using AI and data analytics.
- **Dr. M. S. Maharajan and Dr. C. Bharanidharan** collaborated with **8 Queens** to design an AI-powered crop monitoring system, helping farmers make better decisions through data-driven insights.
- **Dr. N. Sivakumar and Mr. M. Vetri Selvan,** in association with **Virtual Tech,** developed a deep learning–based disease prediction model to support early diagnosis and improve healthcare analytics.
- **Dr. C. Gnanaprakasam and Mrs. R. Vidhya Muthulakshmi** are working with **Sri Ramachandra Institute of Higher Education and Research** to build an AI-based monitoring system for children with ASD, supporting behavioural analysis and timely intervention.
- **Mrs. S. Vimala and Mrs. R. Priya** are involved in the process of developing professional website for **ADM Global Consultancy Services,** strengthening the organisation’s online presence and client engagement.

### Value Added Courses

Our department integrates value added course with curriculum to facilitate the students to enhance their standards beyond the level of curriculum, to build their own employability skill, to bridge the skill gap and to make the students industry ready student.

| S.NO | COURSE NAME                                   | Staff Co-ordinator               | Year of Student |
|------|---|----------------------------------|-----------------|
| 1.   | Build your Metaverse                          | Dr. C.Bharanidharan              | Third Year      |
| 2.   | R Programming                                 | Mrs.S.Vimala                     | Third Year      |
| 3.   | Communication Skills and Verbal Skills        | Mr Amos                          | Second Year     |
| 4.   | Web designing and Adobe Flash                 | Dr.M.S.Maharajan                 | Second Year     |
| 5.   | Basics of Coral Draw, Adobe Photoshop & Canva | Dr.P.Kavitha& Dr.C.Bharanidharan | Second Year     |

Faculty Publications and IPRs



**Fundamentals of Data Science (2023)**

**AUTHORS:**

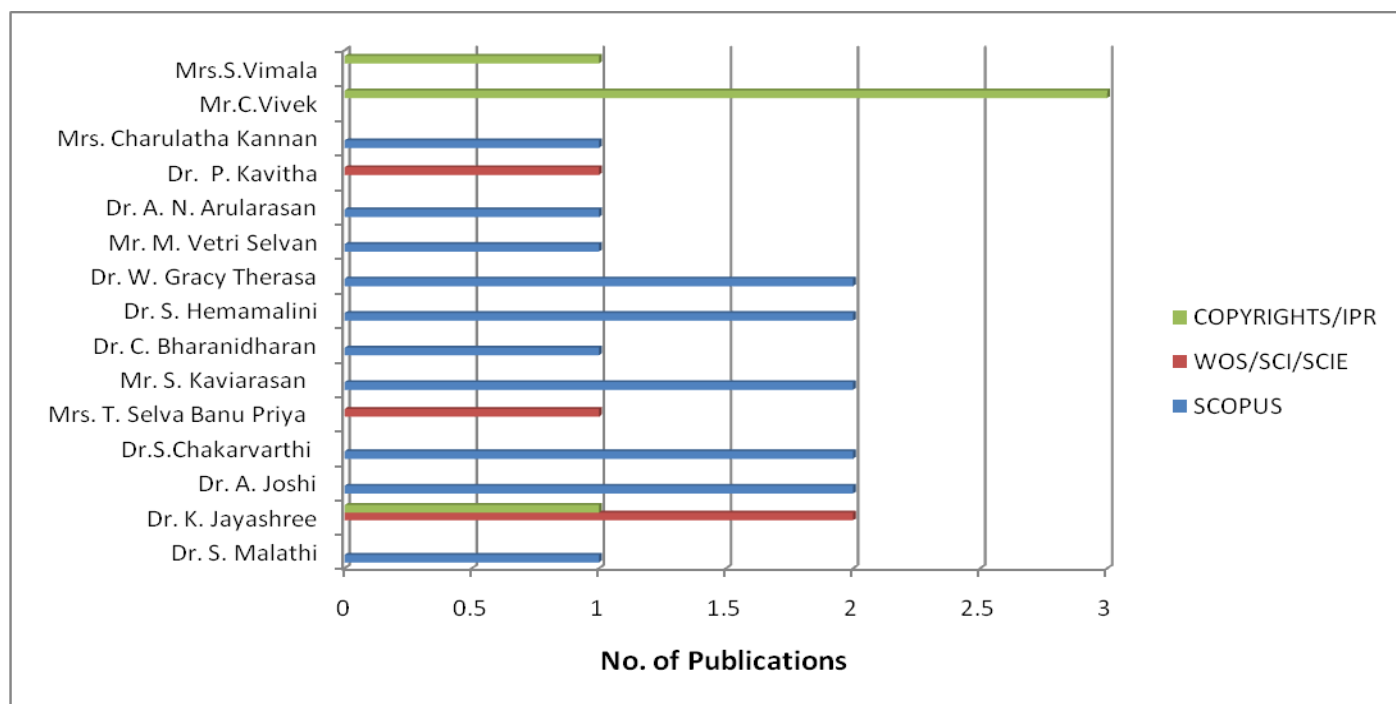
- Mrs.S.Vimala
- Mr.C.Vivek

**Publisher:**

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**ISBN print:**

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**Upcoming activities**

- ✓ IEEE Extreme Coding Competition – November 2023
- ✓ Mini Project Expo –December 2023
- ✓ Class Committee Meeting – February 2024
- ✓ PECTEAM International Conference – March 2024

## Club Activities

### Data Science Club

- Coding Activity on **Data Visualization** – 26 July 2023
- Seminar on **Data Visualization and Exploration** – 24 July 2023



### Artificial Intelligence Club

- Seminar on **Applications of Artificial Intelligence** – 10 August 2023
- **Quiz on Artificial Intelligence** – 31 July 2023
- Seminar on **Image Processing: Basic Tools and Kits** – 27 July 2023



### Augmented Reality and Virtual Reality Club

- **Immersive Technologies Contest Participation** – Appreciation Award received by III Year students



**Thank you for your continued support—stay tuned for more updates in our forthcoming edition.--**  
*Prof.Dr.S.Malathi, Prof.S.Srinidhi*

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