

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

CYBER SECURITY

JUNE 2026 | ISSUE 06/2026



COVER STORY

Innovation & Excellence

FEATURED INSIDE

- Two Patents Published
- Record Academic Performance
- Student Success Stories

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Dear Students, Faculty, and Friends,

June 2026 marks a significant milestone for the Department of Cyber Security. This issue celebrates a wide sweep of achievements — two published patents, top academic performance across both the 2nd and 6th semesters, and a wave of internship experiences spanning industry, government, and research settings.

From students placed with Synnefo Solutions, RayBlaze Global, Toyota Kirloskar Auto Parts, and SkillMerge Hackers Academy, to individual placements at i11Labs, NIT Calicut, and the Kerala Police Cyber Division, our students are translating classroom learning into real-world impact. Faculty members too advanced their own skills this cycle through focused industry certifications.

We invite you to celebrate these achievements and join us as we build the future of cybersecurity education and practice.

DEPT. REGISTRY

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING (CYBER SECURITY)

Vision

To be a globally recognized centre of excellence in Cyber Security education, research and innovation by nurturing ethical professionals, fostering technological advancement through responsible practice, and contributing to a secure and sustainable digital society.

Mission

M1: Excellence in Education

M2: Ethics and Professional Responsibility

M3: Research, Innovation and Entrepreneurship

M4: Holistic and Global Development

Two Groundbreaking Patents Published

JUNE 2026

June 12, 2026 marks a historic moment for the Department of Cyber Security. Two patent applications have been successfully published, reflecting the department's commitment to translating student and faculty research into tangible intellectual property and real-world solutions.

These patents emerged from sustained project work carried out by faculty and students, demonstrating the growing culture of research, innovation, and intellectual property creation within the department.

INVENTORS & MENTOR



Ms. Sagna L. T.
(Asst. Prof.)



C. S. Swathy



Diya Ramesh
Menon



Sivani Saleesh



Ramshiya Kabeer

PATENT APPLICATION 1

An Intelligent Blacklisting System for Free Health Insurance Misuse Prevention

OVERVIEW

This invention proposes an intelligent blacklisting mechanism designed to detect and prevent misuse of free health insurance schemes. Many welfare-linked insurance schemes are vulnerable to repeated exploitation by a small set of bad actors, which reduces resources available to genuinely eligible beneficiaries.

HOW IT WORKS

By flagging suspicious usage patterns and repeat offenders through automated analysis, the system aims to protect welfare resources and strengthen the integrity of public health insurance programmes. The approach combines rule-based checks with intelligent pattern recognition to continuously improve detection accuracy over time.

Impact & Welfare Focus

This socially relevant solution demonstrates how cybersecurity expertise can directly benefit public welfare systems and protect vulnerable populations from fraud.

Guided by: Ms. Sagna L. T., Assistant Professor, Department of Cyber Security

Published: 12/06/2026

PATENT 2: SYSTEM AND METHOD FOR STATE-CONSISTENCY ENFORCEMENT IN A CYBER DECEPTION ENVIRONMENT USING DETERMINISTIC STATE TRANSITIONS

Overview:

This invention addresses a critical challenge in cyber deception technology—ensuring that decoy systems used to mislead attackers remain internally consistent and believable over time. Deception environments such as honeypots are only effective for as long as an attacker believes they are interacting with a genuine system.

How It Works:

By enforcing deterministic state transitions, the invention strengthens honeypot and deception-based defence mechanisms, making them significantly harder for adversaries to detect, fingerprint, and expose. This allows security teams to observe attacker behaviour for longer periods and gather more actionable threat intelligence.

Industry Relevance:

The work reflects the department's growing strength in advanced cybersecurity defence research, particularly in deception technology—an area of increasing relevance in modern cyber defence strategy and one expected to see continued growth in enterprise security.

Technical Registry

GUIDED BY

Mr. Saju C. J., Assistant Professor,
Department of Cyber Security

PUBLICATION DATE

12/06/2026

INVENTORS & MENTOR



Mr. Saju C. J.
(Asst. Prof.)



Abhinand K.
Jayan



Abhishek Wilson



Hannah E. M.



S. Hrisheekesh P. V.
Hrisheekesh P.
V.

Department congratulates the guides and all student inventors for this remarkable achievement. These publications stand as inspiration for all students to pursue original, problem-solving research with real-world social and technical impact.

The Department of Computer Science and Engineering (Cyber Security) proudly congratulates its top five performers in the recently declared 2nd Semester results, reflecting a strong academic start for this batch of students in the department.



Gopika P.
9.41 SGPA



**Fathima Shada P.
P.**
9.18 SGPA



Rida Nishar
9.11 SGPA



**Kripa Susan
Gregory T.**
8.75 SGPA



Naja Nazar
8.70 SGPA

The department congratulates all five students on this achievement and encourages them to continue this momentum through the rest of their academic journey.

CY Tops S6 Results

JUNE 2026

Record-Breaking Performance

The Department of Cyber Security (CY) has set a new standard for academic excellence, recording the highest Semester 6 pass percentage among all departments: an outstanding 81.40%—the best performance across every branch this semester.

81.40%

CY S6 PASS RATE

DEPARTMENT-WISE PERFORMANCE COMPARISON (JUNE 2026)

Artificial Intelligence and Data Science	79.66%
Cyber Security (CY) ✓ TOP PERFORMER	81.40%
Civil Engineering	48.00%
Computer Science Engineering	78.89%
Electronics & Communication Engineering	74.07%
Electrical & Electronics Engineering	31.82%
Mechatronics Engineering	73.81%
Mechanical Engineering	52.00%
Robotics & Automation Engineering	0.00%

What This Means

CY's result stands well above the overall institutional average and significantly ahead of peer departments. This achievement reflects sustained academic rigour, close mentoring by faculty, and the discipline and consistent effort demonstrated by CY students throughout the semester.

Key to Success

The department's strength lies in a proactive, structured approach to academic monitoring and student support. Faculty members:

- Track individual student performance throughout the semester
- Identify students needing additional support early
- Provide focused mentoring to keep students on track

This systematic support has been instrumental in sustaining strong results semester after semester.

Recognizing Five Outstanding Achievers

JUNE 2026

The Department of Cyber Security proudly celebrates its top five performers in the recently declared 6th Semester results. Their consistent academic performance reflects the strong culture of discipline, focus, and hard work that the department nurtures among all students, and stands as inspiration to their peers across all semesters.

RANK 01 / CY-SEC

Diya Ramesh Menon**8.85**
SGPA

RANK 02

Daniel Chemmanoor Saji**8.57**
SGPA

RANK 03

An Maria Jack**8.24**
SGPA

RANK 04

C S Swathy**8.20**
SGPA

RANK 05

Joseph Pradeep Pallan**8.17**
SGPA

TOPPER SHOWCASE



Diya Ramesh Menon

Daniel Chemmanoor
Saji

An Maria Jack



C S Swathy

Joseph Pradeep
Pallan

The department extends heartfelt congratulations to all five students and to the faculty members and mentors who supported them throughout the semester. Their achievements, alongside the department's overall top pass percentage, reflect the strong academic foundation being built within CY. These students exemplify the excellence and dedication expected of future cybersecurity professionals.

From Classroom to Career: Real-World Learning JUNE 2026

Internships bridge the gap between academic theory and industry practice. During June 2026, our students gained hands-on experience at leading technology companies, applying classroom knowledge to real-world challenges and building professional networks that will benefit their careers.

SYNNEFO SOLUTIONS, KOCHI

CYBERSECURITY INTERNSHIP

June 1–30, 2026

Sixteen S4 students completed a one-month offline internship in Cybersecurity at Synnefo Solutions, Kochi, gaining hands-on, industry-oriented exposure to real-world cybersecurity practices, tools, and workflows.

EXPERIENCE HIGHLIGHTS

- Conducted entirely on-site at company premises
- Exposure to practical cybersecurity beyond classroom learning
- Hands-on experience with live security tools
- Day-to-day workflows followed by working security professionals
- Project-based learning in a real enterprise environment



RAYBLAZE GLOBAL PRIVATE LIMITED

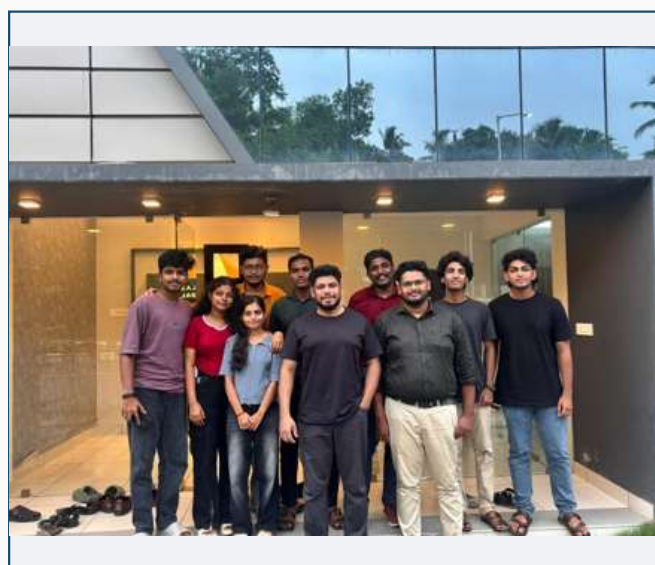
WEB DEVELOPMENT INTERNSHIP

June 8–23, 2026

Seven S4 students completed an offline internship in Web Development at RayBlaze Global Private Limited, working on practical, project-based assignments in modern web development.

EXPERIENCE HIGHLIGHTS

- On-site at company premises with experienced developers
- Front-end and back-end development practices
- Moving from textbooks to hands-on, project-driven learning
- Direct mentorship from working developers
- Exposure to industry-standard development workflows



The department thanks both Synnefo Solutions and RayBlaze Global Private Limited for supporting our students' professional development.

60 Students Complete Cybersecurity Internship at SkillMerge Hackers Academy

JUNE
2026

Sixty students of the department successfully completed a 2-Week Cybersecurity Internship Program at SkillMerge Hackers Academy, Kerala's No.1 Ethical Hacking Academy, concluding on 30 June 2026. During the internship, students actively participated in hands-on cybersecurity training, practical exercises, and real-world learning activities, demonstrating dedication, commitment, and strong enthusiasm for developing cybersecurity skills. The department congratulates all participants on their successful completion and wishes them continued success in their academic and professional journeys.



Faculty members of the department also invested in upskilling this cycle, completing focused industry certifications in cyber forensics and ethical hacking to stay current with evolving tools and techniques.



Ms. Sagna L. T.

ASSISTANT PROFESSOR

Networkz Systems, Viyyur, Thrissur · 29 April – 16 May 2026

Completed an internship program in "Linux with Tools for Cyber Forensics", conducted by Networkz Systems, an ISO 9001:2015 certified training organization based in Viyyur, Thrissur. The program strengthened her hands-on command of Linux-based forensic toolkits, equipping her to bring more practical, tool-driven demonstrations into the classroom.

FOCUS AREA

Linux & Cyber Forensics Tools



Ms. Remya M.

ASSISTANT PROFESSOR

Safe Technologies, Palakkad · 20 April – 8 May 2026

Completed the Faculty Internship under the Professional Immersion Program in Ethical Hacking, conducted by Safe Technologies, Palakkad. The immersive program deepened her practical exposure to penetration testing techniques and current ethical hacking methodologies, directly enriching the department's cybersecurity curriculum.

FOCUS AREA

Ethical Hacking

Students Charting Their Own Path

JUNE 2026

Beyond group placements, several CY students pursued individual internships this month, each carving out a distinct path across AI engineering and applied cybersecurity research.



Anisha TJ

AI ENGINEER INTERN · I11LABS

Remote · June 1–30, 2026

An S5 student of the department, Anisha completed a one-month virtual internship as an AI Engineer Intern with i11Labs, coordinating remotely with her mentors and project team on a flexible schedule alongside her academic commitments.

SKILL AREAS

AI Automation Cloud Security

Mentors: Mr. Vengalarao Pasala & Ms. Keerthi Guddadahalli. Delivered her final project demonstration with positive feedback on her technical grasp and initiative.



Daniel Chemmanoor Saji

RESEARCH INTERN · NIT CALICUT

June 2026

Daniel completed a research internship at the National Institute of Technology Calicut, an Institute of National Importance, designing a virtual CAN bus forensics testbed simulating automotive network communication across multiple ECUs.

SKILL AREAS

Automotive Cybersecurity CAN Bus Forensics
Threat Detection

Implemented attack-simulation modules for spoofing, replay, DoS and message injection, integrated Suricata IDS with a custom gateway for real-time detection, and evaluated Secure Onboard Communication (SecOC) for in-vehicle security.

A Look Inside Law Enforcement Cybersecurity

JUNE–JULY
2026

Nakul Suresh



*Certificate of Successful Internship Completion —
issued 6 July 2026*

Nakul Suresh completes Internship at Kerala Police Cyber Division

KERALA POLICE CYBER DIVISION, PHQ THIRUVANANTHAPURAM

30 June – 6 July 2026

Nakul Suresh, an S2 Cyber Security student of the department, successfully completed an internship in various wings of the Kerala Police Cyber Division, based at Police Headquarters, Thiruvananthapuram, from 30th June to 6th July 2026. The Cyber Division is the state's dedicated law enforcement wing for handling cybercrime investigation, digital forensics, and cyber operations, making this a valuable early opportunity for a student to see how cybersecurity concepts are applied in an actual law enforcement setting.

During the internship, Nakul was exposed to the working of various wings within the division, gaining insight into how cybercrime cases are investigated and how coordination is carried out between operational units under the Cyber Operations wing of the PHQ.

The internship was formally certified by the Superintendent of Police, Cyber Operations, PHQ, on 6th July 2026. The department congratulates Nakul on this achievement and encourages other students, especially in the early semesters, to seek out similar opportunities with law enforcement and government cybersecurity agencies.

Building a Private Blockchain from Scratch

JUNE 2026



Mariya John

SKILL AREAS

Blockchain

Go-Ethereum

DApp Dev

Mariya John's Research Internship at NIT Calicut

NATIONAL INSTITUTE OF TECHNOLOGY CALICUT

June 2026 · Unpaid Research Internship

Mariya John completed a research internship at the National Institute of Technology Calicut, an Institute of National Importance under the Ministry of Education recognized for its academic excellence, research, and innovation. There she designed and implemented a private Ethereum blockchain network from the ground up using Go-Ethereum (Geth) — three independent nodes on a custom Chain ID, running the Ethash Proof-of-Work consensus mechanism.

She manually established peer-to-peer connections between nodes using their enode identifiers, verifying network synchronization through peer-count checks and block-hash comparisons. She then integrated MetaMask with the private network via a custom RPC endpoint and built a complete banking-style decentralized application (DApp) frontend using Ethers.js v6, with login and registration, live balance fetching, and transaction history retrieval through block scanning.

Node-level, network-level, consensus, and integration testing confirmed correct peer discovery, consensus, and transaction propagation, with an end-to-end fund transfer between accounts successfully verified. The department congratulates Mariya on this hands-on deep dive into blockchain node orchestration and full-stack DApp development.

Hands-on experience in peer-to-peer networking, Proof-of-Work consensus, and full-stack decentralized application development.

Industry Internship at Toyota Kirloskar Auto Parts

JUNE
2026



Hrisheekesh P. V.

S7 · DEPARTMENT OF CYBER SECURITY (2023–2027)

SKILL AREAS

Information Security

Industrial Systems

Information Security Intern · Toyota Kirloskar Auto Parts (TKAP)

1 Month · Stipend ₹13,000

Hrisheekesh P. V., an S7 student of the department, completed a one-month internship as an Information Security Intern at Toyota Kirloskar Auto Parts Pvt. Ltd. (TKAP), gaining exposure to information security practices within a large-scale industrial manufacturing environment.

The internship offered valuable hands-on experience applying classroom cybersecurity concepts to the operational and infrastructure security needs of a major automotive parts manufacturer.

The department congratulates Hrisheekesh on this achievement and wishes him continued success as he builds toward a career in information security.

DEPARTMENT VISION

To be a globally recognized centre of excellence in Cyber Security education, research and innovation by nurturing ethical professionals, fostering technological advancement through responsible practice, and contributing to a secure and sustainable digital society.

DEPARTMENT MISSION — FOUR PILLARS

M1: Excellence in Education

Provide outcome-based and industry-oriented education by integrating core computer science principles with advanced cybersecurity technologies and practices.

M3: Research, Innovation & Entrepreneurship

Promote research, innovation, and entrepreneurial thinking for developing sustainable solutions to emerging cybersecurity challenges.

M2: Ethics & Professional Responsibility

Cultivate ethical values, integrity, social responsibility, and secure computing practices for protecting digital assets and strengthening cyber trust.

M4: Holistic & Global Development

Enhance leadership, teamwork, lifelong learning, and global competence through industry collaboration, interdisciplinary activities, and community engagement.

INSTITUTIONAL CORE VALUES

- ★ Faith in God and man
- ★ Love of fellow beings
- ★ Belief in Universal Citizenship
- ★ Moral integrity
- ★ Social commitment

PROGRAMME EDUCATIONAL OBJECTIVES (PEOS)

- PEO1: Apply strong foundations in computer science and cybersecurity to design, develop, and manage secure and reliable computing systems.
- PEO2: Pursue successful careers as professionals, innovators or entrepreneurs contributing to economic growth.
- PEO3: Demonstrate ethical responsibility, leadership, and effective communication through lifelong learning.

PROGRAM SPECIFIC OUTCOMES (PSOS)

- PSO1: Apply cyber security principles to mitigate cyber risk and analyze security requirements.
- PSO2: Develop and deploy secure software and infrastructure using modern tools and standards.
- PSO3: Uphold ethical, legal, and societal responsibilities while protecting privacy and digital assets.

Our Commitment to You

This month's achievements — from published patents to top-ranked academic results and hands-on industry internships — reflect what happens when rigorous teaching, curiosity, and mentorship come together. The department remains committed to giving every student the guidance, facilities, and opportunities needed to grow into a capable and ethical cybersecurity professional.

FUTURE INITIATIVES

Patents & IP

Building on this cycle's two published patents, the department will continue supporting faculty- and student-led research toward further patentable, application-driven inventions.

Industry Partnerships

Expanding collaborations like those with Synnefo Solutions, RayBlaze Global, Toyota Kirloskar Auto Parts, and SkillMerge Hackers Academy to place more students in hands-on, industry-grade internships each semester.

Research Growth

Deepening focus areas such as cyber deception, digital forensics, and automotive security, with more students pursuing external research internships.

Academic Excellence

Sustaining the structured mentoring and monitoring that helped CY post the top S6 pass percentage this cycle, semester after semester.

JOIN US

To every prospective student weighing where to begin a career in cybersecurity —

this is a field that rewards curiosity, discipline, and the will to protect what matters. Come build it with us.

DEPARTMENT OFFICE

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FOLLOW & REACH US

For queries about admissions, collaborations, or student opportunities featured in this issue, reach out to the department office directly, or visit the institution website for updates throughout the semester.

Instagram: [@cybersecuritydepartment_jec](https://www.instagram.com/cybersecuritydepartment_jec)

YouTube: [@cybersecuritydepartmentjec](https://www.youtube.com/cybersecuritydepartmentjec)

MAGAZINE CREDITS

Faculty & Editorial

Magazine Editor: Joyel P R, Assistant Professor, Dept. of CSE (CY). Compiled with contributions from the department's faculty mentors, including Ms. Sagna L. T. and Mr. Saju C. J., whose guided research is featured in this issue.

Industry Partners

With appreciation to Synnefo Solutions, RayBlaze Global Private Limited, Toyota Kirloskar Auto Parts, SkillMerge Hackers Academy, i11Labs, NIT Calicut, Networkz Systems, Safe Technologies, and the Kerala Police Cyber Division for hosting our students.

Students & Contributors

Thanks to every student who shared their achievements, photos, and internship experiences for this issue.

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