



AI-Enabled Energy Digitalisation and Management Course

AI-Enabled Energy Digitalisation and Management Course

Overview

The AI-Enabled Energy Digitalisation and Management Course is a five-day intermediate course for energy, sustainability, facilities, utility, digital transformation, and operations teams who leave with an AI Energy Digitalisation Roadmap. The course connects energy data architecture, smart metering, IoT, demand forecasting, anomaly detection, asset optimization, demand flexibility, dashboards, responsible AI, cybersecurity awareness, economics, and governance. Agile Leaders Training Center delivers this course on AI-enabled energy digitalisation and management.

Who Should Attend

- Teams responsible for energy performance, consumption, and improvement decisions
- Sustainability functions responsible for resource efficiency and performance evidence
- Engineering teams responsible for facilities, assets, meters, and operating systems
- Utility analysts responsible for load patterns, forecasts, and demand decisions
- Digital transformation functions responsible for data platforms and AI adoption
- Operations leaders responsible for investment priorities and implementation governance

The course assumes participants work with energy data or operating decisions and leaves out software development, electrical design, and equipment certification.

Departments and Industries

The course supports digital energy decisions across asset-intensive and service environments.

- Energy management and sustainability
- Facilities, engineering, and asset operations
- Utilities and infrastructure services
- Manufacturing and industrial operations
- Commercial property, healthcare, and hospitality

Learning Objectives

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



- Analyze energy needs and prioritize AI use cases
- Build a metering, IoT, and energy data architecture
- Apply forecasting and anomaly detection methods
- Evaluate asset optimization and demand flexibility decisions
- Compare economics, responsible AI, cyber exposure, and governance controls
- Create an AI Energy Digitalisation Roadmap

Course Agenda

Day 1: Energy Needs and Digital Use Cases

- Energy Process and Decision Mapping Canvas
- AI Energy Use Case Prioritization Matrix
- Energy Performance Baseline Register
- Stakeholder Data and Decision Requirement Map
- Value Risk and Feasibility Scorecard

Day 2: Metering IoT and Energy Data

- Smart Meter and Sensor Selection Matrix
- IoT Energy Data Flow Architecture
- Energy Data Model and Quality Protocol
- System Interface and Interoperability Checklist
- Data Ownership and Access Control Matrix

Day 3: Forecasting Detection and Optimization

- Energy Demand Forecasting Workflow
- Consumption Pattern Segmentation Method
- Energy Anomaly Detection Rule Set
- Asset Performance Optimization Decision Model
- Demand Flexibility Scenario Planning Grid

Day 4: Dashboards Governance and Economics

- Energy Performance Dashboard Design
- Responsible AI Decision Review Checklist
- Operational Technology Cybersecurity Awareness Review
- Digital Energy Cost and Benefit Model
- AI Energy Governance and Decision Rights Matrix



Day 5: Energy Digitalisation Practice

- Suggested Exercise: AI Energy Use Case Selection
- Suggested Exercise: Metering and Data Architecture Design
- Suggested Exercise: Forecasting and Anomaly Response Scenario
- Suggested Exercise: Economics Governance and Dashboard Review
- Capstone Exercise: AI Energy Digitalisation Roadmap

Practical Exercises

The course includes suggested activities for converting energy evidence into digital and operating decisions.

- Suggested activity: prioritize AI use cases for an industrial site and a property portfolio.
- Suggested activity: design a smart metering and IoT energy data flow.
- Suggested activity: evaluate a demand forecast, anomaly alert, and asset response.
- Suggested activity: present an AI Energy Digitalisation Roadmap with economics, controls, indicators, and phased actions.

FAQs

Who suits the AI-Enabled Energy Digitalisation and Management Course?

Energy, sustainability, facilities, utility, transformation, and operations teams suit the course; it assumes involvement in energy data or operating decisions rather than coding or electrical-system design.

How does energy digitalisation differ from an energy audit course?

Energy digitalisation builds connected data, analytical, forecasting, decision, and governance capabilities, while an energy audit course generally concentrates on evaluating energy use and identifying efficiency opportunities.

How does AI support energy demand forecasting?

AI supports energy demand forecasting by identifying patterns in historical and contextual data, producing estimates that teams can review against operating conditions, uncertainty, and defined decision rules.

Why is energy data quality important for AI?

Energy data quality determines whether models receive complete, consistent, timely, and usable inputs, affecting the reliability of forecasts, anomaly alerts, dashboards, and optimization decisions.



What belongs in an AI Energy Digitalisation Roadmap?

An AI Energy Digitalisation Roadmap links needs, use cases, meters, sensors, data, models, dashboards, responsible-use controls, cyber awareness, economics, owners, indicators, and phased implementation actions.

Conclusion

Participants leave with an AI Energy Digitalisation Roadmap connecting operational needs, energy data, analytical use cases, investment choices, controls, and ownership. The work product improves how digital energy initiatives are prioritized and governed. It gives energy and operations teams a reusable structure for implementation, performance review, and subsequent decisions.



Training Course Categories

Agile PM and Project Management Training Courses

Agribusiness & Food Security Training Courses

Certified Courses By International Bodies

Communication and Public Relations Training Courses

Data Analytics Training and Data Science Courses

Education and Learning Development Training Courses

Environment & Sustainability Training Courses

Facilities and Real Estate Training Courses

Finance and Accounting Training Courses

Governance, Risk and Compliance Training Courses

Healthcare Management Training Courses

Hospitality and Tourism Training Courses

Human Resources Training and Development Courses

IT Security Training & IT Training Courses

Leadership and Management Training Courses

Legal Training, Procurement and Contracting Courses

Maintenance Training and Engineering Training Courses

Marketing, Customer Relations, and Sales Courses

Occupational Health, Safety and Security Training Courses

Oil & Gas Training and Other Technical Courses

Personal & Self-Development Training Courses

Quality and Operations Management Training Courses

Quality and Operations Management Training Courses

Secretarial and Administration Training Courses

Shipping, Maritime and Ports Training Courses



Training Cities

Abu Dhabi UAE	Accra Ghana	Al Jubail Saudi Arabia
Amman Jordan	Amsterdam Netherlands	Athens Greece
Baku Azerbaijan	Bali Indonesia	Bangkok Thailand
Barcelona Spain	Berlin Germany	Cairo Egypt
Cape town South Africa	Casablanca Morocco	Chicago USA
Doha Qatar	Dubai UAE	Frankfurt Germany
Geneva Switzerland	Istanbul Turkey	Jakarta Indonesia
Johannesburg South Africa	Kuala Lumpur Malaysia	Kuwait Kuwait
Langkawi Malaysia	Lisbon Portugal	London UK
Madrid Spain	Manama Bahrain	Marbella Spain
Milan Italy	Montreux Switzerland	Munich Germany
Muscat Oman	Nairobi Kenya	New York USA

Training Cities

Nice

France

Paris

France

Phuket

Thailand

Port Louis

Mauritius

Porto

Portugal

Prague

Czech Republic

Riyadh

Saudi Arabia

Rome

Italy

San Diego

USA

Seoul

South Korea

Sharm El-Sheikh

Egypt

Singapore

Singapore

Tashkent

Uzbekistan

Tbilisi

Georgia

Tokyo

Japan

Toronto

Canada

Trabzon

Turkey

Vienna

Austria

Zanzibar

Tanzania

Zoom

Online Training

Zurich

Switzerland