A Report on workshop "Microsoft Azure AI/ML : Code, Build,Innovate!"

Date of the event	03.05.2025
Title of the Event	Workshop "Microsoft Azure AI/ML : Code, Build,Innovate!"
Organized by	Dept of Computer Science and Engineering MVJCE, Bangalore

MVJ College of Engineering's Department of Computer Science and Engineering recently hosted an engaging workshop titled "Microsoft Azure AI/ML: Code, Build, Innovate!" specifically designed for 6th-semester students. The event took place on March 3, 2025, from 9:30 AM to 12:30 AM in Seminar Hall 3, under the esteemed guidance of Dr. Kiran Babu T S, Head of the Department, CSE.

During the workshop, industry expert Mr. Akhilash Nambiar delivered an insightful guest lecture, providing students with a comprehensive understanding of Microsoft Azure AI/ML. The session featured interactive AI demos and hands-on experiences, allowing students to gain practical knowledge and skills in AI/ML development.

About the speaker:

Mr. Akhilash is a highly skilled IT professional with expertise in Cloud Computing, Software Development, and Training. As an MTA, MCT, and Subject Matter Expert at CloudThat, he possesses in-depth knowledge of cutting-edge technologies.

He holds an impressive array of certifications, including AZ-900, AI-900, DP-900, SC-900, MB-901, PL-900, AZ-104, AZ-204, AZ-400, SC-200, and more. Additionally, he is certified in AWS Cloud Practitioner, Databricks Generative AI, and Lakehouse Fundamentals, as well as Oracle Generative AI, Infra, and Data Foundation.

With a B-Tech in Computer Science and Engineering, Akhilash has honed his expertise through valuable consulting and training experience. His skill set encompasses a wide range of areas, including Java, JAX-RS, REST API, Database Administration, Middleware, and Jira Administration.

Akhilash has worked with renowned clients such as Waste Management National Inc., Accenture, Applied Materials, TCS, and ICT, and has been involved in multiple AI and DevOps projects. His dedication to delivering top-notch solutions and training makes him a standout professional in the IT industry.

A brief account of the session:

Mr. Akhilash took center stage, basking in the warm applause of the audience, who eagerly anticipated his insights. Dr. Kiran Babu welcomed him with a gracious gesture, setting the tone for a memorable interaction.

As Mr. Akhilash's credentials and achievements were highlighted, the audience's enthusiasm grew. Vatsala Budur, a VI semester student, delivered a thoughtful welcome address, bridging the gap between the esteemed guest and the gathering of students and faculty from the Computer Science and Engineering department

Fig. 1: Host of the Event

Fig. 2: Extending a Warm Welcome to a Resource Person with a Token of Appreciation - A Sapling.

SESSION 1: 10:30-12:30

Fig. 3: Exploring AI Innovations: Students Get Hands-on with Cutting-Edge Tools.

The session commenced with an introduction, setting the stage for an engaging exploration of artificial intelligence (AI) applications. The importance of prompt engineering was emphasized, highlighting its role in harnessing AI's potential. This was followed by demos using ChatGPT, showcasing its capabilities in generating text and images.

The session then delved into AI-powered face swapping, with a demo on (link unavailable), allowing participants to experiment with face-swapping technology. Instant content creation was demonstrated using gamma.app, which enables users to generate presentations and documents efficiently.

Website creation automation was explored using (link unavailable), an AI-powered platform that streamlines website development. Realistic image generation was showcased using prompt engineering, with a demo on the topic "imagine yourself skydiving" using an AI tool.

Further experimentation involved exploring artificial intelligence online and integrating with cognitive API using (link unavailable) Participants also learned about building reports and dashboards using AI spreadsheets on (link unavailable)

The session concluded with the creation of AI-generated songs using platforms like (link unavailable) or (link unavailable), highlighting the versatility and creative potential of AI tools.

Key Takeaways:

i. Prompt engineering is crucial for effective AI utilization.
ii. AI-powered tools can streamline content creation, website development, and image generation.
iii. Experimenting with AI online can unlock new possibilities.
iv. AI can be leveraged for creative applications, such as music generation.

Future Scope:

The session provided a glimpse into the vast potential of AI and its applications. Participants can explore these tools further, integrating them into their workflows and creative projects. As AI technology continues to evolve, it is essential to stay updated on the latest developments and applications

Some of the activities done by students

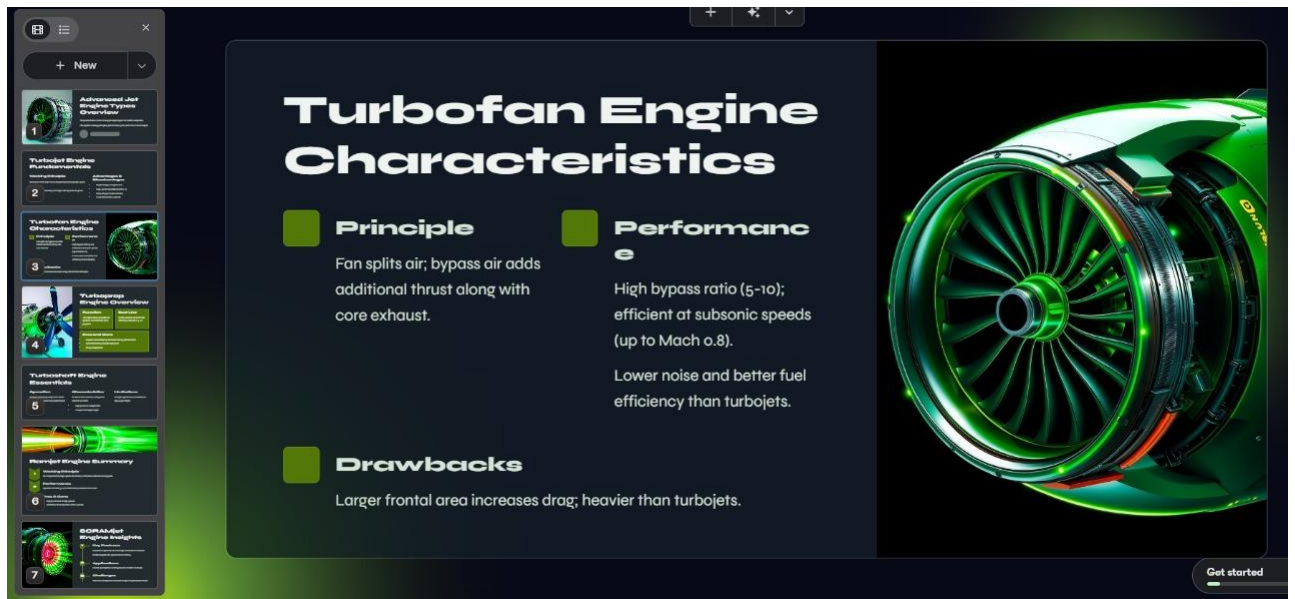Fig. 4:Generating a photorealistic image using AI-powered face synthesis.

Fig. 5: Building an informative and visually appealing presentation on a favorite topic with Gamma.app.

SESSION 2: FROM 1:30-3:30

The session commenced with an introduction to the basics of cloud computing, laying the foundation for a deeper exploration of Microsoft Azure's vast array of services. Azure's extensive suite of offerings was thoroughly explained, providing insights into its capabilities and applications.

The focus then shifted to Azure AI, with a particular emphasis on computer vision. Key concepts and tools explored included Vision Studio, video retrieval summary, image retrieval summary, adding captions to images, smart crop, OCR, and photo ID reference. The importance of keys and endpoints in Azure AI was also highlighted. Custom Vision and Speech services were examined in detail, including Speech Studio, speech-to-text captioning, post-call transcription analysis, language learning, video translation, and real-time speech-to-text capabilities. Additionally, Document Intelligence was discussed as a crucial component of Azure AI.

The practical application of technology was demonstrated through the creation of a website/app using (link unavailable), showcasing the platform's ease of use and versatility. Furthermore, the session covered resume and ATS (Applicant Tracking System) analysis using ChatGPT and LinkedIn, providing valuable insights into optimizing resumes for better visibility and job prospects.
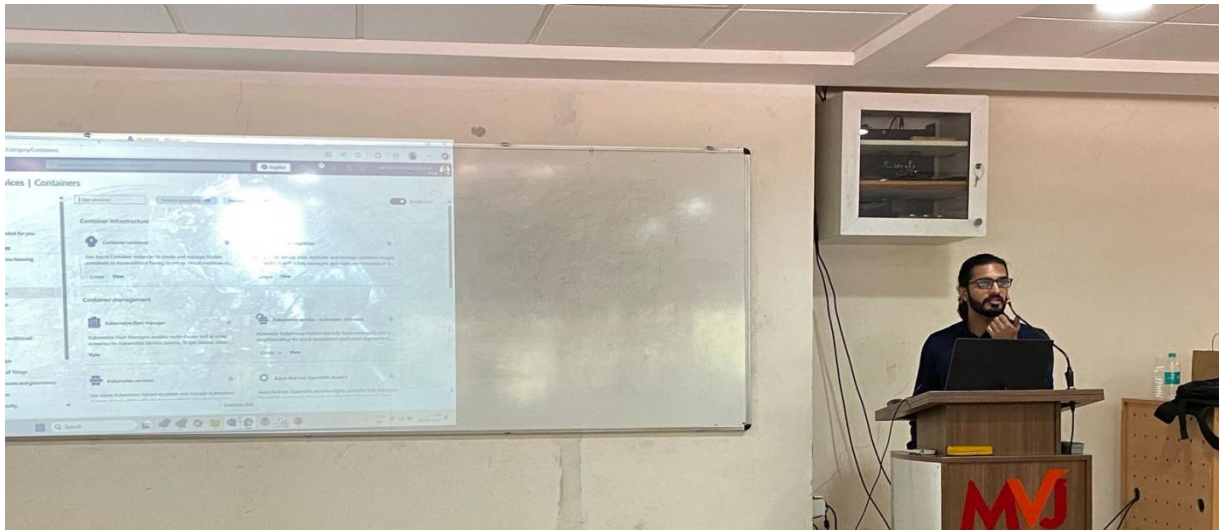
Fig. 6: Delivering a Comprehensive Overview of Cloud Technology.

Fig. 7: Exploring Cloud Potential: Students Engage with Azure.

Key Takeaways:

i.   Cloud computing fundamentals and Microsoft Azure services
ii. Azure AI applications, including computer vision and speech services
iii. Practical experience with (link unavailable) for website/app development
iv. Resume optimization and ATS analysis using ChatGPT and LinkedIn

Conclusion:

The session offered a comprehensive overview of cloud computing, Azure services, and AI applications, complemented by hands-on experience with website/app development and resume analysis. The knowledge gained can be applied to enhance professional profiles, leverage AI capabilities, and streamline development processes.

PROF POSHITHA M

Co-Ordinator of the Event

Assistant Professor

Computer Science and Engineering