

## NAIPUNNYA SCHOOL OF MANAGEMENT

A Project of the Archdiocese of Ernakulam - Angamaly | Affiliated to the University of Kerala Accredited by NAAC with A grade | An ISO 9001:2015 Certified Institution

## DEPARTMENT OF COMPUTER SCIENCE & APPLICATIONS

## **DEPARTMENT ANNUAL REPORT 2024-25**

## 1. Introduction about Department

The Department of Computer Science and Applications, established in 2012 with the launch of the B.Sc. Computer Science programme, has steadily evolved into a dynamic academic department offering both B.Sc. Computer Science and Bachelor of Computer Applications (BCA) courses. With the introduction of the BCA program in 2013 and subsequent expansion in student intake, the department now accommodates a total of 208 students supported by a dedicated team of 15 faculty members. It strives to provide a strong foundation in computing through a balanced integration of theory and practical application. The department is committed to equipping students with theoretical knowledge, technical skills and critical thinking abilities essential for success in the ever-evolving field of computer science.

Courses offered: BCA, BSc Computer Science

Number of Students: 208

Year of adm	BSc CS	BCA
2022	32	54
2023	28	39
2024	23	32

#### Teacher Details:

		FACULTY LIST 2024-	2025
NA	ME	QUALIFICATIONS	DESIGNATION
1.	Mr. Vinod Chandran	MCA, PGDBM, NET	HoD & Associate Professor
2.	Ms.Kavitha Santhosh	MCA, NET	Assistant Professor
3.	Mr.Deepak M	ME CSE, NET	Assistant Professor
4.	Ms.Mary Joseph	MCA, MBA	Assistant Professor
5.	Ms.Amulia P.M	MTech, NET	Assistant Professor
6.	Ms.Gayathri A	MSc. CS, NET	Assistant Professor

7. Ms.Girly Antony	MSc-Mathematics, B.Ed.	Assistant Professor
8. Ms.Mary P.K	MSc. CS	Assistant Professor
9. Ms Nidhy S Ravi	MCA, MTech	Assistant Professor
10. Mr. Denny David	MCA	Assistant Professor
11. Mr. Jithin Babu	MCA, NET	Assistant Professor
12. Mr. Joel Joseph	MCA	Lecturer & Lab Instructor
13. Ms. Rima K Ouseph	MCA	Lecturer & Lab Instructor
14. Mr. Vivek S Varma	MSc. CS, NET	Assistant Professor
15. Ms. Vidya S Mony	MTech CSE, NET	Assistant Professor

#### 2. Result Details

BSc Computer Science 2022-25

Number of students	TO STATE OF THE PARTY OF THE PA
Number of students who achieved the Degree	32
	12
Pass Percentage	34.28%
BCA 2021-24	
Number of students	54
Number of students who achieved the Degree	25
Pass Percentage	46.29%
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## 3. Major Events and Activities Conducted

The Department of Computer Science and Applications actively engages in a wide range of association activities aimed at enriching students' knowledge, skill development, social responsibility, and holistic growth. These initiatives encompass technical talks, seminars, workshops, outreach programs, and interactive sessions with industry professionals. Below is a summary of the key events organized by the department during 2024-25:

#### June 2024

### • FDP (1.6.2024 | FDP)

A Faculty Development Program aimed at enhancing teaching competencies and updating faculty with recent technological advancements. Topic was Advanced Machine Learning and Deep Learning by Dr. Sajeev J, HoD, Dept. of CSA, SNIT.

### · Robotic Expo (15.6.2024 | Participative)

Students were taken to Ernakulam for a Robotic Exhibition. A student-centered expo showcasing innovative robotic projects, encouraging hands-on learning and interdisciplinary collaboration.

### · Seminar on Disaster Management (17.6.2024 | Life Skill)

A life skills program to educate students on preparedness and response strategies during emergencies and natural disasters. It was conducted by Mr. P. R. Reji, Fire and Rescue Officer, Cherthala.

## Seminar on Tool for Software Development (26.6.2024 | ICT Skill)

Introduced cutting-edge development tools essential for modern software engineering and project efficiency.

#### July 2024

## Workshop on Software Testing (2.7.2024 | Experiential)

A hands-on workshop focusing on manual and automated software testing methodologies. Mr. John Samuel, Obsqura Zone, Technopark, Trivandrum.

### Seminar on Trends in IT Sector (2.7.2024 | Experiential)

Insightful session on emerging trends and career opportunities in the IT industry. A team from Future Optima IT Solutions conducted the seminar.

### August 2024

### Workshop on LaTeX (13.8.2024 | Research Methodology)

Technical session on using LaTeX for document preparation, widely used in research and academia. Dr. Bindu N, HOD, S. N. College, Cherthala, conducted the session.

### · Panel Discussion (14.8.2024 | Participative)

Interactive platform for discussing the current topic –  $Will\ AI\ Take\ Away\ Jobs?$  involving S3 students and faculty.

### Workshop on Flutter (23.8.2024 | ICT)

A workshop introducing app development using Google's Flutter framework, enhancing crossplatform development skills. Mr. Nidhin V. Ninan, Flutter Developer, handled the workshop.

#### September 2024

#### Farmers Day (2.9.2024 | Commemorative)

An event honoring farmers' contributions and promoting sustainable agriculture awareness. A letter-writing competition (Letter to Farmer Thanking their Efforts) was conducted for students.

#### Teachers Day (5.9.2024 | Commemorative)

Celebration recognizing the role of educators in shaping future generations. Peer Teaching sessions were conducted by students.

#### Esperenza (11.9.2024 | Cultural Activity)

Freshers' Day was celebrated as a vibrant cultural event showcasing student talents in music, dance, and art.

## · Beyond the Screen (30.9.2024 | Career Counselling)

A career guidance session exploring modern domains and opportunities by Mr. Anwar Swadique P., Offesso Academy, Cyber Security Expert. He talked about Information Security Domains and Job Opportunities.

#### October 2024

## Technical Workshop on Software Testing (3.10.2024 | Participative)

Advanced-level training on software testing tools, techniques, and practices with real-world applications. SoftLoom IT Solutions conducted the sessions.

### IT Speak (4.10.2024 | Distinctiveness)

Mr. Anwar Sadic, Marketing Manager of GTEC Software, conducted a session on current trends in IT. It was a talk concentrating on new domains in Computer Science in the job sector and the training required for getting those jobs.

### • Pixel Flow (4.10.2024 | ICT)

Mr. Mohammed Salim, Multimedia Project Coordinator, GTEC Computer Education, Cherthala, conducted a Visual Effects and Game Designing workshop as part of the Prabodhana Workshop Series. A creative event possibly centered around digital design or visualization.

### TechBlaze (14.10.2024 | Distinctiveness)

A flagship event featuring technical competitions, exhibitions, and innovation challenges.

## Intro to App Development Using Flutter (25.10.2024 | Workshop)

Practical introduction to mobile app development using Flutter, aimed at beginners.

## Internet Day Celebration (29.10.2024 | Commemorative)

Awareness program on the evolution, impact, and safe use of the internet. Mrs. Liji, SDC Network, conducted a seminar on internet usage.

#### November 2024

## First Impression (1.11.2024 | Career Counselling)

A session focusing on soft skills, resume building, and interview readiness was given by Mr. Jithin Babu, Placement Officer, DCSA.

## Beyond the Algorithm (6.11.2024 | Advanced Learner)

Mr. Prasobh, Technical Head, LCC Cochin, conducted a session on *Motivation and Purpose in AI*. Explored concepts beyond coding, such as optimization, machine learning logic, and system thinking.

### Revive (7.11.2024 | Life Skill)

Seminar on dealing with emergency situations & First Aid training. Mr. P. R. Reji, Fire and Security Officer, conducted the practical training session.

## Cyber Security (29.11.2024 | Commemorative)

Awareness program on online safety, threats, and best practices for cybersecurity. Conducted by students demonstrating phishing attacks. Demonstration by students was done in the labs.

### December 2024

## • TECHETIQUETTE: Cyber Etiquette (4.12.2024 | Code of Conduct)

On December 4, 2024, the Department of Computer Science & Applications conducted TECHETIQUETTE, a video presentation event focused on cyber etiquette. The session was held at LCD 2 from 10:30 AM to 11:30 AM, with participation from B.Sc. Computer Science students. The program aimed to raise awareness about cyberspace, cyber laws, and ethical online behavior, helping students understand the importance of responsible digital conduct. It equipped them with essential knowledge for navigating the digital world safely, respectfully, and legally.

## Computer Literacy Day (4.12.2024 | Problem Solving)

A session dedicated to enhancing basic computer skills and awareness. A quiz competition was conducted about digital literacy in modern society.

## · Benefits of Add-on (11.12.2024 | Advanced Learner)

Mr. Vishnu Lona Jacob, Career Coach, KELTRON, gave orientation on add-on certifications and skill-based learning for getting job opportunities in the modern IT arena.

#### Explora (22.12.2024 | National Research Conference)

The National Research Conference, *EXplora 2K24*, on Computer Science and Information Systems was organized by the Department of Computer Science and Applications in collaboration with the Naipunnya Research Forum and held in hybrid mode on December 21st, 2024, at Naipunnya School of Management. The event brought together researchers, academicians, and industry professionals to share ideas, present findings, and encourage collaboration in the field. Dr. Manjula Devananda delivered the keynote on "Data Visualization Techniques for Data Analytics," providing valuable insights into modern visualization methods and their applications. The conference featured diverse paper presentations on AI, machine learning, and data science, fostering interactive discussions and networking both online and offline.

### January 2025

# • ECOBIN E-Smart - E-Waste Collection Programme (24.1.2025 | Green Initiative Beyond Campus)

It was an environmental awareness program on responsible electronic waste disposal. The initiative aimed to promote environmental sustainability by encouraging the responsible disposal of electronic waste (e-waste). The collected e-waste was handed over to an authorized recycling agency – Haritha Karma Sena, Cherthala Municipality, for proper disposal.

#### PRAJNA (31.1.2025 | ICT Skill)

The Innovation Club organized PRAJNA 2k25, a vibrant and intellectually stimulating project idea competition, on January 29, 2025, for students to exhibit their innovative ideas and creative thinking within the ever-evolving field of computer science. The competition aimed to encourage young minds to explore new frontiers in technology while enhancing their problem-solving and collaborative skills.

## Code Explore - GAME DEVELOPMENT PROJECT (31.1.2025 | ICT Skill)

The Game Development project was undertaken by B.Sc. Computer Science Semester 5 students Aaryan Suresh and Noel Babychan, guided by mentor Joel Joseph. From August to November 2025, they developed an interactive chess game using HTML, CSS, and JavaScript. The game was designed to be user-friendly and support two-player gameplay on a single device. Key features include legal piece movement, capturing, and detection of check and checkmate conditions.

### February 2025

### NOVA (6.2.2025 | Alumni)

The NOVA Hands-on Workshop on React JS was conducted at Naipunnya School of Management on February 6, 2025, at 10:30 AM in the Computer Lab. The workshop was a

part of the Alumni Interaction Programme and was designed to provide practical knowledge and hands-on experience in React JS, a widely used JavaScript library for building user interfaces. The session was facilitated by Ms. Ashwathi S, Alumni of DCSA, and now the Asst. Professor at SNGM, Thuravoor.

#### · Gender Harmony (6.2.2025 | Soft Skill)

As part of the Gender Awareness Program, the Department of Computer Science organized a Poster Making Competition on February 6, 2025. The event aimed to raise awareness about gender equality, inclusivity, and the societal role in fostering a fair and balanced environment for all. Students expressed their views creatively through visual art, focusing on themes like equal opportunities, gender sensitivity, and social justice. The competition promoted critical thinking and open discussion, offering a platform for students to advocate for positive social change.

### Research Asend (7.2.2025 | Advanced Learner)

A research-oriented advanced learner initiative that encourages advanced learners to write and present research papers, with presentations scheduled for 7th February 2025. This initiative allows students to explore complex topics in depth and apply theoretical knowledge to real-world issues. Through research writing, they engage with current literature, develop original ideas, and refine their analytical and communication skills. It also fosters essential abilities such as time management, organization, and critical thinking, which are vital for academic and professional growth.

### · BLOG CRAT (7.2.2025 | Soft Skills)

On 11.2.2025, the Department of Computer Science and Applications organized a blog and content writing competition on the topic "The Role of Soft Skills in a Tech-Driven World." The event brought together talented students from the second and third years to showcase their writing abilities and express their thoughts on the significance of soft skills in the modern technological landscape. It encouraged creative writing and digital expression.

## MathQuest (20.2.2025 | Problem Solving)

A competitive event encouraging logical reasoning and math application. *MathQuest* was conducted to evaluate students' analytical abilities, logical reasoning, and mathematical proficiency.

## • Stay Alert (25.2.2025 | Best Practice)

Awareness program on personal and digital safety practices. As part of its best practice initiative, ESMART successfully organized an awareness program on digital payment fraud prevention for auto drivers on February 25th. The initiative aimed to educate auto drivers on fraudulent activities in digital payment transactions and equip them with essential preventive measures.

## Machine Learning for Beginners (27.2.2025 | Alumni)

Introductory session on machine learning concepts conducted by alumni. A workshop titled "Machine Learning for Beginners" was held on 27th February 2025 at 10:30 AM in the Computer Lab. It was led by Anglite P. B., a proud alumnus of the institution and a 2023 BCA graduate.

### Solar Savvy (28.2.2025 | Green Initiative Beyond Campus)

On 28th February 2025, an awareness program titled *Solar Savvy* was conducted for Ward 2, Municipality Cherthala. This program aimed to inform the local community about the benefits of solar panels and raise awareness about renewable energy. Printed notices containing detailed information on solar panels and their benefits were distributed.

#### • IV (Industrial Visit) (28.2.2025 | IV)

An educational visit to industry for real-world exposure. On February 28, 2025, 32 final-year B.Sc. Computer Science students visited UST Global at Techno Park, Thiruvananthapuram, to gain practical insights into software development and emerging technologies. The visit included a tour of their development facility, interactive sessions with industry experts, and live demonstrations of innovative IT solutions. Students learned about software development lifecycles, agile methodologies, and career opportunities in the IT sector. This experience enriched their academic learning and inspired them to pursue excellence in the dynamic field of information technology.

#### March 2025

#### INSPIRE (10.3.2025 | Alumni)

The department organized INSPIRE – Alumni Interaction Programme on March 10, 2025, aiming to connect alumni with current students for guidance on career planning, global opportunities, and professional development. The session featured Mr. Adarsh Baby, a 2023 BCA graduate, who recently secured a prestigious fully funded scholarship to pursue his postgraduate studies in Germany. Adarsh shared his academic journey, challenges, and valuable insights into international scholarships, career paths after BCA, and the importance of academic excellence, research, and extracurricular involvement. The interactive session allowed students to ask questions on studying abroad, financial planning, and career growth, making it an inspiring and informative experience that encouraged them to pursue their ambitions confidently.

## BEYOND PINK AND BLUE (11.3.2025 | Gender Sensitization)

As part of the Gender Equality Awareness Program, the Department of Computer Science and Applications at Naipunnya College of Management organized a special screening of the Malayalam short film *Binary Error* on March 11, 2025, at 2:30 PM, at LCD 1. The event aimed to create awareness and foster inclusivity, particularly regarding the challenges faced by the transgender community.

### April 2025

• Equity Edge (7.4.2025 | Gender Sensitization)

On 3.4.2025, the Department of Computer Science and Applications organized a debate competition on the topic "The Role of Education in Promoting Gender Equality." The event provided an engaging platform for students to express their views and critically analyse the significance of education in bridging the gender gap in society.

#### **Best Practices**

#### 1. Yantrika, the IT Fest

Yantrika stands as a symbol of excellence within the department, celebrating innovation, talent, and collaboration. It provides students with a dynamic platform to showcase their technical expertise, creativity, and problem-solving abilities through a variety of competitions, workshops, and exhibitions. With its energetic atmosphere and diverse events, Yantrika cultivates a vibrant learning environment that inspires students to explore new ideas and push the boundaries of their knowledge in Information Technology. The continued success of Yantrika underscores the department's dedication to fostering holistic growth and an innovative mindset among students. Yantrika 2K25 – the IT Fest planned for November 2025 will feature inter-collegiate competitions, promoting healthy competition and collaboration across institutions.

## 2. E-Smart: Empowering Communities and Promoting Sustainability

E-Smart, spearheaded by CARE, the department's social service club, is a transformative initiative that extends beyond the campus to create a meaningful impact on local communities. The program offers valuable training sessions focused on skill development and empowerment, with a particular emphasis on enhancing digital literacy. In addition to these training initiatives, E-Smart leads e-waste management efforts that promote environmental sustainability and responsible disposal practices. Through its commitment to social welfare and environmental stewardship, E-Smart truly embodies CARE's mission of creating lasting change in society.

#### Distinctiveness

## TECHBLAZE: Igniting Intellectual Curiosity in Information Technology

As a flagship initiative of the IT Club, TECHBLAZE ignites intellectual curiosity through a diverse array of engaging events. The program includes seminars, workshops, and webinars designed to provide students with cutting-edge insights into the ever-evolving field of Information Technology. TECHBLAZE serves as a bridge, connecting theoretical knowledge with practical application and empowering students with hands-on experience in contemporary IT domains. Moreover, it offers a unique platform for students to interact with industry experts, fostering invaluable networking opportunities and mentorship. By nurturing a culture of continuous learning and innovation, TECHBLAZE propels students toward excellence in the dynamic landscape of technology.

#### 4. Extension Activities

## 1. E-Waste Collection: Driving Environmental Responsibility

The E-Waste Collection initiative underscores a strong commitment to protecting the environment by addressing the hazards posed by discarded electronic devices. Through structured collection drives and awareness campaigns, communities are encouraged to dispose of outdated electronics responsibly. Designated collection centers ensure proper recycling and disposal, preventing harmful chemicals and materials from polluting the ecosystem. By participating in these programs, individuals actively contribute to conserving natural resources, reducing pollution, and fostering a sustainable future. This collective effort nurtures a culture of environmental responsibility, paving the way for a cleaner and healthier planet for generations to come.

## 2. E-Smart: Empowering Communities Through Social Impact

E-Smart, spearheaded by CARE, the department's social service club, is a transformative initiative that extends beyond the campus to empower communities. Through well-structured training programs, E-Smart imparts practical skills, enhances digital literacy, and promotes social responsibility and inclusivity. By engaging with diverse communities, the initiative reflects CARE's mission of driving positive societal change and fostering collaboration. E-Smart not only equips individuals with valuable knowledge but also cultivates compassion, creating a meaningful and lasting impact far beyond the campus boundaries.

#### 5. Collaborations

- A Memorandum of Understanding (MoU) was signed with KELTRON, Thiruvananthapuram, on July 2, 2024, to facilitate the conduct of IT course training programs aimed at enhancing technical skills and industry readiness among students.
- A Memorandum of Understanding (MoU) was signed with Saintgits College of Applied Sciences, Pathamuttom, Kottayam, on November 1, 2024, with the objective of encouraging and supporting collaborative research initiatives among faculty members and students of both institutions.
- A Memorandum of Understanding (MoU) was signed with Sree Narayana College, Cherthala, on March 5, 2025, to promote collaboration in the utilization of research facilities of the respective departments, benefiting both faculty and students.

#### 6. Achievements

The Department achieved significant milestones in research, publications, and student success during the academic year. A major highlight was the successful organization of the National Research Conference, EXPLORA 2K24, held at Naipunnya, Cherthala, on December 21,

2024. In line with NAAC regulations, the conference papers were published as official Conference Proceedings.

Further strengthening the department's research profile, 15 faculty members and students contributed high-quality research papers, and faculty members authored books across various disciplines in computer science.

A proud moment for the institution was the selection of Mr. Saikrishnakumar, an S4 BSc Computer Science student and NCC Cadet, to participate in the Republic Day Parade in Delhi, in the presence of the Hon'ble Prime Minister.

The department also celebrated the outstanding achievements of its graduating students. A total of 42 students secured placements in reputed IT companies, while a significant number gained admission to postgraduate programs (MCA/M.Sc. Computer Science) at prestigious institutions through competitive entrance examinations.

Head of the Department

Head of the Department

School of Management

Naipunnya School of Management

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Date: 30 April 2025

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Dr. BIJI P. THOMAS

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