BUILDING AUTOMATION

ICS Arabia pioneered in introducing cutting-edge Building Automation and Smart Metering technology in the KSA. We proudly continue to lead the market, offering comprehensive and efficient integrated solutions and introducing future-proof technology for energy-efficient, secure, and safe facilities.

ICS Arabia offers brand-neutral building automation services to increase buildings' efficiency, enhance occupants experience, and create safe environment. Our services include design and engineering, construction, equipment installation, and 24/7 facility management. We are experienced in programmable automation systems, and integrating every building system, including energy management, HVAC, lighting, fire life safety, and security on a single platform.

Our Services:

- Building Management Systems (BMS)
- Integrated Intelligent Building Solution (I2BS)
- Data Center Infrastructure Management (DCIM)
- Instrumentation & Control (I&C)
- Energy Optimization Solutions
  - Fuel Conservation on Utilities including solutions for Boilers, Generators, Turbines and Compressors
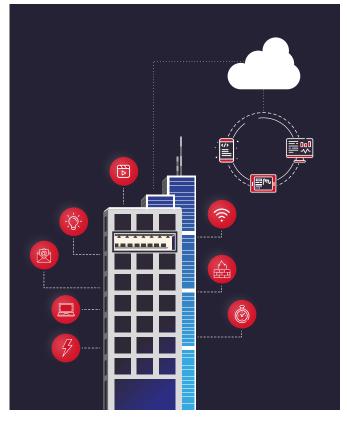
- Process Automation, PLC & DCS systems
  - Supervisory Control & Data Acquisition (SCADA)
  - Emergency Shutdown Systems (ESD)
  - Environmental Control Systems (ECS)
  - Fire and Gas Systems (F&G)
  - Plant Information Management Systems (PIMS)
  - Business KPI Dashboards and ERP Connectivity

Featured Partners:

What Is Smart Building?

Often described as smart buildings or intelligent buildings, they are any structures that use integrated processes, smart engineering, or creative design to self-regulate the building's environment and facilitate optimal operations.

A human-centric approach to design is at the core of buildings of the future. From the moment people step inside until the moment they leave, a building of the future will have the capability to determine the percentage of the workforce inside the building at any given time and automatically adjust the settings of its facilities according to their feedback and needs – from wireless connections, lighting, electricity, heat, ventilation, and air conditioning, buildings of the future place people at the core.

Building Automation Benefits

Lower Operational Cost

Smart building automation results in reduced costs because the decision-making is often automated and better informed. Various sensors react to light and temperature changes, and energy supply is adjusted as per pre-programmed parameters, time of day and occupancy. In addition, automation allows predictive maintenance, that allows to prevent equipment and system failures.

Control Over Energy Bills

Smart buildings are designed to be highly efficient in terms of energy usage and smart metering provides building owners with real-time data for their energy consumption monitoring and management. Smart meters also allow utilities to provide better energy feedback to customers, disaggregate data based on individual appliances and devices, optimize voltage regulation and create grid-interactive efficient buildings.

Create Healthier Environment

Building automation solutions does not only help businesses in terms of cost reduction, it also results in less carbon footprint and is also positively impactful for the planet. Automation also decreases total energy consumption, creating an environmental win that can help a building become green-certified. Some buildings can save up to 30% of energy consumption by implementing automation.

Improved Productivity and Workspace Flexibility

When a building becomes more efficient, it also positively affects the workforce as well. A smart building improves the comfort of the people and makes their life easier which results in high level of productivity. Another benefit that contributes to the occupants' comfort is the ability to maximize the use of natural light, and the regulation of the amount of fresh air in the building.

Flexible and Scalable Solutions

Building Automation

Smart buildings and Internet of Things (IoT) ensure that the buildings are more comfortable, energy-efficient, and secure. Building Automation System (BAS) connects heating, ventilation and air conditioning system (HVAC), lighting, security, and other systems to communicate on a single platform. This way the automation system is delivering crucial information on the operational performance of a building as well as enhancing the safety and comfort of the occupants.

System Integration
allows buildings to work efficiently for reduced energy use, streamlined maintenance, and enhanced security

Smart Meters
provides instant and accumulative insights to energy consumption

Building Automation System
uses automation and control systems to monitor and manage building wide systems

Building Control System
automatic centralized control of a building's HVAC, electrical, lighting, shading, access control, security systems, and other interrelated systems.

HVAC Automation

The main purposes of a Heating, Ventilation and Air-Conditioning (HVAC) system are to help maintain good Indoor Air Quality (IAQ) through adequate ventilation with filtration and provide thermal comfort. Another benefit of having an automated HVAC system is having proper temperature in winter and summer by regulating the temperature before anyone arrives in the building and after everyone leaves.

Air System
provides comfort, economy, and sustainability through intelligent control of heating, ventilation, and air conditioning systems in buildings

Control Panels
user friendly and convenient way to control smart building parameters

Thermostats
smart thermostat quickly learns to optimize building microclimates for both energy consumption and user preferences

Sensors
smart building sensors are capable of collecting environmental and operational data of buildings and reacting to the collected information in real time

Integrated Delivery

Design and Engineering

Procurement and Installation

Integration, Testing and Commissioning

Maintenance and Operations

Diverse Industry Experience

DATA CENTERS AND OPERATIONS CENTERS

Being particularly energy-intensive, the data center industry accounts for around 4% of global electricity consumption. Building automation helps to optimize resource usage and reduce energy consumption. Integrated building controls also enhances security, while predictive maintenance helps to avoid shutdowns and allows to sustain uptime availability.

INDUSTRIAL AND MANUFACTURING FACILITIES

Building automation is a pivotal element of any smart factory. Smart Factory is a concept for expressing the end goal of digitization in manufacturing. A Smart Factory is a highly digitized shop floor that continuously collects and shares data through connected machines, devices, and production systems. The data can then be used by self-optimizing devices or across the organization to proactively address issues, improve manufacturing processes and respond to new demands.

HOSPITALS

Building automation is an effective solution for health care providers to reduce costs, increase staff efficiency, and ensure secure, resilient and redundant operations. Intelligent building systems allow to collect, integrate and manage all critical data shared across equipment and controls in one source. Information about potential equipment or system failure or parameter changes are timely identified and resolved.

OFFICES

Smart office technology is changing the way we work and how our office space is used. A smart office often uses advanced sensor technology to analyze office usage in order to improve the space for employees. Other types of sensors can include climate sensors to control the temperature in a room, light sensor to automatically turn off lights when a room is vacated or sensors that automatically open doors when someone approaches.