BUILDING MAINTENANCE TRENDS TO WATCH IN THE NEXT DECADE

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INTRODUCTION

The maintenance of buildings guarantees that both the building and its components provide a safe and comfortable environment for occupants. Common maintenance tasks include cleaning drains and lawn maintenance and servicing HVAC (heating, ventilation, and air-conditioning) units. Today's maintenance service have evolved beyond simply getting a job done; they have become an integral part of the organization. In the future, trends in building maintenance will dramatically shift as a result of advancements in technology, increased environmental concerns, and a shift towards improving operational performance.

KEY TRENDS TO BE OBSERVED

1. Intelligent Building System

The deployment of the internet of things (IoT) enhances intelligent building systems by connecting an array of devices connected to one another with sensors [1]. This connectivity allows for real-time information regarding air quality, equipment performance, and other relevant data, enabling proactive maintenance. Instead of relying on scheduled maintenance programs, this approach anticipates and addresses issues before equipment fails. As a result, it extends the lifespan of systems and minimizes downtime.

2. Sustainable Practices and Disaster Preparedness

The "green building" sustainable practices shift the focus around from maintaining and caring for the building back to serving to serving its needs, hence minimizing the carbon footprint of the building through sustainable maintenance practices used during construction. To gain approval for these efforts, more companies are working towards obtaining certificates such as Leadership in Energy and Environmental Design (LEED) [2]. In addition, the maintenance industry now also incorporates strategies that address extreme weather and environmental risks into its operational strategies. This proactive approach aims to minimize negative environmental impacts, resulting in infrastructure that can withstand flooding, fires, and heatwaves.

3. Cybersecurity Upgrading

In the coming decade, buildings are expected to adopt encryption methods alongside access control and multi-factor authentication as standard security practices [3]. The growing prevalence of cybersecurity issues in building management systems can potentially lead to common threats, such as ransomware attacks, unauthorized building system access and data breaches from poorly encrypted IoT devices.

4. Labor Automation and Robotics

Recently, building operations management and communication have increasingly adopted centralized applications and paperless systems as standard practices. Robotic Process Automation (RPA) has proven effective in automating straightforward tasks such as room booking and performance reporting. However, today’s maintenance managers are seeking to leverage RPA’s potential for more complex areas to enhance sustainability and improve security measures within their processes.

Regular remote audits of buildings, HVAC systems and emergency equipment on a regular basis can provide a reliable report on the safety of the building [4]. By utilizing IoT platforms,

the need for maintenance personnel to visit hazardous locations for checking equipment can be eliminated. This approach enhances both safety and efficiency in the building maintenance process.

5. Enhanced Usage of Building Information Modelling (BIM)

The tracking of structural occupancy, deterioration and energy usage is made possible through 3D modelling. Maintenance crews can access a comprehensive view of the facilities they manage through Building Information Modelling (BIM), which includes all modifications and improvements that have occurred throughout the years. The 3D model enables them to quickly locate components and technical facilities, allowing for swift, optimized actions and enhanced efficiency [5]. BIM enables effective communication and teamwork between all stakeholders who are involved in building maintenance operations, just as it does during construction. The system helps organizations adhere to regulations and improves mutual understanding of past work, leading to more consistent maintenance practices.

CONCLUSION

In conclusion, building maintenance trends will shift rapidly in the next decade due to the factors of technology advancements and awareness of environmental sustainability. Therefore, all related parties, particularly building managers should observe and foresee future trends and act accordingly to avoid being left behind.

References:
[1] IBM (2023). Internet of Things (IoT). Retrieved on 30th October 2025 from https://www.ibm.com/think/topics/internet-of-things.
[2] Adlina. (2023). Memahami Pensijilan Bangunan Hijau: Melangkah ke Arah Pembinaan Mampan. CIDB HQ. Retrieved on 30th October 2025 from https://www.cidb.gov.my/eng/understanding-green-building-certification-paving-the-way-for-sustainable-construction/
[3] Dragos, Inc. (2023). Cybersecurity for Building Automation Systems (BAS): Securing the Future. Retrieved on 30th October 2025 from https://www.dragos.com/cybersecurity-for-building-automation-systems-bas-securing-the-future
[4] Mapsted Blog. (2025). Top 7 Facilities Management Industry Trends to Watch in 2025. Retrieved on 30th October 2025 from https://mapsted.com/blog/facilities-management-trends
[5] Spacewell (2022). BIM for FM or How to Facilitate Building Maintenance During the Operational Phase. Retrieved on 30th October 2025 from https://spacewell.com/resources/blog/bim-for-fm-or-how-to-facilitate-building-maintenance-during-the-operational-phase/