# Sakshin

Monthly Newsletter of Dept. of CSE

2025 AUGUST

## 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.

# Upanayana '25 – Induction Ceremony at ASIET


The Adi Shankara Institute of Engineering and Technology (ASIET), Kalady, hosted Upanayana '25 on 18th August, the induction ceremony to welcome the new batch of B.Tech, M.Tech, MBA, and MCA students.

The event commenced with the soulful rendition of the Guru Ashtakam, followed by the divine blessings of Jagadguru Sri Vidhusekhara Bharathi Sannidanam of Dakshinamnya Sharada Peetam, Sringeri. Dr. M. S. Murali, Principal of ASIET, delivered the Welcome Address, setting the tone for the occasion. This was followed by the Presidential Address by Sri. K. Anand, Managing Trustee of the Adi Shankara Trust.

The Chief Guest, Prof. K. Ramasubramanian, Professor & Chair, Cell for Indian Science and Technology in Sanskrit, IIT Bombay, delivered an inspiring Inaugural Address, motivating students and faculty to embrace innovation, excellence, and lifelong learning.

A special Award Distribution and Alumni Felicitation segment was organized to recognize remarkable achievements within the ASIET community:

- Jiffina Rodrigues was honored as the Top Scorer of the outgoing CSE Batch (2021-25) with an outstanding CGPA of 9.58.
- Ms. Sreedevi R. Krishnan was recognized for achieving her Ph.D. in Computer Science and Engineering from Avinashilingam Institute for Home Science and Higher Education for Women, Coimbatore.
- Mridul Dev K. K., Meenakshi Nair, and Meenakshi Thrideep of S5 CSE C, under the guidance of Ms. Gripsy Paul M and Ms. Alsha Thomas, won First Prize (₹7,500) in the IEEE IDEA Pitch Competition held at Amal Jyothi Engineering College on August 2, 2025.
- Nafeesa A. S. (S7 CSE C) achieved a perfect 10 SGPA in S4, setting a benchmark for academic excellence.

The event concluded with a sense of pride and inspiration, marking a vibrant beginning for the new academic year and motivating students to achieve greater heights at ASIET.

# Independence Day Flag Hoisting Ceremony

The Independence Day Flag Hoisting Ceremony was held on 15th August, 2025, at 8:30 AM with great patriotic fervour and enthusiasm. The event commenced with the hoisting of the national flag by our respected Principal, Dr. M S Murali, followed by the singing of the national anthem, which filled the atmosphere with pride and unity.Faculty, staff, and students gathered to honour the sacrifices of our freedom fighters and to celebrate the spirit of independence. Dr. Murali addressed the gathering with an inspiring speech, emphasizing the importance of patriotism, responsibility, and collective efforts in building a better future for our nation.The celebration concluded with a heartfelt vote of thanks, leaving everyone with a renewed sense of pride and commitment towards the nation.

# Welcoming the 2025-29 Batch to ASIET

ASIET, Kalady proudly hosted Jnanapravesham 2025, the Student Induction Programme for the incoming B.Tech 2025–29 batch, from 19th to 26th August 2025. This week-long initiative was designed to ensure a smooth and enriching transition for the first-year students as they embarked on their academic journey.

The programme featured a diverse lineup of sessions and activities aimed at fostering personal growth, academic readiness, and community bonding. Students were introduced to their respective departments and faculty through departmental familiarisation sessions, while expert lectures and alumni talks inspired them with real-world insights and success stories.

As part of holistic development, Universal Human Values (UHV) sessions encouraged reflection and ethical understanding, while fitness activities and wellness workshops promoted physical and mental well-being. The students also participated in proficiency modules, interactive training sessions, awareness campaigns, and campus tours, which allowed them to explore ASIET's facilities and connect with their peers and mentors.


# Thakruthi 25 – A Grand Onam Celebration at ASIET

Thakruthi 25 – Onam Celebrations 2025 at ASIET was a vibrant and joyous event that brought together the entire ASIET family in the true spirit of Onam. The campus came alive with colors, traditions, and festive cheer as students and faculty joined hands to make the celebration a memorable success.Our General Manager, Sri. N Sreenath, along with the Office Team, Student Council Advisors, faculty, and students, played a pivotal role in making the event truly special. Their dedication, energy, and teamwork ensured that every aspect of the celebration was executed flawlessly.A highlight of the day was the sumptuous Onam Sadhya, generously arranged by our Management, which fostered a sense of togetherness and community among everyone present.Thakruthi 25 truly reflected the unity, cultural richness, and festive spirit that Onam stands for, leaving behind beautiful memories for everyone to cherish.

# CSE ASSOCIATION EXECUTIVE COUNCIL – 2025

The first Executive Council selection meeting of the CSE Association was held on 22nd August. The session, led by Dr. Ramani Bai (HOD, CSE) along with Dr. Sreedevi R. Krishnan, Prof. Rosemary Varghese, and Prof. Shany Jophin, saw the election of the Executive Council members and highlighted the significance of technical, arts, and sports activities in the department.

**Executive Council Members:**

**Chairman** – Abhirami P D
**Vice Chairman** – Bashim Hadi
**Secretary** – Mohammed Adnan
**Joint Secretary** – Jyothish S Nair
**Treasurer** – Effin Shaji
**Joint Treasurer** – Lakshmi Nandhana
**Tech Captain** – Snehamol K M
**Tech Vice Captain** – Mridul Dev K K
**Arts Captain** – Shivaranjini R
**Arts Vice Captain** – Anamika Umesh
**Sports Captain** – Anirudh M V
**Sports Vice Captain** – Muhammed Nihal P A
**Media Head** – Zaeem Abdul Azeez
**Media Sub Head** – Jerin George
**Tech Magazine Chief Editor** – Sivaranjini N
**Tech Magazine Sub Editor** – Ankita Syam


# Hack Club ASIET Hosts AMA Session with Aaryan Santosh Pandey

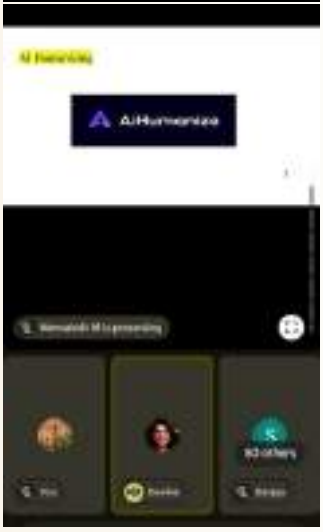
Hack Club ASIET, in association with Adi Shankara Institute of Engineering and Technology, successfully organized an interactive online session, “Ask Me Anything”, with Aaryan Santosh Pandey, the innovative mind behind InFramee and Bitzy. held on 7th August at 8:00 PM via Google Meet, the session offered free entry and open participation, encouraging students, tech enthusiasts, and aspiring entrepreneurs to actively engage with the young entrepreneur. Aaryan shared his journey of building impactful ventures, answered audience questions, and provided valuable insights into startups, innovation, and career growth. The AMA served as an inspiring platform to decode innovation, hustle, and entrepreneurship, leaving participants motivated and enriched with new perspectives.


# Code 4 Campus—A Week of Innovation

µLearn ASIET successfully conducted Code 4 Campus, a one-week web development competition held from 3rd to 10th August 2025. Students, working individually and in teams, developed creative web solutions addressing real campus needs.The event showcased innovation, teamwork, and problem-solving, with participants turning ideas into impactful projects that reflected the theme “Build for Our Campus, Shape Tomorrow.”Code 4 Campus concluded with remarkable submissions, making it a memorable and inspiring initiative for the ASIET community.



# AuthentiWrite – A Session on Ethical Writing and Plagiarism Awareness


The AuthentiWrite session, organized by µLearn ASIET, was held on 6th August 2025 via Google Meet and proved to be an engaging and insightful event focused on promoting academic integrity and responsible writing practices.

The session was led by two dynamic speakers, Ms. Devika G A and Ms. Meenakshi M Menon, both from S5, EBE, who shared their expertise on the importance of ethical writing. They provided participants with a comprehensive understanding of plagiarism, its consequences in academic and professional work, and ways to prevent it.

A key highlight of the session was the demonstration of AI-powered plagiarism detection tools, showcasing how technology can be leveraged to ensure originality and transparency in academic writing. The speakers also guided participants on effective paraphrasing techniques, accurate citation practices, and strategies for responsible content rewriting, empowering them to create plagiarism-free assignments, research papers, and reports.


The interactive Q&A session allowed participants to clarify their doubts, discuss challenges, and gain practical insights, making the session highly participatory and enriching.

With enthusiastic participation, the AuthentiWrite session successfully raised awareness about plagiarism and inspired both students and faculty to uphold authenticity and integrity in their academic and research endeavors.They introduced various AI-powered plagiarism detection tools, demonstrating how technology can be leveraged to ensure originality in writing.

# Tinkerhub Presents: The Useless Project Hackathon 2025

The "Useless Project" Hackathon was organized under "Tinkerhub" with the aim of encouraging creativity, fun, and out-of-the-box thinking among students through unconventional and humorous project ideas. The overnight event provided a platform for students to explore wild concepts, experiment with code, and learn collaboratively in a relaxed and enjoyable environment. 120 students from various departments participated enthusiastically.


# Gemini Workshop by ICT Academy for S3 and S5 Students




The ICT Academy organized a Gemini Workshop for S3 and S5 students, focusing on the practical use and deployment of Gemini AI tools. The session blended conceptual learning with live demonstrations, giving students valuable hands-on exposure to modern AI applications. It was both informative and interactive, helping participants strengthen their technical knowledge, explore real-world use cases, and gain confidence in working with emerging technologies. The workshop served as a meaningful step in enhancing students' skills and preparing them for future industry demands.

# Final-Year CSE Students Inspired Juniors Through an Insightful Placement Guidance Session

Our final-year CSE students conducted an engaging and inspiring interactive session for the first-year students, where they openly shared their placement journeys and real-life experiences. They spoke about the challenges they had encountered during their academic years, the skills they focused on building, and the efforts they consistently put in to achieve their career goals. The seniors also explained the recruitment and placement process in detail, including aptitude preparation, technical interview readiness, coding practice, and the importance of soft skills such as communication and teamwork.Beyond placements, they offered practical advice on how to make the most of the four years of engineering - from participating in hackathons and technical events to building strong fundamentals in programming and core subjects. They encouraged the juniors to start early, make use of online resources, work on projects, and continuously upgrade themselves to stay industry-ready.

The session proved to be highly insightful and motivating for the first-year students, giving them not only practical tips but also a clear understanding of how to shape their learning journey from the very beginning. It was a truly valuable experience that set a strong foundation for their academic and professional growth, marking a perfect start to their journey ahead.


# Alumna's Interactive Session for First-Year Students



The Department of Computer Science & Engineering was honored to welcome alumna Ms. Sreepa Prasannan, who conducted an inspiring interactive session for first-year students on their third day of college. Addressing around 200 students, she shared valuable insights to motivate them for their engineering journey. The visit was a nostalgic experience for her, as she reunited with former teachers and expressed gratitude.

# Friday Talk: Hybrid Transfer Learning for Video Anomaly Detection


The Department of Computer Science and Engineering, Adi Shankara Institute of Engineering and Technology, organized a Friday Talk Session on 8th August, 2025 at the CSE Department Seminar Hall on the topic “Hybrid Transfer Learning Models for Video Anomaly Detection in Surveillance Systems.” The session was handled by Dr. Sreedevi R. Krishnan, Assistant Professor, Dept. of CSE, who delivered an insightful talk on the role of hybrid transfer learning techniques in enhancing surveillance systems by detecting unusual activities and improving security measures. The session offered students valuable exposure to advanced machine learning methods and their applications in developing intelligent surveillance solutions, making it a highly informative and engaging experience.

# Ms. Sharika T R of CSE Dept. gave an expert talk on "Unlocking Growth: MuLearn Orientation"

The Department of Computer Applications, ASIET, organized an Expert Talk on "Unlocking Growth: MuLearn Orientation" for the first-year MCA students on 23rd August 2025. The session was handled by Ms. Sharika T R, Assistant Professor, Department of CSE, ASIET, who introduced the vision of MuLearn and its immense opportunities for personal and professional growth.The orientation was further supported by MuLearn ExCom student volunteers, Snehamol K M (Lead), Mathew Joseph T A (Co-Lead), along with Afiya Fathima, Amala B, Amal Aneesh, and Saniya Manoj, Parvathy U, who guided the students through the onboarding process. They explained the various learning circles, skill-building challenges, and networking possibilities offered by MuLearn, helping the students to actively connect with the platform.The session provided an inspiring start for the MCA students to explore the world of collaborative learning and upskilling with MuLearn.


# Academic Achievement: Ph.D. Defense Success

We are proud to announce that Dr. Sreedevi R. Krishnan has successfully defended her Ph.D. thesis titled "Hybrid Transfer Learning Models for Video Anomaly Detection in Surveillance Systems" at Avinashilingam Institute for Home Science and Higher Education for Women, Coimbatore. This remarkable achievement highlights her dedication and expertise in the field of advanced machine learning and video surveillance. We extend our heartfelt congratulations and best wishes for her continued success in academia and research.


# Research Achievement-IEEE Explore

We are proud to announce that Ms. Jinsha K. S. and Dr. Ramani Bai V from Adi Shankara Institute of Engineering and Technology have published their research paper titled "Emotion Detection from Distorted Images Using Optimized CNN & GAN" in the 2025 4th International Conference proceedings, IEEE Xplore.Their work focuses on enhancing emotion detection from distorted or incomplete images using an optimized combination of Convolutional Neural Networks (CNNs) and Generative Adversarial Networks (GANs), contributing to advancements in artificial intelligence and computer vision.This achievement highlights the institute's commitment to innovative research and global knowledge sharing.


# Presentation of 'VisionAlert: Instant Driver Assistance for Improved Road Navigation' at IEEE ASIANCON 2025

Sharika TR, Nikhil Narayanan, Divya K S, Anila S, Parvathy Nair, Chinnu Mariya Varghese presented paper titled "VisionAlert : Instant Driver Assistance For Improved Road Navigation" at the IEEE conference ASIANCON 2025, held at PC College of Engineering and Research, Pune on 22nd August, 2025.





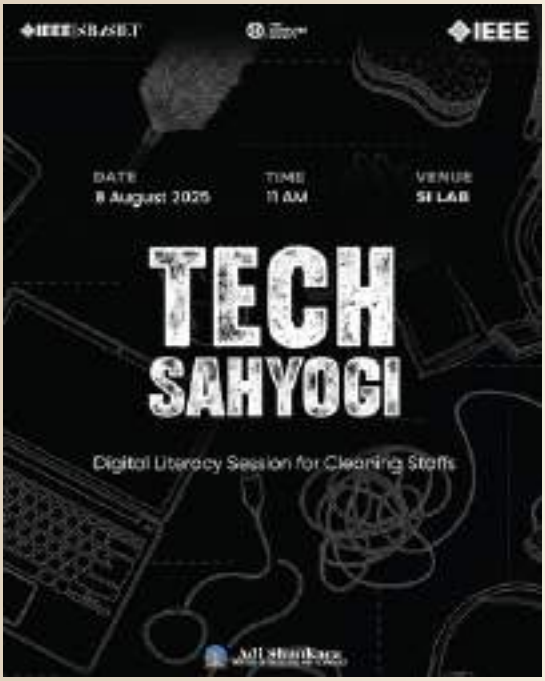

# Presentation of 'Medicinal Plant Recognition and Information System Using MobileNetV2' at IEEE ASIANCON 2025






Parvathy Nair, Sharika TR, Akshaya Jayaraj, Raghi R Menon, Anila S, Chinnu Mariya Varghese presented paper titled "Medicinal Plant Recognition and Information System Using MobileNetV2: A Comprehensive Mobile Solution" at the IEEE conference ASIANCON 2025, held at PC College of Engineering and Research, Pune on 23rd August 2025.

# Tech Sahyogi: Empowering Through Digital Literacy




The IEEE Computer Society Student Branch Chapter (IEEE CS SBC ASIET) successfully organized Tech Sahyogi, a Digital Literacy Session for the dedicated cleaning staff of ASIET on 8 August 2025 at the SI Lab.This initiative aimed to equip the often-unsung heroes of our campus with essential digital skills, fostering inclusivity and empowerment. The enthusiastic participation and heartfelt interactions made the session a truly memorable and humbling experience for everyone involved.We extend our sincere gratitude to the cleaning staff for their warmth, engagement, and inspiration throughout this session.

# CSI SB ASIET Launches Official Website


The Computer Society of India Student Branch (CSI SB) at ASIET proudly announces the launch of its official website — ***csi.adishankara.ac.in***.The newly launched platform aims to connect minds, inspire innovation, and foster collaboration within the tech community. This marks a significant milestone for the CSI family, opening up new opportunities for learning and engagement in the digital space.

# StartupX Successfully Conducted


The Computer Society of India Student Branch at ASIET successfully organized StartupX – Build a Startup From Scratch on 22nd July 2025 at the Main Seminar Hall.The session was led by Mr. Franklin Josmon, Founder & CEO of Franklin's Lectures, who inspired the audience with his entrepreneurial journey and shared valuable insights on starting and sustaining a startup.

With active participation from both CSI members and non-members, the event proved to be highly engaging and informative, sparking fresh ideas and motivation among students aspiring to step into the world of entrepreneurship.

# Blood Donation Camp

A blood donation camp was organized on August 5 at Adi Shankara Institute of Engineering and Technology with the aim of encouraging students to contribute to saving lives through voluntary blood donation.
Volunteers participated :
Nandhana S Nair
Bhadra S Kartha
A.H Aliya
Athulya Santhosh
Nakshathra Naveen
Bhaumik Eswar






# Youth Seminar

A two-day Youth Seminar was held on August 9 and 10 at the Heartfulness Meditation Centre, Aluva, focusing on guiding young minds towards self-awareness, leadership, and positive lifestyle practices.

Volunteers participated :

Nandhana S Nair
Anupriya A S
Anagha T Jayan
Sana Kuriakose
Catherine Nixon
Karthik
A Devanarayan



# Aug 15 – Independence Day Celebration

The Independence Day celebration took place on August 15 at Adi Shankara Institute of Engineering and Technology, honoring the sacrifices of freedom fighters and instilling patriotism among students.

Volunteers participated:
Abdulla Mather
Amrutha Vijayan
Bhadra S Kartha
Catherine Nixon
Nandana Silju
Sreenivasa Bhakthan
A Devanarayan
Nandhana S Nair




# Upanayana Volunteering

On August 18, NSS volunteers actively participated in Upanayana at the college by welcoming first-year students and their parents, aiming to create a warm and supportive start to their academic journey.

Volunteers:
Abdulla Mather
Anupriya A S
Anagha T Jayan
Amrutha Sunil
Sreenivasa Bhakthan
A Devanarayan


# Carbon Neutral Internship Awareness

An awareness program on Carbon Neutral Internship was conducted on August 26 at the college to educate students about sustainability and eco-friendly initiatives.

Volunteers participated:
Amrutha Vijayan
Arsha S Nair
Ashlin S
Angel Devis
Anagha P Anil
Adithyan C Sunil
Sreehari
A Devanarayan
Nandhana S Nair

# Food Kit Distribution


On August 27, NSS volunteers organized a food kit distribution program for the non-teaching staff of the college, as a gesture of gratitude and support for their invaluable contributions.

Volunteers:
Abdulla Mather
Nakshathra Naveen
Vrinda K S
Surya Nandini Santhosh
Abhinavsai

# MU-HUNT Winners Announced

The Department of Computer Science and Engineering's µLearn ASIET successfully organized MU-HUNT, an exciting event that tested the skills, creativity, and problem-solving abilities of the participants. The event witnessed enthusiastic participation and showcased the remarkable talent of the students.The winners of MU-HUNT were Adwaith Krishna and Ananya Krishnadas, who secured the first place, followed by Abdullah Mather and Amritha Vijayan in second place, and Navaneeth S and Nandana Subash in third place. The event was a resounding success, and heartfelt congratulations were extended to the winners along with sincere appreciation to all participants who made the competition a memorable experience.


# Team THINKDOT Shines at IEEE I.D.E.A Competition.

The winners of the IEEE competition held at Amal Jyothi College of Engineering were recognized and appreciated in their classes. Proud to announce that students Mridul Dev K K, Meenakshi Nair, and Meenakshi Thrideep from S5 CSE C have won the First Prize 7.5k in the Hardware Domain at I.D.E.A (Innovate • Design • Execute • Achieve) — a prestigious event organized by IEEE SB AJCE.
The competition was held at Amal Jyothi College of Engineering, where the team showcased remarkable innovation, creativity, and technical excellence!

ACHIEVEMENTS AUGUST 2025

# Student Project on News Authenticity Detection Presented at IEEE ASIANCON 2025

Malavika J, Malavika E A and Elizabeth Varghese of S7 CSEB under the guidance of Ms. Divya KS, presented their mini project titled “News Authenticity Detection Using Machine Learning: Comparative Performance Analysis” at the IEEE conference ASIANCON 2025, held at PC College of Engineering and Research, Pune on 22nd August 2025.

Congratulations to the students and their guide!

# ACHIEVEMENTS

AUGUST 2025

## Student Achievement: Excellence in Taekwondo

The Department of Computer Science and Engineering proudly congratulates Keerthana Santhosh (S7 CSE B) for achieving the Taekwondo 2nd Dan Black Belt.

Her commitment to martial arts and her role as a Taekwondo Instructor at Amazing Taekwondo Academy and Jyothis Central School reflect her dedication, discipline, and passion. We applaud her outstanding accomplishment and wish her continued success in all her future endeavors.


## Leadership Achievement: Rotaract District Appointment



Congratulations to Rtr. Devananda Anil from the Rotaract Club of Cochin Lords on being appointed as the District Chairman – Membership for the Rotaract District Organisation 2025-26, Rotary International District 3205.Under the newly formed Rotary International District 3205—which spans the vibrant regions of Ernakulam, Idukki, and Thrissur—Rtr. Devananda Anil has been selected as the District Membership Chair for Rotaract District Council 2025–26.

In this vital leadership role of the young community, she will spearhead initiatives to grow membership, enhance club engagement, and uphold the spirit of Rotaract under the vision -Service Above Self- across the district.This prestigious role reflects her commitment to leadership, service, and community engagement. We wish her great success in this new responsibility.

# CSE Student Selected as Google Developer Group (GDG) On-Campus Organizer


We are proud to announce that Govindan S, a student of S5 CSE B at Adi Shankara Institute of Engineering and Technology, has been selected as the Google Developer Group (GDG) On-Campus Organizer.This achievement marks a significant milestone, as GDG On-Campus is a global program that empowers students to become technology leaders, foster innovation, and build a strong developer community on campus. By taking on this role, Govindan will be responsible for organizing events, workshops, and initiatives that encourage peer learning and collaboration in cutting-edge technologies.

The CSE Department congratulates Govindan on this remarkable accomplishment and wishes him continued success as he contributes to strengthening the tech community within our campus and beyond.

# Students Shine with Best Innovation Prize


We are proud to announce that Snehamol K M (S7 CSE) and team have won the Best Innovation Prize for their outstanding project “UNITE: A Unified Platform for Differently Abled Persons.”Their innovation stood out for its vision of inclusivity, aiming to empower differently abled individuals through technology. This achievement highlights the creativity, teamwork, and social responsibility of our students, making the institution proud.

Congratulations to the team for this remarkable success!

# The Rise of Edge AI – Bringing Intelligence Closer to You

Artificial Intelligence (AI) has become a part of our everyday lives—from recommending videos on streaming platforms to powering chatbots and even self-driving cars. Traditionally, most of this processing has been carried out on remote cloud servers. However, as the demand for faster, more secure, and real-time decision-making grows, a new paradigm is emerging: Edge AI.

What is Edge AI?
Edge AI refers to running AI algorithms locally on devices such as smartphones, drones, IoT sensors, or surveillance cameras, instead of sending all data to distant servers. By bringing intelligence to the "edge" of the network, these systems can respond more quickly and independently.

Why Does It Matter?
Speed: Local processing eliminates delays caused by sending data to and from the cloud.
Privacy: Sensitive data stays on the device, reducing exposure to security risks.
Reliability: Edge AI can operate without relying on constant internet connectivity.

Real-World Applications
Face recognition in smartphones – enabling fast, offline authentication.
Smart home assistants – processing commands without cloud dependency.
Healthcare wearables – providing instant health monitoring and alerts.
Autonomous vehicles and drones – making real-time navigation and safety decisions.

Why Should Students Care?
For computer science students, Edge AI presents exciting opportunities. It blends skills in AI, machine learning, embedded systems, and optimization. With industries ranging from healthcare to transportation investing heavily in this technology, developing expertise in Edge AI can open doors to impactful careers.

Conclusion
The future of AI is not just about cloud computing but about intelligence everywhere—operating directly where data is generated. For students and researchers, exploring Edge AI today means contributing to a wave of innovation that will define the next era of technology.

Gloriya Titto
S7 CSB

# Blockchain-based Federated Learning in IoT Healthcare: Securing the Future of Digital Health

The Internet of Medical Things (IoMT) is rapidly transforming healthcare. From wearable sensors that track heart rates to AI-powered diagnostic platforms, healthcare today is more connected than ever before. These systems promise improved efficiency, early diagnosis, and personalized treatment. However, with every innovation comes a crucial challenge: how do we protect sensitive patient data while ensuring that machine learning models continue to improve?
This is where the fusion of Federated Learning (FL) and Blockchain technology emerges as a groundbreaking solution. Together, they provide a framework that prioritizes privacy, enhances security, and builds trust across the healthcare ecosystem.

From Centralization to Federated Learning
For years, traditional machine learning approaches in healthcare relied on centralized data storage. Patient information from hospitals, clinics, and IoT-enabled devices was collected in a single repository and then used to train models.

- Risk: While effective for analysis, this method introduced serious drawbacks such as data breaches, communication delays, and single points of failure. Sensitive medical records became highly vulnerable targets.

To overcome this, Federated Learning has gained prominence. Instead of moving raw data to central servers, FL keeps information on the devices where it is generated. Only the learned parameters — such as weight updates from a model — are shared with a central aggregator.

- Result: This means that privacy is preserved, patient information stays local, and yet powerful AI models can be trained collaboratively across thousands of devices. In a world of connected healthcare, this is a monumental shift.

Blockchain: The Missing Piece
While Federated Learning is an excellent step forward, it is not without its limitations. Issues such as secure model aggregation, communication bottlenecks, and trust among multiple healthcare providers remain significant.
Blockchain technology steps in to reinforce FL by offering:

- Decentralization – Removing reliance on a single server, ensuring system resilience.
- Transparency – Immutable, auditable records of every model update.
- Security – Cryptographic techniques that guarantee data integrity and prevent tampering.
- Traceability – Every action within the system can be verified, ensuring accountability.

By combining Blockchain with FL, healthcare systems gain a trusted framework where data never leaves the device, and model updates are securely tracked and validated. This synergy builds confidence among patients, healthcare providers, and regulatory authorities.

Real-World Applications

The integration of Blockchain and Federated Learning is not just theoretical — it is already finding real-world applications in IoMT healthcare:

- Remote patient monitoring: IoT devices track health parameters continuously while ensuring data remains secure.
- Privacy-preserving diagnostics: AI models can learn from vast datasets without exposing raw medical information.
- Smart hospital networks: Hospitals can share insights securely without violating patient confidentiality.
- Healthcare 5.0 systems: Next-generation health ecosystems that blend automation, intelligence, and trust to provide patient-centered care.

These applications highlight how digital healthcare can move forward without sacrificing security or privacy.

Benefits at a Glance

- Privacy First – Patient data never leaves local devices.
- Secure by Design – Blockchain ensures data integrity and tamper-proof communication.
- Scalable – Designed for IoT-enabled smart cities with millions of devices.
- Efficient – Reduces communication overhead while still delivering high model accuracy.

These benefits make Blockchain-based FL an attractive choice not only for healthcare providers but also for researchers, policymakers, and technology developers.

Conclusion

The convergence of Federated Learning and Blockchain represents a milestone in the future of IoMT healthcare. It addresses the urgent demand for privacy, security, and efficiency, while opening the door to intelligent systems that are both scalable and trustworthy.

As IoMT adoption accelerates, these technologies will form the backbone of next-generation healthcare ecosystems — systems that are secure, patient-centric, and adaptive to the challenges of the digital era.

By embracing Blockchain-based Federated Learning, the healthcare sector takes a bold step toward a future where innovation and privacy go hand in hand.

Naznin M Ali
Assistant Professor

# The Rise of Digital Twins: Bridging the Physical and Virtual Worlds

Among the many technological innovations shaping today's industries, Digital Twins stand out as a transformative force. A digital twin is a dynamic virtual model of a physical asset, process, or system that continuously updates using real-time data. This creates a living, evolving representation that mirrors the behavior of its real-world counterpart.

*Applications Across Industries*

Digital twins are no longer confined to theory—they are actively reshaping industries. In manufacturing, they enable predictive maintenance by forecasting machinery breakdowns before they occur. In healthcare, researchers are developing digital replicas of organs to simulate treatments without risking patient safety. In urban planning, digital twins of cities help optimize traffic flow, energy consumption, and disaster response.

*The Technology Behind Digital Twins*

The effectiveness of digital twins lies in the synergy of IoT, Artificial Intelligence, and Cloud Computing. IoT sensors feed continuous data, AI algorithms analyze patterns and make predictions, and cloud platforms provide the computing power for real-time synchronization. This integration allows digital twins to not only reflect the present state of a system but also forecast its future performance.

*Benefits and Future Outlook*

By providing a safe testing ground, digital twins help organizations reduce costs, minimize risks, and accelerate innovation. From improving supply chain efficiency to enabling personalized healthcare, their potential is vast. As adoption grows, digital twins will likely become an essential tool for decision-making in every major industry.

*Conclusion*

For aspiring engineers and technologists, digital twins represent more than a concept—they embody the future of problem-solving. Learning about this technology fosters a mindset of innovation, adaptability, and continuous improvement, qualities that are vital in today's competitive world.

Sanjay Gireesan
2020-24 CSE B

# OUTSTANDING ACHIEVEMENT

AUGUST 2025

The Department of Computer Science and Engineering at Adi Shankara Institute of Engineering and Technology proudly celebrates the outstanding achievements of our students in the S6 KTU B.Tech Degree Examinations.Our talented students have showcased exceptional academic performance, with several securing SGPA above 9, while many others achieved excellent scores ranging between 8.0 and 8.9.Special recognition goes to Nafeesa A S, who secured the highest SGPA of 9.74, leading the department with her remarkable performance.This incredible accomplishment reflects the hard work and dedication of our students and faculty, bringing immense pride to the department.We congratulate all the achievers and look forward to seeing them continue to excel in their future endeavors.



Adi Shankara
INSTITUTE OF ENGINEERING AND TECHNOLOGY
CODE ASI
CONGRATULATIONS
S4 KTU B.Tech Degree Exam Results
(SGPA 9 and above )
Department of Computer Science & Engineering
Ajana C U (9.91)
Akshaya Sibi (9.64)
Ajith J (9.55)
Aryatha P R (9.45)
Hima Paul (9.32)
Sanjana Elizabeth (9.23)
Devanandha Anil (9.18)
Adhithyan K A (9.14)
Devika P S (9.14)
Gouri Nandhana K U (9.14)
Vishnuv M S (9.14)
Hisniya M N (9.09)
Nirul K G (9.09)
S Padmanabhan (9.09)
Hasla Bee Sabu (9.05)
Pavithra S (9.05)
Meenakshi Thrideep (9.00)
Yeldo K Varghese (9.00)
Vidya Bharathi Nagar, Mattoor road, Kalady, Ernakulam(Dist), Kerala 683574
0484 2463825, 2461933, 9446523399, 9995533744
www.adishankara.ac.in

# OUTSTANDING ACHIEVEMENT

AUGUST 2025


The Department of Computer Science and Engineering at Adi Shankara Institute of Engineering and Technology proudly celebrates the outstanding performance of our S4 B.Tech students in the KTU Degree Examinations.A special mention to Ajana C U, who topped the department with an impressive SGPA of 9.91, setting a remarkable benchmark for academic excellence. Many students scored SGPA 9 and above, while several others achieved excellent results in the 8.0 – 8.9 range, showcasing consistent dedication and hard work.This success reflects the relentless efforts of both students and faculty members in fostering a strong academic environment.

Hearty congratulations to all our achievers! We look forward to seeing you reach greater heights in the semesters ahead.

# CSE Students Shine in Placement Achievements

The Department of Computer Science and Engineering at Adi Shankara Institute of Engineering and Technology proudly congratulates five of its talented students for securing placements at MathCo, a leading global data analytics and AI solutions company.

The selected students are:
Ben George (S7 CSB)
Deslin Delvi (S7 CSB)
Greena Maria Rajan (S7 CSB)
Lakshmi Nandana R (S7 CSB)
Sreeraj Rajeev (S7 CSC)

Their remarkable achievement reflects their hard work, commitment, and the strong technical foundation imparted by the department. Successfully clearing MathCo's rigorous selection process, which tested their analytical thinking, technical expertise, and problem-solving abilities, these students have set a benchmark of excellence.The department extends its heartfelt congratulations to these achievers and wishes them continued success in all their future endeavors. Their accomplishment serves as a true inspiration for their juniors, motivating them to strive for excellence and aim high in their career pursuits.

# CSE Students Selected for Infosys Springboard Virtual Internship 6.0


The Department of Computer Science and Engineering at Adi Shankara Institute of Engineering and Technology proudly announces the selection of seven S7 CSE students for the prestigious Infosys Springboard Virtual Internship 6.0. This achievement showcases their dedication and the department's commitment to fostering industry-ready professionals. Congratulations to Greena Maria Rajan, Lakshmi Nandana R, Meenakshy K M, Anirudh M V, Avanthika Lakshmi Vinod, Aleena K J, and Anagha D on this remarkable accomplishment.

# Student Placement Achievement: Amazon


The Department of Computer science and engineering proudly congratulates Anju M Kammath (CSE AI – 2020-24 Batch), Abhinand K Prasad (CSE – 2021-25 Batch), Nimmy K Jolly, and Nanditha Nambiar on securing placements at Amazon.Their success reflects their hard work, determination, and technical excellence. We wish them all the best as they embark on this exciting new chapter in their careers.

# Interactive Session with LEAD Training College, Palakkad

The Department successfully organized an interactive session for final-year students in collaboration with LEAD Training College, Palakkad, held at the Auditorium. The session aimed at equipping students with valuable insights on career readiness, training opportunities, and placement preparedness.The program was graced by Dr. Thomas George K, Chairman of LEAD College, Palakkad, Mr. Ajay, Placement Officer, and Mr. Sijin, OBT In-charge, who inspired the students by sharing their expertise and real-world experiences. Their guidance not only clarified placement-related queries but also motivated students to embrace the right mindset for their professional journey.The student placement coordinators played a vital role in facilitating the event and encouraging active interaction. The session proved to be highly informative and impactful, leaving students better prepared to align their skills with industry expectations

# BATCH 2021-2025 PLACEMENTS


Congratulations
CAMPUS PLACEMENTS 2025 B.TECH BATCH
SELECTED FOR FINISHING SCHOOL CUM PLACEMENT
GLOBAL QUEST TECHNOLOGIES PVT LTD
Devika M Sasi CSE
Dyna Joshy CSE
Anannya Ajit V A CSE
Neema P Eldho CSE
Antony Vivek K A CSE
Anjana T S CSE
Hiba Fathima M N CSE
Akhila Venu CSE
Harikrishnan H CSE
Nafzin Najeeb CSE
Arsha S CSE
Aparna S Nair CSE
Karthik Sunil CSE
Akshara Balan CS(AI)
Akshitha Balan CS(AI)

## Students placed in Ayam group

SHEETHAL BABY

SEREENA LEEMZ

JISMIYA

KRISHNAPRIYA R

## Student placed in Jaro education:

SHEETHAL BABY

## Students placed in Edu-Versity:

MOHAMED SHAMIL ABDUL S

MOHAMMED IRSHAN C T

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newslettercse@adishankara.ac.in

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