

CAPacity

Newsletter for the ISA Certified Automation Professional® (CAP®)



Spring 2007

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CAP® Profile of the Quarter – Greg Lehmann



Greg Lehmann was searching the ISA Web site for case studies and standards on handling hazardous chemicals when he discovered the Certified Automation Professional® (CAP®) program.

Lehmann works for Washington Group International, an integrated engineering, construction and management solutions company that serves businesses and governments worldwide. As construction specialist for instrumentation and control systems, he provides instrumentation and control engineering support for all ground water treatment plants at Rocky Mountain Arsenal in Commerce City, Colo. Lehmann's responsibilities include specifying, ordering, building and maintaining instrumentation and control systems at this former chemical weapons manufacturing site now undergoing environmental cleanup. He has worked in his current position for 16 years and in the automation field for more than 23 years.

After discovering the CAP program, Lehmann began the process to become certified. "CAP recognizes individuals in our field for their knowledge," he said. "I like the fact that continuing education points are required to renew it." He tested and received his certification in 2005.

Although Washington Group International does not require certification, the company supported Lehmann's pursuit of the CAP by covering the cost of his training materials and test fee. They rewarded him with a monetary bonus for receiving the certification.

"I see it as beneficial to myself by increasing the opportunities for promotion, raises and new jobs as it becomes more well known in the industry," Lehmann said. "It also helps the company and our clients by quantifying and qualifying employees' knowledge."

Since obtaining his certification, Lehmann has become an advocate of the program. He is promoting the certification to the 50 ISA members within his company, an effort supported by his supervisors. He volunteers as a CAP champion, serving as a coach for candidates preparing to take the exam, and as a member of ISA's test-item writing and test-assembly committee.

In response to industry requests, ISA established the CAP® program in 2004 to recognize and document the specialized knowledge, education and experience of automation professionals.

CAPs are responsible for the direction, design and deployment of systems and equipment for manufacturing and control systems. They must renew their certification every three years. This is accomplished earning Professional Development Points (PDPs) by working, training, and continually gaining knowledge in the field.

Lehmann prepared for the exam by purchasing and studying the reference books listed on the CAP page of ISA's Web site. "I bought the books that covered the most domains, locked myself in my basement, and crammed," he said, explaining that he read all the books and took notes on them during a three-month timeframe.

For those considering the exam, Lehmann recommends the CAP Learning System and ISA's review course in addition to studying texts and reference manuals. "Ask questions. Get a CAP champion. Take the review course. Study the domains. Do your research. Find out those domains that you need to concentrate your study time on," he advised. "There is plenty of help available."

Lehmann plans to keep his certification current by meeting the continuing education requirements and to renew it in 2008. "I am ecstatic about the CAP," he said. "It has helped me get back involved with other professionals in the industry and stay up-to-date on what's new in a field that is changing rapidly."

ISA's CAP Associate Recognition Program

ISA is pleased to announce the launch of a new student recognition program, the Certified Automation Professional (CAP) Associate Program. The ISA CAP Associate program is a recognition program for students graduating from a four year technical degree program who are interested in working in the field of automation. The CAP Associate program provides recognition of the student's interest and knowledge of automation. Although the CAP Associate program is not a certification program, it provides an additional credential for the graduating student. Students who pass the CAP Associate exam will receive one year of "work experience" credit towards ISA's certification program, the Certified Automation Professional (www.isa.org/CAP).

A CAP Associate has completed a four year academic degree in automation or a related engineering or technology area. Related areas include instrumentation, measurement and control, chemical, electrical, electronics, or mechanical engineering or technology. Computer programming courses related to practical engineering applications also qualify.

The exam has 75 multiple choice test items. The test items are weighted the same as the Certified Automation Professional exam among the following technical categories.

- I. Basic Continuous Control
- II. Basic Discrete, Sequencing, and Manufacturing Control
- III. Advanced Control
- IV. Reliability, Safety and Electrical
- V. Integration and Software
- VI. Deployment and Maintenance
- VII. Work Structure

Students who would like to sit for the exam need to have a sponsoring professor from their university to work with ISA to arrange for the exam to be offered at the university.

Note: This recognition program is not a certification. Those who take the CAP Associate examination may be interested in pursuing the ISA Certified Automation Professional® (CAP®) Program once the experience level reaches five years. Successfully completing the CAP Associate exam equals one year of experience good toward the CAP® requirements. For more details, visit www.isa.org/CAP/associate or call ISA at (919)-549-8411.

Requirements:

A CAP Associate has completed a four year academic degree in automation or a related engineering or technology area. Related areas include instrumentation, measurement and control, chemical, electrical, electronics, or mechanical engineering or technology. Computer programming courses related to practical engineering applications also qualify.

An official transcript is required to verify the education background of the applicant. The applicant has a six month window of eligibility to take the exam, three months before or after the applicant's graduation date from the four year degree program.

The Exam

The CAP Associate exam will have 75 multiple choice test items. The test items will be weighted the same as the CAP exam among the technical categories. The distribution of items is shown in the table below. For more detail on the topics within the technical categories see the table of contents from *A Guide to the Automation Body of Knowledge*, found at www.isa.org/Autobok.

CAP® Test Specifications by Technical Topic Category	% of Test	Number of Items on Test
I. Basic Continuous Control	14%	10
II. Basic Discrete, Sequencing, and Manufacturing Control	13%	10
III. Advanced Control	9%	7
IV. Reliability, Safety and Electrical	13%	10
V. Integration and Software	21%	16
VI. Deployment and Maintenance	16%	12
VII. Work Structure	14%	10
TOTAL:	100%	75

Test Administration:

The sponsoring professor from the four year academic institution collects all CAP Associate applications and submits applications and payment to ISA and schedules an exam date to administer the exam at his/her institution. The exam is a paper/pencil exam. ISA sends the exam package to the sponsoring professor who administers the exam and returns to ISA. ISA scores the exam and reports results directly to the applicant. Those who pass the exam may use the designation CAP Associate.

Fees:

The application fee is \$95 for non-members and \$85 for ISA Members. non-members are encouraged to join at the time they apply. Note that ISA student members receive their first year out of college at the student membership rate of \$10.



Welcome New CAPs

Join ISA in congratulating the following Certified Automation Professionals who passed the CAP Exam between October – December 2006.

Shibu K. Abraham
Ghalib A. Al-Hashim
Curtis H. Barton
Jason Coates
Steven William DuBay
Camilo T. Fadul
Larry J. French
Stephen D. Guy
Corey S. Heckman
John Ben Hopkins
Steven E. Hudy
Ernest M. James
Richard C. Meacham

Charles A. Mertes
Troy A. Miller
Richard E. Moyta
Seth C. Olson
Fernando Otero
Kiran Patel
Jeremy Joseph
Kathavarayan Pollet Raju
Dennis R. Royal
Kevin E. Royer
Ronald Scarborough
Gregory Scott Severns
Curt W. Wendt

Congratulations!

Latest News!!

CAPACITY Newsletter now quarterly!

Look for the latest CAP news and information, CAP Profiles and more to arrive in your mailbox every quarter. We welcome your suggestions, input and newsletter inserts. Send your feedback to Asmith@isa.org.

CAP Review Course Coming to an Area Near You

Visit www.isa.org/training/EC00 for more information.

ISA Electronic Certification Exam

For more details on testing windows or certification exams, please call (919) 549-8411 or visit us at www.isa.org/cap/testing.

Frequently Asked Questions

Each quarter we'll try to answer some of the more common questions about the CAP program. If your question isn't here, try looking online at www.isa.org/CAP at the complete list of FAQs, or call ISA at (919) 549-8411.

Examination Process

What will I receive after I submit my CAP® application?

If your application does not include all the necessary documentation, you will be notified and given an opportunity to provide the remaining documentation to meet the requirements. Once your application is approved, you will receive an Eligibility Letter with information on how to schedule your exam date and location for electronic exams, or a Confirmation Letter with the date, time, and site address of your private site exam.

Once my application is approved, how long am I eligible to test?

You are eligible to take the exam for nine (9) months after your application is submitted.

Once I take the examination, how long will it be before I am notified of my status?

For candidates who take the exam electronically you will receive immediate results of your pass/fail status. If you pass, your certificate and wallet card will be mailed within thirty (30) days. If you take the exam in a private site, notification of your status will be mailed within thirty (30) days of your exam date.



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Please share this publication with others in your company:

- Automation Engineer
- Control Systems Engineer
- Plant Manager
- Systems Integrator

Take the CAP Exam for FREE

ISA offers a special bonus for participants in the Certified Automation Professional (CAP) Review Course (EC00) at ISA EXPO 2007. Take the review course at EXPO and then take the CAP exam in the paper/pencil format the day following the course—at no additional fee! That's a savings of up to \$295!

The exam fee will be waived **ONLY** if you attend the review course **AND** you meet the CAP qualifications. You must submit a CAP application and your course registration form 6 weeks prior to your course date to be eligible for this offer.

Visit www.isa.org/examschedule and look for special event offerings.



Founded in 1945, ISA (www.isa.org) is a leading, global, nonprofit organization that is setting the standard for automation by helping over 30,000 worldwide members and other professionals solve difficult technical problems, while enhancing their leadership and personal career capabilities. Based in Research Triangle Park, North Carolina, ISA develops standards; certifies industry professionals; provides education and training; publishes books and technical articles; and hosts the largest conference and exhibition for automation professionals in the Western Hemisphere.

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. ISA currently offers three certification programs: Certified Automation Professional® (CAP®), Certified Control Systems Technician® (CCST®), and Certified Industrial Maintenance Mechanic® (CIMM®).

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