Industrial Automation and Control Systems Market To Witness Excessive Growth, Observe Latest Development 2023-2030

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Industrial automation and control systems are used widely in various industrial sectors such as oil and gas, power, food and beverages for managing plant operations. These systems help to optimize production processes and quality.

Market Dynamics:

The industrial automation and control systems market is expected to witness significant growth over the forecast period owing to the rising adoption of Industry 4.0 across manufacturing industries. Industry 4.0 encompasses trends such as industrial internet of things (IIoT), cyber-physical systems, cloud computing, cognitive computing, and artificial intelligence that can help optimize production processes. Furthermore, the need for minimizing downtime and operational costs is also expected to drive the demand for advanced industrial automation and control systems during the forecast period. Automation solutions enable remote monitoring of industrial equipment performance which helps reduce downtime associated with asset failures. This in turn aids in lowering operational costs.

global industrial automation and control systems market size was valued at US$ 160.12 billion in 2022 and is anticipated to witness a compound annual growth rate (CAGR) of 9% from 2023 to 2030

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Increasing adoption of industrial internet of things (IIoT) technologies is a key driver of growth in the industrial automation and control systems market

The growing integration of automation solutions and control systems with IoT technologies is enabling advanced connectivity within industrial operations. IIoT allows for real-time monitoring and management of industrial assets and equipment through machine learning and data analytics. This helps improve operational visibility, reduce downtime, and optimize productivity. Many industries are implementing IIoT to gain insights into equipment performance and

automate maintenance processes. The ability of IIoT technologies to deliver cost savings, efficiency gains, and new revenue streams is encouraging more organizations to incorporate smart manufacturing practices. The rise of digital transformation initiatives focusing on IIoT adoption will continue promoting the demand for industrial automation control systems in the coming years.

Top Key Players:

ABB, Emerson Electric Co., Honeywell International, Inc., Kawasaki Heavy Industries, Ltd., Mitsubishi Electric Corporation, OMRON Corporation, Rockwell Automation, Inc., and Schneider Electric

Regional Analysis:

 North America: United States, Canada, and Mexico

 South & Central America: Argentina, Chile, Brazil and Others

 Middle East & Africa: Saudi Arabia, UAE, Israel, Turkey, Egypt, South Africa & Rest of MEA.

 Europe: UK, France, Italy, Germany, Spain, BeNeLux, Russia, NORDIC Nations and Rest of Europe.

 Asia-Pacific: India, China, Japan, South Korea, Indonesia, Thailand, Singapore, Australia and Rest of APAC.

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Growing focus on implementing flexible and scalable systems is driving adoption of programmable logic controllers

Programmable logic controllers have emerged as a popular choice for industrial automation due to their flexibility, reliability and cost-effectiveness. Compared to traditional hard-wired relay panels, PLC systems provide programmability that allows for easy modification of control programs without rewiring. They also offer scalability which means the control solution can be expanded or adapted as production needs change. More manufacturers are opting for PLCs as they support the development of flexible manufacturing systems capable of handling a variety of processes and product changeovers. The programmable nature of PLC technologies is leading end-users to replace hard-wired panels with PLC-based control systems across various industries including automotive, semiconductor, packaging and discrete manufacturing.

High initial investment costs pose a challenge for small and medium enterprises

While industrial automation delivers significant benefits in the long run through increased efficiency and reduced waste, the high upfront capital expenditure continues to deter many small and medium enterprises. Automation solutions require heavy investments in hardware components such as PLCs, HMIs, drives, robots, sensors as well as software and service costs. SMEs also have budget constraints that prevent large-scale automation of facilities in one go. For cost-sensitive SMEs, the implementation of complex automation control systems that integrate numerous machinery seems unaffordable. This acts as a major restraining factor, especially in developing nations where access to capital is limited for small manufacturers.

Focus on remote management and predictive maintenance opens new opportunities

The current trend of leveraging advanced technologies to offer remote connectivity is paving the way for new-age support services in industrial automation. Enterprises are recognizing opportunities around leveraging IIoT infrastructure for remotely managing industrial assets in real-time as well as enabling predictive maintenance capabilities. Remote asset monitoring aids in reducing downtimes, improving first-time fix rates and optimizing maintenance costs. Vendors are introducing monitoring platforms, analytics dashboards as well as software suites for remote asset health diagnostics and predictive maintenance of critical machines. This helps users achieve improved operational visibility without significant on-site presence, driving the need for control systems integrated with remote connectivity features. It also presents growth prospects for automationsolution providers offering comprehensive after-sales services.

Adoption of condition monitoring technologies is emerging as a key trend

Traditionally, equipment maintenance in process manufacturing has relied on time-based scheduling where assets are serviced based on operating hours. However, with condition monitoring technologies, industries are moving toward condition-based maintenance that assesses equipment health and conduct repairs only when warranted. Technologies such as vibration monitoring, thermography, ultrasound and lubricant analysis offer real-time equipment condition data which aids predictive maintenance planning. This helps reduce unnecessary repairs and avoid failures. An increasing number of industries are leveraging condition monitoring sensors and devices to automate asset inspections. Control system providers are integrating condition monitoring into their offerings to meet this growing trend. Advanced monitoring solutions will continue gaining acceptance as manufacturers strive to improve asset reliability through predictive maintenance programs.

Key Questions Addressed in the Market Report:

What is the expected size, share, and CAGR of the Industrial Automation and Control Systems

Market over the forecast period?
What are the key trends expected to influence the Industrial Automation and Control Systems Market between 2023 and 2030?
What is the expected demand for various types of products/services in the Industrial Automation and Control Systems Market?
What long-term impact will strategic advancements have on the Industrial Automation and Control Systems Market?
Who are the key players and stakeholders in the Industrial Automation and Control Systems Market?
What are the different segments and sub-segments considered in the Industrial Automation and Control Systems Market research study?

Strategic Points Covered in Table of Content of Global Industrial Automation and Control Systems Market:

Chapter 1 : Introduction, market driving forces, and product The study and research objectives are to investigate the Industrial Automation and Control Systems market.

Chapter 2: Exclusive Summary - Industrial Automation and Control Systems Market Fundamentals.

Chapter 3: The Changing Impact on Market Dynamics- Drivers, Trends, and the Challenges and Opportunities of Process Spectroscopy

Chapter 4: Industrial Automation and Control Systems Market Factor Analysis, Porter's Five Forces Analysis, Supply/Value Chain, SWOT Analysis, Market Entropy, and Patent/Trademark Analysis are all presented .

Chapter 5: 2017-2022 Forecast by Type, End User, and Region/Country

Chapter 6: Evaluating the key players in the Industrial Automation and Control Systems market, including the Competitive Landscape, Peer Group Analysis, BCG Matrix, and Company Profile.

Chapter 7: To evaluate the market by segments, countries, and manufacturers/companies, as well as revenue share and sales by major countries in these regions (2023-2030).

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