

CERTIFICATE IN BIG DATA AND DATA ANALYTICS

"Transforming Information into Insight — Mastering the Power of Data for Smarter Decisions."

Schedule

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

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

Introduction

Data has become the most valuable resource of the digital age. Organizations across industries are increasingly relying on Big Data and Data Analytics to improve efficiency, anticipate trends, and support evidence-based decisions. As the volume, velocity, and variety of data continue to grow, professionals equipped with analytical and technological skills are in high demand.

This Certificate in Big Data and Data Analytics provides a comprehensive understanding of how large datasets are captured, processed, analyzed, and visualized to drive business and operational success. The program covers essential tools and techniques in data analytics, including data mining, machine learning, predictive modeling, and data visualization, while introducing participants to Big Data technologies such as Hadoop, Spark, and cloud-based systems. Through hands-on learning, participants will develop the ability to transform raw data into actionable insights for strategic decision-making.

Objectives

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

- Understand the core concepts and technologies of Big Data and Data Analytics.
- Manage and process large datasets efficiently using modern tools and techniques.
- Apply data mining, statistical, and analytical methods to solve practical problems.
- Design and implement data-driven decision-making models.
- Use visualization tools to communicate analytical results effectively.
- Explore applications of Big Data analytics across business, engineering, and public sectors.
- Address ethical, privacy, and governance challenges in data analytics.

Why Attend

As data becomes central to decision-making, organizations seek professionals who can interpret and leverage it effectively. This course empowers participants with the analytical mindset and technical competencies required in today's data-driven world. Whether you are a business professional, engineer, researcher, or policymaker, this certification will enhance your ability to analyze trends, improve outcomes, and lead data-centric initiatives confidently.

Target Audience

This program is designed for:

- Data Analysts, IT and Business Professionals
- Engineers, Researchers, and Technologists
- Managers and Decision-Makers in Public or Private Sectors
- Policy Planners and Development Practitioners
- Academicians and Students aspiring for data analytics careers
- Anyone interested in using data for strategic, operational, or research purposes

Individual Benefits

- Gain a strong foundation in data analytics and Big Data principles.
- Develop practical skills in data collection, analysis, and visualization.
- Learn to use tools such as Excel Analytics, Python, Power BI, and Tableau.
- Understand predictive modeling and machine learning basics.
- Improve your ability to make evidence-based and strategic decisions.
- Enhance your career prospects in analytics, research, and digital transformation fields.

Organizational Benefits

- Build in-house capacity for data-driven decision-making.
- Improve efficiency through predictive insights and trend analysis.
- Strengthen competitive advantage using data intelligence.
- Foster innovation in product design, operations, and customer management.
- Ensure better governance through accurate reporting and forecasting.
- Promote a data culture that supports continuous improvement and accountability.

Instructional Methodology

The course uses a blend of theory and practical applications, ensuring participants gain both conceptual clarity and hands-on experience through:

- Expert-led interactive lectures and discussions
- Practical exercises using real-world datasets
- Demonstrations of Big Data and analytics tools (Hadoop, Power BI, Python, Excel, Tableau)
- Group projects and problem-solving sessions
- Case studies from leading industries and government sectors
- Assessments and project presentations for certification

Course Outline

Module 1: Introduction to Big Data and Data Analytics

Module 2: Data Sources, Collection, and Management

Module 3: Data Cleaning, Transformation, and Integration

Module 4: Introduction to Big Data Technologies – Hadoop, Spark, Cloud Platforms

Module 5: Analytical Methods – Descriptive, Predictive, and Prescriptive Analytics

Module 6: Data Visualization and Reporting Techniques (Power BI, Tableau)

Module 7: Machine Learning Fundamentals for Data Analytics

Module 8: Business and Industry Applications of Data Analytics

Module 9: Data Governance, Security, and Ethical Practices

Module 10: Capstone Project – Designing a Data-Driven Solution

Certification

Upon successful completion of the training, participants will be awarded a Certificate in Big Data and Data Analytics, recognizing their competence in data management, analysis, and visualization for decision-making and organizational advancement.

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?

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