

Chapter 1: Planning and Organizing the Housekeeping Department

The efficiency of a **Housekeeping Department (HK)** is critical to a hotel's success, directly impacting guest satisfaction. Planning and organizing are the foundational pillars that ensure smooth, cost-effective, and high-quality operations.

a) Division of Work Document

The **Division of Work Document** formally outlines how all the tasks and responsibilities within the Housekeeping Department are broken down, assigned, and structured among the various levels of employees. It ensures that every task, from public area cleaning to room inspection, has a designated person or team responsible for it. This prevents overlap, confusion, and missed tasks, establishing a clear chain of command and accountability.

b) Area Inventory List

An **Area Inventory List (AIL)** is a complete, detailed census of every item within a specific area or room. For a guest room, it would list all the furniture (bed, dresser, desk), fixtures (lights, faucets), soft furnishings (curtains, carpet), and amenities. The AIL serves as a **master reference document** for **performance standards** (to ensure nothing is missed during cleaning) and for **inventory control** (to track items during deep cleaning or refurbishment).

c) Frequency Schedule

A **Frequency Schedule** dictates *how often* a specific cleaning task must be performed. Tasks are classified based on the required frequency:

- **Daily:** Making beds, dusting, cleaning bathrooms.
- **Weekly:** Polishing certain fixtures, vacuuming drapes.
- **Monthly:** Washing curtains, deep cleaning carpets.
- **Quarterly/Annually:** **Deep cleaning** guest rooms, window washing.

This schedule ensures that standards are maintained over time, preventing gradual deterioration of cleanliness and saving costs by scheduling heavy-duty work efficiently.

d) Performance Standard - Task List, Job Description, SOP

Performance Standards define the expected quality and methods for completing a task. They answer the question: "How clean is clean?"

- **Task List:** A sequential, step-by-step procedure for a specific, single task (e.g., "how to clean a mirror").
- **Job Description (JD):** A document that defines the **scope of work** for a specific position (e.g., Room Attendant, Public Area Supervisor), outlining the reporting structure, duties, responsibilities, and required qualifications.

- **Standard Operating Procedure (SOP):** A detailed, mandatory set of instructions for a complex, multi-step operation (e.g., "procedure for cleaning a check-out room"). SOPs ensure consistency, safety, and quality across the entire department.

e) Productivity Standard

A **Productivity Standard** establishes the **quantity of work** an employee is expected to complete within a specific time frame. For example, a standard might be "**16 check-out rooms per 8-hour shift**" for a room attendant. It is used to calculate the necessary staffing levels (**staffing guide**), monitor employee efficiency, and benchmark performance against industry averages.

f) Inventory Management

Inventory Management is the process of ordering, storing, and tracking the materials used by the Housekeeping Department. Effective management minimizes waste, prevents shortages, and controls costs. The key inventories are:

- **Guest Supplies:** Small, disposable amenities provided to guests (soaps, shampoo, stationery).
- **Cleaning Agents:** Chemicals and detergents for different surfaces (disinfectants, glass cleaners, floor polish).
- **Linen:** All fabric items for rooms, bath, and food and beverage (sheets, towels, napkins).
- **Uniform:** Clothing provided to employees across the hotel.
- **Equipment:** Machines and tools used for cleaning (vacuum cleaners, trolleys, floor scrubbers).

g) Establishing Par Levels

A **Par Level (Periodic Automatic Replacement Level)** is the minimum quantity of an inventory item (like linen or guest supplies) that must be readily available at all times to meet operational needs. Establishing the par level involves calculating the number of items currently in use, those being cleaned, those in storage, and a safety stock.

- If the required par level for bath towels is **3 Par** (meaning three times the amount used in one room), the quantity purchased or kept in storage ensures the hotel can operate even if laundry or delivery is delayed.

h) Purchase Specifications of all Inventories

Purchase Specifications are detailed descriptions of the quality, size, material, color, and performance required for an item before it is purchased. For example, the specification for a guest bath towel might include the size, the **thread count** (GSM - Grams per Square Meter), the material (e.g., 100% cotton), and the type of weave. These specifications ensure that all purchased items meet the hotel's quality standards and are consistent.

i) Stock Taking

Stock Taking is the physical process of counting all inventory items on hand at a specific time. It is performed regularly (monthly, quarterly) to verify the actual quantity against the records on file. This process helps to:

- **Identify discrepancies** (pilferage or waste).
- **Calculate consumption rates.**
- **Validate the Par Level** calculations.
- **Assist in calculating the cost of goods used.**

j) Formats/Records

Formats/Records are the essential paperwork and digital logs used to manage and track operations. Examples include:

- **Room Status Reports:** Updated status of all rooms (Vacant Clean, Occupied Dirty).
- **Lost and Found Registers.**
- **Maintenance Request Forms (Snag Lists).**
- **Inventory Issue Slips and Stock Registers.**
- **Guest Feedback Forms.**

These records provide an **audit trail**, facilitate interdepartmental communication, and form the basis for performance analysis.

k) Work Schedules

Work Schedules are documents that list the names of all employees, their designated shifts, days off, and assigned areas/tasks for a specific period (e.g., a week). Good schedules ensure:

- **Adequate coverage** across all shifts and areas.
- **Compliance with labor laws** and contract hours.
- **Equitable distribution** of preferred and less-preferred shifts/tasks.

l) Coordinating, Directing, and Controlling

These are the three managerial functions crucial for executing the Housekeeping plan.

- **Coordinating:** Ensuring smooth interaction and shared goals with other departments (e.g., sharing a room status report with the Front Office).
- **Directing:** Motivating and leading employees to achieve departmental goals through clear instructions and positive reinforcement.
- **Controlling:** Measuring actual performance against established standards (Productivity and Performance Standards) and taking corrective action when necessary.

Types of Shifts

Common shift types include **Morning Shift** (peak cleaning time), **Evening/Swing Shift** (turn-down service, cleaning public areas), and **Night Shift** (deep cleaning, heavy floor scrubbing).

Planning Duty

This involves translating the work schedule into specific daily assignments based on the hotel's occupancy and arrival/departure forecasts.

Training of HK Employees

Training is essential for quality and safety.

- **Benefits:** Increased productivity, reduced errors, lower turnover, higher morale, and better guest satisfaction.
- **Types: On-the-Job Training (OJT)** (learning while working) and **Off-the-Job Training** (classroom/simulation).
- **Four-Step Training (Job Instruction Training - JIT):** A structured OJT method:
 1. **Prepare the Learner:** Put the learner at ease, motivate, and explain the task.
 2. **Present the Operation:** Demonstrate the task slowly and clearly, explaining the key points.
 3. **Try Out Performance:** Have the learner perform the task while the trainer observes and corrects errors.
 4. **Follow Up:** Place the learner on their own, checking in periodically and providing positive reinforcement.

m) Staffing

Staffing involves determining and securing the necessary number and type of employees.

- **Staffing Guide:** A formula or document used to calculate the required number of employees based on **productivity standards** and forecasted workload (e.g., number of rooms to be cleaned).
- **Calculating Staff Strength:** This involves taking the total rooms/areas to be cleaned, dividing by the productivity standard (rooms/shift), and then adding relief staff (for days off/holidays) to get the required strength.
- **Job Allocation:** Assigning specific tasks, rooms, or areas to individual employees for a given shift.

Chapter 2: Introduction to Interior Decoration

The design and decor of a hotel fundamentally shape the guest experience and brand perception. Housekeeping staff are key to maintaining this environment.

a) Role of Interiors in Guest Satisfaction

Interiors set the **ambiance** and first impression of a hotel. A well-designed, functional, and aesthetically pleasing space contributes to a feeling of luxury, comfort, and security. Housekeeping's role is to preserve the designer's intent by maintaining impeccable cleanliness, thus reinforcing the hotel's quality promise and driving positive guest reviews and loyalty.

b) Elements and Principles of Design

The language of interior design is built on two concepts:

- **Elements of Design:** The basic components of any design.
 - **Line:** Creates direction, movement (vertical, horizontal, curved).
 - **Form/Shape:** The three-dimensional structure of an object (e.g., furniture).
 - **Color:** The most impactful element, affecting mood and perception.
 - **Texture:** The surface quality of materials (smoothness of glass, roughness of wood).
 - **Light:** Illuminates the space and highlights features.
 - **Space:** The actual area, defined by boundaries.
- **Principles of Design:** The rules for using the elements effectively.
 - **Balance:** Achieving visual equilibrium (symmetrical, asymmetrical, radial).
 - **Rhythm:** Guiding the eye through repetition, progression, or opposition.
 - **Emphasis:** Creating a **focal point** that draws attention (e.g., a piece of art or a fireplace).
 - **Scale/Proportion:** The size of objects relative to each other and the room.
 - **Harmony/Unity:** Creating a sense that all elements belong together.

c) Selecting Color Schemes for Different Areas of a Hotel

Color is a powerful, non-verbal communicator.

Dimensions of Colors

1. **Hue:** The pure, original color (e.g., Red, Blue, Yellow).
2. **Value:** The lightness or darkness of a color (adding white creates a **tint**; adding black creates a **shade**).
3. **Chroma/Intensity:** The brightness or dullness of a color (saturation).

Prang Color System

The **Prang Color System** organizes 12 colors into a wheel:

- **Primary Colors:** Red, Yellow, Blue (cannot be created).
- **Secondary Colors:** Created by mixing two primaries (Green, Orange, Violet).
- **Tertiary Colors:** Created by mixing a primary and a secondary (e.g., Yellow-Green).

Color Schemes

- **Monochromatic:** Variations in value and intensity of a single hue.
- **Analogous:** Colors adjacent to each other on the color wheel (e.g., Blue, Blue-Green, Green).
- **Complementary:** Colors opposite each other on the color wheel (e.g., Red and Green), creating high contrast.
- **Triadic:** Three colors equally spaced on the color wheel.

Emotional Effect of Colours

- **Warm Colors (Red, Orange, Yellow):** Stimulating, energetic, and create a cozy, intimate feel (good for restaurants, lobbies).
- **Cool Colors (Blue, Green, Violet):** Relaxing, calming, and associated with nature, cleanliness, and peace (good for guest rooms, spas).

d) Lighting in Interiors

Lighting is both functional and decorative.

- **Direct:** Light shines directly onto a surface (e.g., a task lamp).
- **Indirect:** Light is bounced off a ceiling or wall, creating a softer, diffused glow.
- **Semi-Direct:** Mostly direct, but some light is diffused.
- **Incandescent Light:** Warm, yellow light from a traditional bulb; less energy-efficient.
- **Fluorescent Light:** Cooler, often used in back-of-house or utility areas; very energy-efficient.
- **Architectural Lighting:** Integrated into the building structure (e.g., recessed lights, cove lighting).
- **Non-Architectural Lighting:** Decorative, freestanding fixtures (e.g., chandeliers, table lamps).

Lighting Different Areas

- **Lobby:** Needs a mix of ambient, accent, and task lighting to create a grand, welcoming, and safe atmosphere.
- **Guest Room:** Requires layered lighting: soft ambient light, bright task lighting (reading/desk), and accent lights.

e) Furniture – Specifications and Placement

Furniture should be durable, comfortable, and aesthetically appropriate.

- **Specifications:** Detailed requirements for construction (e.g., hardwood frame, commercial-grade fabric, fire-retardant foam).
- **Placement (Room Layouts):** Must follow fire and safety codes, ensure clear pathways, and maximize functionality and sightlines. The layout should guide the guest naturally through the space.

Room Accessories

Items like artwork, vases, mirrors, and decorative objects that enhance the design without being strictly functional.

Fabric and Upholstery

Should be aesthetically pleasing, but must also be **durable**, stain-resistant, and, critically, **fire-retardant** (as per hospitality standards).

Floor & Floor Finishes

Materials used for flooring (carpets, tiles, wood). The finish must be appropriate for the area: durable and slip-resistant for public areas, and quiet/comfortable for guest rooms.

Wall & Wall Finishes

Treatments like paint, wallpaper, or paneling. Finishes should be easy for housekeeping to clean and maintain while contributing to the aesthetic.

f) Renovation

Renovation is necessary to keep the hotel competitive and to maintain the physical asset.

- **Types of Renovation:**
 - **Soft Goods Renovation:** Replacement of fabrics, carpets, drapes, and linens—the least disruptive type.
 - **Hard Goods Renovation:** Replacement of furniture and fixtures.
 - **Full Renovation:** Complete overhaul, often including major structural/mechanical changes.
- **Process of Refurbishment & Procedure for Redecoration:**
 1. **Planning and Design:** Defining scope, budget, and design concept.
 2. **Procurement:** Purchasing materials and furniture.
 3. **Scheduling/Logistics:** Closing off rooms/areas and scheduling contractors to minimize guest impact.
 4. **Execution:** The physical work of construction/installation.
 5. **Snagging/Punch List:** Detailed inspection to identify and correct defects (see Chapter 4).
 6. **Handover and Deep Cleaning:** Housekeeping takes over for final preparation before rooms are sold.

g) New Property Count Down

The **New Property Countdown** is a detailed, phased checklist of all activities required to open a new hotel, beginning months before the opening date. For Housekeeping, this includes:

- Finalizing staffing and training.
- Ordering, receiving, and storing all operational supplies (linen, chemicals, equipment).
- Developing and printing all operating procedures (SOPs).
- **Pre-opening deep cleaning** of all areas before official guest arrival.

Chapter 3: Store Management & Contract Management

Effective store management and the strategic use of contracts are essential for financial control and specialized operations within a hotel.

a) Indent-Purchase-Storage-Issue-Records

This describes the complete flow of materials in a hotel.

- **Indent:** A formal, documented request made by the user department (HK) to the purchasing department to buy specific items.
- **Purchase:** The procurement process, including selecting suppliers and placing orders.
 - **Purchase Principles:** Seeking best quality, best price, and reliable delivery (**Value for Money**).
 - **Types of Purchasing:** **Centralized** (all buying done by one department) or **Decentralized** (departments buy their own goods).
 - **Purchase Cycle:** Need recognition - Indent - Supplier selection - Order placement - Delivery - Payment.
- **Storage (Store Management):** Receiving, inspecting, and securing inventory in designated areas. Proper storage ensures items are safe, easy to access, and tracked.
- **Issue:** The process of officially releasing goods from the storeroom to the user department, always against a signed requisition form.
 - **Issuing of Linen, Laundry, Guest Room Supplies, etc.:** Ensures that issues are controlled and tracked against par levels.
- **Record Keeping:** Maintaining accurate logs for all transactions (purchase orders, issue slips, stock registers) for inventory valuation and audit purposes.

b) Pest Control Management

Pest control is crucial for hygiene, safety, and brand reputation.

- **Identify the Pests:** Common hotel pests include rodents (mice, rats), insects (cockroaches, ants, bed bugs), and flying pests (flies, mosquitoes).
- **Areas of Infestation in the Hotel:** Kitchens and food storage, laundry/linen rooms, back-of-house service corridors, pipes/drains, and occasionally, guest rooms (bed bugs).
- **Prevention:** The primary strategy. Includes sealing all entry points, removing food/water sources, and maintaining strict cleanliness (**sanitation**).
- **Treatment:** Applying chemical (pesticides) or non-chemical (traps, heat) methods when infestation occurs. Treatment must be safe and conducted by licensed professionals.

c) Outsourcing / Contract Services / Vendor Management

Outsourcing involves contracting an external company (vendor) to perform specific tasks.

- **Need:** Used for specialized work (pest control, window washing), work requiring expensive equipment (landscaping), or to manage staffing shortages.
- **Types of Outsourced Jobs:** Pest control, laundry processing, flower/plant maintenance, deep cleaning of carpets, security, and sometimes, public area cleaning.
- **Steps / Guidelines Involved when Hiring on Contract:**
 1. **Define Scope of Work:** Clearly list all tasks and standards (SOPs).
 2. **Request for Proposal (RFP):** Solicit bids from multiple vendors.
 3. **Review Bids:** Assess capability, pricing, and references.

4. **Contract Negotiation and Signing:** Finalize terms, clauses, and performance metrics.
 5. **Monitoring and Evaluation:** Regular checks to ensure the vendor meets the agreed-upon standards.
- **Pricing:** Based on hourly rates, fixed monthly fees, or per-unit pricing (e.g., per-pound for laundry).
 - **Contract Clauses:** Legal terms specifying the duration, termination conditions, service standards, payment terms, insurance/liability, and penalty clauses for non-performance.
 - **Annual Maintenance Contract (AMC):** A contract with a vendor (often the manufacturer) for the routine, preventive maintenance of key equipment (e.g., HVAC system, elevators).

Chapter 4: Hotel Maintenance

Maintenance is the process of keeping the hotel building and its assets in excellent working condition to ensure functionality, safety, and aesthetics.

a) Definition of Maintenance

Maintenance is the act of preserving or keeping something in its existing state and protecting it from decay or failure. In a hotel, it refers to the ongoing upkeep of the physical structure, equipment, and systems.

b) Types of Maintenance

Effective maintenance is a blend of planned and reactive work.

- **Routine Maintenance:** Simple, repetitive tasks performed daily or weekly (e.g., changing a lightbulb, fixing a dripping faucet).
- **Preventive Maintenance (PM):** Planned, systematic inspection, lubrication, and repair to prevent breakdowns before they occur (e.g., servicing an air conditioning unit before the summer season).
- **Corrective Maintenance:** Repair work performed *after* a failure or fault has occurred (**Breakdown Maintenance**).
- **Predictive Maintenance:** Using monitoring equipment (e.g., vibration analysis) to detect potential failures early and schedule maintenance just before breakdown.
- **Emergency Maintenance:** Unscheduled work requiring immediate attention to protect guests, property, or revenue (e.g., a burst pipe, fire system failure).
- **Deep Cleaning/Seasonal Maintenance:** Extensive, thorough cleaning and light maintenance done periodically, often when rooms are taken out of service (e.g., cleaning behind all furniture).
- **Guestroom Maintenance:** Daily or weekly checks and minor repairs specifically focused on guest comfort and safety (e.g., ensuring all electrical outlets work).
- **Contract Maintenance:** Work performed by external specialists under an **AMC** (see Chapter 3).

c) Snagging and De-Snagging / Maintenance Log Book

- **Snagging and De-Snagging:** **Snagging** is the process of inspecting a new or newly renovated area to identify all defects, or **snags**, that require rectification. **De-snagging** is the process of rectifying those defects. This is critical before accepting a job from a contractor.
- **Maintenance Log Book:** A physical or digital record used by all departments, particularly Housekeeping and Front Office, to log maintenance issues as they are noticed. This log is routed to the Engineering Department for scheduling and tracking of the repair work.

d) Role of Hotel Maintenance/Hotel Engineering Department

The **Engineering Department** is responsible for the overall physical condition of the property. Key roles include:

- Managing all utility systems (electricity, water, HVAC).
- Conducting **Preventive Maintenance (PM)** schedules.
- Responding to and completing repair requests (**Corrective Maintenance**).
- Managing contractor services.
- Ensuring compliance with safety and fire regulations.

e) Interdepartmental Coordination

Smooth operations depend on collaboration, especially between:

- **Housekeeping & Engineering:** HK reports faults via the **Maintenance Log Book/Snag List**. Engineering reports when rooms are ready after repair.
- **Front Office & Engineering:** FO reports guest complaints on comfort (e.g., temperature).
- **Front Office & Housekeeping:** HK provides timely **Room Status Reports** to FO for check-ins.

f) Room Division Audit

An audit is a formal examination or review.

- **Room Division Audit:** A review of the operational efficiency, compliance, and financial control within the Front Office and Housekeeping departments.
- **Types of Audit:**
 - **Brand Audit:** Ensures the hotel is meeting the required standards of the parent brand (e.g., Hilton, Marriott) in terms of cleanliness, service, and decor.
 - **ISO Audit:** Ensures the hotel complies with international standards for quality management (**ISO 9001**) or environmental management (**ISO 14001**).
 - **Internal Audit:** Performed by the hotel's own staff to check compliance with internal policies and procedures.
 - **Third-Party Audit:** Conducted by an external, independent firm for objective assessment (often used for ISO or financial compliance).

g) Sustainable Housekeeping Practices

These practices aim to reduce the hotel's environmental impact.

- **Waste Management:**
 - **Types of Waste:** Solid (paper, plastic), Liquid (grease, chemicals), Hazardous (batteries, certain chemicals).
 - **Segregation and Disposal of Waste:** Sorting waste at the source (e.g., separate bins for recycling, composting, and landfill). Disposal must follow strict environmental regulations.
- **Conserving Energy:** Using **energy-efficient equipment** (LED lighting), implementing key-card/motion-sensor controlled power in rooms, and maintaining HVAC systems correctly.
- **Eco-Friendly Practices:** Using **biodegradable cleaning agents**, offering the **Linen Re-use Program** (where guests can opt to reuse towels/sheets), and sourcing sustainable supplies.

h) Maintenance of Security and Surveillance System

The HK and Engineering departments are jointly responsible for maintaining the physical security system. This includes:

- Regular checks and cleaning of **CCTV cameras**.
- Ensuring all **door locks** and electronic key systems are functional.
- Maintenance of access control systems in restricted areas.

Chapter 5: Hotel Building Systems

A foundational understanding of the complex technical systems is vital for reporting issues and ensuring guest safety and comfort.

a) Electricity Terminologies

Understanding basic electricity is essential for identifying and reporting faults.

- **Definitions:** **Current** (flow of electrons, measured in Amperes - A), **Voltage** (electrical pressure, measured in Volts - V), and **Resistance** (opposition to flow, measured in Ohms - Ω).
- **Units:** **Watt** (W) or **Kilowatt** (kW) measures power consumption.
- **Symbols:** Standard symbols are used on circuit diagrams.
- **Identifying Electrical Faults:** Common issues include short circuits, open circuits, faulty fuses/breakers, or ground faults. Signs are flickering lights, burning smells, or non-functioning outlets.
- **Basic Meter Reading Techniques:** Reading the utility meter (usually in kWh) to monitor consumption.
- **Calculation of Electricity Consumption:** Total consumption in kWh is calculated as:

Power (in kW) *Time (in hours)

b) Plumbing and Sanitary Terminology

Deals with the water supply, drainage, and waste disposal systems.

- **Definitions: Potable Water** (safe for drinking), **Grey Water** (wastewater from sinks/showers), **Black Water** (wastewater from toilets).
- **Plumbing Fittings and Fixtures:** Devices used for water distribution and disposal.
 - **Water Taps:** Faucets for controlling water flow.
 - **Traps:** U-shaped or S-shaped pipes designed to hold a small amount of water to create a seal and prevent sewer gases from entering the building.
 - **Grease Traps:** Devices that separate grease/solids from wastewater before it enters the sewer system (essential for kitchens).
 - **Heat Pumps:** Devices that transfer heat energy from a source to a sink (used for water heating/cooling).
 - **R.O. (Reverse Osmosis) Water Purifier:** A system that removes contaminants from water.
 - **Flushing Cisterns/Valves:** Mechanisms for storing and releasing water to flush toilets.
 - **Water Closets/Bidets:** Toilets and separate basins for personal hygiene.
- **STP (Sewage Treatment Plant):** System that treats black and grey water on-site before safe disposal or reuse.
- **Care and Maintenance:** Regular cleaning of traps, descaling of fittings, and checking for leaks.
- **Identification and Reporting of Plumbing Issues:** Reporting leaks, blockages, strange noises, or sewer gas odors immediately.

c) HVAC Systems Terminologies

HVAC (**Heating, Ventilation, and Air Conditioning**) controls the environment.

- **Relative Humidity:** The amount of water vapor in the air compared to the maximum it can hold at that temperature.
- **Humidification/De-humidifying:** Adding or removing moisture from the air to maintain comfort.
- **Due Point Control:** Managing the temperature at which air becomes saturated and condensation occurs.
- **Unit of Air Conditioning:** Often measured in **Tons of Refrigeration (TR)**.
- **Principles of Refrigeration Cycles and Characteristics of Refrigerants:** The cycle involves a compressor, condenser, expansion valve, and evaporator to move heat. **Refrigerants** are the chemical compounds used to absorb and release heat.
- **Window/Split/Central AC Systems:** Different configurations based on size and coverage. **Central AC** is complex, using chillers for large-scale cooling.
 - **Chiller - Water & Air Cooled:** Large-scale refrigeration machines that use water or air to remove heat from the refrigerant.
 - **VRF (Variable Refrigerant Flow):** An advanced system that allows individual zones (rooms) to control their temperature precisely.
- **Role of HVAC in Guest Experience:** Ensures thermal comfort, air quality, and noise control, directly impacting guest satisfaction.

- **Conditions for Comfort:** Maintaining an optimal balance of temperature, humidity, and air movement.

d) Building Transportation Systems

Systems used to move people and goods vertically or horizontally.

- **Passenger Elevators:** Used for guests and staff.
- **Freight Elevators:** Dedicated service lifts for moving heavy items (luggage, linen, supplies).
- **Escalators and Sidewalks:** Moving stairs and level walkways, typically in public areas.
- **Operation, Care, and Maintenance:** Requires strict **AMC** and regular safety inspections due to high risk. Daily cleaning, checking lighting, and reporting unusual noises or jerky movements are critical.

e) Smart Rooms Technology

Integration of technology to enhance guest experience and efficiency. This includes automated lighting, temperature control, digital check-in/out, and voice-activated room controls, all managed via a central hub or guest device.

f) Robotics in Routine Cleaning

The use of autonomous cleaning equipment, such as **robotic vacuum cleaners** or **floor scrubbers**, for large public areas. This increases productivity and consistency for repetitive tasks.

g) Care and Maintenance of Audio Visual Equipment

Ensuring all communication and presentation technology is functional.

- **Channel and Public Address System:** Used for background music, announcements, and emergency messages. Requires regular testing.
- **Overhead/Slide Projector, LCD, PC, CPU, Modem, UPS, Printer, Laptops, Server, Fire Panels:** All these critical pieces of electronic equipment must be kept clean (dust-free) and in temperature-controlled environments to prevent overheating and failure. **UPS (Uninterrupted Power Supply)** batteries must be checked regularly.

h) Fire Identification, Evacuation, and Suppression

Safety systems are non-negotiable and require the highest level of maintenance.

- **Fire Identification:**
 - **Smoke Detectors:** Detect visible smoke particles (either photoelectric or ionization type).
 - **Heat Detectors:** Detect unusually high temperatures or a rapid rate of temperature rise.

- **Gas Leak Detectors:** Detect the presence of combustible or toxic gases (e.g., LPG, carbon monoxide).
- **Fire Evacuation:**
 - **Fire Staircases:** Designated, enclosed stairs to be used during an evacuation.
 - **Fire Routes:** Clear, marked paths leading to external assembly points.
- **Fire Suppression:**
 - **Operating Fire Extinguishers:** Employees must be trained on the **P.A.S.S.** method (Pull pin, Aim nozzle, Squeeze handle, Sweep side to side) and the different classes of fire extinguishers (A: Solids, B: Liquids, C: Electrical).