## Advanced Artificial Intelligence in Data Analysis

In this advanced course on Artificial Intelligence (AI) in Data Analysis, we delve deeper into the intricate world of AI and its transformative impact on organizations. Participants will gain advanced knowledge and skills in leveraging Al technologies to extract valuable insights from vast data sets, optimize decision-making processes, and drive business performance.

Designed for senior and middle management professionals, this course empowers participants to harness the full potential of AI for competitive advantage and prepare for the future of data-driven enterprises.

Explore the complex concepts and forms of artificial intelligence.

Apply advanced AI techniques across the entire value chain.

Analyze cutting-edge techniques and algorithms used in Al.

Implement best practices in AI projects to achieve optimal outcomes.

Evaluate the required skills and competencies for Al adoption.

Engage in insightful discussions with business and data professionals on relevant

topics.

Effectively manage the organizational changes brought about by AI integration.

Develop strategies to lead successful Al projects.



Objectives



#### Who should attend

Advanced Artificial Intelligence in Data Analysis training course is ideal for:

Senior Managers: Executives, directors, and senior leaders

Middle Managers: Professionals overseeing functional areas, projects, or teams, who play a pivotal role in implementing Al strategies

Data Professionals: Individuals involved in data analysis, management

Technology Enthusiasts: Professionals with a keen interest in the latest advancements in AI and its applications in data analysis.



## Day 1

#### Foundations of Artificial Intelligence

- Understanding the anatomy of advanced Al systems.
- Deep dive into neural networks, natural language processing, and computer vision.
- Exploring the latest advancements in Al research and development.
- Ethical considerations and responsible Al practices.



## Day 2

#### **Advanced Machine** Learning Techniques

- Reinforcement learning: Principles and applications.
- Unsupervised learning: Clustering and anomaly detection.
- Transfer learning and multitask learning for complex data analysis.
- Cutting-edge advancements in generative models (GANs, VAEs).



## Day 3

#### Knowledge Graphs and Reasoning Systems

- Building knowledge graphs to represent complex relationships in data.
- Advanced reasoning and inference techniques for decision support.
- Explainable AI: Interpreting and justifying Al-based decisions.



# Day 4

## Big Data Analytics with Al

- Scalable Al frameworks for handling massive datasets.
- Utilizing distributed machine learning techniques for processing large-scale data.
- Integrating AI with cloudnative technologies for optimal performance.



## Day 5

#### Al Governance and Risk Management

- Addressing bias and fairness in Al models.
- Al cybersecurity and protecting Al-powered systems.
- Compliance and legal considerations in Al applications.
- Strategies for managing Al-related risks in an organization.







