Advanced Skill Certificate in Strategic Facilities Management

Technology and Innovation in Facilities Management

BIM (Building Information Modeling)

BIM is a digital tool that facilitates the planning, design, construction, and management of buildings and infrastructure. It is a 3D model-based process that provides information about a building's physical and functional characteristics. BIM enables more efficient and accurate building design, construction, and management by allowing for better collaboration, coordination, and communication among stakeholders.

Related terms: 3D model, digital twin, construction management, facilities management.

Building Automation System (BAS)

A Building Automation System (BAS) is a centralized control system that manages and monitors a building's mechanical and electrical systems. These systems include HVAC, lighting, security, and fire safety. A BAS enables facilities managers to optimize energy use, reduce operating costs, and improve occupant comfort and safety.

Related terms: HVAC, energy management, building management system, smart building.

Cloud Computing

Cloud computing is the delivery of computing services over the internet, including servers, storage, databases, networking, software, and analytics. Cloud computing enables facilities managers to access and use computing resources on-demand, without the need for local infrastructure or maintenance.

Related terms: Software as a Service (SaaS), Platform as a Service (PaaS), Infrastructure as a Service (IaaS), data center.

Computer-Aided Facility Management (CAFM)

Computer-Aided Facility Management (CAFM) is a software application that supports facilities management activities, including space planning, asset management, maintenance management, and move management. CAFM enables facilities managers to optimize the use of space, reduce costs, and improve the efficiency and effectiveness of facilities management operations.

Related terms: Facility Information Management System (FIMS), Integrated Workplace Management System (IWMS), Building Information Modeling (BIM).

Energy Management

Energy management is the process of monitoring, controlling, and optimizing energy use in buildings and facilities. Energy management enables facilities managers to reduce energy costs, improve energy efficiency,

and reduce carbon emissions.

Related terms: Building Automation System (BAS), Building Management System (BMS), smart building, Energy Star.

Facilities Management (FM)

Facilities Management (FM) is the practice of managing and maintaining buildings, infrastructure, and grounds to support the activities of an organization. FM includes a range of activities, including space planning, maintenance management, energy management, security, and safety.

Related terms: Building Operations, Real Estate Management, Workplace Management.

Facility Information Management System (FIMS)

A Facility Information Management System (FIMS) is a software application that manages and organizes facilities-related data, including information about buildings, spaces, assets, and people. FIMS enables facilities managers to access and use data to support decision-making and improve the efficiency and effectiveness of facilities management operations.

Related terms: Computer-Aided Facility Management (CAFM), Integrated Workplace Management System (IWMS), Building Information Modeling (BIM).

Green Building

Green building is the practice of designing, constructing, and operating buildings in a way that minimizes environmental impact and maximizes energy efficiency, water efficiency, and indoor air quality. Green building enables facilities managers to reduce operating costs, improve occupant health and productivity, and contribute to sustainability goals.

Related terms: Leadership in Energy and Environmental Design (LEED), Green Globes, Energy Star, building performance.

HVAC (Heating, Ventilation, and Air Conditioning)

HVAC is a system that provides heating, ventilation, and air conditioning to buildings and facilities. HVAC systems include equipment such as furnaces, air conditioners, and ventilators. HVAC systems enable facilities managers to maintain comfortable temperatures, improve indoor air quality, and reduce energy costs.

Related terms: Building Automation System (BAS), Building Management System (BMS), energy management, Building Information Modeling (BIM).

Internet of Things (IoT)

The Internet of Things (IoT) is a network of connected devices, sensors, and systems that communicate and exchange data over the internet. IoT enables facilities managers to monitor and control building systems

and equipment in real-time, improve energy efficiency, and enhance occupant comfort and safety.

Related terms: Building Automation System (BAS), Building Management System (BMS), smart building, sensor technology.

Integrated Workplace Management System (IWMS)

An Integrated Workplace Management System (IWMS) is a software application that combines multiple facilities management functions into a single platform. IWMS includes modules for space planning, asset management, maintenance management, and move management. IWMS enables facilities managers to optimize the use of space, reduce costs, and improve the efficiency and effectiveness of facilities management operations.

Related terms: Computer-Aided Facility Management (CAFM), Facility Information Management System (FIMS), Building Information Modeling (BIM).

Maintenance Management

Maintenance management is the practice of planning, scheduling, and performing maintenance activities to ensure the reliability and efficiency of building systems and equipment. Maintenance management includes activities such as preventive maintenance, predictive maintenance, and corrective maintenance.

Related terms: Computerized Maintenance Management System (CMMS), Building Automation System (BAS), Building Management System (BMS).

Predictive Maintenance

Predictive maintenance is a maintenance strategy that uses data and analytics to predict when equipment or systems will fail, and perform maintenance before the failure occurs. Predictive maintenance enables facilities managers to reduce downtime, improve equipment reliability, and reduce maintenance costs.

Related terms: Condition-Based Maintenance (CBM), Preventive Maintenance (PM), Corrective Maintenance (CM), Internet of Things (IoT).

Space Planning

Space planning is the process of analyzing, designing, and optimizing the use of space in buildings and facilities. Space planning includes activities such as space utilization analysis, space allocation, and space design. Space planning enables facilities managers to improve occupant productivity, reduce costs, and support organizational goals.

Related terms: Workplace Strategy, Activity-Based Working (ABW), Agile Workplace, Computer-Aided Facility Management (CAFM).

Sustainability

Sustainability is the practice of using resources in a way that meets current needs without compromising

the ability of future generations to meet their own needs. Sustainability includes activities such as reducing energy and water use, improving indoor air quality, and reducing waste and pollution.

Related terms: Green Building, Leadership in Energy and Environmental Design (LEED), Green Globes, Energy Star.

Total Cost of Ownership (TCO)

Total Cost of Ownership (TCO) is a financial metric that includes all costs associated with the acquisition, operation, and maintenance of building systems and equipment over their lifecycle. TCO includes costs such as capital expenditures, operating expenses, maintenance costs, and energy costs.

Related terms: Life Cycle Cost Analysis (LCCA), Return on Investment (ROI), Net Present Value (NPV), Building Information Modeling (BIM).

Workplace Management

Workplace Management is the practice of managing and optimizing the use of space, technology, and people to support the activities of an organization. Workplace Management includes activities such as space planning, technology management, and change management.

Related terms: Workplace Strategy, Activity-Based Working (ABW), Agile Workplace, Computer-Aided Facility Management (CAFM).

Workplace Strategy

Workplace Strategy is the practice of aligning the design and use of space with the goals, culture, and needs of an organization. Workplace Strategy includes activities such as space utilization analysis, change management, and workplace design.

Related terms: Space Planning, Activity-Based Working (ABW), Agile Workplace, Computer-Aided Facility Management (CAFM).