Adi Shankara
INSTITUTE OF ENGINEERING AND TECHNOLOGY

Sakshin

Monthly Newsletter of Dept. of CSE

2026 MAY

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.

Adi Shankara Staff Cricket Team Secured Runners-Up Position in All Kerala Tournament

The Adi Shankara Institute of Engineering and Technology Staff Cricket Team emerged as the Runners-Up in the All Kerala Staff Cricket Tournament organized by Jai Bharath Engineering College. The team delivered an outstanding performance throughout the tournament and showcased remarkable teamwork, determination, and sportsmanship.

The journey to the finals included impressive victories against M.A. College of Engineering, Government Engineering College in the quarterfinals, and Government Polytechnic College in the semifinals. Each match reflected the team's consistent performance and competitive spirit.

In the final match, the team put up a spirited effort but narrowly lost to DC College, securing the runners-up position in the tournament. The achievement brought pride and recognition to the institution and highlighted the enthusiasm and sporting excellence of the staff members. Congratulations were extended to the entire team for their commendable accomplishment and dedicated performance throughout the competition.

Adi Shankara – Malayala Manorama Summer Camp

The Adi Shankara – Malayala Manorama Summer Camp concluded successfully after three memorable days of learning, interaction, and engagement. The camp witnessed the participation of 135 high school students from different parts of the state and was conducted with excellent discipline and coordination throughout the programme. Both students and parents expressed immense satisfaction and appreciation for the initiative.

The camp featured the presence of several distinguished personalities, including officers from the IAS, IFS, and IRS, along with Guinness World Record holder Shri Aji and RTO Vinod Kumar. Their interactions and sessions added great value to the programme and inspired the participants.

Organized for the first time exclusively for school students, the camp was effectively led by Prof. Sijo George and Dr. Jayanti K. R. The successful conduct of the programme was made possible through the collective efforts and support of Managing Trustee Shri K. Anand, Principal Dr. M. S. Murali, Dean of Research Dr. Sree Priya, Sree Sarada Vidyalaya Principal Deepa Chandran, Dr. Vincy Devi, Dr. Nithin Raj, Dr. Sharika S., Shri Suraj Krishna, Shri Amal Pavithran, Shri Sudheesh Prabhakaran, the office staff, and Malayala Manorama representatives Ranjy Thomas and Kuruvilla Eapen.

The event stood as a remarkable example of teamwork, dedication, and commitment towards student engagement and learning.

Appreciation for Coordinating AICTE ATAL Faculty Development Programme

Dr. Ramani Bai V, Professor (AICTE Institute), Dr. Deepa Devassy, Associate Professor, Dr. Sreedevi R Krishnan, Assistant Professor of Adi Shankara Institute of Engineering and Technology, received Certificates of Appreciation from the All India Council for Technical Education (AICTE) under the AICTE Training and Learning (ATAL) Academy for successfully coordinating the Faculty Development Programme on “Advancements in Cloud and Edge Computing: Research and Industry Perspectives”.

The programme was conducted in Kerala from 5 January 2026 to 10 January 2026 and focused on recent developments, research trends, and industrial applications in Cloud and Edge Computing technologies. The FDP aimed to strengthen academic and research capabilities among faculty members by providing exposure to emerging technologies and industry-oriented practices.

The recognition highlighted their dedicated efforts in effectively organizing and coordinating the programme, contributing to academic excellence and professional development in the field of Computer Science and Engineering. The certificates were issued by the AICTE Training and Learning Bureau and signed by Dr. Sunil Luthra, Director and Bureau Head, AICTE.

Faculty Member Recognized as Resource Person at IIIT Kottayam

Ms. Krishna Priya R., Assistant Professor, Department of Computer Science and Engineering, ASIET, was honored with a Certificate of Appreciation by the Indian Institute of Information Technology (IIIT) Kottayam for her valuable contribution as a Resource Person during a five-day workshop on Engineering Intelligence with Machine Learning and Deep Learning held from 25–29 May 2026.

As part of the workshop organized by the Department of Computer Science and Engineering, IIIT Kottayam, she delivered expert sessions on “AI-Based Embedded System using Raspberry Pi.” Through her insightful presentations and technical expertise, she provided participants with practical knowledge on the integration of artificial intelligence and embedded systems, enriching the overall learning experience of the programme.

This recognition highlighted her dedication to academic excellence and knowledge sharing, while also bringing pride to ASIET. The achievement reflected the institution’s commitment to fostering innovation, research, and collaboration with leading academic organizations.

NPTEL Certification Achievements

Faculty members of the Department of Computer Science and Engineering, Adi Shankara Institute of Engineering and Technology, achieved remarkable success in NPTEL online certification courses offered by premier institutions including IIT Madras, IIT Kharagpur, and IIT Guwahati.

Dr. Sanjuna K. R. earned Elite certification in Cloud Computing from IIT Kharagpur, while Ms. Divya K S secured Elite certification in Data Science for Engineers from IIT Madras.

Ms. Ambily Mohan achieved Elite certification in Deep Learning from IIT Madras.

In addition,Ms. Divya K S successfully completed Introduction to Machine Learning from IIT Madras, Dr. Sreedevi R Krishnan completed Introduction to Database Systems from IIT Madras, and Ms. Ambily Mohan completed courses in Introduction to Machine Learning, Natural Language Processing, and Computer Vision and Image Processing – Fundamentals and Applications offered by IIT Kharagpur, IIT Madras, and IIT Guwahati.

These achievements reflected the department's continuous commitment towards academic excellence, research, and upskilling in emerging technologies.

Faculty Recognized for Contribution as Conference Reviewer

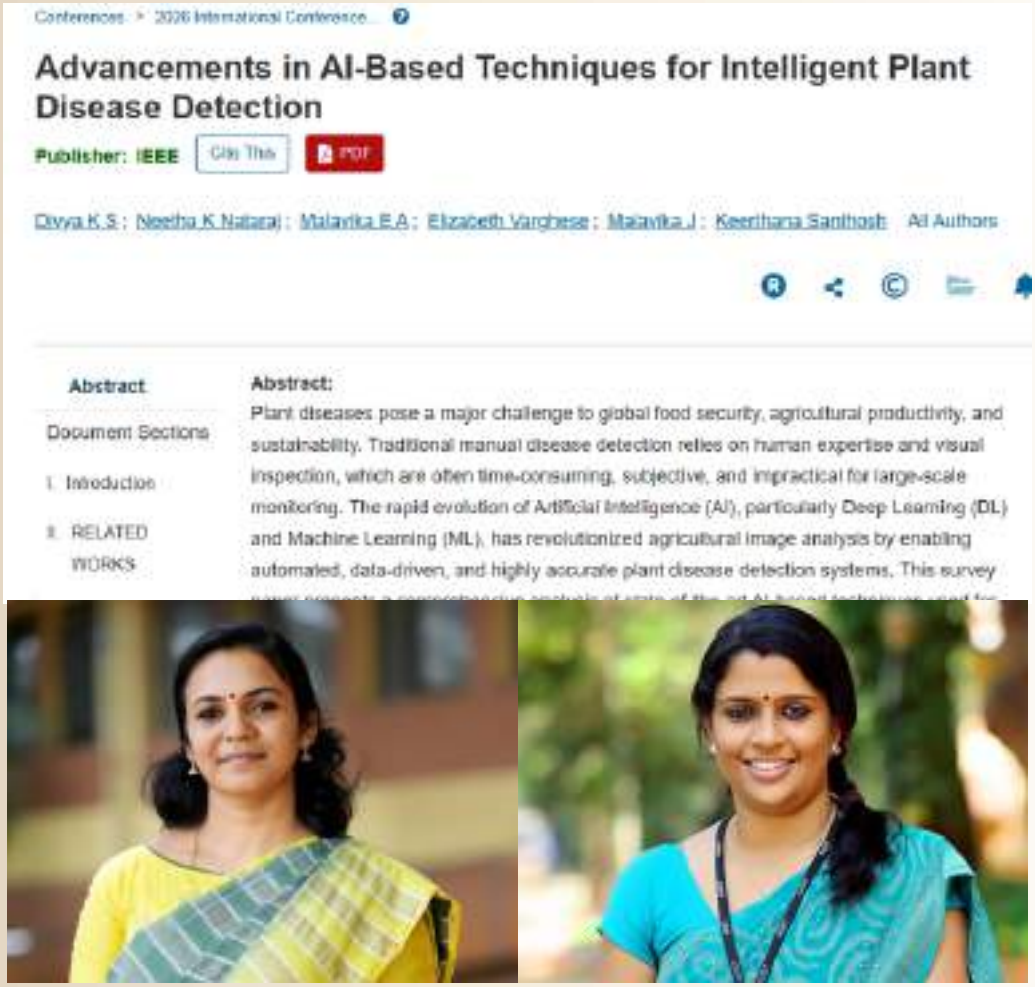

SCMS SCHOOL OF ENGINEERING AND TECHNOLOGY
(AUTONOMOUS)

Certificate of Appreciation

Ms. Akshaya Jayaraj, Assistant Professor, Department of Computer Science and Engineering, Adi Shankara Institute of Engineering and Technology, received a Certificate of Appreciation from SCMS School of Engineering and Technology in recognition of her outstanding contribution as a reviewer for the Fourth International Conference on Computing, Communication, Security and Intelligent Systems (IC3SIS'26).

The conference, technically co-sponsored by the IEEE Kerala Section, was organized by the Departments of Computer Science and Engineering and Artificial Intelligence & Data Science from 28–30 May 2026. The recognition highlighted her valuable contribution to maintaining the quality and academic standards of the conference through the peer-review process.

Paper Presentation at IEEE Conference



A research paper titled “Advancements in AI-Based Techniques for Intelligent Plant Disease Detection” was presented at an IEEE conference by students Malavika E A, Elizabeth Varghese, Malavika J, and Keerthana Santhosh along with Ms. Neetha K Nataraj and Ms. Divya K S.

The paper focused on the use of Artificial Intelligence, Machine Learning, and Deep Learning techniques for accurate and automated plant disease detection. It discussed advanced methods such as CNNs, transfer learning, and explainable AI approaches that could improve agricultural productivity and disease monitoring. The study also highlighted future research opportunities in smart and sustainable farming technologies.\\

Faculty Recognition for Mentoring Cyber Security Certification Programme

Ms. Akshaya Jayaraj, Assistant Professor, Department of Computer Science and Engineering, Adi Shankara Institute of Engineering and Technology, received a Certificate of Appreciation from ICT Academy and the Redington Foundation for successfully mentoring and motivating students to achieve certification in Cyber Security under the Advanced IT Skills Training programme.

The recognition was awarded for her contribution to the programme conducted from 11 September 2025 to 27 January 2026, highlighting her commitment to student development and skill enhancement in emerging technology domains.

Faculty Participation in National Level FDP on Generative AI and Large Language Models.

Dr. Sreedevi R Krishnan of Adi Shankara Institute of Engineering and Technology successfully participated in the Six Days National Level Faculty Development Programme on “Generative AI and Building LLM” organized by the Department of Computer Science and Engineering at Federal Institute of Science and Technology.

The programme included an offline session conducted on 27 April 2026, followed by online sessions held from 28 April 2026 to 2 May 2026. The FDP focused on emerging concepts and practical applications of Generative Artificial Intelligence and Large Language Models, providing participants with valuable insights into modern AI technologies and their implementation in academic and research domains.

The programme was coordinated under the leadership of Dr. Siyamol Chirakkarottu, FDP Coordinator, along with Dr. Paul P Mathai, HoD, CSE, and Dr. Jacob Thomas V, Principal of FISAT. The participation reflected a strong commitment towards academic enrichment, continuous professional development, and staying updated with advancements in the field of Artificial Intelligence and Machine Learning.

Faculty Participation in National-Level FDP on Machine Learning

Ms. Akshaya Jayaraj, Assistant Professor, Department of Computer Science and Engineering, Adi Shankara Institute of Engineering and Technology, participated in the National-Level 7-Day Online Faculty Development Programme on “Advanced Machine Learning Paradigms: Theory, Lab, and Research Applications.” The programme was organized by the Department of CSE at MEA Engineering College and was held online from 18 May to 25 May 2026.

The FDP provided insights into advanced machine learning concepts, practical applications, and current research trends, contributing to professional development and academic excellence in the field of Artificial Intelligence and Machine Learning.

Innovative Research on Agentic AI Presented at IEEE CCGE 2026.

Shadil, Shiv Sajob, and Zaeem Abdul Azeez of S8 CSE C presented their research paper titled “Automated Code Debugging and Deployment Using Agentic AI” at the 2nd IEEE International Conference on Computing, Communication and Green Engineering (CCGE) 2026. The conference was organized by the JSPM's Rajarshi Shahu College of Engineering and was held in Pune on 8 May 2026.The research work was carried out under the guidance of Jerin Varghese and Shany Jophin. The paper focused on the application of Agentic AI in automating code debugging and deployment processes, highlighting innovative approaches in software development and intelligent automation.The achievement reflected the students’ dedication to research and academic excellence, bringing recognition to the Department of Computer Science and Engineering at Adi Shankara Institute of Engineering and Technology. Heartiest congratulations were extended to the authors and mentors for their commendable accomplishment.

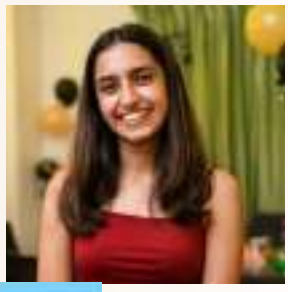
Deep Learning-Based Healthcare Research Presented at IEEE CCGE 2026

Swetha Vijayakumar, Nayana S, and Nirupama Venugopal of S8 CSE C presented their research paper titled “Automatic ICD Code Generator using Deep Learning” at the 2nd IEEE International Conference on Computing, Communication and Green Engineering (CCGE-2026). The conference was organized by the JSPM's Rajarshi Shahu College of Engineering and was held in Pune on 8 May 2026.

The research work was carried out under the guidance of Akshaya Jayaraj, Jithi P V, and Anila S. The paper explored the use of deep learning techniques for the automatic generation of ICD codes, aiming to improve efficiency and accuracy in medical coding and healthcare data management.

The presentation highlighted the students’ research aptitude and innovative approach in applying artificial intelligence to healthcare solutions. The achievement brought recognition to the Department of Computer Science and Engineering at Adi Shankara Institute of Engineering and Technology. Heartiest congratulations were extended to the students and faculty mentors for their commendable accomplishment

Best Paper Award at ICISCN 2026



Anjana Rajesh, Aiswarya Ullas, Ajishna Jose, and Ardhra C. T, students of S8 CSE, successfully presented their research paper at the ICISCN 2026 conference under the guidance of Ms. Asha Alias.

Their paper, titled “AI Enabled Smart Traffic Light Control System with Emergency Vehicle Priority Using Dual YOLOv8 and IoT,” received recognition as one of the Best Papers of the conference. The team was also honored with the Best Paper Presenter Award for their outstanding presentation and innovative research contribution.

The achievement reflected the students’ dedication, technical excellence, and research capabilities in the field of Artificial Intelligence and IoT-based smart systems. Heartfelt congratulations were extended to the project team and their guide for this remarkable accomplishment.

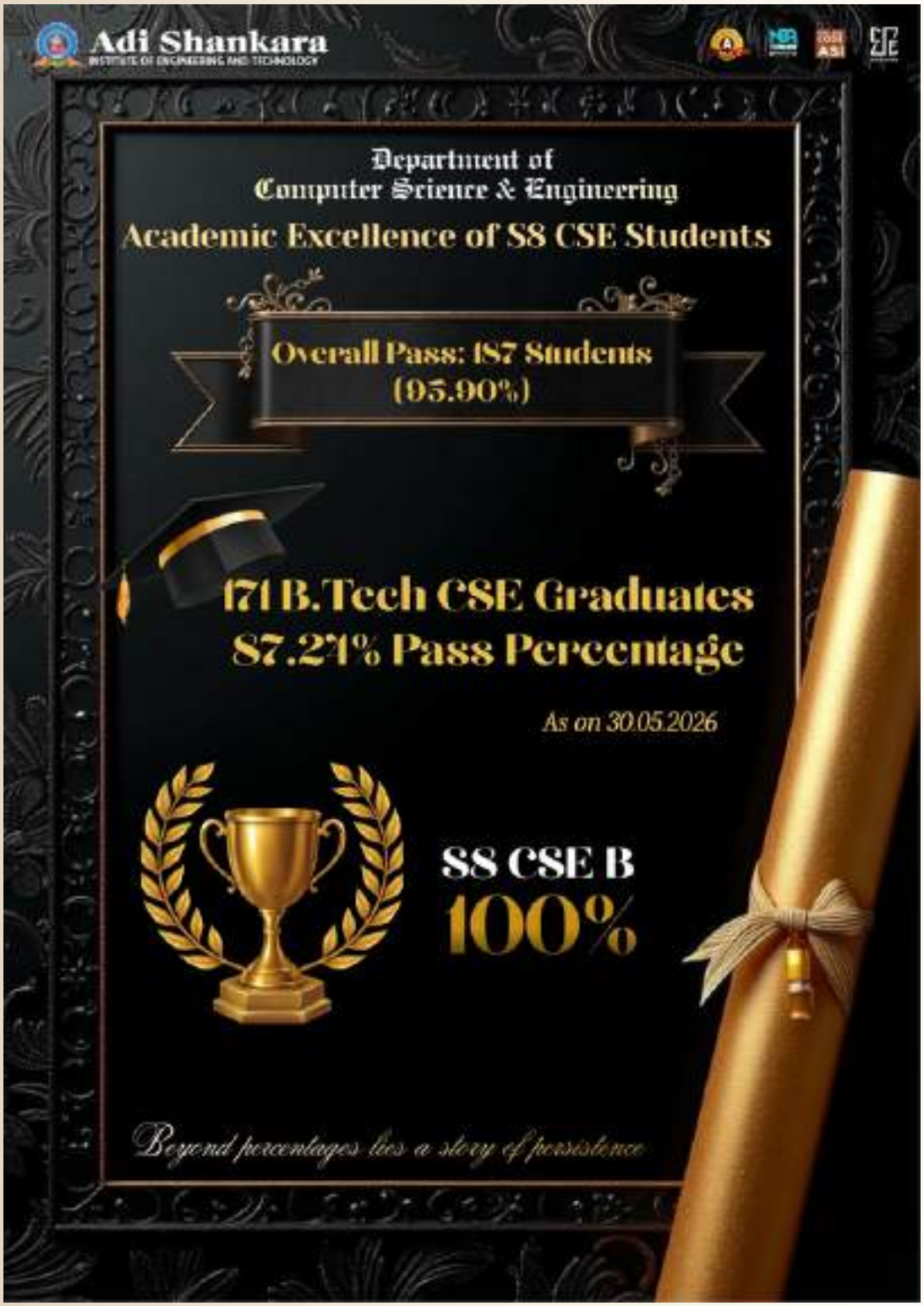
Outstanding Academic Achievement: Perfect 10 SGPA in KTU S8 Examination

The Department of Computer Science and Engineering at Adi Shankara Institute of Engineering and Technology congratulated Nafeesa A S of S8 CSE for achieving a perfect 10 SGPA in the KTU S8 Examination. This remarkable accomplishment reflected her exceptional academic performance, dedication, and consistent commitment to excellence throughout her studies.

Securing a flawless SGPA is a testament to her hard work, perseverance, and strong academic foundation. The achievement not only brought pride to the Department of Computer Science and Engineering but also served as an inspiration to fellow students striving for academic success.

Heartiest congratulations were extended to Nafeesa A S on this outstanding milestone, with best wishes for continued success in her future academic and professional endeavors.

Academic Excellence and Outstanding Results in S8 KTU Examinations



STUDENT ACHIEVEMENTS

MAY 2026

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MAY 2026

The Department of Computer Science and Engineering at Adi Shankara Institute of Engineering and Technology achieved outstanding results in the S8 KTU B.Tech Degree Examinations declared on 30 May 2026. The department recorded an impressive pass percentage of 95.90%, with 187 students successfully completing the programme. Among them, 171 students from B.Tech CSE graduated successfully, achieving an 87.21% pass percentage.A notable highlight was the S8 CSE B batch securing a perfect 100% result, reflecting the department's strong academic standards. The achievement stands as a testament to the dedication of the students and the continuous support and guidance provided by the faculty.

ASIET ACM Women Chapter Announced EXECOM 2026

The ASIET ACM Women Chapter unveiled its EXECOM 2026 team, marking the beginning of a new chapter of leadership, innovation, and professional growth. The newly constituted executive committee brought together dedicated faculty members and student leaders committed to strengthening the chapter's activities and fostering a vibrant learning community.

Dr. Ramani Bai V continued as the Faculty Sponsor, providing guidance and support to the chapter's initiatives. The student leadership team included Sanjana Elizabeth K V as Chairperson, Sana Fathima Salim as Vice Chairperson, Rishika H Das as Secretary, and Nandhana S Nair as Treasurer. The executive committee was further strengthened by Aswathy Prasad (Lead – Media Team), Meenu K S (Lead – Web Team), Lakshmipriya K S (Lead – Event Coordination), Devikripa Udayakumar (Membership Chair), Amrutha Vijayan (Web Master), and Jaquelin Jijo (Lead – Tech Team), under the guidance of Faculty Coordinators Dr. Sanjuna K R and Mrs. Alsha Thomas.

The announcement of the EXECOM 2026 team reflected the chapter's commitment to empowering women in computing and creating opportunities for technical, professional, and leadership development. The newly appointed team was entrusted with leading the chapter's future initiatives and fostering greater engagement among students in the years ahead.

Students Selected for ACM India Summer School 2026 on Edge AI and Robotics

The ASIET ACM Student Chapter proudly announced the selection of Bhadra A Nair (S5 CSE B), Sanjana Elizabeth K V (S7 CSE C), and Nimal K G (S7 CSE C) for the prestigious ACM India Summer School 2026 on Edge AI and Robotics. The programme is scheduled to be held at Indian Institute of Science from 6 July to 13 July 2026.

The summer school will provide participants with an opportunity to gain in-depth knowledge of emerging technologies in Edge Artificial Intelligence and Robotics through interactions with leading researchers, academicians, and industry experts. Their selection reflects academic excellence, technical aptitude, and a strong passion for innovation and research.

This achievement brought pride to the Department of Computer Science and Engineering and the ASIET ACM Student Chapter, highlighting the students' commitment to advancing their knowledge in cutting-edge technologies. Heartiest congratulations were extended to the selected students, with best wishes for a rewarding learning experience and continued success in their future endeavors.

GDG Student Achievement

Govindan S of S6 CSE, Adi Shankara Institute of Engineering and Technology, was selected as a Google Student Ambassador under #TeamGemini through the Google Developer Groups (GDG) initiative. This recognition reflected his dedication, technical enthusiasm, and active involvement in the developer community.

His achievement highlighted the growing participation of students in technology-driven programs and innovation platforms supported by Google. The institution congratulated him on this remarkable accomplishment and extended best wishes for his future contributions and achievements in the field of technology.

Students Selected as Design Interns at µLearn Foundation

The Department of Computer Science and Engineering proudly congratulated Gautham Krishna (S6 CSE), Mathew Joseph T. A. (S6 CSE), and Daniel Joshy (S6 CSE) on their selection as Design Interns at the µLearn Foundation. This achievement reflected their creativity, dedication, and passion for design, which distinguished them among a competitive pool of applicants.

Their selection is a testament to their consistent efforts in developing design skills and contributing to creative initiatives. Through this internship, the students will have the opportunity to gain practical industry experience, enhance their professional capabilities, and work on impactful projects within the µLearn ecosystem.

The department extended its heartfelt congratulations to the students and wished them a rewarding internship journey filled with valuable learning experiences, professional growth, and continued success in their future endeavors.

Code4Campus Development Phase Showcased Student Innovation

As part of the Code4Campus Development Phase under µLearn ASI, students from the Computer Science and Engineering department collaborated to develop technology-driven solutions addressing various campus requirements. The initiative provided participants with valuable hands-on experience in project development, teamwork, and problem-solving.

The development phase was led by Mathew Joseph T. A. (S6 CSE), who served as the Project Manager and coordinated the activities of the project teams. Three innovative projects were undertaken during the program. The ASIET Canteen Food Ordering System was developed by Fathima P. Ajvad, Swaliha C. A., Nandana Ramachandran (S6 CSE AI), and Gautham Krishna (S6 CSE) to streamline food ordering and improve convenience for students and staff. The ASIET Printer Management System, developed by Gayathri M. Nair, Aksa Thomas, Aadya Ajayan (S6 CSE DS), and Krishnan Unni (S4 CSE DS), aimed to enhance the efficiency of campus printing services. Meanwhile, Yeldo K. Varghese, Sahala Mariyam P. S., Noel Sabu, and Nimal K. G. (S6 CSE) developed ASIET Campus Connect, a platform designed to strengthen communication and information sharing within the campus community.

The successful completion of these projects highlighted the students' technical expertise, creativity, and commitment to developing practical solutions for institutional needs while fostering a culture of innovation and collaboration.

Agentic AI in Forensic Science: Transforming Crime Investigation

The integration of Artificial Intelligence (AI) into various fields has revolutionized the way complex problems are addressed. One of the most promising recent advancements is Agentic AI, a new generation of intelligent systems capable of reasoning, planning, and autonomously performing tasks to achieve specific goals. In the field of forensic science, Agentic AI has the potential to significantly enhance crime investigation, evidence analysis, and digital forensics, making investigations faster, more accurate, and more efficient.

Understanding Agentic AI

Unlike traditional AI systems that simply respond to commands, Agentic AI can independently analyze situations, make decisions, and execute a sequence of actions to accomplish an objective. These AI agents can interact with multiple data sources, utilize specialized tools, learn from feedback, and adapt their strategies as new information becomes available.

In forensic investigations, where vast amounts of evidence must be collected, analyzed, and correlated, such intelligent agents can become valuable assistants for forensic experts and law enforcement agencies.

Applications in Forensic Science

1. Crime Scene Analysis

Modern crime scenes often contain enormous amounts of physical and digital evidence. Agentic AI can assist investigators by:

• Organizing and categorizing collected evidence.

• Identifying patterns among fingerprints, footprints, and biological samples.

• Reconstructing crime scenes using data from photographs, videos, and sensor recordings.

• Generating possible crime-event timelines for investigators to examine.

This helps forensic teams focus on critical evidence while reducing manual effort.

2. Digital Forensics

With cybercrime on the rise, digital forensics has become an essential component of criminal investigations. Agentic AI can autonomously:

Examine computer systems and mobile devices.

- Detect suspicious files and hidden malware.
- Analyze network logs and communication records.
- Trace digital footprints across multiple platforms.

By continuously monitoring and analyzing large datasets, AI agents can identify clues that might otherwise remain unnoticed.

3. Facial Recognition and Video Investigation

Investigators often need to analyze hundreds of hours of surveillance footage. Agentic AI can:

4. DNA and Biometric Analysis
Forensic laboratories process large volumes of biological evidence. Agentic AI can support:

- DNA sequence comparison.
- Pattern recognition in biometric data.
- Identification of potential matches from forensic databases.
- Automated report generation for laboratory findings.

These applications can improve both speed and accuracy while reducing human error.

Benefits of Agentic AI in Forensics
The adoption of Agentic AI offers several advantages:

- Faster Investigations: Automated evidence processing reduces investigation time.
- Improved Accuracy: AI minimizes oversight in large datasets.
- Enhanced Decision Support: Investigators receive data-driven insights.
- Efficient Resource Utilization: Routine tasks can be delegated to intelligent agents.
- Scalability: Large-scale investigations can be managed more effectively.

As crime increasingly involves digital technologies, these benefits become even more valuable.

Challenges and Ethical Considerations
Despite its potential, Agentic AI must be used responsibly. Several concerns need careful attention:
Privacy and data protection issues.

- Potential bias in AI models.
- Transparency of AI-generated conclusions.
- Legal admissibility of AI-assisted evidence.
- Accountability when automated systems make errors.

Forensic decisions can have significant legal consequences; therefore, human experts must always validate AI-generated findings.

The Future of Forensic Investigations
Researchers envision future forensic laboratories where intelligent AI agents collaborate with investigators throughout the entire investigative process. From collecting evidence and analyzing digital devices to generating investigative reports, Agentic AI could serve as a highly capable forensic assistant.
As technology advances, the combination of human expertise and intelligent autonomous systems will likely create a new era of forensic science characterized by greater efficiency, accuracy, and reliability.

Conclusion
Agentic AI represents a significant step forward in the application of artificial intelligence to forensic science. By enabling autonomous analysis, intelligent decision-making, and efficient handling of large volumes of evidence, it has the potential to transform modern criminal investigations. While challenges related to ethics, transparency, and legal compliance remain, responsible implementation of Agentic AI can greatly enhance the effectiveness of forensic professionals and contribute to a safer society.

"The future forensic investigator may not work alone but alongside intelligent AI agents capable of uncovering patterns hidden within mountains of evidence."

- Naznin M Ali
Assistant Professor

Edge AI: The Brain That Lives in Your Pocke

There's a device barely the size of a coin, mounted on a tractor in rural Maharashtra. No internet. No signal. Just a tiny camera and a sliver of software that looks at a leaf and tells a farmer whether his crop has blight.
No server. No cloud. No waiting.
That's Edge AI — and it's one of the most underrated shifts in technology right now.

What is the "edge"?
Most AI today is cloud-dependent. You speak to your assistant, your words travel to a massive data centre, get processed, and an answer returns. It feels instant — but there's a round trip happening, one that needs internet, power, and servers that never sleep.
The "edge" is simply the device itself — your phone, a sensor, a wearable. Edge AI runs intelligence directly on that device, without outsourcing the thinking.
It sounds like a small change. It isn't.

When milliseconds matter
A self-driving car spotting a child cannot wait for a cloud response. A factory sensor detecting a fault needs to act now. A diagnostic device in a clinic three hours from the nearest hospital may have no internet at all.
Edge AI makes intelligence possible at the moment of need, in the place of need — regardless of connectivity.

The privacy angle
Every time data travels to a cloud server, it leaves your hands. The cleanest solution to data privacy isn't better encryption — it's data never leaving your device in the first place. On-device processing means your face unlock doesn't send your face anywhere. Your health readings stay local. This will shift from being a feature to a design requirement as privacy regulations tighten globally.

Big AI on a tiny chip
Getting a model onto constrained hardware requires compression.
Quantisation shrinks the precision of a model's numbers — less memory, faster math. Pruning removes parts of a network that contribute little to the output. Knowledge distillation trains a compact model to mimic a large one.
Frameworks like TensorFlow Lite and ONNX Runtime handle deployment onto phones and microcontrollers.

What this means for us?
Edge deployment forces clarity cloud compute doesn't. You can't throw more servers at a bad model — you have to actually understand it, trim it, and make it efficient. That makes you a better engineer.

There's also real research here: model compression, hardware-aware architecture search, federated learning. These are open problems with active papers and real careers behind them.
A Raspberry Pi or Arduino Nano 33 BLE Sense is a good starting point. Train a small classifier, compress it, flash it to the device, and run inference with no internet. That moment — when the device responds from its own understanding, on its own chip — makes the whole field feel concrete.

The bigger picture
We imagine AI as distant and centralised. Edge AI quietly changes that. When the model lives on the device, intelligence becomes something you carry — something that works in a power cut, in a remote clinic, on a moving vehicle. The geography of AI shifts from concentrated to distributed.
That shift is already happening. And engineers who understand both the algorithms and the constraints of real hardware will be the ones who shape it.

Edge AI and Computer Science Engineering
For CS and CSE students, Edge AI isn't a side topic — it sits right at the intersection of everything we study. It pulls together machine learning, operating systems, computer architecture, embedded programming, and networking into one real engineering problem: how do you make a smart system work on hardware that has almost nothing to spare?
In practical terms, this shows up across every major area of the discipline. In computer vision, frameworks like MediaPipe and TensorFlow Lite let you run real-time object detection and pose estimation directly on a smartphone — no API, no cloud call. In NLP, compressed models like DistilBERT bring text classification and keyword spotting onto edge devices, enabling offline voice assistants and on-device translation. In cybersecurity, anomaly detection models deployed at network endpoints can flag intrusions without routing sensitive traffic off-device. In embedded systems and IoT, TinyML enables sensor nodes with 256 KB of RAM to perform gesture recognition, predictive maintenance, and fault detection in real time.
What makes this particularly valuable as a learning path is the constraint. Cloud ML lets you scale past problems. Edge ML forces you to solve them — by understanding your model deeply enough to compress it, profile it, and run it efficiently on hardware you can hold in your hand. That kind of low-level,

your hand. That kind of low-level, systems-aware thinking is exactly what separates a strong engineer from someone who can only tune hyperparameters in a notebook.If you want a concrete starting point: train a small image or audio classifier in TensorFlow, quantise it with TFLite, and deploy it on a Raspberry Pi or Arduino Nano 33 BLE Sense. Measure the accuracy drop, the inference latency, and the RAM footprint. That single project touches ML, systems programming, and hardware — and it's something you can demo, write about, and build on.

- Sreenanda K Sahajan
S3,CSE-C

Agentic AI and Autonomous Systems: The Next Leap in Technology

Technology is advancing at an unprecedented pace, and Artificial Intelligence is no longer limited to answering questions or generating content. Today, a new generation of AI known as Agentic AI is transforming the way organizations operate. Unlike traditional AI systems that respond to commands, Agentic AI can plan tasks, make decisions, and execute actions with minimal human intervention.

As an alumnus working closely with emerging technologies, I have observed that Agentic AI is becoming one of the most influential innovations shaping industries worldwide. From software development to healthcare and business automation, intelligent agents are redefining productivity and efficiency.

Understanding Agentic AI
Agentic AI refers to AI systems capable of independently performing multi-step tasks to achieve specific goals. These systems combine reasoning, memory, planning, and tool usage to solve complex problems.

Instead of simply generating responses, AI agents can:
Analyze situations
Make decisions
Execute actions
Learn from outcomes
Collaborate with other agents

This ability makes them valuable for organizations seeking intelligent automation beyond conventional software solutions.

Key Applications of Agentic AI

Software Development:
AI coding assistants are evolving into autonomous development agents capable of generating code, debugging applications, writing documentation, and performing testing with minimal supervision.

Business Process Automation:
Organizations are deploying AI agents to manage workflows, process customer requests, schedule tasks, and generate reports automatically, reducing operational overhead.

Healthcare Support:
AI agents assist medical professionals by analyzing patient records, monitoring health data, and providing decision-support recommendations, enabling faster and more accurate care.

Smart Manufacturing:
Factories are interating intelligent agents to monitor equipment, predict failures, optimize production schedules, and improve resource utilization.

Personalized Education:
Educational platforms use AI agents to adapt learning content, track student progress, and provide personalized guidance based on individual learning patterns.

The Rise of Multi-Agent Systems:
One of the most exciting developments is the emergence of Multi-Agent Systems, where multiple AI agents collaborate to solve complex tasks.

For example:
One agent gathers information.
Another analyzes data.
A third generates recommendations.
A fourth executes actions.

This collaborative approach improves efficiency and enables organizations to automate entire workflows rather than individual tasks.

Challenges and Concerns
While Agentic AI offers tremendous opportunities, it also introduces new challenges.

Security Risks:
Autonomous systems can become targets for cyberattacks. Ensuring secure access, monitoring, and governance is essential.

Ethical Decision-Making:
As AI agents make decisions independently, organizations must establish clear ethical guidelines and accountability mechanisms.

Data Privacy:
Agentic systems often process large volumes of sensitive information, making privacy protection and regulatory compliance critical.

Human Oversight:
Despite increasing autonomy, human supervision remains necessary to validate decisions and prevent unintended outcomes.

Alumini Blog

Skills Students Should Focus On

For current Computer Science students, Agentic AI presents exciting career opportunities. Valuable skills include:
Artificial Intelligence and Machine Learning
Python Programming
Large Language Models (LLMs)
Data Structures and Algorithms
Cloud Computing
Cybersecurity
Prompt Engineering
AI Agent Frameworks
Data Analytics
Software Engineering
Hands-on projects, internships, certifications, and participation in research activities can significantly enhance practical knowledge and employability.

Conclusion
The future of technology is moving toward intelligent, autonomous systems capable of performing meaningful work independently. Agentic AI represents a major shift in how humans interact with technology, enabling greater productivity, innovation, and problem-solving capabilities. Students who develop expertise in AI, automation, and intelligent systems today will be well-positioned to lead the next wave of technological transformation.

-Sona Mary Bijoy
2022–26 Batch
CSE

S8 CSE Students Placed at DoctorAssist.AI

The Department of Computer Science and Engineering at Adi Shankara Institute of Engineering and Technology congratulated Vishnu V A, Vinayak M V, and Rishykesh S Namboothiri of S8 CSE on securing placement at DoctorAssist.AI as of 13 May 2026.

Their achievement reflected dedication, technical proficiency, and consistent hard work throughout their academic journey. The successful placements marked an important milestone in their careers and highlighted the quality of training and opportunities provided by the Department of Computer Science and Engineering.

The accomplishment brought pride and recognition to the institution and served as an inspiration to fellow students aspiring to excel in the technology industry. Heartiest congratulations were extended to the students, with wishes for continued success in their professional journey.

S8 CSE Student Secures Software Development Internship at DPlanck Technologies

The Department of Computer Science and Engineering at Adi Shankara Institute of Engineering and Technology congratulated Sona Mary Bijoy of S8 CSE on securing a Software Development Intern position at DPlanck Technologies LLP. The achievement marked a significant milestone in her academic and professional journey.

The placement, accompanied by an internship opportunity, reflected her technical competence, dedication, and commitment to continuous learning. It also highlighted the effectiveness of the training and guidance provided by the department in preparing students for industry careers.

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

Students Secured Placements at IMMCO

The Department of Computer Science and Engineering achieved another placement milestone as 23 students secured positions at IMMCO through the campus recruitment process. This accomplishment reflects the students' dedication, technical competence, and readiness to meet industry expectations. The achievement highlights the department's continued focus on skill development, industry-oriented training, and career preparedness. The department congratulates the placed students and acknowledges the support of faculty members and placement coordinators in contributing to this success.

Credits & Connections

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