International Society of Automation

Setting the Standard for Automation™

The Leading Professional Society for Automation

Vision

Create a better world through automation

Mission

Empowering the global automation community through standards and knowledge sharing

Membership | Training | Certification | Events

Standards | Conformity Assessment | Publications

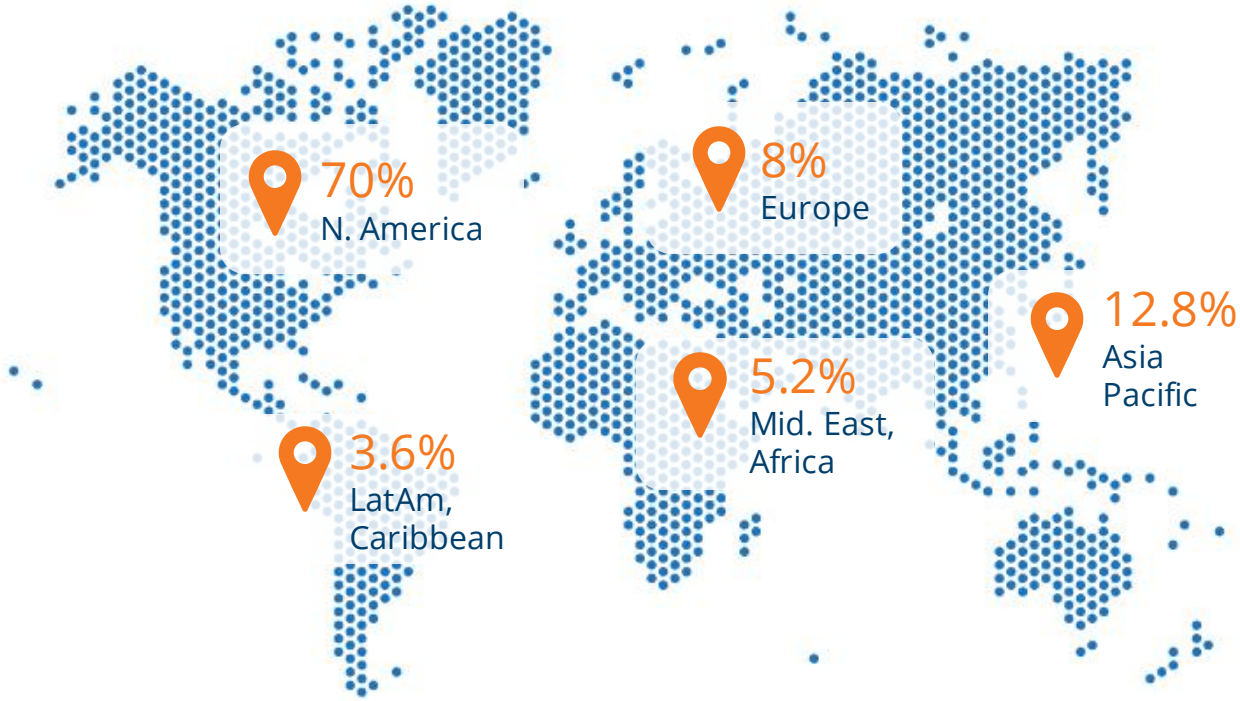
Your Automation Toolkit

ISA offers so many **programs, services, and tools** for its members and for the broader automation community.

SCAN ME

ISA by the Numbers

13,800+ members:



138
Standards

16
Personnel Credentials

8
Product & System Certifications

8K
Professionals Trained (2022)

10K
Event Registrants (2022)

Knowledge Sharing

Standards, Training, Credentials, Conformity Assessment

138 Standards
3,500 Volunteers
40 Countries

- ISA is an **ANSI-accredited** standards developer committed to open, consensus-based process

- ISA developed **ISA/IEC 62443** standards – the world's only consensus-based automation and control systems cybersecurity standards

Our standards focus on:

Alarm Management for the Process Industries (ISA18)
Batch Process Control (ISA88)
Cybersecurity for Industrial Automation & Control Systems (ISA99 / 62443)
Enterprise-Control System Integration (ISA95)
Functional Safety – Safety Instrumented Systems (ISA84 / 61511)
Human-Machine Interfaces (ISA101)
Instrumentation Symbols and Documentation (ISA5 and ISA20)
Intelligent Device Management (ISA108)
Loop Checks, Calibration, Commissioning, and FAT/SAT (ISA105)
Power Plants, Fossil and Nuclear (ISA77 and ISA67)
Procedure Automation for Continuous Process Operations (ISA106)
Valves / Valve Actuators (ISA75 and ISA96)
Wireless Systems for Industrial Automation (ISA100)
Additional Topics (ISA7, ISA12, ISA37, ISA60, ISA71, ISA76, ISA92)

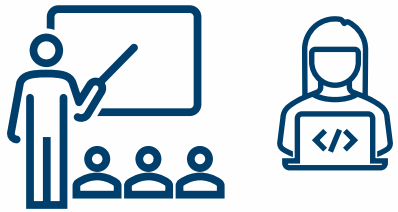
Learn more: isa.org/standards

ISA Training

Developed by real-world experts.

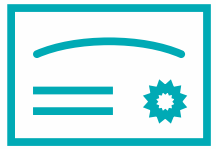
Focused on the most relevant topics and vital technologies.

Unbiased and vendor neutral.



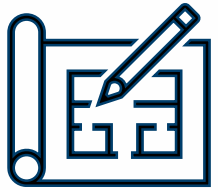
Flexible Formats

Classroom, virtual classroom, on site, instructor-guided online, and self-paced, modular formats



Build toward Certification

Document your skills and credentials with the opportunity to earn certificates and professional development credits



Taught by Experts

Courses are developed and taught by automation leaders and subject-matter experts

Theory and Application

Lectures and hands-on exercises help deepen your knowledge

Learn more: isa.org/training

Types of Credentials

Certification

Has eligibility requirements, typically a combination of work experience and/or education

Valid for a limited time and requires renewal to keep the certification
(certain requirements must be satisfied)

Is primarily based on job analysis of work performed in the field

Exam must be passed to achieve the certification

Certificate

Never expires

Has no eligibility requirements, based on experience

Is based exclusively on a body of knowledge taught in a training course or curriculum

Exam must be passed to achieve the certificate

Benefits of ISA Credentials

Individuals

Documents education, knowledge, and experience

Provides an objective, third-party assessment of skill levels

Provides a tangible way to validate industry experience

Increases preparation for additional job responsibilities

Employers

Recognizes automation professionals with the appropriate credentials and helps accelerate workforce development

Provides hiring and promoting qualifications for managers

Promotes safety and efficiency

Improves productivity and increases ROI by impacting mission-critical decisions

ISA Certification Programs

ISA Certified Automation Professional®

Demonstrates expertise and knowledge of automation and controls

ISA Certified Control Systems Technician®

Three levels – technician, specialist, master – to demonstrate knowledge of control systems

ISA Certificate Programs

Cybersecurity

Four certificates – fundamentals, risk assessment, design, and maintenance – with an expert tier for achieving all four

NEW! - Automation Project Management Specialist

Program for project managers who need to execute automation projects effectively

Safety Instrumented Systems

Three certificates – fundamentals, selection, and verification – with an expert tier for achieving all three

CAP Associate

Validate job skills to excel as an automation professional

CST Associate

Validate job skills to excel as a control systems technician

... and **coming soon**:
a Fire and Gas Certificate

Consortia and Conformity Assessment

- ISA leads collaborative forums for industrial cybersecurity and interoperability

LOGIIC

ISA GLOBAL CYBERSECURITY ALLIANCE

ISASecure

ICS4ICS

ISA100 WIRELESS

ISASecure Certification Schemes:

- Component Security Assurance (CSA)
- IIoT Component Security Assurance (ICSA)
- System Security Assurance (SSA)
- Security Development Lifecycle Assurance (SDLA)
- IACS Security Assurance (IACSSA)

ISA100 Wireless:

- Device Certification
- System Certification
- Stack Certification

ISA Consortia Overview

LOGIIC - Research and development on cybersecurity topics for automation used by the oil and gas industry. O&G majors are members. www.Logiic.org

ISAGCA - Bridge the gap between ISA/IEC 62443 standards and market adoption. Lead cybersecurity culture transformation. https://isagca.org

ISASecure - ISA/IEC 62443 cybersecurity certification of COTS products, supplier development processes and automation at asset owner operating sites www.isasecure.org

ICS4ICS – Incident Command System for Industrial Control Systems establishes a standing organization and playbook for responding to cyber attacks on automation in critical infrastructure. www.ics4ics.org

ISA100 WCI – ISA100 Wireless Compliance Institute provides assured interoperability for wireless products conforming to the ISA100.11a (IEC62734) international wireless standard. www.isa100wci.org

Thought Leadership

Content, Events, News and Publications

Topics and Markets Covered by ISA Content

Digital Transformation / Industry 4.0

IIoT - Industrial Internet of Things
- Edge Computing
IT/OT Convergence
- Cloud Computing
Smart Manufacturing
- Digital Twin
Engineering
- Design and Simulation
- Virtual and Augmented Reality

Additive Manufacturing
Data Analytics
- Artificial Intelligence
- Machine Learning
- Predictive & Preventative Control
Autonomous Vehicles
Blockchain

Factory Automation and Machine Control

Machine Automation and Control
- Embedded Control
- Machine Tools, CNC and DNC
Programmable Logic Controllers (PLCs), Programmable Automation Controllers (PACs)
Computer-based Controls
Motors and Drives

Machine Safety
Human Machine Interface
- HMI and OIT
- Mobile Devices
Motion Control
Robotics
Automatic Identification
Vision Systems
Sensors & Industrial IO

Cybersecurity and Connectivity

Industrial and OT Cybersecurity
Network Management and Protection
Hardware and Devices
Software Tools
Wireless Networks

Network Protocols
- FDT Technology
- OPC and OPC UA
- EtherCAT
- Ethernet/IP
- PROFINET
- Sercos Interface
- EDDL Technology

Operations and Management

Asset Management
- Maintenance and Repair
- Leak Detection and Repair
- Overall Equipment Effectiveness (OEE)
Workforce Management
Human Factors and Ergonomics
Plant Facility Safety and Security
- Personnel Safety
- Electrical Safety
Project Management
Change Over and Migrations
Corporate/ERP

MES and Operations Management
Compliance & Regulations Standards
Alarm Management
- Situational Awareness
Workforce Development and Training
Sustainability (Environment, Health and Safety (EHS))
- Environmental Management
- Energy Management
- Supply Chain Optimization

Process Automation and Control

Batch Control
PID and Loop Control
Process Safety
- Burner Management Systems
- Fire and Gas Systems
Distributed Control Systems
SCADA and RTU
Instruments and Sensors
- Calibration and Test
- Process Composition Analysers and Techniques
- Signal Conditioning
Final Control Elements
- Valves
- Pumps
Electrical Systems
- Control Panels
- Marshalling Cabinets
- Industrial Computers
- Power Suppliers

Industry Segments

Agriculture
Aircraft, Aerospace
Automotive, Transportation Vehicles/Systems
Chemicals and Allied Products
Communications/Networking/Data Services
Computers, Electronics, and Semiconductors
Education and Training
Engineering Consulting/EPC
Ethanol Production
Fabricated Metal Products
Facilities/Building Management
Consumer Packaged Goods, Food, Beverage
Glass, Concrete, Stone, and Clay Products
Government or Military
Industrial Machinery and Equipment
Instrumentation, Control, Test, Measurement Systems
Marine, Maritime
Medical Devices/Equipment
Metal Processing
Mining and Minerals
Oil, Gas, and Petroleum
Paper, Wood, and Allied Products
Pharmaceuticals, Life Sciences
Plastics and Rubber
Power Generation/Distribution
Smart Cities/Building Automation
Systems Integration/Value-Added Resellers
Textiles, Apparel, and Leather
Warehouse/Distribution, Logistics, Ports
Water/Wastewater

Events and Conferences

Award-winning events – in person and virtual

isa.org/events

Best in Class Hybrid Event
Best Use of Mobile App

OT Cybersecurity Summit
Aberdeen, Scotland
31 May – 1 June
REGISTER

Automation & Leadership Conference
Colorado Springs, USA
4-6 October
WATCH

Digital Transformation Asia Pacific
Australia
November

Digital Transformation Brazil
Brazil
September

News and Publications

- ISA is your source for industry news and technical resources from subject matter experts

Books:
print and digital

InTech
Emagazine

Automation.com:
news and Ebooks

Blogs, ISA News,
Press Releases

Look Who's Talking

ISA and its subject matter experts have appeared in:

Community

Membership, ISA Connect,
Young Professionals, Students

ISA Membership

Together, We Create the Future of Automation

Connect

- Engage in technical discussions on ISA Connect.
- Network with automation professionals through geographic sections.
- Build connections through conferences, webinars, and online discussions.

Grow

- Explore opportunities and build your resume with ISA Career Center.
- Post job openings and access over 50,000 automation professionals.
- Serve on a standards committee.

Learn

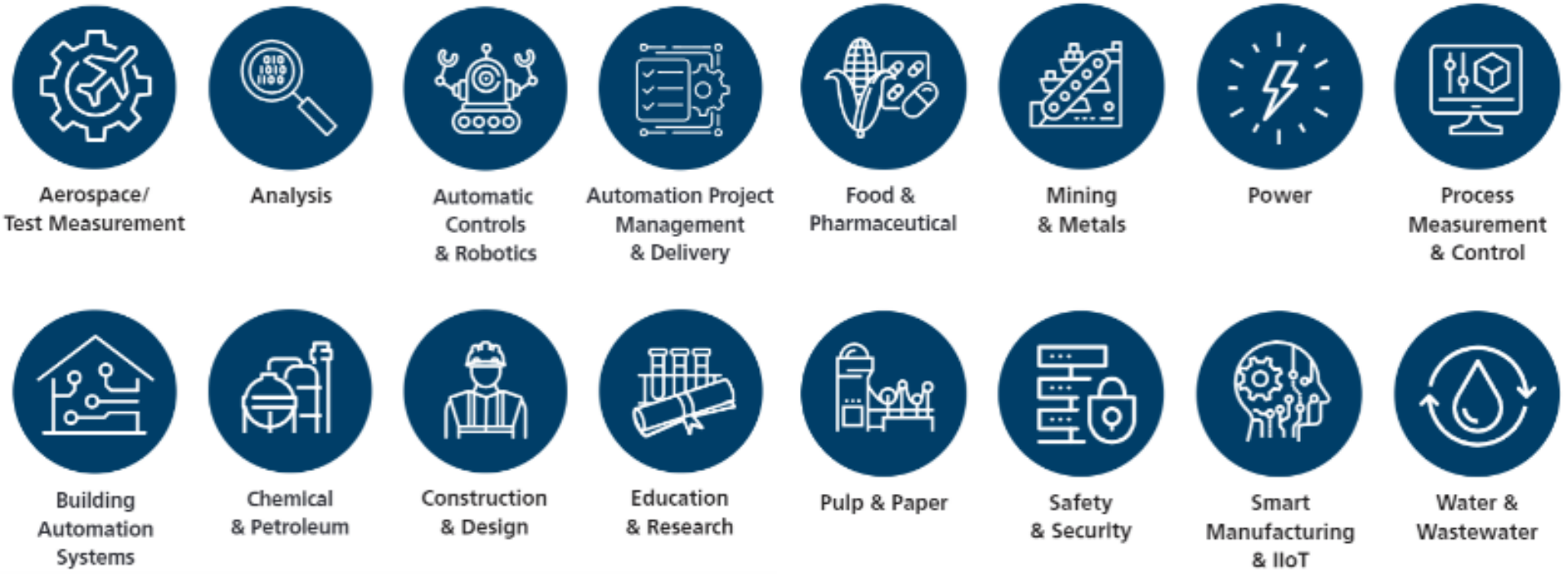
- Access over 150 standards that reflect leading industry expertise.
- Read the latest in industry information through our online news sources.
- Take training designed to build technical and leadership knowledge skills.
- Earn professional credentials that document your skills and set you apart.

ISA Connect

Award-winning technical and networking community

ISA Divisions

Members join divisions to **build their professional networks** and **receive information** around specific technologies and industries.



16 Divisions

2,754 Average number of members per division

isa.org/divisions

ISA Sections

A section is a group of **professional or student** members who have chosen to affiliate around a specific geographic area.

Sections exist to support the mission and vision of the Society, governed by and subject to all policies and procedures set by ISA.

Sections develop **activities in response to local needs**.

108 Sections in 31 countries

80 Student sections

Resources

Career Planning, Young Professionals, and Students

Career Center

A valuable tool for candidates and hiring managers – post a position, share your resume, and search for career guidance in a community devoted to automation

ISA Business Academy

A 10-week mini-MBA program offering leadership training as part of a cohort of peers from the automation industry

Mentoring Program

Connecting early career professionals to more seasoned professionals who are willing to help coach, guide and share expertise

Young Professionals and Students

Dedicated networking via the Young Professionals Committee and Student Sections; scholarship programs

But Don’t Just Take Our Word for It

ISA events are where everybody comes together. It's high energy and everybody cares about where the industry is going.

The class was excellent, the program was excellent.
The certification programs are one of the best in the industry.

For me, the first thing I think of is 'family.'

In ISA you find mentors across all fields of your
to help your career take off quickly.

I have met some of the **best people in automation**
by being part of ISA.

ISA
International Society of Automation
Setting the Standard for Automation™
Join ISA
Together, we create a better world through automation.
isa.org/join

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Thank you

www.isa.org