

Sakshin

Monthly Newsletter of Dept. of CSE

2026

JUNE

VISION

Nurturing globally competent Computer science and Engineering graduates capable of taking challenges in the industry and Research & Development activities.

MISSION

M1. Imparting quality education to meet the needs of industry, and to achieve excellence in teaching and learning.

M2. Inculcating value-based, socially committed professionalism for the development of society.

M3. Providing support to promote quality research.



ABOUT ASIET

Adi Shankara Institute of Engineering & Technology in Kalady, established by the Adi Sankara Trust, aims to provide value-driven technical education that promotes professional excellence and ethical values. Under the blessings of the Jagadgurus of Sringeri Sharada Peetham, the trust has over 50 years of experience in managing educational institutions. The institute focuses on the holistic development of its students.

Samvarthana 2K26 – Convocation Ceremony



Samavarthana 2K26, the Convocation Ceremony for the 2022–2026 B.Tech batch, along with the 21st MBA, 15th M.Tech, and 2nd MCA batches, was held on 26 June 2026 at the Central Courtyard, Adi Shankara Institute of Engineering and Technology (ASIET). The ceremony marked a proud milestone in the academic journey of the graduating students as they celebrated the successful completion of their programmes in the presence of distinguished dignitaries, faculty members, parents, alumni, and well-wishers. It was a memorable occasion that celebrated years of dedication, perseverance, and hard work while recognizing the achievements of students and faculty who contributed to the institution's academic excellence. The event also served as an opportunity to inspire graduates as they embarked on their professional careers, higher studies, and future endeavours.

The ceremony commenced with the recitation of Guru Ashtakam, followed by a special video presentation that showcased ASIET's remarkable 25-year journey of academic excellence, highlighting its achievements in education, research, innovation, placements, student accomplishments, and institutional growth. The presentation reflected the institution's rich legacy and its continued commitment to nurturing competent professionals, responsible citizens, and future leaders capable of addressing global challenges through knowledge and innovation.

The function was graced by Shri. Roji M. John, Hon'ble Minister for Higher Education, Government of Kerala and Pro-Chancellor of APJ Abdul Kalam Technological University (KTU), as the Chief Guest. Dr. Ciza Thomas, Hon'ble Vice Chancellor of APJ Abdul Kalam Technological University, Kerala, attended as the Guest of Honour. The dignitaries were joined by Shri. K. Anand, Managing Trustee of the Adi Shankara Group, Dr. M. S. Murali, Principal, members of the management, deans, heads of departments, faculty members, administrative officials, and invited guests, whose presence added significance to the grand occasion.



The programme began with the traditional lighting of the ceremonial lamp, symbolizing knowledge, wisdom, and enlightenment. The gathering was welcomed by Dr. M. S. Murali, Principal, who highlighted the institution's achievements during the academic year and congratulated the graduating students on reaching an important milestone in their lives. This was followed by the Presidential Address by Shri. K. Anand, who encouraged the graduates to uphold professional ethics, embrace lifelong learning, remain committed to innovation, and contribute meaningfully to society through their knowledge and skills.

Delivering the inaugural address, Shri. Roji M. John congratulated the graduates and emphasized the importance of innovation, skill development, research, entrepreneurship, and social responsibility in shaping the future of the nation. Dr. Ciza Thomas, in her address, inspired students to continuously upgrade their knowledge, adapt to emerging technologies, and become leaders capable of addressing global challenges through engineering, research, and innovation. The institution also honoured the dignitaries with shawls and mementoes as tokens of gratitude and appreciation for their valuable presence and inspiring addresses.

One of the major highlights of the ceremony was the recognition of academic and research excellence. The institution honoured Dr. Ambily A. R., who successfully completed her doctoral research at the ASIET Research Centre, along with faculty members Dr. Siji Jose, Dr. Tintu P. B., and Dr. Sreedeeep Krishnan, who were awarded their Ph.D. degrees for their outstanding research contributions in Artificial Intelligence, Medical Imaging, and Robotics. These achievements reflected the institution's growing research culture and its continued commitment to promoting innovation and advanced research.

The B. S. Krishnan Endowment Awards were presented to programme toppers from various departments in recognition of their exceptional academic performance, consistent dedication, and outstanding achievements. From the Department of Computer Science and Engineering, Ms. Sona Deyo received the Topper Award for securing an outstanding CGPA of 9.81. In addition to her academic excellence, she was recognized for completing the Honours Programme, earning NPTEL certifications, and receiving the Best Research Paper Presentation Award at an international conference, reflecting her commitment to both academics and research.

The ceremony also featured the presentation of the Best Outgoing Student Awards, recognizing students who demonstrated excellence in academics, leadership, innovation, and extracurricular activities. From the Department of Computer Science and Engineering, Ms. Snehamol K. M. was honoured with this prestigious recognition for her exceptional achievements. She successfully completed the Honours Programme in Security and Computing and a Minor in Robotics and Automation, served as the Campus Lead of μ Learn ASIET and Technical Captain of the CSE Association, won multiple hackathons and innovation competitions, earned five NPTEL certifications, and secured placement at Infosys. Her achievements reflected the qualities of leadership, technical excellence, and innovation that the institution strives to nurture among its students.

Innovation and project-based learning formed another important highlight of the convocation. The winners of ASPREN 2026, the institute's annual technical project exhibition, were honoured for developing innovative solutions to real-world challenges. The "Interactive Humanoid Robot", jointly developed by students of the Departments of Computer Science and Engineering and Robotics & Automation under the guidance of Dr. Sreepriya S. and Dr. Ramani Bai V., received recognition among the Best Projects of ASPREN 2026 for its technical excellence and innovative approach.

Outstanding department-wise projects from Civil Engineering, Computer Science and Engineering, Computer Science (AI), Electronics and Biomedical Engineering, Electronics and Communication Engineering, Electrical and Electronics Engineering, Mechanical Engineering, and Robotics & Automation were also honoured, showcasing the creativity, technical competence, and research potential of ASIET students.

The institution also celebrated the achievements of faculty members selected under the Research Seed Money (RSM) Scheme of APJ Abdul Kalam Technological University. Several faculty members received recognition for innovative research proposals spanning Artificial Intelligence, disaster communication, electric vehicles, additive manufacturing, biomedical applications, robotics, and sustainable engineering solutions. These achievements highlighted the institution's growing research ecosystem and its continued efforts to encourage interdisciplinary research, innovation, and technology-driven solutions for societal challenges.

Students and faculty who brought laurels to the institution through National Service Scheme (NSS) activities, Hindustan Scouts and Guides, and sports were also felicitated during the ceremony. Awards were presented to outstanding NSS coordinators, volunteers, and students for their exemplary leadership, community service, and social commitment. Students who represented APJ Abdul Kalam Technological University in national-level softball and netball championships were honoured for their sporting achievements, reflecting the institution's emphasis on holistic development and excellence beyond academics.

A significant moment of the ceremony was the Graduation Oath, administered by Dr. Ciza Thomas, where the graduating students pledged to uphold professional ethics, integrity, and social responsibility throughout their careers. The graduates were then formally welcomed into the ASIET Alumni Association, marking the beginning of their lifelong association with the institution and encouraging them to remain connected with their alma mater.

The programme concluded with the Vote of Thanks delivered by Dr. Sreepriya S., Dean of Research, expressing gratitude to the dignitaries, management, faculty members, staff, students, parents, alumni, and everyone who contributed to the success of the event. The formal ceremony was followed by the distribution of mementoes to the graduating students by their respective departments and departmental photo sessions, providing an opportunity to celebrate the memorable occasion with classmates, teachers, and family members.

Samavarthana 2K26 stood as a memorable celebration of academic excellence, perseverance, innovation, and achievement. The event not only honoured the accomplishments of the graduating students but also celebrated the research achievements of faculty members, recognized excellence in academics, innovation, sports, and community service, and reaffirmed ASIET's commitment to nurturing competent professionals, responsible citizens, and future leaders equipped to make meaningful contributions to society. The ceremony concluded with graduates carrying forward the knowledge, values, and experiences gained at ASIET as they stepped confidently into the next phase of their academic and professional journeys.

6-Day NBA GAPC V4.0 Aligned Faculty Enrichment Programme in Collaboration with TCS

Adi Shankara Institute of Engineering & Technology **tcs** **TATA CONSULTANCY SERVICES**

Department of Computer Science and Engineering
Organizes a Six-Day Online NBA GAPC V4.0 Aligned
TCS Faculty Enablement Program (FEP)

Industry Practices in Software Development for Complex Interdisciplinary Challenges

15th June - 20th June, 2026, (10:30 AM - 12:30 PM)

ABOUT THE INSTITUTE
Adi Shankara Institute of Engineering & Technology (ASIET), Kalady, established in 2001, is the first self-financing engineering college in Kerala. Managed by the Adi Shankara Trust under the guidance of Sri Sri Bhagavan Sri Mahasanthan, ASIET is affiliated with A. P. J. Abdul Kalam Technological University and approved by All India Council for Technical Education. The institute offers UG, PG, and PhD programs, with four B.Tech streams (CSE, EEE, and ME) accredited by National Board of Accreditation. Located in Kalady, Kerala, ASIET is known for its quality technical education, professional excellence, and ethical values.

ABOUT THE DEPARTMENT
The Department of Computer Science & Engineering (CSE) at ASIET, Kalady, established in 2001, offers undergraduate, postgraduate, and research programs aligned with industry needs. With experienced faculty, modern laboratories, and a strong focus on innovation and research, the department is committed to developing skilled professionals and researchers in the field of computing.

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ABOUT THE FEP
This six-day FEP is designed to equip faculty members with contemporary industry practices in software development while aligning project-based learning, complex engineering problem solving, sustainability, and Outcome-Based Education requirements under NBA GAPC V4.0. The program emphasizes the development of industry-relevant competencies, interdisciplinary problem-solving approaches, cybersecurity awareness, and the integration of SDGs into engineering education and student projects. GAPC V4.0 aligns engineering education with internationally accepted graduate attributes and professional competencies, emphasizing complex engineering problems, sustainability, ethics, and continuous improvement.

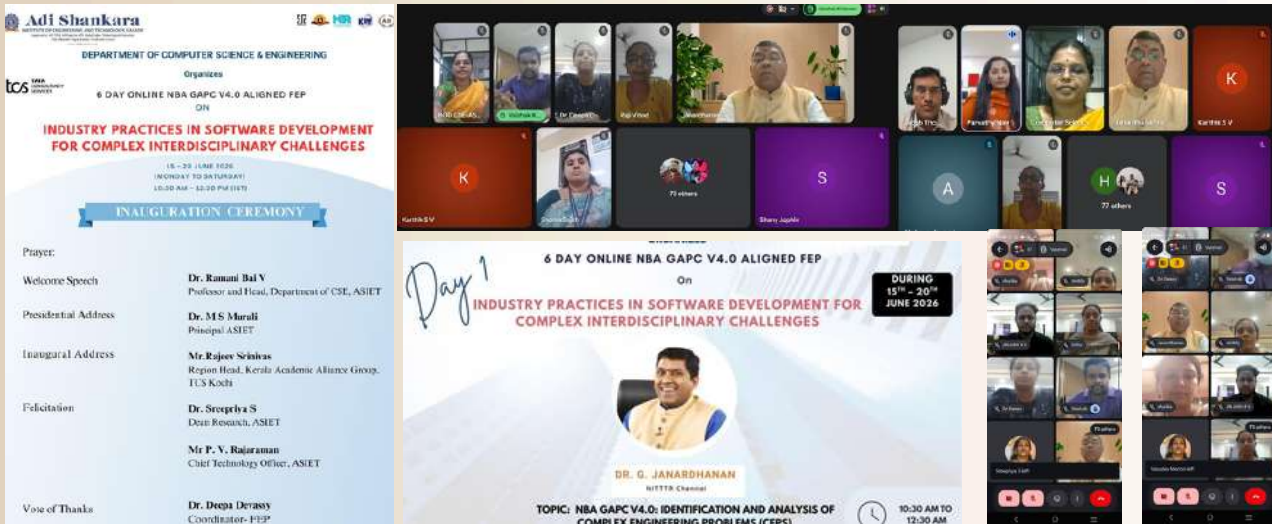
PROGRAMME OUTCOMES:
Participants will be able to:

1. Apply NBA GAPC V4.0 and SDG-oriented frameworks to identify, analyze, and address Complex Engineering Problems (CEPs) in interdisciplinary domains.
2. Employ modern SDLC models, Agile practices, and industry-standard software engineering methodologies to develop effective solutions for complex challenges.
3. Design and develop scalable, cloud-native, data-driven, and AI-enabled software systems using contemporary technologies and DevOps practices.
4. Integrate cybersecurity, secure software engineering, and risk management principles to build reliable, resilient, and industry-compliant software solutions and accreditation expectations.

DAY	DATE	RESOURCE PERSON	TOPIC
Day 1	15 June 2026 (Monday)	 Dr. G. Janardhanan NITTTR Chennai	NBA GAPC V4.0: Identification and Analysis of Complex Engineering Problems (CEPs)
Day 2	16 June 2026 (Tuesday)		CEPs and Sustainable Development Goals (SDGs): NBA Guidelines and Industry Case Studies
Day 3	17 June 2026 (Wednesday)	 Mr. Jacob Thomas Delivery Manager TCS	Digital Transformation through Modern SDLC and Agile Engineering Practices
Day 4	18 June 2026 (Thursday)	 Mr. Nimal Krishna Iyer Delivery Manager TCS	Data-Driven and Scalable Software Solutions for Complex Interdisciplinary Challenges
Day 5	19 June 2026 (Friday)	 Mr. Joby Joseph Cloud Technology Head TCS	Cloud, DevOps, and AI-Enabled Software Engineering for Complex Problem Solving
Day 6	20 June 2026 (Saturday)	 Mr. Vinod Venugopal Delivery Manager TCS	Cybersecurity, Secure Software Development, and Digital Risk Management

The Department of Computer Science and Engineering, Adi Shankara Institute of Engineering and Technology (ASIET), Kalady, successfully organized a 6-Day Online NBA GAPC V4.0 Aligned Faculty Enrichment Programme (FEP) on "Industry Practices in Software Development for Complex Interdisciplinary Challenges" in collaboration with Tata Consultancy Services (TCS) from 15–20 June 2026. The programme aimed to strengthen faculty members' understanding of Complex Engineering Problems (CEPs), NBA GAPC V4.0, Sustainable Development Goals (SDGs), and modern software engineering practices through expert sessions delivered by academicians and industry professionals.

Day 1 – Inauguration & NBA GAPC V4.0: Identification and Analysis of Complex Engineering Problems



The programme was inaugurated by Dr. M. S. Murali, Principal, ASIET, with Dr. Ramani Bai V, Professor and Head, CSE, delivering the welcome address. Mr. Rajeev Srinivas, Region Head, Kerala Academic Alliance Group, TCS Kochi, delivered the inaugural address, highlighting the importance of academia-industry collaboration in engineering education. The session was felicitated by Dr. Sreepriya S, Dean (Research), and Mr. P. V. Rajaraman, CTO, ASIET.

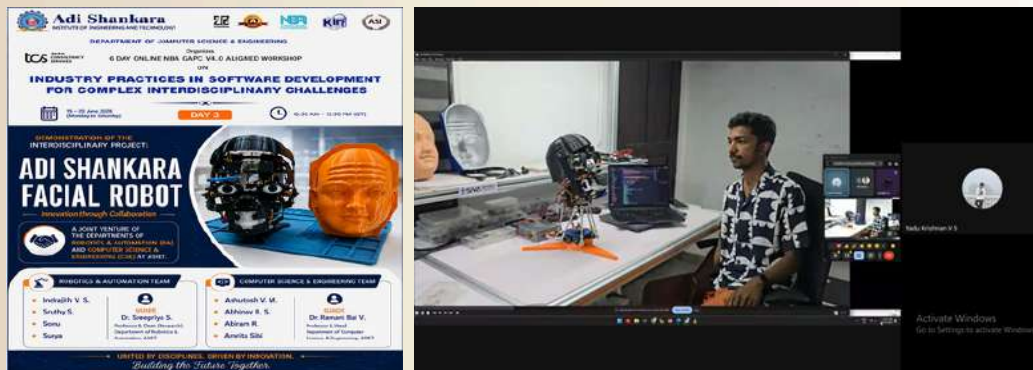
The first technical session was handled by Dr. G. Janardhanan, NITTTR Chennai, on "NBA GAPC V4.0: Identification and Analysis of Complex Engineering Problems (CEPs)." He explained the revised NBA GAPC V4.0 framework, the characteristics of Complex Engineering Problems, outcome-based education, and effective mapping of course outcomes with NBA accreditation requirements through practical examples and interactive discussions.

Day 2-Digital Transformation through Modern SDLC and Agile Engineering Practices



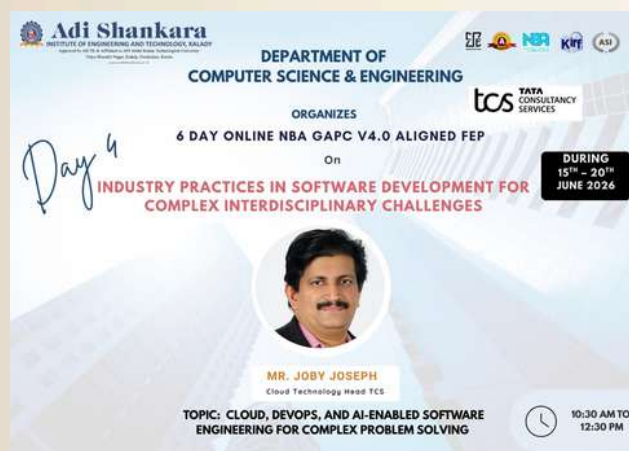
The second day's session was delivered by Mr. Jacob Thomas, Delivery Manager, TCS, on "Digital Transformation through Modern SDLC and Agile Engineering Practices." The session focused on digital transformation, Agile methodologies, modern Software Development Life Cycle (SDLC), business agility, customer-centric software development, and industry best practices. Participants also gained insights into real-world software development processes adopted in leading IT organizations.

Day 3 – Industry Practices and Interdisciplinary Innovation



The third day featured a demonstration of the Adi Shankara Facial Robot, an interdisciplinary project jointly developed by the Departments of Computer Science & Engineering and Robotics & Automation. The session showcased the integration of robotics, artificial intelligence, embedded systems, and software engineering to address real-world engineering challenges, emphasizing the importance of interdisciplinary collaboration and innovation.

Day 4 – Cloud Technologies, AI, DevOps, CEPs and SDGs



Day four included two expert sessions. Mr. Joby Joseph, Cloud Technology Head, TCS, delivered a session on "Cloud, DevOps, and AI-Enabled Software Engineering for Complex Problem Solving," highlighting cloud computing, DevOps practices, AI-driven software development, and scalable software solutions.

The second session was conducted by Dr. G. Janardhanan, NITTTR Chennai, on "CEPs and Sustainable Development Goals (SDGs): NBA Guidelines and Industry Case Studies." The session emphasized the integration of SDGs into engineering education, NBA accreditation guidelines, and industry case studies demonstrating sustainable engineering practices.

Day 5 – Data-Driven and Scalable Software Solutions



**DEPARTMENT OF
COMPUTER SCIENCE & ENGINEERING**

ORGANIZES

6 DAY ONLINE NSA GPC V4.0 ALIGNED FEP

ON

**INDUSTRY PRACTICES IN SOFTWARE DEVELOPMENT FOR
COMPLEX INTERDISCIPLINARY CHALLENGES**



MR. NIMAL KRISHANA IYER
Marketing Manager - NSG

**TOPIC: DATA-DRIVEN AND SCALABLE SOFTWARE
SOLUTIONS FOR COMPLEX INTERDISCIPLINARY CHALLENGES**

What We Are

-  **Works with Just a Smartphone**
No additional equipment, sensors or farm infrastructure required.
-  **AI Nutrition & Treatment Guidance**
Personalized fodder plans, treatment advice and care recommendations.
-  **Breed, Weight & Milk Yield Estimation**
AI predicts growth and health metrics using

What We Are NOT

-  **No Per-Animal Device Expense**
Avoid ₹5,000-₹25,000 hardware costs per cattle. **₹5000+**
-  **Not Limited to Large Farms**
Built to be affordable and accessible for small & marginal farmers.
-  **No Technical Complexity**
Simple, guided workflows designed for rural users.

10:30 AM TO 12:30 PM

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The fifth day's session was handled by Mr. Nimal Krishna Iyer, Delivery Manager, TCS, on "Data-Driven and Scalable Software Solutions for Complex Interdisciplinary Challenges." He discussed modern approaches to designing scalable software systems, data-driven decision-making, and industry practices for developing reliable software solutions capable of addressing complex engineering challenges.

Day 6 – Cybersecurity, Digital Risk Management & Valedictory

Adi Shankara
DEPARTMENT OF
COMPUTER SCIENCE & ENGINEERING

ORGANIZES
6 DAY ONLINE NBA GACP V4.0 ALIGNED FEP
On
Day 6
**INDUSTRY PRACTICES IN SOFTWARE DEVELOPMENT FOR
COMPLEX INTERDISCIPLINARY CHALLENGES**



MR. VINOD VENUGOPAL
Deputy Manager, TCS

**TOPIC: CYBERSECURITY, SECURE SOFTWARE DEVELOPMENT,
AND DIGITAL RISK MANAGEMENT**

Security operations centralize telemetry and orchestration

The Security Operations Center acts as the nervous system of enterprise defense.



SIEM (Security Information and Event Management)
Aggregates and correlates diverse log data to identify hidden threat patterns.

SOAR (Security Orchestration, Automation, and Response)
Requires manual trigger with automated playbooks, executing machine-speed responses for selected events.

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SECURITY OPERATIONS CENTER

Virtual PV

The concluding technical session was delivered by Mr. Vinod Venugopal, Delivery Manager, TCS, on "Cybersecurity, Secure Software Development, and Digital Risk Management." The session focused on secure software engineering principles, cybersecurity threats, secure development practices, and digital risk management strategies essential for modern software systems.

The programme concluded with a Valedictory Ceremony presided over by Dr. M. S. Murali, Principal, ASIET. Dr. Ramani Bai V summarized the achievements and outcomes of the six-day programme. The dignitaries appreciated the initiative, while participants shared positive feedback on the relevance, quality, and industry orientation of the sessions. The programme successfully enhanced faculty competencies in NBA GAPC V4.0, Agile software development, cloud computing, AI, DevOps, cybersecurity, and outcome-based engineering education, further strengthening ASIET's commitment to academic excellence and industry collaboration.

ASIET Celebrated International Yoga Day



The International Yoga Day Celebration was jointly organized on 22 June 2026 by the Indian Knowledge Systems (IKS) Cell, NSS Units 228 and 303 of ASIET, in association with the Isha Foundation, to promote the importance of yoga in maintaining physical health, mental well-being, and a balanced lifestyle.

The programme featured guided yoga sessions, including various asanas and breathing techniques, along with an awareness session emphasizing the benefits of incorporating yoga into daily life for improved wellness, mindfulness, and stress management. Students, faculty members, staff, and NSS volunteers participated enthusiastically under expert guidance. Amrutha Vijayan (S5 CSE A) represented the Department of Computer Science and Engineering in the programme. The event concluded with a message encouraging participants to embrace yoga as a daily practice for holistic health and well-being.

Grand Staff Get-Together



The Grand Staff Get-Together was held on 25 June 2026 at the Open Auditorium, ASIET, bringing together the staff members of the Adi Shankara Group of Institutions for an afternoon of celebration and camaraderie. Organized under the guidance of Shri. K. Anand, Managing Trustee, the event celebrated the collective achievements of the institution and recognized the dedication, commitment, and contributions of its staff over the years. The gathering provided an opportunity for faculty and staff to strengthen professional relationships, foster team spirit, and create lasting memories in a warm and joyful atmosphere, reflecting the institution's culture of unity, appreciation, and shared success.

CSE Department Conducts Staff Meetings for Academic Planning



The Department of Computer Science and Engineering conducted staff meetings on 12 June 2026 and 29 June 2026 at the CSE Seminar Hall to discuss key academic and administrative matters. The meetings covered the introduction of new faculty members, academic planning for the upcoming semester, DQAC initiatives, the S7 placement training programme, the TCS Faculty Enablement Programme on "Complex Engineering Problems," admissions, and subject allocation for the Odd Semester 2026–27. The discussions focused on strengthening departmental coordination, ensuring effective planning, and facilitating the smooth execution of academic and administrative activities.

ASIET Participates in Education Conclave at NSS College Palakkad



Representatives of Adi Shankara Institute of Engineering and Technology successfully participated in the Education Conclave held at NSS College. The institution was provided with a dedicated space to showcase its academic achievements, facilities, and accomplishments to prospective students and parents.

As part of the event, the team addressed admission-related queries and conducted a career guidance session for Plus Two students. The session provided valuable insights into higher education opportunities, engineering career pathways, and the admission process in leading self-financing engineering colleges, helping students make informed decisions about their future academic pursuits.

CSE Department Excels at Football Hungama for ASIET Staff



The Football Hungama for ASIET Staff, organized on 12 June 2026 as part of the campus World Cup celebrations, witnessed enthusiastic participation from faculty members across departments. Conducted in a penalty shoot-out format with separate competitions for men and women, the event promoted sportsmanship and team spirit among the staff.

The CSE Department Women's Team emerged as the Champions, with Ms. Anila S receiving the Best Player Award and Ms. Parvathy Nair being recognized as the Best Goalkeeper for their outstanding performances. The CSE Department Men's Team also delivered an impressive performance, securing the Runner-up position. The department congratulates all the winners and participants for bringing pride to CSE through their exceptional sporting achievements.

Welcoming New Faculty Members

The Department of Computer Science and Engineering was strengthened during the academic year with the addition of several highly qualified and experienced faculty members. Bringing together expertise from academia, industry, government projects, and research, the newly joined faculty enriched the department's teaching, research, and innovation ecosystem. Their diverse academic backgrounds, research contributions, and professional accomplishments reflected the department's commitment to providing quality education and fostering a culture of excellence.



Dr. Suji Pramila R joined the Department of Computer Science and Engineering as Professor on 29 June 2026, bringing with her over 21 years of distinguished teaching experience. She completed her Bachelor of Engineering in Computer Science and Engineering from Manonmaniam Sundaranar University in 2003, Master of Technology in Computer Science and

Engineering from SRM University in 2005, and Ph.D. in Computer Science and Engineering from Noorul Islam Centre for Higher Education in 2015. Before joining ASIET, she served in various academic positions, including Lecturer, Assistant Professor, Associate Professor, and Professor at reputed engineering institutions. Throughout her career, she made significant contributions to teaching, research, and academic administration while mentoring students and young researchers.

Her research interests include Wireless Networks, Network Security, Artificial Intelligence, and Machine Learning. She has published numerous research papers in SCI and Scopus-indexed journals and international conferences, authored books and book chapters, and secured two granted patents. She has also successfully guided six Ph.D. scholars to completion and actively served as a doctoral committee expert, reviewer, and evaluator for several reputed journals and conferences. Her extensive academic expertise and research experience have greatly strengthened the department's research culture and academic excellence.

Faculty Corner

JUNE 2026



Ms. Lakshmi Priya K M joined the Department of Computer Science and Engineering with a unique combination of industry expertise, government project experience, software development skills, research contributions, and academic exposure. She completed her Master of Technology in Computer Science from Sree Narayana Gurukulam College of Engineering (SNGCE) and

earned her Bachelor of Technology in Information Technology from Adi Shankara Institute of Engineering and Technology (ASIET).

She previously worked for more than seven years as a Technical Support Engineer with the Kerala State IT Mission, where she contributed to the successful implementation and maintenance of the Government of Kerala's eDistrict and eOffice projects. Her experience in public sector digital transformation provided her with valuable practical knowledge of large-scale e-governance systems.

After transitioning into software development through a MEARN Stack internship, she served as a Junior Frontend Developer at Activebytes Technologies and later as a Research and Development Engineer at Luminar Technolab. In these roles, she combined software development with technical mentoring, project guidance, and professional training.

Alongside her professional career, she actively pursued research and published papers in the International Journal of Computer Trends and Technology (IJCT) and IOSR Journal. Her published works, including Human Activity Detection Based on Edge Point Movements and Secure Video Transmission Using Mosaic Images, reflected her research interests in computer vision, image processing, and multimedia security. Her diverse experience across government, industry, research, and academia has added significant value to the department.



Ms. Blecy Rajan joined the Department of Computer Science and Engineering after completing both her Bachelor of Technology (2024) and Master of Technology (2026) in Computer Science and Engineering from Adi Shankara Institute of Engineering and Technology, graduating with First Class with Distinction.

She began contributing to the department as a Teaching Assistant from February to June 2026, where she actively co-mentored pre-final year students, managed the Mini Project Laboratory, guided second-year students during C Programming Laboratory sessions, and served as an internal evaluator for PROXPO 2026, the departmental project exhibition..

Faculty Corner

JUNE 2026

Her dedication to mentoring students and supporting academic activities reflected her commitment to quality technical education.

She also participated in the KTU Technical Education Conclave – SOAR 2026, where she contributed to outreach activities aimed at creating awareness among Plus Two and Diploma students and their parents about engineering education, admissions, and career opportunities across Kerala.

Her research achievements include publishing Detection of Diseases in Tomato Leaves Using Deep Learning: A Survey at the First International Conference on Trends in Engineering Systems and Technologies (2024), followed by A Systematic Review of Deep Learning and Explainable AI Methods for Brain Tumor Classification from MRI Data in the Proceedings of IEEE SPC-2026. Her research interests include Deep Learning, Computer Vision, and Explainable Artificial Intelligence, and she continues to contribute actively to emerging research domains.



Ms. Clara Joseph joined the Department of Computer Science and Engineering as an Assistant Professor on 29 June 2026. She completed her Diploma in Computer Science from St. Mary's Polytechnic College, Palakkad, in 2019, followed by her Bachelor of Technology in Computer Science and Engineering from Vidya Academy of Science and Technology in 2022. She later earned her Master of Technology in

Computer Science and Engineering from NSS College of Engineering, Palakkad, in 2024. Before joining ASIET, she served as an Assistant Professor at Vimal Jyothi Engineering College, Kannur, where she gained valuable teaching experience while handling undergraduate courses, mentoring students, and participating in various departmental academic activities.

With a strong academic foundation and enthusiasm for teaching, she has been actively involved in creating an engaging learning environment that encourages students to strengthen both theoretical understanding and practical skills. Her commitment to continuous learning and professional development has enabled her to effectively contribute to classroom instruction and student mentoring. Her addition has further strengthened the department's academic team.



Ms. Anupriya M S joined the Department of Computer Science and Engineering as an Assistant Professor on 29 June 2026. She completed her Bachelor of Technology in Computer Science and Engineering from Mangalam College of Engineering, Kottayam, in 2024 and earned her Master of Technology in Computer Science and Engineering from Rajiv Gandhi Institute of Technology (RIT), Kottayam, in 2026.

Faculty Corner

JUNE 2026

Her postgraduate dissertation, titled Enhanced Offline Retrieval-Augmented Generation (RAG) System with Double-Level Retrieval and Context Deduplication, demonstrated her strong interest in Artificial Intelligence and Natural Language Processing. She also published a research paper titled Sign Language Interpreter Using Convolutional Neural Networks (CNN), highlighting her commitment to applying AI techniques to solve real-world problems.

Her research interests include Artificial Intelligence, Machine Learning, Natural Language Processing, Retrieval-Augmented Generation (RAG), Large Language Models (LLMs), Conversational AI, and Data Science. She has shown keen interest in exploring emerging AI technologies and integrating them into teaching and research. Through her enthusiasm for mentoring students and guiding technical projects, she has made valuable contributions to the department's academic and research activities.



Ms. Neethu James joined the Department of Computer Science and Engineering after completing her Master of Technology in Computer Science and Engineering with First Class with Distinction from St. Joseph's College of Engineering and Technology, Palai. She earned her Bachelor of Technology in Computer Science and Engineering from Mahatma Gandhi University College of Engineering, Thodupuzha.

Prior to entering academia, she accumulated more than five years of professional experience as an SAP Business One Technical Consultant and Developer. During her industry career, she specialized in SAP Business One customization, add-on development, technical consulting, and customer support. She also contributed as a technical content writer and provided online consulting services for IT companies, gaining valuable exposure to software development and enterprise solutions.

Her academic achievements include receiving a Silver Medal for ranking among the Top 1% of learners in an NPTEL MOOC course. She has also contributed to research by publishing FSBI++: Improving Deepfake Detection with a Hybrid CNN-ViT Model in the International Journal of Applied Engineering Research, while another paper titled Improving Skin Cancer Segmentation and Classification Using a U-Net-Based Hybrid Model was accepted for presentation at the IEEE International Conference on Intelligent Electronics and Computational Systems (IECS) 2026.

Her research interests include Deep Learning, Machine Learning, and Image Processing. With her blend of industrial expertise and research experience, she has significantly enriched the department's academic and technical environment.

Faculty Participation in Professional Development Programme



Dr. Ramani Bai V., Professor, Ms. Sanjuna K. R., Associate Professor, Ms. Neetha K. Nataraj, Assistant Professor, Ms. Divya K. S., Assistant Professor, and Ms. Parvathy Nair, Assistant Professor, Department of Computer Science and Engineering, participated in the Professional Development Programme on "Outcome Based Education & Accreditation – GAPC 4.0", conducted by the National Institute of Technical Teachers Training and Research (NITTTR), Chennai, from 11–15 May 2026 at Adi Shankara Institute of Engineering and Technology, Kalady. The programme focused on Outcome-Based Education (OBE) practices and accreditation frameworks, enhancing the participants' understanding of quality assurance, accreditation processes, and effective academic planning. Their participation reflected the department's commitment to continuous professional development and excellence in engineering education.

Research Publication in SCIE-Indexed Q1 Journal

Dr. Sreedevi R. Krishnan, Assistant Professor, Department of Computer Science and Engineering, Adi Shankara Institute of Engineering and Technology, published a research article titled “Spatio-temporal Anomaly Detection for Real-Time Video Surveillance Using SpatioGuard-YOLO Framework” in Multimedia Tools and Applications, an SCIE-indexed and Scopus Q1 journal.

The research introduced SpatioGuard-YOLO, an innovative framework for real-time video anomaly detection that combines adaptive contrast enhancement, efficient object detection, and multi-scale spatial feature learning. Designed to address challenges such as low-light conditions, cluttered backgrounds, and complex surveillance environments, the framework demonstrated exceptional performance with over 99% detection accuracy, outperforming existing state-of-the-art methods. The publication highlights a significant contribution to the fields of Artificial Intelligence, Computer Vision, and intelligent video surveillance systems.



[Home](#) > [Multimedia Tools and Applications](#) > [Article](#)

Spatio-temporal anomaly detection for real-time video surveillance using SpatioGuard-YOLO framework

Published: 29 May 2026
Volume 85, article number 542 (2026) [Cite this article](#)

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Abstract

Detecting anomalous events in real-time video surveillance is challenging due to cluttered backgrounds, overlapping objects, low-light conditions, and complex spatio-temporal

Faculty Recognition – Best Project Guide Award



Dr. Ramani Bai V., Professor, Department of Computer Science and Engineering, was honoured with the Best Project Guide Award for her outstanding guidance, mentorship, and dedicated support as the project guide for the "Interactive Humanoid Robot" project. The project earned recognition at the ASPREN'26 Project Exhibition during the academic year 2025–2026, reflecting its innovation and technical excellence.

The award acknowledged her continuous efforts in mentoring students, encouraging creativity, and promoting project-based learning. Her guidance played a significant role in the successful development and recognition of the project. This achievement highlights the department's commitment to academic excellence, innovation, and nurturing students to excel in research and technology-driven initiatives.

Faculty Serves as Reviewer at International Conference



Ms. Anila S, Assistant Professor, Department of Computer Science and Engineering, served as a Reviewer for the 2nd International Conference on Innovations in Mechanical, Robotics, Computing and Biomedical Engineering (ICIMRBE 2026). The conference, technically co-sponsored by the IEEE Kerala Section, was organized by Adi Shankara Institute of Engineering and Technology, Kalady, from 4–6 August 2026. This recognition reflects her academic expertise and valuable contribution to the peer-review process of an international conference.

Faculty Participate in Faculty Development Programmes

Faculty members of the Department of Computer Science and Engineering actively participated in Faculty Development Programmes (FDPs) organized by reputed institutions, enhancing their technical expertise and reinforcing the department's commitment to continuous professional development.

Ms. Naznin M. Ali and Ms. Krishna Priya R, Assistant Professors, participated in a six-day FDP on "Machine Learning: From Fundamentals to Deployment", organized by the Department of CSE in association with the R&D Cell, Viswajyothi College of Engineering & Technology, Vazhakulam, from 15–20 June 2026. The programme provided valuable insights into machine learning concepts, model development, and deployment techniques through expert sessions and practical learning.

Dr. Deepa Devassy, Ms. Hitha Rocky, and Ms. Shany Jophin participated in a five-day FDP on "Network Programming & Simulation Tools", organized by the Department of CSE, IES College of Engineering, Thrissur, from 22–27 June 2026. The programme focused on network programming, communication protocols, and simulation tools through expert lectures and hands-on sessions.

The knowledge gained through these programmes further strengthened the faculty members' teaching and research capabilities, reflecting the department's dedication to academic excellence and lifelong learning.



Faculty Development Session on Strategic Planning for NBA GAPC V4.0



The Department of Computer Science and Engineering, in association with DQAC, organized a faculty development session titled "Transforming Teaching-Learning through Strategic Planning: An NBA GAPC V4.0 Approach" on 30 June 2026 at the CSE Seminar Hall. The session was delivered by Prof. Sreekanth K. S., Associate Professor, Department of Electronics & Communication Engineering, ASIET, who shared insights on strategic planning and best practices for enhancing teaching-learning processes in alignment with NBA GAPC V4.0 guidelines.



CSE Faculty Industrial Visit to QBurst



The faculty members of the Computer Science and Engineering Department undertook an Industrial Visit (IV) to QBurst, Koratty, on 22 June 2026. The visit provided valuable exposure to industry practices, software development processes, and emerging technologies adopted in a leading IT company. Faculty members interacted with industry professionals, gained insights into current technological trends and workplace practices, and explored opportunities to strengthen industry-academia collaboration. The visit also enhanced their understanding of industry expectations, helping them align academic teaching with current professional standards and technological advancements.

Research Publication at IEEE International Conference

A Modular Retrieval-Augmented Architecture for Multilingual Voice-Based Intelligent Assistant

Prof. Ramani Bai V along with Ashutosh V. M., Abhinav R. S., Abiram R., and Amrita Sibi, published a research paper titled "A Modular Retrieval-Augmented Architecture for Multilingual Voice-Based Intelligent Assistant" in the Proceedings of the IEEE International Conference on Integrated Intelligence and Cognitive Engineering (ICIICE 2026) held in Dubai, UAE.

The paper presented a modular AI architecture that integrates Retrieval-Augmented Generation (RAG) with real-time situational awareness to enable multilingual voice assistants capable of delivering accurate, context-aware, and low-latency responses on edge devices. The publication reflects the department's commitment to advancing research in Artificial Intelligence, Natural Language Processing, and Voice Technologies, while promoting collaborative research between faculty and students.

Intelligent Food Quality Monitoring and Predictive Shelf-Life Estimation Using IoT and Machine Learning

Prof. Ramani Bai V along with Henry Martin, Juliya Poly, Malavika S., and Mariya Abraham, published a research paper titled "Intelligent Food Quality Monitoring and Predictive Shelf-Life Estimation Using IoT and Machine Learning" in the Proceedings of the IEEE International Conference on Integrated Intelligence and Cognitive Engineering (ICIICE 2026) held in Dubai, UAE.

The paper presents an IoT-based intelligent food quality monitoring framework that combines multi-gas sensors, cloud connectivity, and machine learning to detect spoilage and predict the remaining shelf life of perishable food products. Using an ESP32-based sensing system, the framework continuously monitors environmental parameters and classifies food freshness while providing early dispatch recommendations to support efficient logistics and inventory management. The proposed solution enhances food safety, reduces waste, and promotes smarter decision-making in modern food supply chains.



TinyML-Based Adaptive Cache Optimization for Low-Power Embedded Systems

Prof. Ramani Bai V along with Nafeesa A. S., Paul M. Martin, Sona Deyo, and Sona Mary Bijoy, published a research paper titled "TinyML-Based Adaptive Cache Optimization for Low-Power Embedded Systems" in the Proceedings of the IEEE International Conference on Integrated Intelligence and Cognitive Engineering (ICIICE 2026) held in Dubai, UAE.



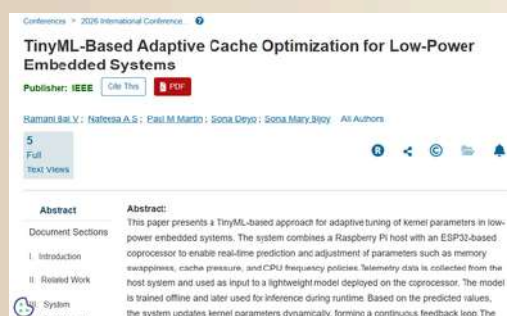
The paper proposes a TinyML-based framework for adaptive optimization of kernel parameters in low-power embedded systems. By integrating a Raspberry Pi host with an ESP32-based coprocessor, the system predicts and dynamically adjusts memory, cache, and CPU parameters in real time using lightweight

machine learning models. Experimental results demonstrate improved system responsiveness, particularly under mixed workload conditions, highlighting the potential of TinyML for enhancing the efficiency and performance of resource-constrained embedded systems.

Neethi AI: An AI-Powered Multi-Agent System for Indian Legal Advisory

Prof. Ramani Bai V along with Jerin Varghese, Assistant Professor, Rakshit Sudheer Nair, Sachin Eldho, and Sreeraj Rajeev, published a research paper titled "Neethi AI: An AI-Powered Multi-Agent System for Indian Legal Advisory" in the Proceedings of the IEEE International Conference on Integrated Intelligence and Cognitive Engineering (ICIICE 2026) held in Dubai, UAE.

The paper introduces Neethi AI, an AI-powered legal advisory system designed to improve access to legal information and justice in India. The system employs a multi-agent architecture with Hybrid Retrieval-Augmented Generation (RAG), verified legal citations,



multilingual voice interaction, and automated legal document generation to deliver accurate, role-specific legal assistance for citizens, lawyers, legal advisors, and police personnel. By integrating Indian statutes and Supreme Court judgments, provides reliable, low-latency legal support while promoting accessible and technology-driven justice.

Faculty Members Recognised for Reviewer Contributions



The Department of Computer Science and Engineering is pleased to announce that Ms. Deepa Devassy and Ms. Sharika T. R., Assistant Professors, have been recognized for their valuable contributions as reviewers in their respective academic domains. Their reviewer certifications acknowledge their expertise and commitment to maintaining the quality and integrity of scholarly publications through the peer-review process. This recognition reflects the department's dedication to promoting academic excellence, research quality, and active participation in the global research community.

Students Secure Research Internships at IIITDM Kancheepuram



The Department of Computer Science and Engineering, ASIET, proudly congratulates Noel Sabu, Sana Kuriakose, Balamurugan, Pavithra S, Nimal K G, Vandana S, Yeldo K Varghese, and Sahala Mariam P S of S7 CSE-C on securing internships at the Indian Institute of Information Technology Design and Manufacturing (IIITDM), Kancheepuram, under the guidance of Dr. Noor Mahammad S K.

This achievement highlights their academic excellence, technical skills, and commitment to research and innovation. We extend our best wishes for a productive internship experience and continued success in their future endeavors.

Research Paper Presented at AI4ME 2026



Reez Kudiyirippyl, Srekha Ravi, and Muhammed Shafi (S8 CSE C) presented their research paper titled "Smart Dog Collar Using Machine Learning and IoT" at the AI4ME 2026 International Conference on Artificial Intelligence & Machine Learning Applications in Mechanical Engineering, held at the College of Engineering Adoor on 18 June 2026.

The research was carried out under the guidance of Dr. Deepa Devassy, Professor, CSE, ASIET. The work highlights the application of Machine Learning and IoT in developing intelligent solutions for pet monitoring and safety.

Heartiest congratulations to the students and their guide on this achievement.



Alumni Startup *Exodia Technologies Pvt. Ltd.* Inaugurated at ASIET TBI



A startup founded by ASIET alumni, Exodia Technologies Pvt. Ltd., was officially inaugurated by Dr. Ciza Thomas, Hon'ble Vice Chancellor of APJ Abdul Kalam Technological University. The company has been incubated at the Technology Business Incubator (TBI), ASIET, marking a significant milestone in the institution's innovation and entrepreneurship ecosystem.

The startup is led by Dino Davis (2026 Passout, RA), Abhinav R S (2026 Passout, CSE), and Ajin P D (2025 Passout, CSE AI) as the Board of Directors. The team also includes Ashutosh V M (2026 Passout, CSE), Aryan Soj I (S7 RA), Brian Roy Mathew (S7 EEE), Merwin Thomas (2026 Passout, RA), Manusankar N (2026 Passout, RA), Binto P B (S5 RA), R. B. Ravish (S5 CSE), Krishnanunni H Pillai (S5 CSE DS), Sreeramachandran S Menon (S5 CSE), B. J. Saikrishna (S5 RA), V. S. Yadhu Krishnan (S5 CSE), and Abhiram R (2026 Passout, CSE). The inauguration of the startup reflects the entrepreneurial spirit of ASIET students and alumni and highlights the institution's continued support for innovation-driven ventures.

Students Secure Third Prize in Global SIGN2SOUND Innovation Competition



Basil Saji (S2 CSE A), Albert M. Paul (S2 CSE A), Anugraha Siju (S4 EBE), and Abhinav Raj (S4 EBE) secured Third Prize with a cash award of ₹70,000 in SIGN2SOUND, a global innovation competition organized by the IEEE Signal Processing Society (SPS) Kerala Chapter in collaboration with NISH and IEEE DataPort. Conducted over six months from December 2025 to June 2026, the competition challenged participants to develop AI and machine learning solutions for real-time sign language to speech translation. The team was recognized for developing an innovative solution that leverages computer vision, deep learning, and speech synthesis to bridge communication gaps for the deaf and hard-of-hearing community.

Outstanding Performance in KTU S4 University Examinations

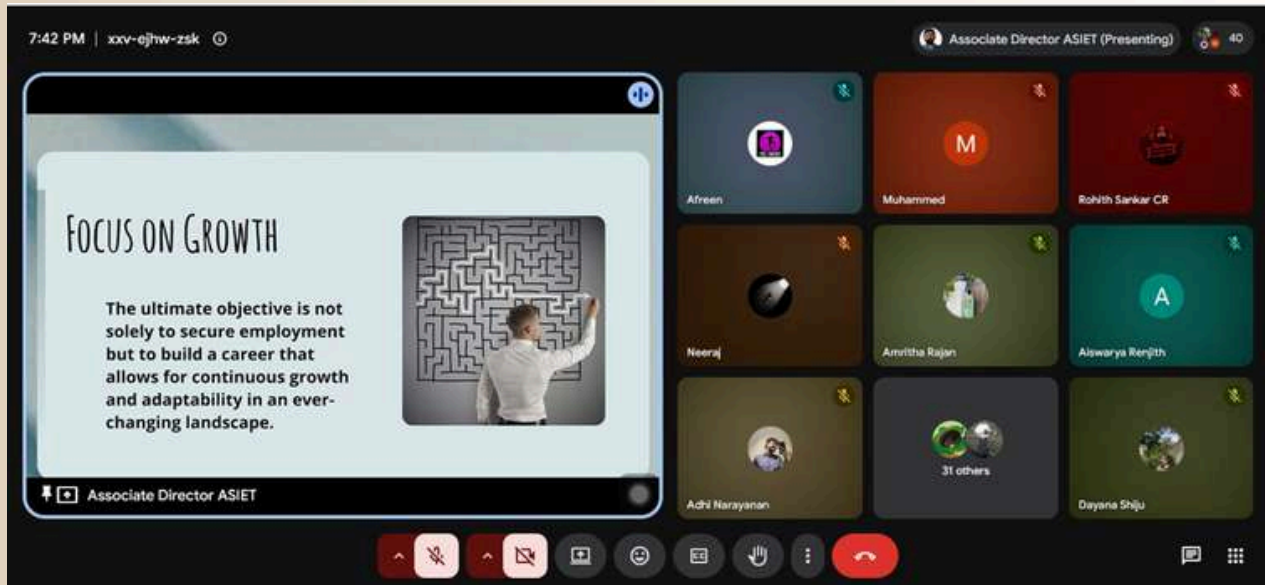
The Department of Computer Science and Engineering celebrated an excellent performance in the KTU S4 University Examinations, recording an overall pass percentage of 89.27%. The results reflected the department's strong academic standards and the dedication of both students and faculty.

A total of 14 students secured an SGPA of 9.0 and above, with Swetha S emerging as the topper with an SGPA of 9.58, followed by Sana Nazar (9.54) and Bhadraa A Nair (9.50). In addition, 27 students achieved an SGPA between 8.50 and 8.99, while 40 students secured an SGPA between 8.00 and 8.49, demonstrating consistent academic excellence across the batch.

The department congratulated all the achievers for their remarkable accomplishments and appreciated the collective efforts of the students and faculty in maintaining a strong academic record. The results stood as a testament to the department's commitment to academic excellence and continuous learning.



Career Guidance Session: NEXT STEP



The IEEE Computer Society Student Branch Chapter (IEEE CS SBC) ASIET organized NEXT STEP, a career guidance session aimed at helping students understand industry expectations, explore emerging career opportunities, and develop the essential skills required for professional success.

The session was led by Dr. Jacob George C, Senior Associate Director, ASIET, who shared valuable insights on career planning, skill development, and navigating the evolving professional landscape. Conducted on 20 June 2026 through Google Meet, the session provided students with practical guidance to make informed decisions about their future careers and professional growth.

Workshop on Git and GitHub



An interactive workshop on Git and GitHub was organized by IEEE SB MBITS to help students understand the fundamentals of version control and collaborative software development. The session provided practical insights into tracking code changes, managing repositories, and contributing to open-source projects through live demonstrations.

The workshop was led by R B Ravish and focused on introducing participants to essential Git and GitHub concepts, enabling them to strengthen their development workflows and industry-relevant technical skills. It was conducted on 25 June 2026 via Google Meet.

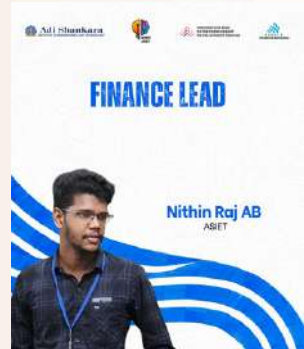
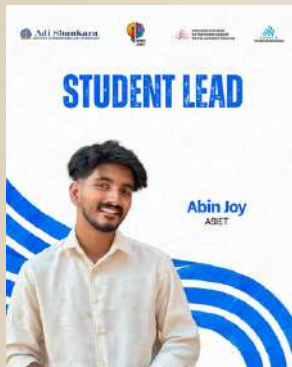
WebXplore Enhanced Students' Understanding of Full-Stack Development

The IEEE Computer Society Student Branch Chapter (IEEE CS SBC) ASIET organized WebXplore on 28 June 2026 via Google Meet to provide students with practical insights into full-stack web development. The session was conducted by Mr. R. B. Ravish, Tech Lead, μ Learn ASIET and Vice Chair, CSI SB ASIET, who shared his expertise on modern web development practices. The session introduced participants to the architecture of full-stack applications, the roles of frontend and backend technologies, and the tools, frameworks, and project structures commonly used in real-world development. Through practical explanations, students gained a better understanding of development workflows and the process of building scalable web applications.

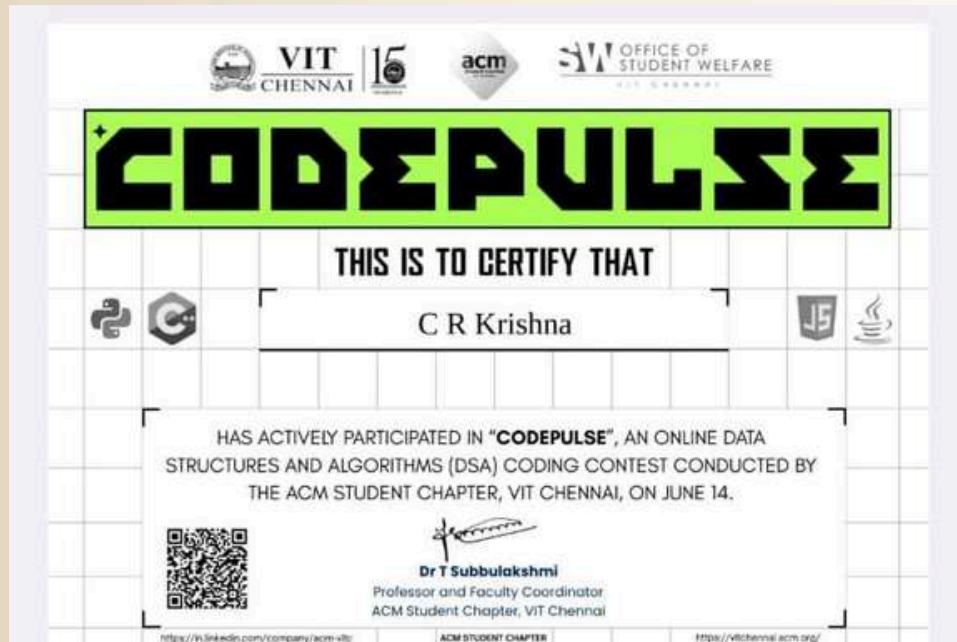


CSE Students Appointed to Leadership Roles in IEDC ASIET ExCom 2026-27

CSE students have secured several key positions in the Innovation and Entrepreneurship Development Centre (IEDC) ASIET Executive Committee 2026-27, reaffirming their active contribution to innovation, entrepreneurship, and student leadership initiatives on campus. Abin Joy was appointed as Student Lead, with Devananda Anil serving as Student Co-Lead and V. S. Yadu Krishnan as Technical Lead. Other CSE representatives in the executive committee include Ram Kiran Mohan (Events Lead & IPR Coordinator), Pavithra Depu E (Women Entrepreneurship Lead), Nithin Raj A B (Finance Lead), Nandana Silju (Community Lead), Afiya Fathima (Quality & Operations Lead), G. S. Adhi Narayanan (Branding & Marketing Lead), and Harikrishnan S S (Creative & Innovation Lead). Their appointments reflect the strong leadership potential of CSE students and their commitment to fostering innovation, collaboration, and entrepreneurial growth within the ASIET community.



Student Achieves Top 15 Rank in National DSA Coding Contest



The Department of Computer Science and Engineering at Adi Shankara Institute of Engineering and Technology proudly congratulated C. R. Krishna (S7 CSE B), ACM Student Chapter Membership Chair, on securing a place among the Top 15 performers out of 157 participants in CodePulse – Data Structures and Algorithms (DSA) Coding Contest conducted by the ACM Student Chapter, VIT Chennai.

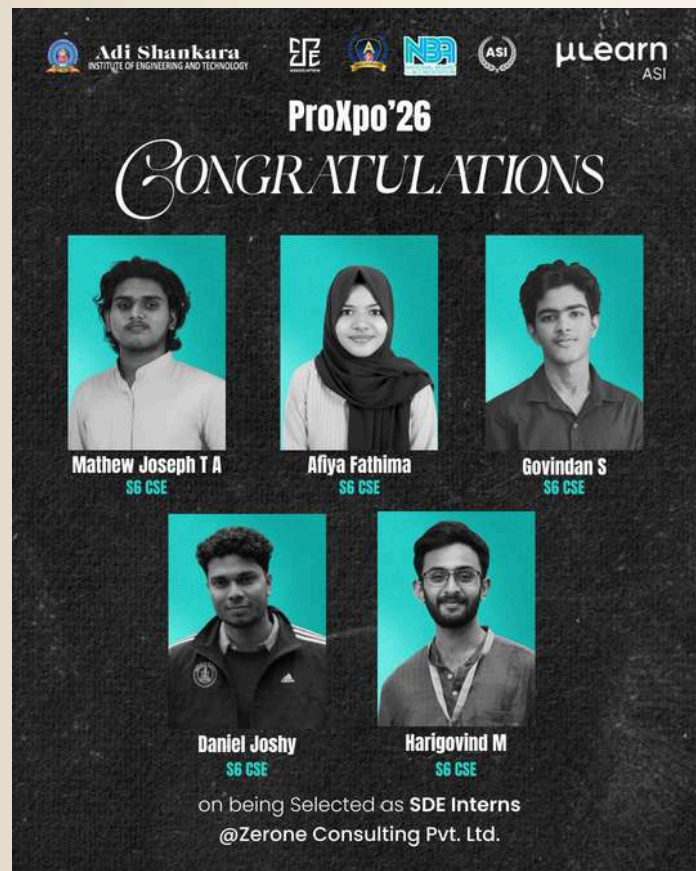
This achievement reflects his strong problem-solving abilities, coding proficiency, and dedication to mastering fundamental computer science concepts. The accomplishment brought pride to the department and the ACM Student Chapter, highlighting the student's commitment to technical excellence and competitive programming.

Students Selected as Google Student Ambassadors



Karthik Sarma (S5 CSE B), Govindan S (S7 CSE B), and Meenu K S (S3 CSE B) have been selected as Google Student Ambassadors under Team Gemini. This achievement reflects their enthusiasm for technology, innovation, and community engagement. As Student Ambassadors, they will have opportunities to explore emerging Google technologies, enhance their leadership skills, and contribute to building a vibrant tech community. Heartiest congratulations to the students on this remarkable accomplishment and best wishes for their journey ahead.

S6 CSE Students Selected as SDE Interns at Zerone Consulting

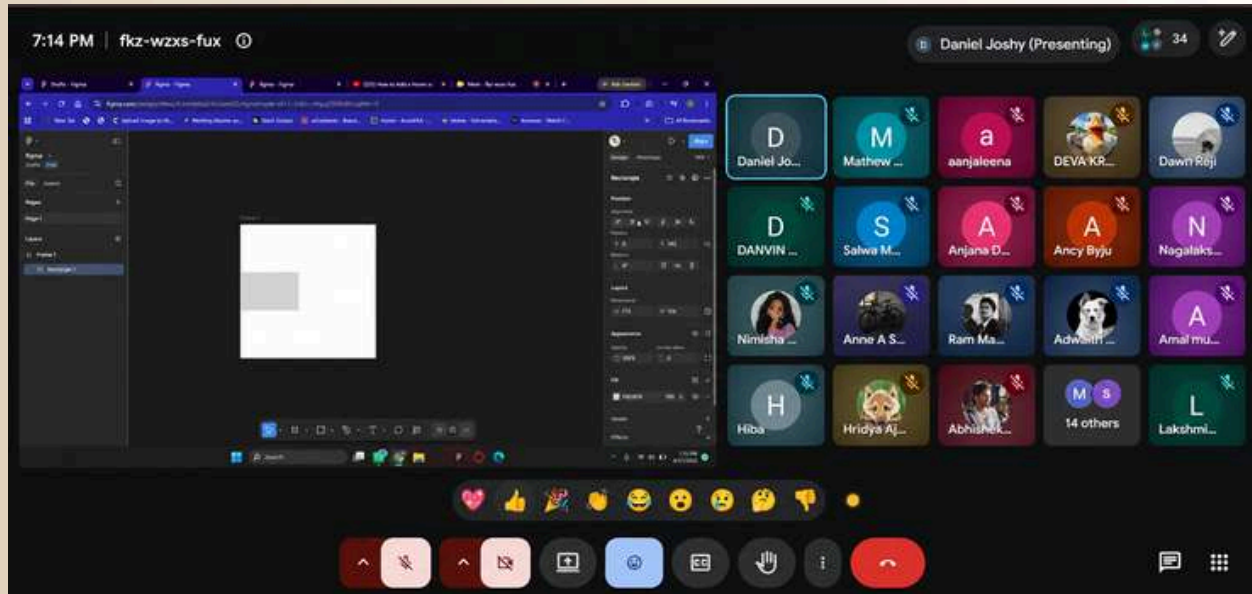


The Department of Computer Science and Engineering at Adi Shankara Institute of Engineering and Technology proudly congratulated Mathew Joseph T A, Afriya Fathima, Govindan S, Daniel Joshy, and Harigovind M of S6 CSE on their selection as Software Development Engineer (SDE) Interns at Zerone Consulting Pvt. Ltd..

Their achievement reflected dedication, perseverance, and a commitment to continuous learning. The learning opportunities and skill development initiatives offered through the μLearn Foundation, along with the exposure gained through ProXpo26, played a significant role in enhancing their technical capabilities and preparing them for industry opportunities.

This accomplishment brought pride to the department and served as an inspiration to fellow students aspiring to build successful careers in the technology sector. Heartiest congratulations were extended to the students, with best wishes for a successful and rewarding professional journey ahead.

μLearn Conducts UI/UX Design Workshop on Figma



As part of its skill development initiatives, μLearn ASIET organized Basics of Figma, a beginner-friendly workshop aimed at introducing students to the fundamentals of UI/UX design and the effective use of Figma, one of the most widely used design tools in the industry. The session was led by Daniel Joshy, UI/UX IG Lead, who provided participants with practical insights into design thinking, user interface principles, and the basics of creating digital designs and prototypes. Conducted on 21 June 2026 via Google Meet, the workshop served as an excellent starting point for students interested in exploring UI/UX design and enhancing their creative and technical skills.



AUTONOVATE: Five-Day AI & Automation Bootcamp

The Artificial Intelligence Interest Group of μ Learn ASIET organized AUTONOVATE, a five-day online bootcamp on Artificial Intelligence and n8n Automation, from 23–27 June 2026. The programme introduced participants to AI technologies, workflow automation, and practical applications through expert-led sessions, encouraging innovation and hands-on learning. Certificates were awarded to all participants upon successful completion.

Day 1: Prompt Engineering

The bootcamp commenced with a session on Prompt Engineering, conducted by Ajishmi Prakash, AI IG Member, on 23 June 2026 via Google Meet. The session focused on the fundamentals of crafting effective prompts and demonstrated how well-structured instructions can significantly improve AI-generated outcomes. Participants gained practical insights into interacting with AI tools more efficiently.

Day 2: Introduction to AI and Automation

On 24 June 2026, Aaryatha P. R., AI IG Lead, conducted a session on Introduction to AI and Automation. The session introduced participants to the core concepts of artificial intelligence and the growing role of automation across various industries. It also highlighted real-world applications of AI, enabling students to understand its significance in both academic and professional domains.

Day 5: Building a Real-World AI Assistant

The final session of the bootcamp, held on 27 June 2026, was led by Joyal Aliyas, AI IG Member, on Building a Real-World AI Assistant. The session covered the key components of modern AI assistants, including intelligent workflows, practical implementation strategies, and real-world applications. Participants gained valuable insights into designing AI-powered solutions.



μLearn ASIET Karma Leaderboard Recognition



The Department of Computer Science and Engineering congratulates the students who secured top positions in the μLearn ASIET Karma Leaderboard, reflecting their active participation, continuous learning, and contribution to the μLearn community.

Leading the leaderboard were Lakshmipriya K S, Meenu K S, and Afiya Fathima, followed by Mathew Joseph T A and Sanjay S. Their achievements demonstrate dedication to skill development, collaboration, and consistent engagement in various learning initiatives.

The department appreciates all students featured in the leaderboard and encourages them to continue their pursuit of excellence and lifelong learning.

Capture The Flag (CTF) Competition Concludes with Outstanding Performances



Place	Team	Score
1	Catan	3300
2	Mahesh P Kumar	3220
3	Anonymous	2770
4	Cyber Singhams	2570
5	Codevault	2520
6	bug	2250
7	Ping Intelligence	2250
8	HUMMUS	2220
9	Sudo	2200
10	Glitch	2100



The Capture The Flag (CTF) cybersecurity competition concluded successfully, showcasing the technical expertise, analytical thinking, and problem-solving skills of participants from leading institutions. Team CATAN from Sahrdaya College of Engineering and Technology, comprising Aaron Thomas (4th Year CSE) and Jual Aju (3rd Year CSE), secured First Place. Team Mahesh P Kumar from IIIT Kottayam, represented by Alex Gijo and Jithin Shaji (3rd Year CSE), won Second Place, while Team Anonymous from IIIT Kottayam, consisting of Lia Ann Philip and Yogita Mehta (3rd Year B.Tech CSE with Cyber Security), secured Third Place. The competition provided an engaging platform for participants to apply their cybersecurity knowledge in a competitive environment, celebrating innovation, teamwork, and excellence in ethical hacking and cyber defense.

Environmental Day Celebration and Tree Planting Programme



The NSS Units 228 and 303 observed World Environment Day on 5 June 2026 by organizing an environmental awareness programme and a tree planting drive at Athirappilly. The initiative promoted environmental conservation and encouraged students to adopt sustainable practices through active participation in planting saplings and spreading awareness about protecting nature.

The programme inspired participants to contribute towards building a greener and healthier environment while reinforcing the importance of environmental responsibility. Students from S5 CSE A who participated were Adithyan C. Sunil, Abhinavsai, Abdulla Mather, Anupriya A. S., and Anandhu K. S.

AI Meets Cybersecurity: The New Digital Battlefield

Introduction

Artificial Intelligence (AI) has become a game-changer in cybersecurity. As cyberattacks grow more intelligent and automated, organizations are increasingly relying on AI to detect threats, prevent attacks, and respond in real time. However, the same technology is also empowering cybercriminals, creating a continuous battle between defenders and attackers.

1. Machine Learning for Threat Detection

Machine Learning analyzes user and network behavior to identify anomalies instead of depending only on known attack signatures. This enables organizations to detect ransomware, insider threats, and zero-day attacks much faster, reducing response times and minimizing damage.

2. Generative AI: Opportunity and Risk

Generative AI helps security teams automate vulnerability analysis, summarize threat intelligence, and assist with secure coding. Unfortunately, attackers also use it to generate realistic phishing emails, malware, deepfakes, and social engineering campaigns, making cyber awareness more important than ever.

3. Extended Detection and Response (XDR)

XDR integrates data from endpoints, cloud services, email, and networks into a unified security platform. AI correlates events across these environments to identify complex attacks that traditional tools may overlook, giving analysts better visibility and faster incident response.

4. Security Orchestration, Automation and Response (SOAR)

SOAR platforms automate repetitive security operations such as alert triage, log analysis, and incident response. By combining AI with automation, security teams can focus on investigating sophisticated threats instead of spending time on routine tasks.

Conclusion

The combination of AI and cybersecurity is transforming the digital world. While AI equips defenders with intelligent detection and automation, it also gives attackers powerful new capabilities. Organizations that adopt AI responsibly, invest in skilled professionals, and maintain strong security practices will be better prepared for future cyber threats.

AI-Powered Cybersecurity

Artificial Intelligence is transforming cybersecurity by detecting attacks faster than traditional tools. AI analyzes millions of events, recognizes suspicious behavior, predicts threats, and automates responses. This allows organizations to stop ransomware, phishing, and insider attacks before they spread.

Machine Learning continuously studies user behavior and network traffic to detect anomalies. Generative AI supports analysts by summarizing threat intelligence and generating secure code, although attackers also misuse it for phishing and malware.

Illustration

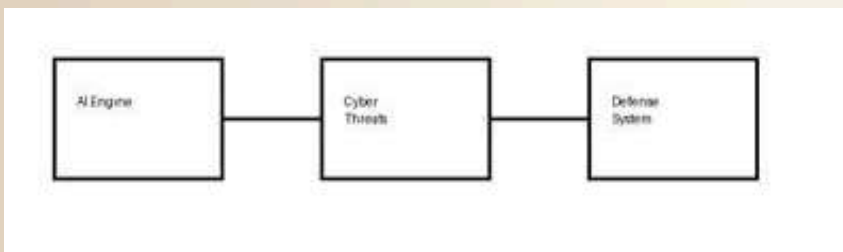


Figure 1. AI-driven cyber defense workflow.

Technology vs Benefit

Technology

Machine Learning
Generative AI
XDR
SOAR

Benefit

Detects unknown attacks
Threat analysis & secure coding
Unified threat visibility
Automated incident response

Future Trends

Future cybersecurity will integrate Zero Trust Architecture, Explainable AI, Edge AI, and Quantum-safe Cryptography. AI will continue to assist security professionals by reducing response time and improving decision-making, while human expertise remains essential for handling complex cyber threats.

Anila. S
Assistant Professor



The Return of Low-Level Systems Programming

Why the kids who used to mock C are now learning it on purpose.

Walk past the CS lab on a Tuesday night and you'll still see the usual: a dozen laptops open to React projects, someone debugging a Flask app, a group arguing about whether Tailwind counts as “real” CSS. But lately there's a smaller, stranger cluster in the corner, a few people staring at terminal windows full of pointers, segfaults, and registers. They're not doing this because a professor assigned it. They're doing it for fun.

That's the part that surprised me when I started asking around for this piece. Low-level systems programming, things like C, Rust, embedded work, writing your own toy operating system at 2 a.m., was supposed to be a relic. Something you learned because a degree required it, then quietly abandoned the moment you got a job stacking JavaScript frameworks on top of each other. Instead, it's having a moment.

So what changed?

A few things, honestly. The most obvious one is Rust. It took the parts of C and C++ that made systems programming feel like defusing a bomb (memory bugs, undefined behavior, the kind of crash that only shows up in production at 3 a.m.) and built a language that catches most of that at compile time instead. Suddenly “low-level” didn't mean “masochistic.” It meant you could write something fast and safe without needing a decade of scar tissue first.

There's also a quieter reason, one a friend in the embedded systems club put well: web development started feeling like decorating the same five rooms over and over. New framework, same problems, same Stack Overflow tabs open. Systems programming, by contrast, still feels like there's ground left to walk on. You can write a driver, build a tiny kernel, get a microcontroller to blink an LED in a way you fully understand from the silicon up. That's a different kind of satisfaction than shipping another to-do list app.

It's also just useful again

This isn't only nostalgia or a hobby trend. The job market backs it up. AI workloads need people who understand memory layout and hardware constraints: someone has to write the kernels that make GPUs fast. The renewed interest in performance, after years of throwing cloud compute at slow code, has made “it runs efficiently” a selling point again, not just a nice-to-have. And security has never mattered more, which means people who actually understand what a buffer overflow is, rather than just having heard the term, are in real demand.

A couple of upperclassmen I talked to said the same thing in different words: knowing how the machine actually works makes you a better programmer everywhere else, too. You stop treating your laptop like a magic box. Bugs that used to feel like curses start looking like puzzles with an actual mechanism behind them.

What this looks like on campus

If you're curious where this energy is actually showing up around here, a few things worth knowing about:

- The systems programming study group that meets in the lab basement has roughly tripled in size since last semester.
- More people are bringing Raspberry Pis and Arduino boards to hackathons instead of just building another web app.
- The intro systems course, long considered the class everyone dreaded, now has a waitlist.

None of this means the web is dying or that everyone needs to drop their JavaScript projects and start writing assembly. Most software people will build in their careers will still live several layers above the metal. But there's something worth noticing in the fact that a generation raised entirely on abstraction is choosing, on its own time, to go find out what's underneath it. If you've never poked at C or tried to understand what a pointer actually points to, it might be worth an evening. Worst case, you come away with a healthy respect for everyone who kept the internet running before garbage collection existed.

• Sreenanda K Sahajan
S3,CSE-C



DECODING DIAGNOSES: HOW AI IS RESHAPING MEDICAL CODING

Healthcare has been quietly going digital for years, but the pace has picked up considerably with the rise of Artificial Intelligence. AI now touches nearly every layer of the system, from helping doctors arrive at a diagnosis faster to streamlining how hospitals manage records and resources. One area that doesn't get much attention outside the field, but matters enormously in practice, is medical coding specifically, the use of AI to translate a doctor's clinical notes into standardized ICD-10 codes.

If you've never thought about medical coding before, here's why it matters: every diagnosis a patient receives needs to be converted into a specific code before it can be used for insurance claims, hospital records, or large-scale health research. Right now, this is largely manual work, done by trained coders who read through clinical notes and match them to the right code. The problem is that doctors don't all describe the same condition the same way, so the same diagnosis might show up worded a dozen different ways across different records. Sorting through that consistently, by hand, at scale, is slow and prone to error.

Where AI Makes a Difference

Older keyword-matching systems struggle here because they're looking for exact word matches, not meaning. A more capable AI model, by contrast, can pick up on the underlying clinical concept even when the wording varies. That's the real shift: instead of just scanning for matching terms, the system is interpreting what the description actually means and mapping it to the closest standardized code usually within seconds, and often with a confidence score attached so a human coder can quickly verify the suggestion rather than start from scratch.

This matters for two reasons. It cuts down the time spent on a task that used to take a trained coder several minutes per record, and it reduces the kind of inconsistent coding that creeps in when humans are doing repetitive pattern-matching all day.

The Technical Backbone

A few tools tend to show up together in systems like this. BiLSTM neural networks help process the sequence and structure of clinical text. Contrastive learning trains the model to recognize when two differently-worded descriptions actually point to the same underlying condition. Vector similarity search is what lets the system compare a new patient description against a database of thousands of ICD-10 entries and surface the closest matches. On the engineering side, a stack like Python, Django, and MySQL is common for actually building and deploying these systems in a usable web application.

Alumini Blog

JUNE 2026

What This Means in Practice

Hospitals that adopt these systems generally see a few concrete benefits: fewer coding errors caused by inconsistent terminology, faster turnaround on patient records, and the ability to handle a much larger volume of cases without proportionally scaling up coding staff. None of this replaces human coders it's better understood as giving them a faster, more reliable starting point so they can focus their judgment where it's actually needed, on edge cases and ambiguous records.

Why This Is Worth Exploring as a Student

This is a genuinely good area to build projects in if you're interested in applied AI, because it forces you to deal with messy, real-world language rather than clean toy datasets. Areas worth strengthening if this interests you: NLP and deep learning fundamentals, Python, web development (especially something like Django), database design, and increasingly important in healthcare specifically explainable AI, since a model that can't justify its suggestions isn't very useful in a clinical setting where mistakes have real consequences.

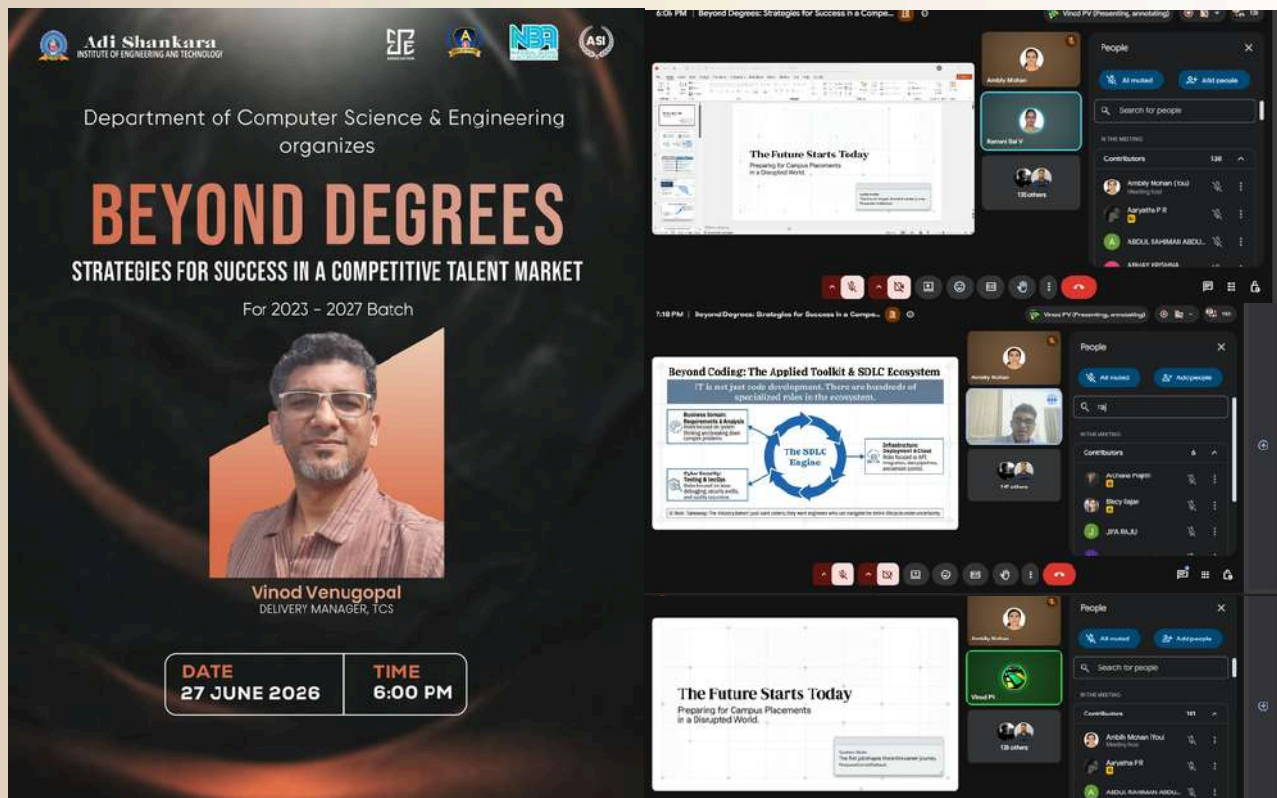
Looking Ahead

Medical coding isn't the flashiest application of AI in healthcare, but it's a good example of how the technology delivers value in unglamorous, high-impact ways by making an essential but tedious process faster and more reliable, freeing up time and attention for the parts of healthcare that genuinely need a human in the loop.

Nirupama Venugopal
2022-2026
CS-C

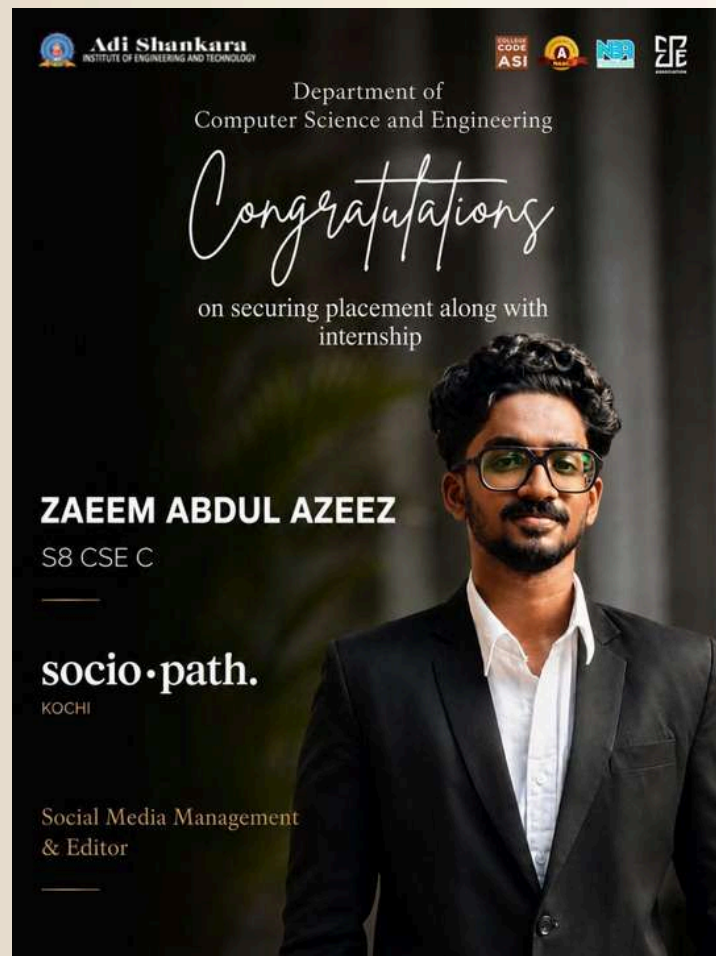


Placement Orientation Programme on Career Readiness



A Placement Orientation Programme titled "Beyond Degrees: Strategies for Success in a Competitive Talent Market", followed by an Awareness Session on the New Assessment Strategies, was organized on 27 June 2026. The session was led by Mr. Vinod Venugopal, Delivery Manager, Tata Consultancy Services (TCS), who provided valuable insights into the evolving job market, current recruitment trends, employer expectations, and the growing impact of Artificial Intelligence (AI) on careers. Students also gained guidance on developing essential technical, communication, problem-solving, adaptability, and lifelong learning skills required for successful placements and long-term professional growth.

CSE Student Secures Placement with Internship at Sociopath



Zaeem Abdul Azeez (S8 CSE C) has secured a placement with internship at Sociopath, Kochi, as a Social Media Management & Editor. This achievement reflects his creativity, professional skills, and dedication, marking an important milestone in his career. The department congratulates him and wishes him continued success in his professional journey.

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