Management And Leadership

Leveraging Big Data in R&D Decision Making

Course Introduction

This course focuses on harnessing the power of big data to enhance decision-making processes in R&D. It covers big data technologies, analytical methods, and strategies for integrating big data insights into R&D operations and strategic planning.

Target Audience

- R&D Managers and Directors
- Innovation Managers
- Product Development Managers
- Chief Technology Officers (CTOs)
- Strategy and Planning Professionals
- Business Development Managers
- Engineering Managers
- Senior Executives overseeing R&D-business integration

Learning Objectives

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

- Identify the potential of big data in R&D contexts
- Learn to identify and utilize relevant big data sources for R&D
- Develop skills in big data analytics and interpretation
- Enhance decision-making processes using big data insights
- Gain knowledge of big data technologies and infrastructures for R&D

Course Outline

- **01 Day One**

  Big Data Fundamentals for R&D

  - Introduction to big data in R&D contexts
  - Big data sources relevant to R&D (internal, external, structured, unstructured)
  - Challenges and opportunities of big data in R&D
  - Case study: Big data success stories in R&D

- **02 Day Two**

  Big Data Technologies and Infrastructure

  - Big data architectures for R&D environments
  - Data lakes and data warehouses in R&D contexts
  - Cloud computing and big data processing
  - Workshop: Designing a big data ecosystem for R&D

- **03 Day Three**

  Advanced Big Data Analytics for R&D

  - Machine learning and AI for big data in R&D
  - Real-time analytics and streaming data in R&D processes
  - Text mining and natural language processing for research data
  - Hands-on session: Big data analysis techniques

- **04 Day Four**

  Decision Making with Big Data in R&D

  - Integrating big data insights into R&D decision processes
  - Risk assessment and mitigation using big data
  - Predictive modeling for R&D project outcomes
  - Simulation: Making R&D decisions with big data inputs

- **05 Day Five**

  Implementing Big Data Strategies in R&D

  - Developing a big data roadmap for R&D
  - Change management for big data adoption
  - Ethical and privacy considerations in big data R&D
  - Action planning: Leveraging big data in your R&D organization

Confirmed Sessions

FROM	TO	DURATION	FEES	LOCATION
May 11, 2025	May 15, 2025	5 days	4250.00 $	KSA - Riyadh
Sept. 15, 2025	Sept. 19, 2025	5 days	4250.00 $	UAE - Abu Dhabi
Nov. 3, 2025	Nov. 7, 2025	5 days	5950.00 $	USA - Los Angeles