AjarAble

AI ESSENTIALS BRIDGING TECHNOLOGY AND EVERYDAY LIFE
AI4E

Duration: 2 days; Instructor-led | Virtual Instructor-led

OVERVIEW

Artificial Intelligence (AI) is no longer a concept confined to science fiction movies or academic research papers. It is a driving force behind many of the technologies we use daily, from voice-activated virtual assistants to recommendation systems on streaming platforms. AI is revolutionizing industries by automating tasks, enhancing decision-making, and unlocking new capabilities that were previously unimaginable.

In this course, we will explore the fascinating world of AI, demystifying its core concepts and showcasing its real-world applications. Whether it's recognizing objects in images, understanding human language, or making strategic decisions, AI is at the forefront of innovation, making it an essential field to understand in today's technology-driven world.

OBJECTIVES

By the end of this training, participants will be able to:
- Understand the basic concepts and terminologies of AI.
- Recognize the significance and applications of AI in various industries.
- Comprehend the differences and functionalities of key AI technologies like CNNs,
- RNNs, Computer Vision, NLP, Reinforcement Learning, and Generative Models.
- Appreciate the potential and challenges associated with AI technologies.
- Engage in informed discussions about AI trends and prospects.
- Understand the ethical considerations and challenges in AI adoption.
- Assess the impact of AI on the global workforce and cost-benefit aspects of AI Implementation

PREREQUISITES

- No prior technical knowledge is required.
- A curious mind and a willingness to learn.
- Basic understanding of how technology impacts daily life.

AUDIENCE

This training course is intended for:
- Managers and consultants seeking to know more about information security controls of ISO/IEC 27002
- Professionals engaged in or responsible for information security management.
- Individuals seeking to gain knowledge about the main processes of an information security management system and information security controls.
- Individuals interested to pursue a career in information security.

COURSE CONTENTS

Module 1:   Introduction to AI
- Definition and History of AI
- Key Concepts and Terminologies
- Importance of AI in Today's World

Module 2:   Core AI Technologies
- Machine Learning
  - Basics of Machine Learning
  - Supervised vs. Unsupervised Learning
  - Examples of Machine Learning in Action
- Deep Learning
  - Introduction to Neural Networks
  - Overview of Deep Learning

Module 3:   Convolutional Neural Networks (CNNs)
- What are CNNs?
- How CNNs Work: Layers and Filters
- Applications of CNNs in Image Recognition and Computer Vision
- Fun Demo: Real-Time Object Recognition

Module 4:   Recurrent Neural Networks (RNNs)
- What are RNNs?
- Understanding Sequences and Time-Series Data
- Applications of RNNs in Language Processing and Predictive Text
- Fun Demo: Generating Text with RNNs

Module 5:   Computer Vision
- Introduction to Computer Vision
- Key Techniques: Image Processing, Object Detection, and Image Segmentation
- Real-World Applications: Autonomous Vehicles, Medical Imaging
- Fun Demo: Face Detection and Recognition

Module 6:   Natural Language Processing (NLP)
- What is NLP?
- Key Components: Tokenization, Sentiment Analysis, and Machine Translation

- Applications of NLP: Chatbots, Virtual Assistants, and Language Translation
- Fun Demo: Chatbot Interaction

Module 7:   Reinforcement Learning

- Basics of Reinforcement Learning
- Concepts: Agents, Actions, Rewards, and Environment
- Applications: Game Playing, Robotics, and Recommendation Systems
- Fun Demo: AI Playing a Simple Game

Module 8:   Generative Models

- Introduction to Generative Models
- Types: Generative Adversarial Networks (GANs) and Variational Autoencoders (VAEs)
- Applications: Image Generation, Music Composition, and Text Creation
- Fun Demo: Creating Artwork with GANs

Module 9:   AI in Everyday Life

- AI in Healthcare
- AI in Finance
- AI in Entertainment
- AI in Smart Homes and Cities

Module 10: Ethical Considerations and Challenges

- Ethical Issues in AI: Bias, Privacy, and Accountability
- The Future of Work and AI
- How to Stay Informed and Engaged with AI Developments

Module 11: AI Adoption

- Challenges in AI Adoption
- Cost-Benefit Analysis of AI Implementation
- Case Studies of Successful and Challenged AI Projects

Module 12: Impact on the Global Workforce

- How AI is Changing Job Roles
- Skills Required for the AI-Driven Future
- Strategies for Workforce Transition and Upskilling

Module 13: Conclusion and Q&A

- Recap of Key Learnings
- Open Floor for Questions and Discussions
- Resources for Further Learning

This course is designed to bridge the gap between the complexity of artificial intelligence and the everyday lives of non-technical individuals. In today's era, where technology permeates every aspect of our lives, understanding AI is no longer a luxury but a necessity. AI is not just a buzzword; it is the engine driving innovations across industries, transforming how we work, live, and interact with the world around us.

By demystifying AI and its key technologies, this course empowers participants with the knowledge to appreciate the profound impact of AI. It highlights both the opportunities and challenges posed by AI, preparing individuals to engage in informed discussions and make thoughtful decisions in an increasingly AI-driven world. As we move forward, a fundamental understanding of AI will be crucial for navigating the future, fostering innovation, and ensuring that the benefits of AI are accessible to all. This course is an essential step in that journey, equipping participants with the tools to understand and leverage the transformative power of AI in their personal and professional lives.