



Setting the Standard for Automation™

ISA  
Overview

# International Society of Automation:

## Delivering Standards-Based Technical Resources to the Industrial Automation Community

The International Society of Automation is a nonprofit professional association that sets the standard for those who apply engineering and technology to improve the management, safety, and cybersecurity of modern automation and control systems used across industry and critical infrastructure.

Founded in 1945, ISA develops widely used global standards; certifies industry professionals; provides education and training; publishes books and technical articles; hosts conferences and exhibits; and provides networking and career development programs for its 40,000 members and 400,000 customers around the world.

### Industries we serve:

- Chemicals
- Food and Beverage
- Oil and Gas Extraction
- Petroleum Refining
- Pharmaceuticals
- Pulp and Paper
- Automotive
- Pipeline and Natural Gas Utilities
- Electrical Utilities
- Water/Wastewater Utilities
- Engineering and Construction Firms
- Systems Integrators

### Technical topics we specialize in:

- Control Systems
- Communications
- Measurement and Control
- Plant Maintenance and Operations
- Energy
- Safety
- Cybersecurity
- Symbols, Terminology, and Documentation
- Asset Management and Enterprise Integration
- Building Automation

### How does ISA and its brand family bring value to automation professionals?

For engineers, technicians, and management engaged in industrial automation, ISA is the trusted provider of standards-based foundational technical resources, driving the advancement of individual careers and the overall profession.

ISA's brand family exists to serve automation professionals around the world. ISA's brand family includes:



ISA delivers cutting-edge, peer-reviewed technical resources



The Automation Federation unifies stakeholders around cybersecurity, workforce development, and STEM initiatives



ISASecure® offers standards-based industrial cybersecurity conformance assessments



ISA100 WCI offers standards-based wireless conformance assessments



Automation.com delivers real-time automation news and digital content

For more information about ISA's brand family, visit [www.brandfamily.isa.org](http://www.brandfamily.isa.org).

Standards

Certification

Education & Training

Publishing

Conferences & Exhibits

[www.isa.org](http://www.isa.org)

## Standards

ISA is recognized globally for the development of consensus industry standards for automation technologies and applications in key areas such as security, safety, batch control, enterprise integration, wireless communications, traditional instrumentation, measurement, and control; and has produced more than 150 standards documents. 4,000+ automation professionals, on 140 committees/subcommittees, have been involved in the development of ISA standards.

ISA is accredited by the American National Standards Institute (ANSI) to develop standards following open participation rules that ensure the text of all participants are considered in a balance of interests including users, suppliers, integrators, regulators/government, and others. Most ISA standards are published as American National Standards, and many are submitted through ANSI to become international standards through the International Electrotechnical Commission (IEC) based in Geneva.

When a standard is adopted into industry, businesses have a need to prove their conformance to that standard or to verify that their vendor procurement truly does align with the intent of that standard. ISA's brand family includes two compliance institutes: the ISA Security Compliance Institute ([www.isasecure.org](http://www.isasecure.org)) and the ISA100 Wireless Compliance Institute ([www.isa100wci.org](http://www.isa100wci.org).)

Learn more: [www.isa.org/standards](http://www.isa.org/standards)

### A few of ISA's most popular standards:

- Management of Alarm Systems for the Process Industries (ISA-18/IEC 62682)
- Functional Safety: Safety Instrumented Systems for the Process Industry Sector (ISA-84/IEC 61511)
- Batch Control Systems (ISA-88/IEC 61512)
- Enterprise-Control System Integration (ISA-95/IEC 62264)
- Cybersecurity for Industrial Automation and Control Systems (ISA-99/IEC 62443)
- Wireless Systems for Automation (ISA-100/IEC 62734)
- Instrumentation Symbols and Identification (ISA-5)
- Human Machine Interfaces for Process Automation Systems (ISA-100)
- Intelligent Device Management (ISA-108)

## Certification

ISA certification provides an objective, third-party assessment and confirmation of a person's skills, and gives them the opportunity to stand out from the crowd and be recognized. For companies, certification programs improve ROI by impacting mission critical decisions, promote safety and improve productivity, and establish professional credentials for engineers and technicians.

ISA currently offers two certification programs: Certified Automation Professional® (CAP®) and Certified Control Systems Technician® (CCST®).

ISA's certification programs are based on real-world requirements and go through a rigorous, scientific development process. Each program leverages ISA's standards and technical content, making the programs robust and practical in the real world.

The ISA Certified Automation Professional (CAP) Program tests proficiency in the direction, design, and deployment of systems and equipment. The areas of the exam include: Feasibility Study; Definition; System Design; Development; Deployment; and Operations & Maintenance.

The ISA Certified Control Systems Technician (CCST) Program features three levels (I, II, and III.) The CCST exams test proficiency in calibrating, documenting, troubleshooting, and repairing/replacing instrumentation. The areas of the exam include: Calibration, Maintenance, Repair, and Troubleshooting; Project Start-up, Commissioning, Loop-check, Project Organization, and Planning; Documentation; and Administration, Supervision, and Management.

ISA also offers two certificate programs, the ISA84 Safety Instrumented Systems Certificate Program and the ISA/IEC 62443 Cybersecurity Certificate Program. Each certificate program consists of coursework and exams and the material is based on ISA's world-renowned standards.

Learn more: [www.isa.org/certification](http://www.isa.org/certification)



# Education and Training

ISA offers flexible, dynamic, and relevant training designed to fit in to your fast-paced professional schedule. We're a worldwide leader in vendor-neutral, standards-based, expert-taught education and training programs for automation professionals, from seasoned veterans to industry newcomers.

ISA's courses are known and respected worldwide for their unbiased, practical approach to technology application. For more than 65 years, ISA has built on its proven track record of identifying and providing the real-world resources needed by organizations and automation and control professionals by working with leading content experts to deliver rapid, customized solutions.

## Choose your training, and customize your delivery:

- Instructor-led, classroom courses: attend a course in a convenient regional location covering a variety of hot topics
- Online, instructor-assisted training courses: experience a flexible, multi-week format that allows you to complete an ISA course anytime, anywhere without sacrificing the individual attention of a subject matter expert instructor
- Online courses: choose from dozens of courses and course libraries on fundamental topics, such as automation and control, electrical maintenance, industrial awareness, machine technology, mechanical maintenance, predictive maintenance, workplace skills, and more
- Live and recorded webinars: interactive presentations, conducted via the Internet and your telephone
- On-site instructor-led courses and certification exams at your location: bring an ISA course to you, saving your company time, travel costs, and downtime
- Innovative boot camp courses on critical topics: experience condensed learning, access to ISA's industry experts, plant tours, hands-on lab exercises, and more
- Hands-on portable laboratories: immerse yourself in experiential learning through our innovative labs, incorporated into many of our in-person courses

Learn more: [www.isa.org/training](http://www.isa.org/training)

# Publishing

ISA is the authoritative publisher of technical resources covering the automation profession. Written and reviewed by experts, these publications help keep automation professionals fully informed about the latest technical developments, applications, trends, and standards.

ISA's publishing portfolio includes hundreds of books focus on real world application of technologies and methodologies, focused on topics like safety, cybersecurity, instrumentation, process control, wireless technology, and much more. ISA publishes a bimonthly magazine, *InTech*, leveraging the vast knowledge, industry proven technical skills, and in-depth experience of thousands of subject-matter experts to deliver compelling content in print and digital editions.

Designed for research professionals and academia, ISA publishes an award-winning journal, *ISA Transactions*, focused on advances and state-of-the-art in the science and engineering of measurement and automation.

In addition to these innovative publications, ISA members can easily access over 5,500 technical papers online, covering every area of automation.

Through ISA's ownership of *Automation.com*, readers and advertisers can access e-newsletters, web articles, online topic-focused portals, white papers, video alerts, online advertising, the ISA Directory of Automation, and the ISA Job Board.

Learn more: [www.isa.org/publishing](http://www.isa.org/publishing)

## ISA's Best Selling Book Titles

- *Safety Instrumented Systems: Design, Analysis, and Justification, Second Edition*
- *A Guide to the Automation Body of Knowledge, Second Edition*
- *Safety Instrumented Systems Verification: Practical Probabilistic Calculations*
- *The Condensed Handbook of Measurement and Control, Third Edition (with CD)*
- *Calibration: A Technician's Guide*
- *Troubleshooting: A Technician's Guide, Second Edition*
- *Measurement and Control Basics, Fifth Edition (with CD)*
- *Fundamentals of Industrial Control, Second Edition (with CD)*
- *SCADA: Supervisory Control and Data Acquisition, Fourth Edition*





## Conferences and Exhibits

ISA hosts numerous annual events worldwide that provide quality education, the latest automation developments, and real-world scenarios, with presentations delivered by experts, peers, and industry leaders. ISA's conferences include expert technical presentations, social functions, exhibit opportunities, and more.

### ISA's annual technical division symposia include:

ISA Analysis Division Symposia (AD):  
[www.adsymposium.org](http://www.adsymposium.org)

ISA Food and Pharmaceutical Division Symposium (FPID):  
[www.isa.org/fpid2017](http://www.isa.org/fpid2017)

ISA International Instrumentation Symposium (IIS):  
[www.isa.org/iis2017](http://www.isa.org/iis2017)

ISA Leak Detection and Repair (LDAR)—Fugitive Emissions Symposium: [www.isa.org/ldar2017](http://www.isa.org/ldar2017)

ISA Power Industry Symposium (POWID):  
[www.isa.org/powersymp](http://www.isa.org/powersymp)

ISA Process Control and Safety Symposium (PCS):  
[www.isa.org/pcs2017](http://www.isa.org/pcs2017)

ISA Water/Wastewater and Automatic Controls Symposium (WWAC): [www.isa.org/wwac2017](http://www.isa.org/wwac2017)

Learn more: [www.isa.org/events](http://www.isa.org/events)

For more information,  
and to join ISA, visit  
[www.isa.org](http://www.isa.org)

## Membership

Individual membership in ISA delivers 24/7 access to the most relevant automation technical content in the world, and connects you with the best and brightest minds in your industry. Our members join ISA to increase their technical knowledge; develop their skills; and share experiences, successes, and lessons learned.

### Most popular membership benefits at-a-glance:

- Access tabletop technology exhibits, subject matter experts, networking and leadership opportunities, and local employment opportunities through ISA's geographic sections
- Free online viewing of over 150 ISA standards, recommended practices and technical reports
- Access to ISA training courses, classroom and online, with a sizeable (20% in most cases) discount
- Access to ISA published publications, including peer-reviewed technical books, with 20% discount
- Access to prep materials, review courses, and exams for ISA's Certified Control Systems Technician® (CCST®) and Certified Automation Professional® (CAP®) programs with 20% discount
- Option to attend ISA's renowned technical conferences with 20% discount
- Free, unlimited downloads of technical papers (more than 5,500 of them)
- Free online, pre-recorded web seminars on key topics and trends
- Two free technical division memberships, facilitating technical knowledge sharing and collaboration
- Free participation in ISA's Leadership Development Certificate Program
- Free mentoring program
- Free subscriptions to *InTech*, the premier magazine for automation professionals, and the Automation Weekly e-newsletter
- Free online access to ISA Transactions, which covers the latest advances in measurement and automation
- Free online resume posting on the ISA Job Board

Learn more: [www.isa.org/memberbenefits](http://www.isa.org/memberbenefits)

“Different people join and benefit from ISA membership for many different reasons. Whether you simply wish to learn from others, teach others, participate in standards, or serve in leadership roles, you have nothing to lose and everything to gain. I wouldn't be who I am, known as I am, doing what I am, and have as many career opportunities as I have, if it weren't for my involvement in ISA. I owe my career to ISA.”

—Paul Gruhn, P.E., ISA Fellow

### International Society of Automation

67 T.W. Alexander Drive  
P.O. Box 12277  
Research Triangle Park, NC 27709  
PHONE +1 919-549-8411  
FAX +1 919-549-8288  
EMAIL [info@isa.org](mailto:info@isa.org)  
[www.isa.org](http://www.isa.org)