

AI Essentials for Manufacturing Professionals

Duration: 8 hours

Courseware: Unofficial ppt/pdf to be provided, along with access to session recording

Note:

- Demonstration on Microsoft 365 Copilot Hands-on Lab will be given, if participants do have access to Copilot for Microsoft 365
- Participants are encouraged to bring their laptops, as the session will include multiple interactive hands-on activities to enhance engagement and learning.

Table of Contents

Module 1: What is AI and Overview of Popular AI Tools (Day 1)

- Definition of AI, types (Narrow AI, General AI, Generative AI).
- Overview of popular AI tools: ChatGPT, Microsoft Copilot, DALL-E and others.
- How AI impacts the manufacturing sector.
- **Hands-on Exercise (40 mins):** Exploring Content Creation with AI Using Varied LLM Parameters

Module 2: AI Use Cases in Manufacturing and Business Functions (Day 1)

- Real-world AI applications in sales, production, HR, and finance.
- **Demonstration (90 mins):** Building ML model in Excel for the solving various business problems eg: Employee Churn Prediction, Sales Forecasting using Machine Learning

Module 3: Risks and Threats of AI (Day 1)

- Best practices for protecting sensitive information.
- GDPR or CCPA compliant AI tools.
- OpenAI and Microsoft's policies on data usage.
- **Case Study (20 mins):** AI Driven Fraud Case (Voice Phishing)

Module 4: Prompt Engineering (Day 2)

- Introduction to prompt engineering and its importance.
- How to mitigate bias in AI-generated content using prompt engineering techniques.
- **Hands-on Lab (40 mins):** Creating Images Using Effective Prompting Techniques.

Module 4: GenAI Implementation to improve Productivity (Day 2)

- Overview of Microsoft 365 Copilot capabilities in Word, Excel, Teams, and Outlook.
- AI for collaboration, automation, and data visualization.
- **Hands-on Demo/Exercise (60 mins):** Microsoft 365 Copilot demonstration for Data Analysis & working with office suite.

Module 5: Future of AI and Wrap-Up (Day 2)

- Emerging trends in AI for the manufacturing industry.
- **Interactive Quiz** on all topics covered.

- Open Q&A and feedback from participants.