MADANAPALLE INSTITUTE OF TECHNOLOGY & SCIENCE

(UGC-AUTONOMOUS INSTITUTION)

Affiliated to JNTUA, Ananthapuramu & Approved by AICTE, New Delhi

NAAC Accredited with A+ Grade, NIRF India Rankings 2024 - Band: 201 - 300 (Engg.)

NBA Accredited - B.Tech. (CIVIL, CSE, CST, ECE, EEE, MECH), MBA & MCA

A Report on

A Six-Day Industry-Oriented Online FDP on "The Power of AI in Industry: Automating AI Development and Ensuring its Practices"

Organized by

Department of Computer Science & Engineering (Artificial Intelligence)
Madanapalle Institute of Technology & Science (MITS)

Sponsored by

IEEE Robotics and Automation Society, MITS

in association with IEEE IEEE Robotics and Automation Society, MITS IIC and MITS IIIC

Date: 03-March-2025 to 08-March-2025

Report submitted by: Dr. Vamsi Bandi, Assistant Professor, Department of CSE(AI)

Chair:
Dr. C. Yuvaraj, Principal, MITS

Convenor:
Dr. K. Chokkanathan, HoD & Associate Professor, Dept. of CSE-AI

Co-Convenors:
Dr. Vamsi Bandi, Assistant Professor, Dept. of CSE-AI
Dr. G. Jenifa, Assistant Professor, Dept. of CSE-AI

Co-ordinators:
Mr. Shahad P, Assistant Professor, Dept. of CSE-AI
Mr. R. Ashok Kumar, Assistant Professor, Dept. of CSE-AI
Mr. K. Mahammad, Assistant Professor, Dept. of CSE-AI

Total No. of Registrations: 276 (100 Faculty + 176 students)

- For Faculty: E-Certificate provided as 'FDP' program
- For students: E-Certificate provided as "Short Term Training Program'

Mode of Delivery: Online (Microsoft Teams)

About the FDP:

The **Faculty Development Program (FDP)** on **"The Power of AI in Industry"** was designed to provide faculty, research scholars, and students with deep insights into the latest advancements in AI industry innovations. The program focused on **AI-driven automation, business intelligence, domain fine-tuning, ethical AI, and generative AI**, bridging the gap between academia and industry through expert talks from leading professionals.

Inaugural Session:

The program commenced on **03-March-2025 at 5:45 PM** with a **presidential address** by **Prof. P. Ramanathan, Vice Principal-Academics MITS**, followed by a **welcome address** by **Dr.**

K. Chokkanathan, HoD & Associate Professor, Department of CSE-AI. The welcome address highlighted the **participant demographics**, including faculty, researchers, and students from **various states in India and international locations**.

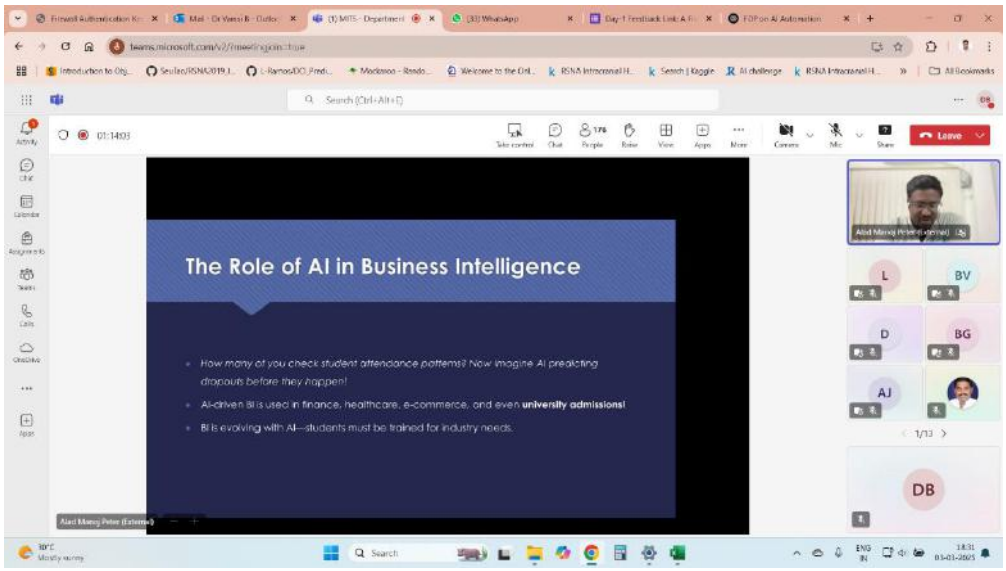
Day-Wise Session Details:

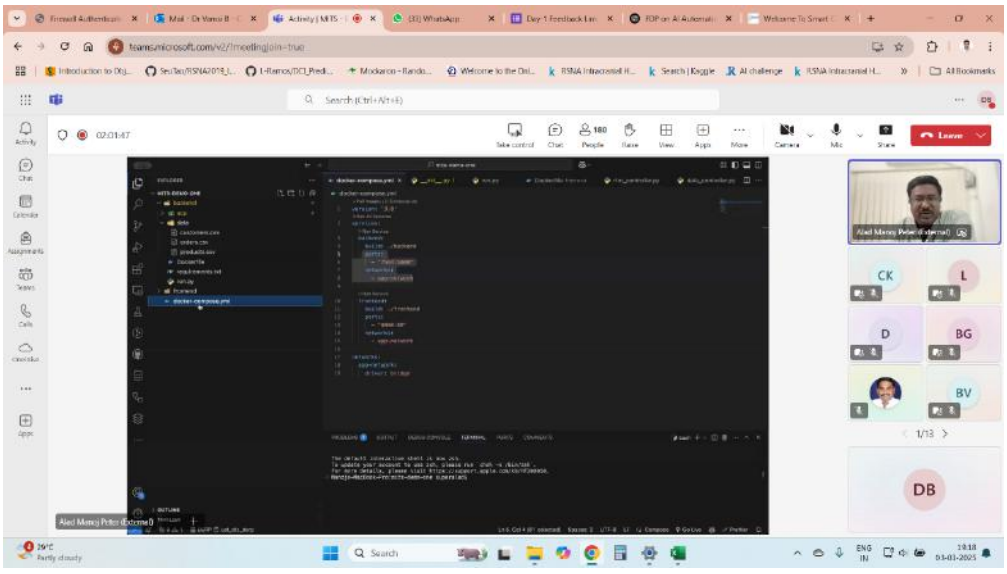
Day 1: 03-March-2025 (Monday) | Time: 6:00 PM – 7:30 PM

Resource Person: Mr. Alad Manoj Peter, Founder & CTO, Standard Insights, India

Topic: Business Intelligence

Mode: Online (MS Teams)





The session began with Mr. Alad Manoj Peter explaining the importance of AI in Business Intelligence, covering topics such as data-driven decision-making, predictive analytics, and AI-powered automation. He provided a live demonstration on implementing AI in business models and emphasized the practical application of AI tools. The session ended with an engaging Q&A session.

Key Discussion Points:

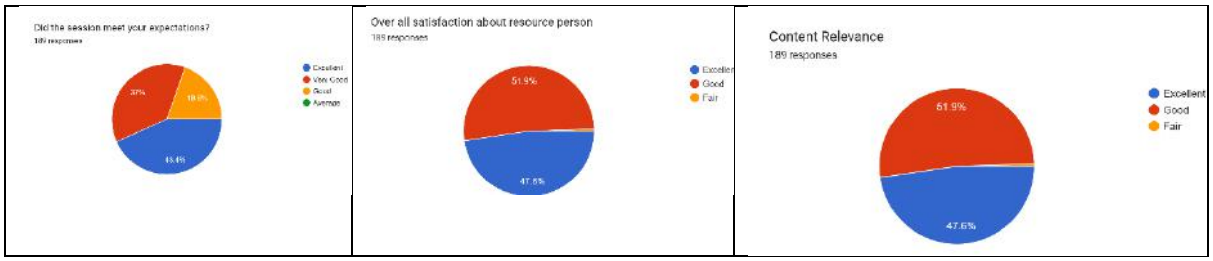
- Introduction to Business Intelligence (BI) and its impact on decision-making.
- AI-driven analytics for business insights and predictive modeling.
- Data-driven decision-making: Leveraging AI for data visualization and interpretation.

- Real-world case studies demonstrating the use of AI in market analysis and forecasting.
- Live demonstration of AI tools used in business intelligence.

Presentation Highlights:

- Explained AI-powered dashboards for analyzing and presenting data.
- Showcased automation in report generation using AI tools.
- Discussed ethical AI practices in business analytics.
- Q&A session focused on implementing BI strategies in organizations.

Feedback on Day-1 session:

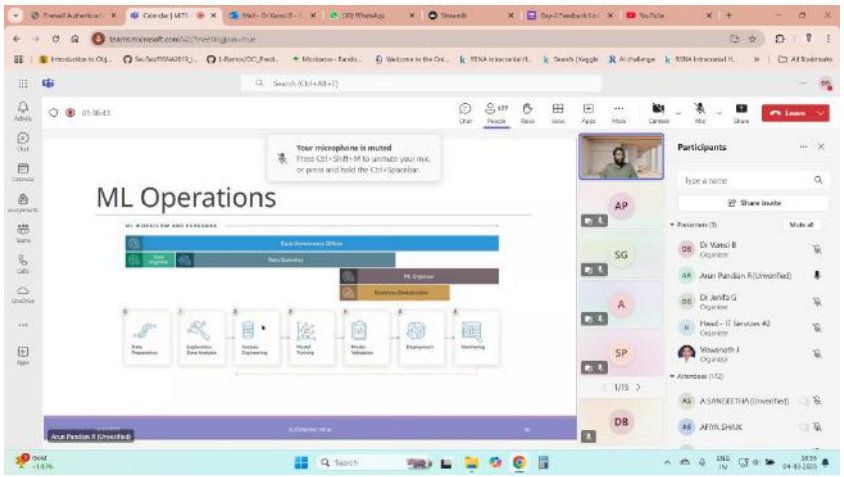


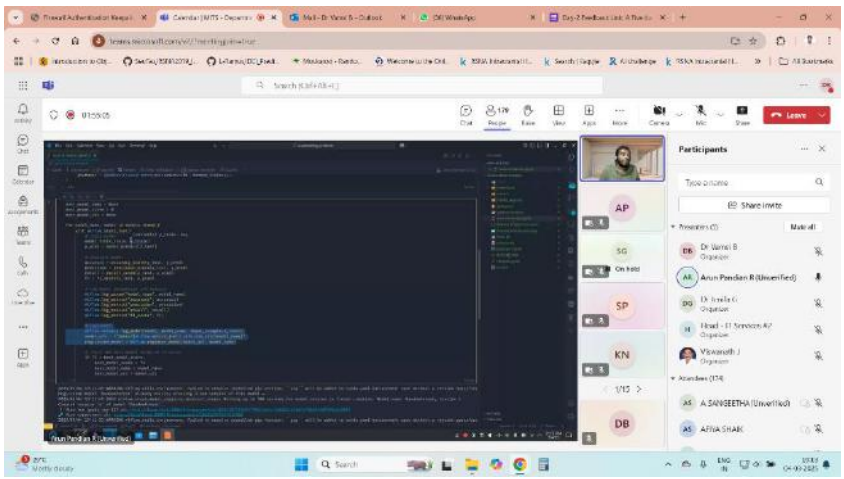
Day 2: 04-March-2025 (Tuesday) | Time: 6:00 PM – 7:30 PM

Resource Person: Mr. Arun Pandian R, Senior Data Engineer, Siemens, India

Topic: Automating AI Development with Domain Fine-Tuning

Mode: Online (MS Teams)





Mr. Arun Pandian R provided insights into domain-specific AI model fine-tuning, discussing AI automation strategies and data engineering for AI scalability. He also explained AI model optimization for business applications and presented case studies on efficient AI deployment.

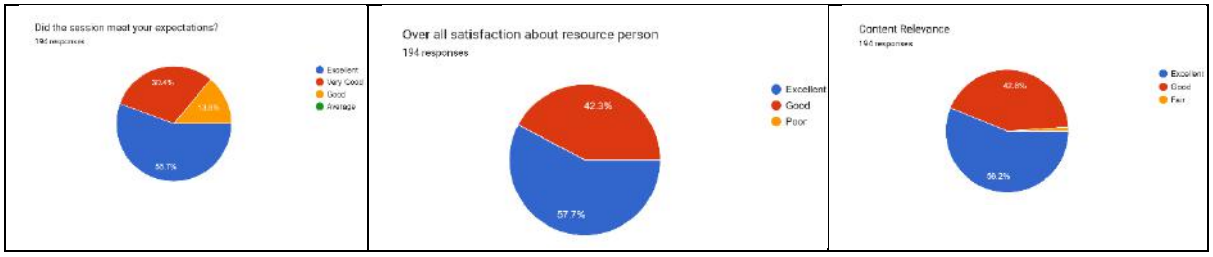
Key Discussion Points:

- AI automation in model training and deployment.
- Fine-tuning AI models for domain-specific applications (e.g., healthcare, finance).
- Optimizing AI workflows with automation tools.
- Using advanced machine learning frameworks for model enhancement.
- Addressing common challenges in AI development and deployment.

Presentation Highlights:

- Demonstrated domain-specific AI fine-tuning for improving model accuracy.
- Explained industry use cases where AI automation enhances business processes.
- Showcased Python-based AI automation tools for scalable deployment.
- Q&A session on integrating AI models with existing software solutions.

Feedback on Day-2 session:

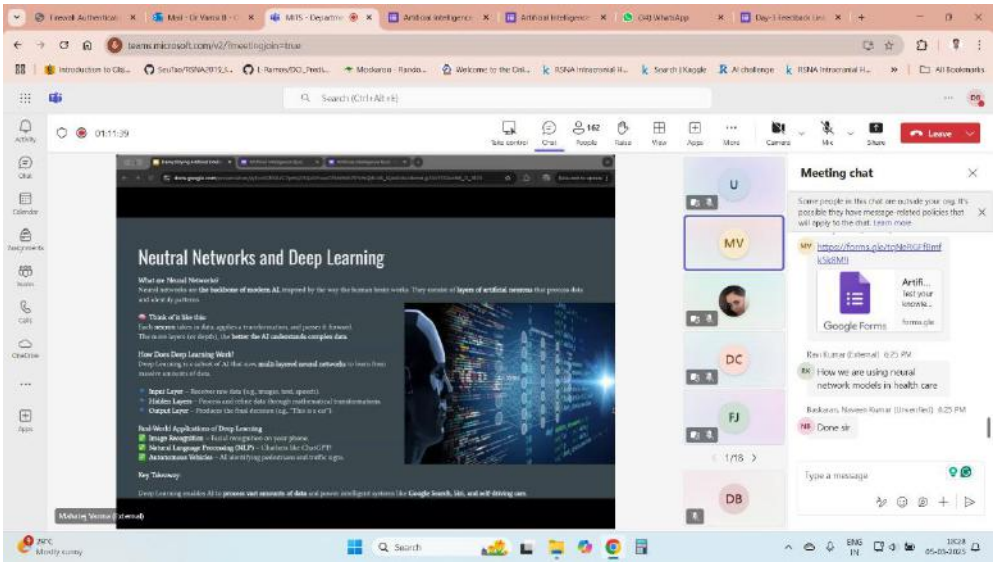


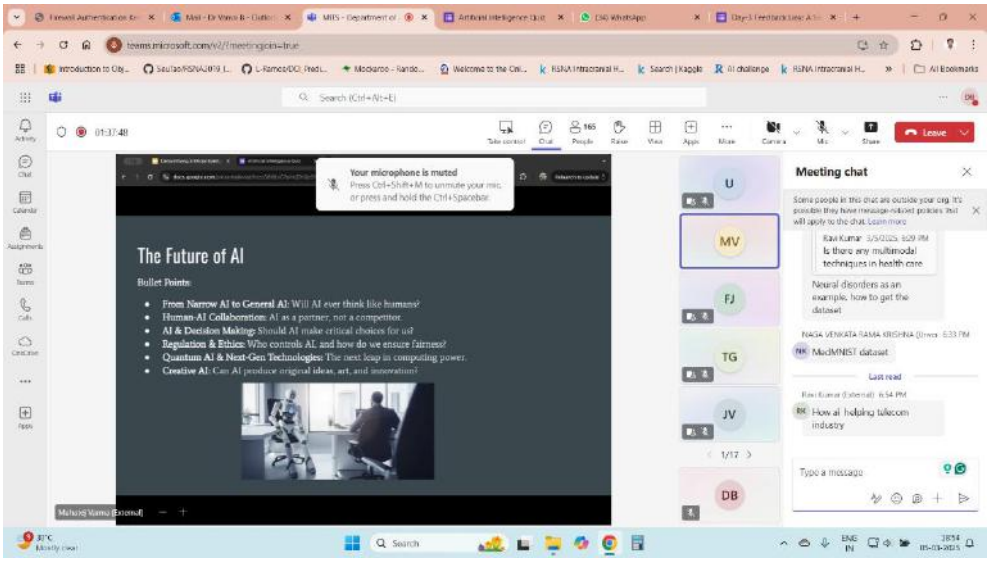
Day 3: 05-March-2025 (Wednesday) | Time: 6:00 PM – 7:30 PM

Resource Person: Mr. Mahatej Varma Vatsavayi, Software Development Engineer, Amazon India

Topic: Demystifying Artificial Intelligence

Mode: Online (MS Teams)





Mr. Mahatej Varma introduced participants to the fundamentals of AI, explaining advanced data structures, system optimization for AI, and real-world AI applications. His interactive coding demonstration showcased AI-powered automation in cloud-based environments.

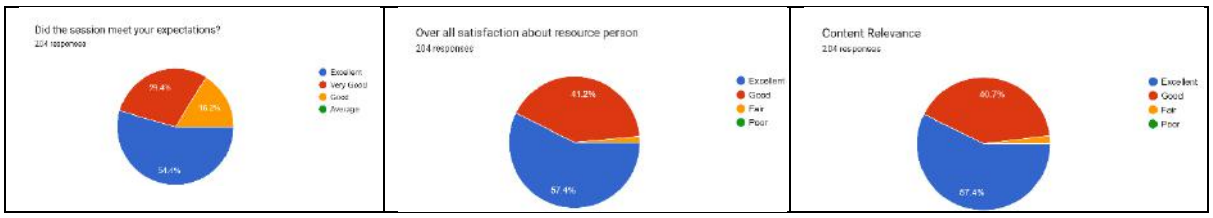
Key Discussion Points:

- Fundamentals of AI: Understanding AI, ML, and deep learning.
- Advanced data structures for AI applications.
- AI optimization techniques for cloud computing.
- Best practices in AI-powered automation.
- Practical use cases of AI in industry.

Presentation Highlights:

- Hands-on coding demonstration using Python and AI frameworks.
- Explained AI in software engineering and cloud infrastructure.
- Showcased real-world AI solutions in e-commerce and logistics.
- Q&A session on career opportunities in AI and data engineering.

Feedback on Day-3 session:

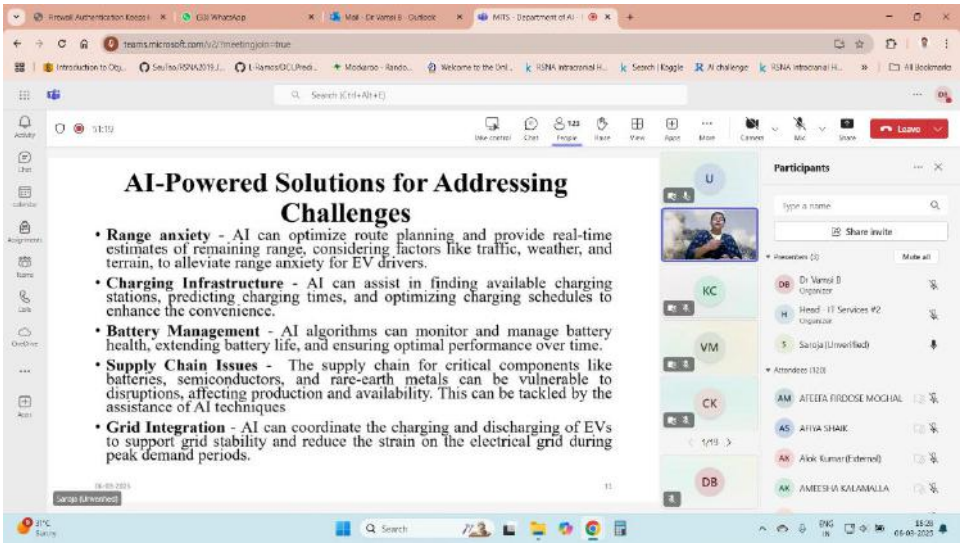


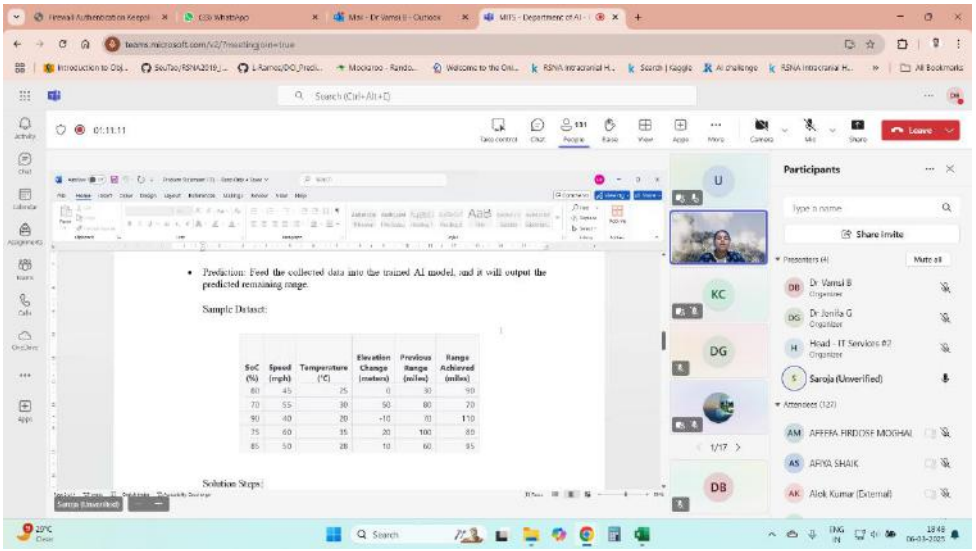
Day 4: 06-March-2025 (Thursday) | Time: 6:00 PM – 7:30 PM

Resource Person: Dr. S. Saroja, Assistant Professor, NIT Trichy

Topic: Role of Artificial Intelligence in Enabling the Electric Vehicle Revolution

Mode: Online (MS Teams)





Dr. Saroja discussed the integration of AI in electric vehicles (EVs), predictive maintenance using AI, and AI-driven energy optimization. She elaborated on smart mobility solutions and advancements in AI for sustainable transportation.

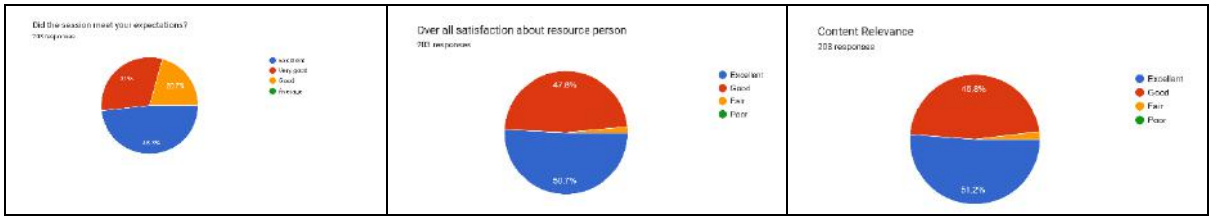
Key Discussion Points:

- AI's role in electric vehicle (EV) advancements.
- Smart mobility solutions using AI-powered automation.
- Predictive maintenance and AI-driven diagnostics.
- Energy efficiency and AI-powered sustainability.
- Challenges and future trends in AI for EVs.

Presentation Highlights:

- Explained how AI enhances battery life and EV efficiency.
- Showcased real-world AI models in vehicle diagnostics.
- Discussed the impact of AI on smart transportation.
- Q&A session on AI research in autonomous and electric vehicles.

Feedback on Day-4 session:

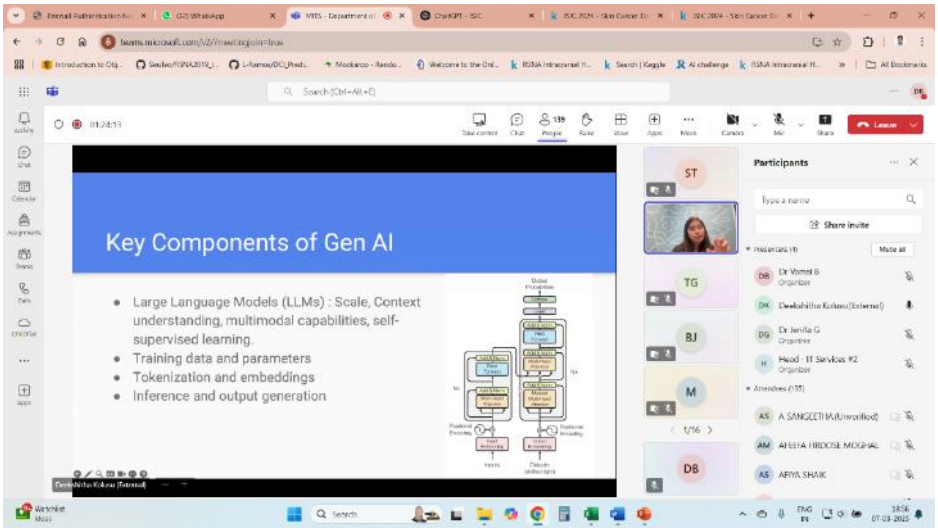


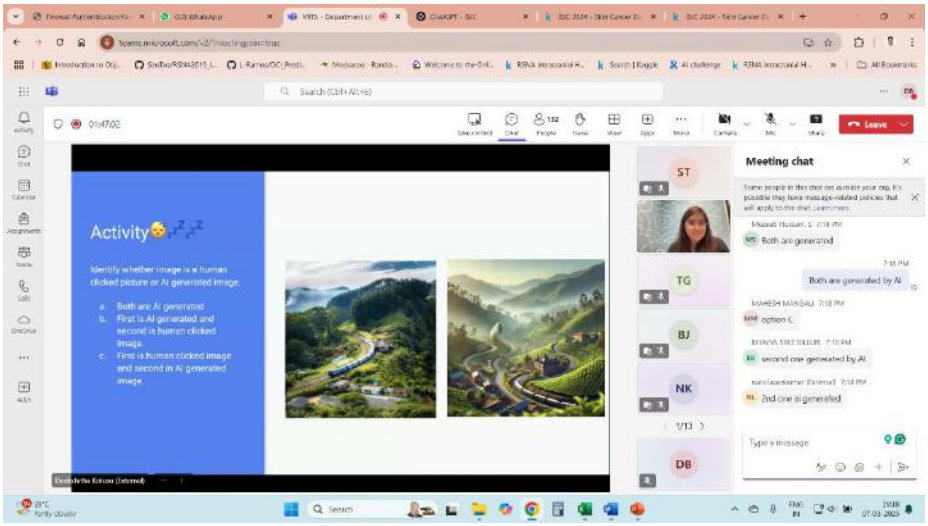
Day 5: 07-March-2025 (Friday) | Time: 6:00 PM – 7:30 PM

Resource Person: Ms. Deekshitha Kolusu, Data Engineer, IBM Bangalore

Topic: Generative AI

Mode: Online (MS Teams)





Ms. Deekshitha explored Generative AI applications, deep learning methodologies, and AI-powered content generation. She demonstrated the real-world applications of Generative AI in business, creative industries, and automation.

Key Discussion Points:

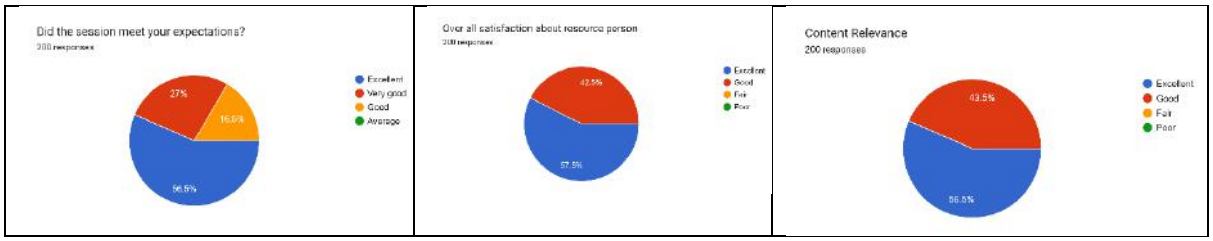
- What is Generative AI? Overview of deep learning in content creation.
- AI in text, image, and video generation.
- Applications of Generative AI in business and research.

- The ethics of AI-generated content.
- Latest developments in Generative AI models.

Presentation Highlights:

- Live demonstration of Generative AI tools for text and image generation.
- Explained AI-powered design, content creation, and automation.
- Discussed risks and safeguards in Generative AI.
- Q&A session on real-world applications of AI in media and marketing.

Feedback on Day-5 session:

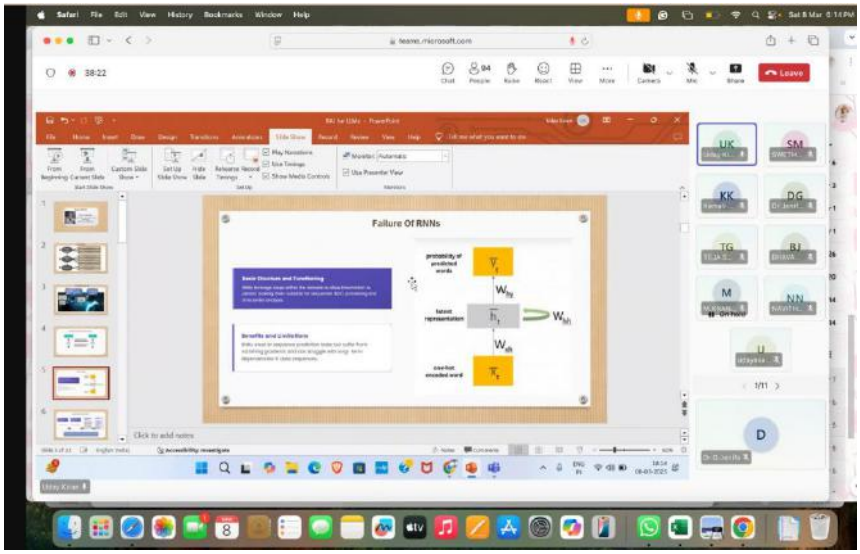


Day 6: 08-March-2025 (Saturday) | Time: 6:00 PM – 7:30 PM

Resource Person: Mr. Uday Kiran Appalaneni, Responsible AI Engineer, Accenture

Topic: Responsible AI for LLMs

Mode: Online (MS Teams)



Mr. Uday Kiran focused on ethical AI practices, adversarial attacks in AI models, and security concerns in AI deployment. He highlighted Responsible AI frameworks, fairness in AI, and bias mitigation strategies.

Key Discussion Points:

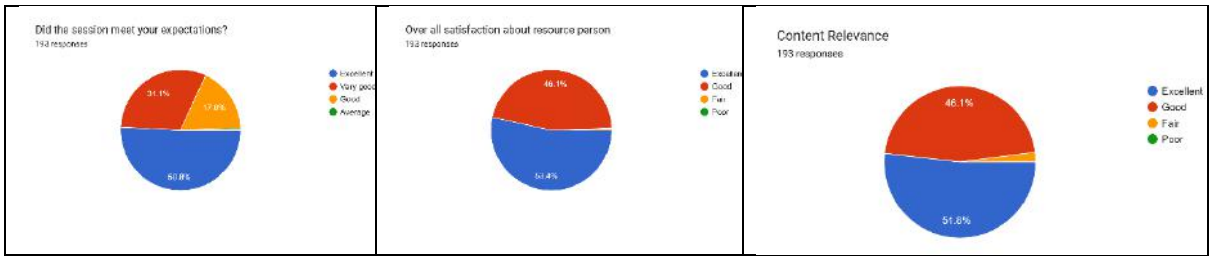
- What is Responsible AI? Ensuring fairness, transparency, and accountability.
- Addressing AI biases and adversarial attacks.
- Ensuring security and ethical considerations in AI.
- AI regulations and compliance frameworks.

- The future of Responsible AI in Large Language Models (LLMs).

Presentation Highlights:

- Showcased AI security measures against misinformation and adversarial attacks.
- Demonstrated techniques for bias mitigation in AI systems.
- Discussed real-world case studies on ethical AI practices.
- Q&A session on ensuring responsible AI adoption in industries.

Feedback on Day-6 session:



Valedictory Session:

The **valedictory address** was delivered by **Dr. K. Chokkanathan, HoD/CSE-AI**, followed by a **vote of thanks** by **Dr. G. Jenifa, Assistant Professor, Dept. of CSE (AI)**, extending gratitude to **the management, principal, faculty, participants, and resource persons** for making this FDP a **grand success**.

FDP Outcomes:

- Participants gained in-depth knowledge of AI advancements, industry applications, and best practices.
- Hands-on demonstrations enhanced their practical understanding of AI tools and frameworks.
- Faculty and researchers were equipped with new methodologies to integrate AI concepts into their curriculum and research.
- Participants explored emerging AI technologies, including Generative AI, Responsible AI, and AI-driven business intelligence.
- The FDP facilitated networking and collaboration between academia and industry professionals.

Mapping Sustainable Development Goals (SDGs):

1. **SDG 4** - Quality Education: Enhancing AI knowledge among faculty, researchers, and students.
2. **SDG 7** - Affordable and Clean Energy: AI-driven solutions in Electric Vehicles (EVs) and energy optimization.
3. **SDG 11** - Sustainable Cities and Communities: AI applications in EVs, transportation, and urban planning.
4. **SDG 8** - Decent Work and Economic Growth: AI-powered automation, business intelligence, and job creation
5. **SDG 12** - Responsible Consumption and Production → AI-powered optimization of resources and efficiency improvements