

Smart Building Technologies and Connected Operations Course

21 – 25 November 2027
Johannesburg

AGILE LEADERS
Training Center

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Ref: 328_127477 **Date:** 21 – 25 November 2027 **Location:** Johannesburg **Fees:** 4500 Euro

Overview

The Smart Building Technologies and Connected Operations Course is a one-week intermediate course for facilities, engineering, real estate, energy, property operations, and technology teams who leave with a Smart Building Technology Roadmap. The course connects building management systems, building automation systems, IoT sensor architecture, connected controls, digital twin applications, predictive maintenance, occupant experience, energy optimization, cybersecurity awareness, governance, and performance decisions. Agile Leaders Training Center delivers this course on smart building technologies and connected operations.

Who Should Attend

- Teams responsible for facility operations, service continuity, and maintenance performance
- Engineering functions responsible for building services, controls, HVAC, and lighting
- Real estate functions responsible for asset value, capital planning, and portfolio performance
- Energy and sustainability teams responsible for consumption analysis and optimization
- Technology functions responsible for connected devices, platforms, data, and integration
- Property operations leaders responsible for occupant services and vendor coordination

The course assumes participants contribute to building operations or technology decisions and leaves out software development, control-panel wiring, and product certification.

Departments and Industries

The course supports connected building decisions across property portfolios and operational environments.

- Facilities management and building engineering
- Commercial real estate and property operations
- Healthcare, education, and hospitality estates
- Retail centers and mixed-use developments
- Industrial facilities and corporate workplaces

Learning Objectives

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

- Analyze building needs and prioritize smart use cases
- Build an interoperable sensor, control, and data architecture
- Apply HVAC and lighting optimization methods
- Diagnose maintenance needs through operational data and digital twins
- Evaluate economics, cyber exposure, governance, and performance measures
- Create a Smart Building Technology Roadmap

Course Agenda

Day 1: Building Needs and Connected Use Cases

- Building Service and Stakeholder Mapping Canvas
- Smart Building Use Case Prioritization Matrix
- Occupant Journey and Service Requirement Map
- Existing Asset and System Baseline Register
- Value Risk and Feasibility Scorecard

Day 2: Systems Sensors and Data Architecture

- Building Management and Automation System Architecture Map
- IoT Sensor Selection and Placement Matrix
- Control Point and Command Logic Register
- Building Data Model and Quality Protocol
- System Interoperability and Interface Checklist

Day 3: Optimization Maintenance and Digital Twins

- HVAC Performance Optimization Decision Model
- Lighting Control and Occupancy Rule Set
- Fault Detection and Diagnostic Workflow
- Predictive Maintenance Indicator Register
- Digital Twin Use Case and Data Linkage Map

Day 4: Governance Economics and Performance

- Occupant Experience Measurement Framework
- Operational Technology Cybersecurity Awareness Review
- Smart Building Lifecycle Cost and Benefit Model
- Technology Governance and Decision Rights Matrix
- Building Performance Indicator Dashboard Design

Day 5: Smart Building Practice

- Suggested Exercise: Connected Use Case Selection
- Suggested Exercise: Sensor Control and Data Architecture Design
- Suggested Exercise: Optimization and Maintenance Scenario
- Suggested Exercise: Economics Governance and Performance Review
- Capstone Exercise: Smart Building Technology Roadmap

Practical Exercises

The course includes suggested activities for converting building evidence into technology and operating decisions.

- Suggested activity: prioritize connected use cases for a commercial property and a healthcare estate.
- Suggested activity: design an IoT sensor architecture and system interface map.
- Suggested activity: diagnose HVAC performance and maintenance signals from operating data.
- Suggested activity: present a Smart Building Technology Roadmap with economics, governance, indicators, and phased actions.

FAQs

Who suits the Smart Building Technologies and Connected Operations Course?

Facilities, engineering, real estate, energy, property operations, and technology teams suit the course; it assumes responsibility for building operations or technology decisions rather than software development or controls installation.

How does smart building technology differ from a building automation course?

Smart building technology connects automation with sensors, data architecture, digital twins, maintenance, occupant services, economics, and governance, while a building automation course may focus more narrowly on control systems and sequences.

How do IoT sensors support connected building operations?

IoT sensors provide condition, occupancy, environmental, and equipment data that teams can map to defined alerts, control decisions, maintenance actions, service measures, and performance indicators.

Why is interoperability important for smart building systems?

Interoperability enables systems and devices to exchange usable data, reducing isolated operations and supporting coordinated control, analytics, maintenance, reporting, and asset decisions.

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What belongs in a Smart Building Technology Roadmap?

A Smart Building Technology Roadmap links needs, prioritized use cases, systems, sensors, controls, data, interfaces, security awareness, economics, governance, owners, performance indicators, and phased implementation actions.

Conclusion

Participants leave with a Smart Building Technology Roadmap linking operational needs, connected systems, data, investment choices, controls, and ownership. The work product improves how technology initiatives are prioritized and governed across a property portfolio. It gives facilities and asset teams a reusable structure for implementation, performance review, and future decisions.