AITAREYA

Adi Shankara
INSTITUTE OF ENGINEERING AND TECHNOLOGY

SANGANI

NEWSLETTER OF DEPARTMENT OF COMPUTER APPLICATIONS

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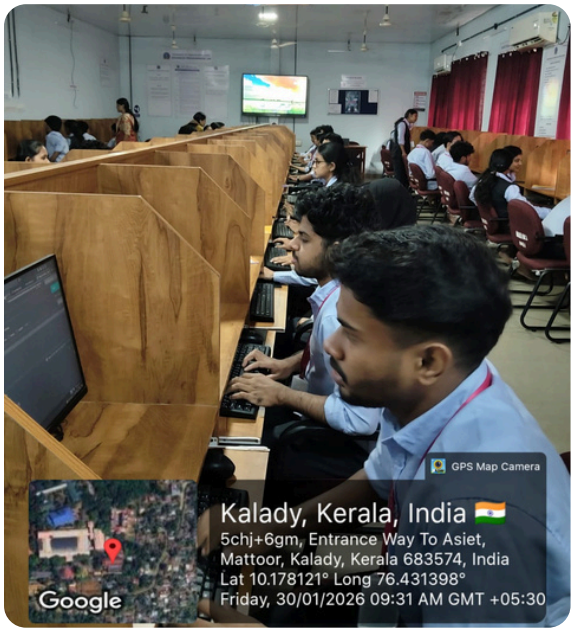
ABOUT ASIET

AdiShankaraInstitute of Engineering & Technology (ASIET) wasestablished in Kalady with the goal of providing technical,professional excellence and strong ethical values. The institute is run by the Adi Shankara Trust, a well-respected educational organization that has been active for over 50 years. Founded in 2001 and maintained by the Sringeri Mutt with the benign blessings of His Holiness Sri Sri Bharathi Tirtha Mahaswamiji, the college is dedicated to promoting the overall growth and development of its students. ASIET is situated in a beautiful and inspiring location, reminiscent of the peaceful presence of Jagadguru Adi Shankaracharya. The college is affiliated with the A P J Abdul Kalam Technological University in Kerala, and is approved by the AICTE. It offers undergraduate, graduate, and PhD level courses, with four of its programs being NBA accredited (CSE, ECE, EEE & MECH) demonstrating its commitment to high- quality education.

ABOUT THE DEPARTMENT

The ASIET Master of Computer Applications (MCA) program teaches students research and innovation skills. Students are immersed in cutting-edge technology and taught a transdisciplinary, application-oriented approach to tackling real-world challenges. The Department of Computer Application has a diverse group of motivated researchers in emerging fields like Artificial Intelligence (AI), Machine Learning (ML), Deep Learning, Internet of Things (IoT) and smart systems, Image Processing, Augmented Reality/Virtual Reality, Big Data Analytics, Network Security, Mobile Ad Hoc Networks, Distributed Algorithms, Nature-Inspired Algorithms, and Processor & Architecture Study. Three well-equipped research labs— Multimedia, Data Analytics, and Bioinformatics—serve student research needs. These labs let students solve societal issues in real time. The MCA department is built on highly trained teachers who are research and innovation-oriented. They mentor students to take more courses to gain industry-ready skills. Students can practice their practical skills in well- equipped labs.ASIET instructors and facilities strive to offer students the finest placement chances. Research labs also encourage students to pursue further education and participate in R&D

FULL STACK DEVELOPMENT (30 HOURS ADD-ON COURSE)



The Department of Computer Applications, in association with GP3 Cloud Innovations Pvt. Ltd., organized a 30-hour Add-On Course on Full-Stack MERN Application Development for MCA (S2) 2025–2027 batch, held from 27th January to 31st January 2026.The program provided students with hands-on exposure to modern web development technologies, enhancing their practical skills and industry readiness.

STUDENT ACHIEVEMENTS

We are thrilled to spotlight our students who have gone the extra mile to acquire specialized certifications this semester. Their dedication to self-paced learning and upskilling is truly commendable.

Aswin P. Kurian has been placed at Bnet Solutions as an IT Support Engineer. In this role, he will be providing technical support, troubleshooting hardware and software issues, and ensuring smooth IT operations.

Aswin P Kurian

Five students from S4 MCA have successfully secured internships in Capstone Projects on AWS, powered by SmartBridge.

This achievement provides valuable hands-on experience in cloud technologies and strengthens their industry readiness.

Ebin John Joseph, Gowri S,K Govindan Nampoothiri, Amal Binu.Jomon Vincent

Your achievements inspire your peers to keep learning!

STUDENT ACHIEVEMENTS

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Ebin John Joseph (S4)

Ebin John Joseph has successfully secured an internship as a Full Stack Developer Intern at Qilin Lab, Bengaluru. This opportunity offers valuable hands-on experience in full stack development, providing practical exposure to modern web technologies and industry best practices. It marks an important milestone in building a strong and successful career in software development.

Your achievements inspire your peers to keep learning!

RETRIEVAL-AUGMENTED GENERATION (RAG): MAKING AI MORE RELIABLE AND INTELLIGENT

Artificial Intelligence has become part of our everyday digital experience. We use AI tools to search for information, generate content, and even assist with academic work. Large Language Models, also known as LLMs, are incredibly powerful, but they have one clear limitation. They only know what they were trained on. They cannot automatically access new information or verify facts in real time. Because of this, they sometimes produce answers that sound convincing but are actually incorrect or outdated. This issue, often called hallucination, has raised concerns, especially when AI is used in professional environments.

To solve this problem, a technique called *Retrieval Augmented Generation, or RAG* , was introduced. Instead of depending entirely on stored training data, RAG allows the model to search for relevant information before responding. When a user asks a question, the system first looks into a trusted knowledge base. This could include company documents, research papers, or structured databases. It retrieves the most relevant information and then uses the language model to generate a response based on both its training and the retrieved content. In simple terms, the AI does not just guess an answer. It checks reliable sources first.

This makes a big difference in real world applications. Businesses can update their document repositories without retraining the entire model, which saves time and resources. RAG systems are now being used in enterprise chatbots, internal help desks, and research tools where accuracy is important. While implementing RAG requires proper document indexing and effective search mechanisms, its benefits are clear. By combining external knowledge with language generation, RAG helps make AI systems more dependable, practical, and trustworthy in today's fast changing digital world.

- Rohit Joy
MCA S2

AI-AUGMENTED SOFTWARE DEVELOPMENT: BEYOND CODING WITH INTELLIGENT ASSISTANTS

AI-augmented software development represents a transformative shift in the way applications are designed, built, tested, and maintained. Rather than replacing developers, intelligent assistants powered by Artificial Intelligence (AI) enhance productivity by automating repetitive tasks, suggesting optimized code, detecting bugs early, and even generating documentation. Modern tools such as GitHub Copilot and ChatGPT act as collaborative partners, helping developers translate ideas into working code more efficiently. These systems leverage advancements in Machine Learning (ML) and Deep Learning (DL) to understand programming patterns, natural language instructions, and contextual project requirements, thereby accelerating development cycles.

Beyond code generation, AI integration supports the entire software development lifecycle. Intelligent systems can assist in requirement analysis, UI/UX suggestions, automated testing, performance optimization, and DevOps automation. For example, AI-driven testing tools can predict potential failure points, generate unit test cases, and identify security vulnerabilities before deployment. In project management, AI can estimate timelines, allocate resources intelligently, and analyze historical data to reduce risk. This holistic support moves developers from routine implementation work toward higher-level tasks such as architecture design, innovation, and strategic problem-solving.

As AI continues to evolve, the role of software developers is also transforming. Developers are becoming "AI supervisors" who guide, validate, and refine AI-generated outputs. Critical thinking, ethical awareness, and domain expertise are becoming more important than memorizing syntax. While AI can generate functional code, human creativity, contextual judgment, and responsibility remain essential. AI-augmented development is not about coding less—it is about coding smarter, faster, and more strategically in an increasingly intelligent digital ecosystem.

-Mr. Sukrith Lal P S
Assistant Professor,
Dept of Computer Applications

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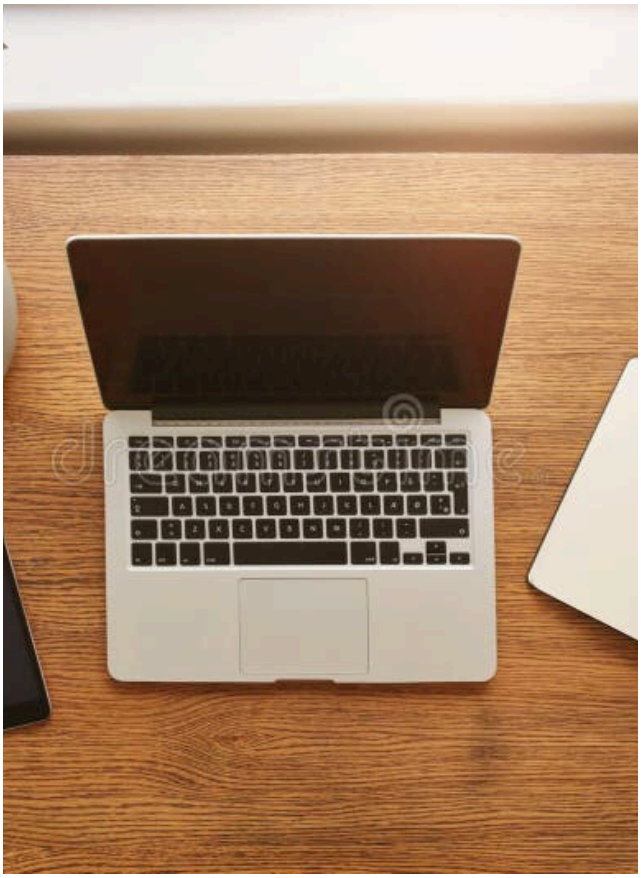

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