

# BIG DATA AND ARTIFICIAL INTELLIGENCE PRINCIPLES AND PRACTICES

*"Transforming Data into Intelligence - Harnessing the Power of Big Data and AI for Strategic Innovation."*

## Schedule

Venue (InHouse)	Fees
At Your Organization Premises	Ask For The Quotation

► **Available delivery methods:** In-House Training

## Introduction

In today's data-driven world, organizations are generating and collecting massive volumes of data at unprecedented rates. However, the true value of this data lies in how it is analyzed and utilized. Big Data and Artificial Intelligence (AI) have emerged as two transformative forces enabling businesses and governments to make smarter, faster, and more informed decisions.

This course provides participants with a strong foundation in Big Data technologies and Artificial Intelligence applications. It explores how large datasets can be processed, analyzed, and transformed into actionable insights using AI algorithms, predictive models, and intelligent systems. Through practical learning and real-world case studies, participants will gain the knowledge and skills required to implement Big Data and AI strategies that drive efficiency, innovation, and competitiveness in their organizations.

## Objectives

By the end of this course, participants will be able to:

- Understand the core concepts, architecture, and lifecycle of Big Data and AI systems.
- Explore data collection, cleaning, storage, and analytics techniques.
- Apply AI and machine learning models to extract insights from large datasets.
- Evaluate and utilize Big Data tools such as Hadoop, Spark, and cloud platforms.
- Integrate AI with Big Data to support intelligent decision-making and automation.
- Understand ethical, privacy, and security implications of data-driven systems.
- Develop strategies to adopt Big Data and AI within organizational frameworks.

## Why Attend

Big Data and AI are reshaping how industries operate—from finance and healthcare to transportation and manufacturing. Professionals who understand how to leverage these technologies hold a critical advantage in driving digital transformation. This course bridges the gap between data science and strategic management, offering participants the technical understanding and practical know-how to lead data-driven innovation within their sectors.

## Target Audience

This course is ideal for:

- Data Analysts, Engineers, and Scientists
- IT and System Professionals
- Business and Operations Managers
- Project Managers and Decision-Makers
- Policy Planners and Development Practitioners
- Educators and Researchers in AI and Data Analytics
- Anyone seeking to understand and apply Big Data and AI for organizational success

## Individual Benefits

- Gain a comprehensive understanding of Big Data and AI fundamentals.
- Learn to process, analyze, and visualize large datasets effectively.
- Develop hands-on skills in using data analytics and AI tools.
- Enhance your ability to make data-driven decisions.
- Understand how AI and machine learning models improve operational efficiency.
- Boost your career prospects in the growing field of data science and AI.

## Organizational Benefits

- Improve strategic decision-making through data-driven insights.
- Increase efficiency by integrating automation and predictive analytics.
- Strengthen competitiveness through innovation and technology adoption.
- Build in-house capacity for managing and interpreting Big Data.
- Enhance organizational resilience through intelligent systems and forecasting.
- Foster a culture of digital literacy and analytical thinking across departments.

## Instructional Methodology

This training program combines theory with practical, hands-on sessions to ensure deep learning, including:

- Expert-led lectures and multimedia presentations
- Demonstrations using real-world Big Data and AI tools
- Case studies from leading industries and organizations
- Group projects and data analysis exercises
- Interactive discussions on emerging trends and ethical challenges
- Practical sessions on AI model design and data interpretation

## Course Outline

- Module 1: Introduction to Big Data – Concepts, Evolution, and Importance
- Module 2: The Data Lifecycle – Collection, Cleaning, and Storage
- Module 3: Big Data Technologies – Hadoop, Spark, and Cloud Platforms
- Module 4: Introduction to Artificial Intelligence and Machine Learning
- Module 5: AI Algorithms and Predictive Analytics
- Module 6: Integration of Big Data with AI for Smart Decision-Making
- Module 7: Data Visualization and Business Intelligence Tools
- Module 8: Ethical, Legal, and Security Aspects of Big Data and AI
- Module 9: Case Studies – Big Data and AI in Business, Government, and Society
- Module 10: Capstone Project – Designing a Data-Driven AI Solution

## Certification

Participants who successfully complete the training will receive a Certificate of Completion in Big Data and Artificial Intelligence Principles and Practices, demonstrating their ability to apply advanced data analytics and AI concepts to real-world challenges and strategic decision-making.

## Why Choose MAWA Events

- **Global Expertise:** More than 17 years of experience in professional training and consulting.
- **Industry-Leading Faculty:** Courses delivered by seasoned professionals with hands-on experience.
- **Practical Insights:** Learn to turn theory into actionable strategies for real-world business impact.
- **Client-Focused Solutions:** Customized programs designed to achieve your organisation’s unique goals.

### In-House / Customized Training

Interested in running this course for your team?

Please contact us:

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