

Introduction

Ajeevi Integrated Building Management System (IBMS) is a computer-based automated system installed in buildings that controls and monitors the building's mechanical and electrical equipment such as ventilation, lighting, power systems, fire systems, and security systems. It can be connected with various subsystems installed and can provide centralized monitoring and control of building infrastructure.

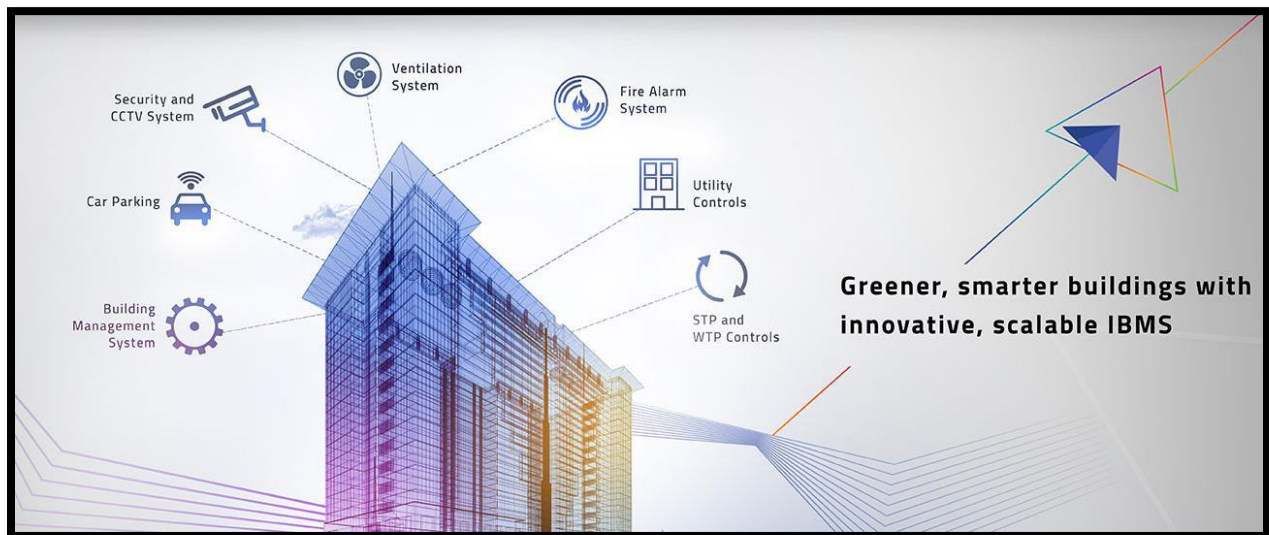
Uses

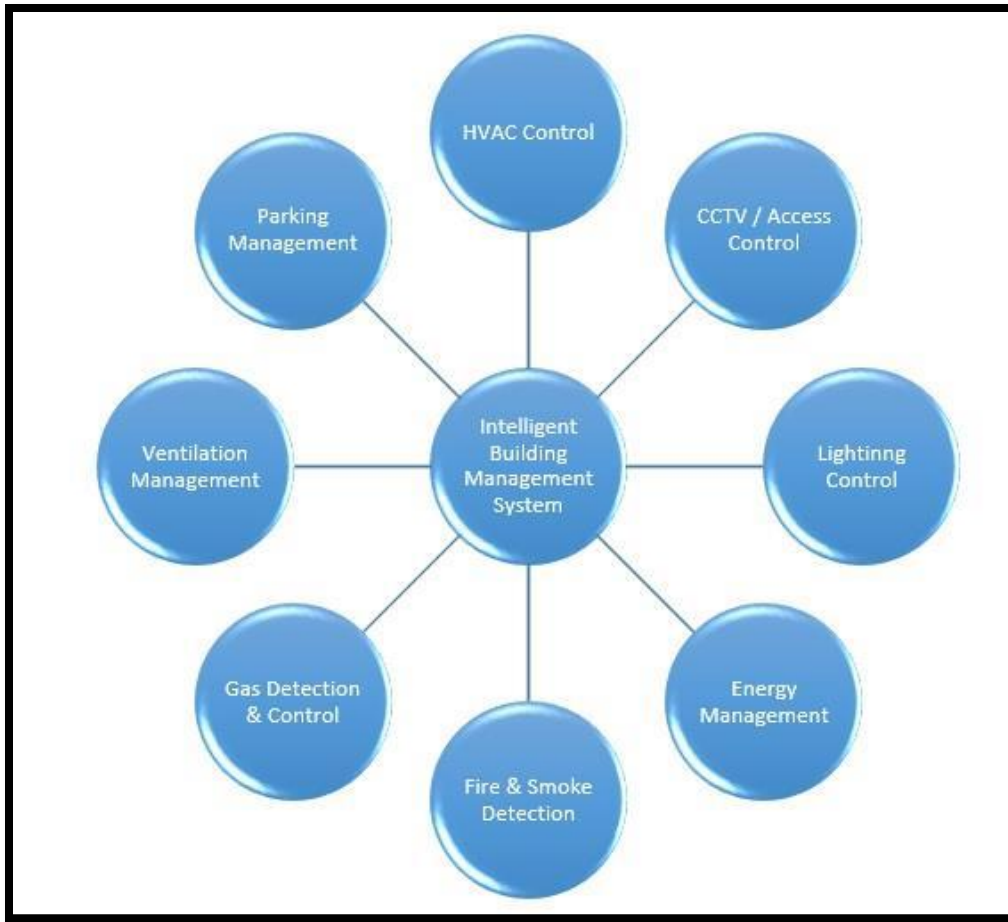
Building management systems are most commonly implemented in large projects with extensive mechanical, HVAC, and electrical systems. In addition to controlling the building's internal environment, BMS systems are sometimes linked to access control (turnstiles and access doors controlling who is allowed access and egress to the building) or other security systems such as closed-circuit television (CCTV) and motion detectors. Fire alarm systems and elevators are also sometimes linked to a BMS, for monitoring. In case

a fire is detected then only the fire alarm panel could shut off dampers in the ventilation system to stop smoke spreading and send all the elevators to the ground floor and park them to prevent people from using them.

Features

- Open architecture with multiple communication drivers support, such as BACnet and Modbus, which allows integrating with numerous systems and devices, including legacy equipment
- Centralized Control with routine scheduling features
- Support to object-oriented design for standardization, shorter development time, and easy maintenance
- All subsystems systems can be operated and visualized in a single view for better monitoring
- Live data preview
- Easy menus for switching between displays
- Clear trend visualization
- Efficient system control
- Graphic visualization
- Quick installation





Technical Specifications

S#	Parameter	Remarks
A	GENERAL	
1	Centralized and Integrated Solution	Ajeevi Integrated Building Management System
2	Technology Used	COTS (Commercial Off The Shelf) Technology
3	Access Features	RBAC Model (Role-based access and control)
4	Architecture	N-tier scalable architecture, modular design, robust software
5	Framework	.NET Core Framework, ASP.Net MVC

6	Database	SQL Server 2016 and above, Mongo DB, Posgre SQL, Unified database for all SWM data
7	Operating System	Windows / Open Source Linux
8	Front end	Java Script, JQuery, React JS, Angular, HTML, Bootstrap, Razor Pages
9	IOT Hub Integration	Kafka, Rabbit MQ, Socket Programming, Web APIs
10	Application Availability	High availability and DR replicability
11	Single-Sign On facility	Available
12	Audit Trail	Ability for logging, audit, and tracking of any changes carried out on the database
13	Interoperability Standards	Can be integrated with any other application through web APIs (Push or Pull)
14	Security Features	<ol style="list-style-type: none"> 1. Security design with well-designed identity management system, security of physical and digital assets, data and network security, backup and recovery and disaster recovery system. 2. Support for security features such as W3C specifications, Information access/transfer protocols SOAP,HTTP/HTTPS ,etc 3. API Integration allowed post authentication
15	External Communication	Through SMS Gateway and SMTP Integration
16	Web Enabled Solution	Yes
17	Services for GIS Integration	Google Maps, ESRI Map, Any other available open map
18	GIS Features	Geomapping, Geotagging, POI, Geofencing through Geo JSON and drawing tool
19	Deployment Features	SaaS Model, On-Premise Model, BOOT Model
20	Cloud Deployment	Amazon AWS, Microsoft Azure
20	Information Security	ISO 27001 Certified
21	Operations	ISO 9001 Certified
B	FUNCTIONAL FEATURES	
1	Functional Features	Monitoring and Controlling devices (like HVAC, Lights) from remote locations
		Macro and Micro level Energy Utilization Measurement of Building
		Consolidated Common Platform and Data Analysis Dashboard
		Various MIS reports regarding statistics can be generated by the

		system
		Alerts and notifications as per defined parameters
		Can be integrated with external systems and mobile applications