



# 2012 Water / Wastewater and Automatic Controls Symposium

Holiday Inn Castle Resort.....Orlando, Florida, USA.....Aug 7-9, 2012

Presented by the ISA Water / Wastewater Industries Division - [www.isawwsymposium.com](http://www.isawwsymposium.com)

Technical Co-Sponsors: WEF Automation and Info Tech Committee and the Florida AWWA Section



## Program Booklet



*Setting the Standard for Automation™*

## About the Symposium

Presented by the Water and Wastewater Division of ISA, in collaboration with the Florida AWWA and the WEF Automation and Information Technology Committee, the WWAC Symposium helps professionals in the water and wastewater industries understand how instrumentation, SCADA (supervisory control and data acquisition), and automatic control applications affect the processing and distribution of water treatment. It also provides an excellent opportunity to gain valuable technical information and training.

This 3-day symposium is focused on the challenges associated with automation and instrumentation in the water and wastewater sectors. It features 2 full days of presentations (two speaking tracks), a tour of a local water/wastewater facility, a general reception, networking events, a poster session, and a supplier showcase.

## Travel Information

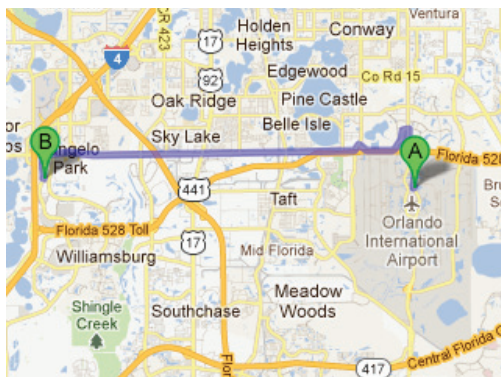
### Accommodations

The 2012 ISA Water/Wastewater Symposium will be held at The Holiday Inn Resort Orlando – The Castle in Orlando, FL. This boutique hotel offers luxury accommodations and is only steps from International Drive's world-famous shopping, dining and entertainment. It is also situated close to both Walt Disney World Resort and Universal Studios' theme parks.

### Hotel Registration

We have arranged a special discounted hotel rate of \$79/night for symposium attendees for the Mon, Tues, Wed, and Thurs nights. Please mention "ISA WWAC Symposium" when booking. If registering on-line use the group code "ISA". The special symposium rate is available until July 15, 2012.

Holiday Inn Castle Resort Hotel  
8629 International Dr. Orlando Florida 32819  
www.thecastleorlando.com  
info@thecastleorlando.com  
1.877.317.5753 (toll free)  
407.248.8181 (fax)



### Map & Directions

**Flying:** The hotel is approximately 13 miles from Orlando International Airport (airport code: MCO). The airport has a large number of rental car agencies. Shuttle bus and taxi service from the airport is available via Mears Transportation by visiting [www.mearstransportation.com](http://www.mearstransportation.com) or by calling 1-800-223-3868. A one-way taxi trip from the airport to the hotel typically costs around \$35 USD.

**Driving:** The hotel is not far from Interstate 4, the Florida 528 Highway, and the Florida Turnpike. Situated on International Drive, the hotel is easy to get to and offers ample parking.

### Local Attractions

The Orlando area provides a wealth of visitor experiences. The hotel is centrally located in the heart of the fun. The Walt Disney World Resort, Sea World and Universal Studios are minutes away. Bring your family and take advantage of the many experiences to be had. For more information on local attractions visit [www.visitorlando.com](http://www.visitorlando.com).





### General Symposium Chair

It is my pleasure to welcome you to our 2012 ISA Water/Wastewater and Automatic Controls Symposium. Now in its seventh year and with record attendance numbers, I am pleased to announce that this year is our most successful symposium ever.

Thanks to our strong partnerships with the WEF Automation and Info Tech Committee, the Florida Section of the AWWA, and the Florida Water Environment Association, we have tailored this year's conference specifically to the needs of automation professionals in the water and wastewater sectors. I would also like to thank our many sponsors, exhibitors, and committee volunteers for being instrumental to our success.

We have a strong program this year, with over 25 technical speakers, a keynote address, two invited speakers, and two guest speakers. We also have a packed exhibit hall, a great general reception, and top notch catering lined up. Don't forget to also check out our plant tour and the optional full-day training course on cybersecurity.

I look forward to meeting all of you at this year's symposium.

**Graham Nasby, P.Eng., PMP**  
**General Symposium Chair**



### Program Committee

On behalf of the entire program committee, I would like to formally welcome you to this year's 2012 WWAC Symposium. Our focus is to help professionals in the water and wastewater industries gain a greater understanding of how automatic control applications, utilizing the latest in instrumentation and intelligent controls technology, can be applied to improve both process measurement, water and wastewater processing, collection, treatment, and distribution.

Our symposium is a three day event where attendees will experience a breath of learning and continuing education opportunities. Our first day is dedicated to our cybersecurity training course and plant tour. Our second and third days are dedicated to technical presentations. In addition to our 25 technical speakers, we have an informative keynote opening, invited speakers, and guest speakers as part of our program.

I also encourage you to visit our exhibit hall, talk with our sponsors, and network with your fellow attendees. From these interactions you will find out about new techniques, products and approaches for your daily automation challenges.

We are pleased to welcome the full range of automation professionals in our sector to our symposium. This includes both plant people, including operations, maintenance, engineering and management, as well as plant designers, instrumentation specialists, and system integration firms. Please take advantage of the professional development opportunities afforded to you by our symposium. If you are a Florida resident, make sure to fill out the paperwork to get your FDEP-approved CEUs/PDHs. If you are from out of state, or have an ISA CSST or CAP certification, don't forget to request your ISA training certificate.

Come join us!

**Joe Provenzano**  
**Program Committee Chair**



### ISA Water / Wastewater Division

Welcome to the 2012 ISA Water/Wastewater Automatic Controls Symposium. We're very happy to be back in Orlando and to announce new strategic partnerships that are going to bring tremendous values to the event and its attendees. The Water Environment Federation (WEF), Florida American Water Works Association (FAWWA), and Florida Water Environment Association (FWEA) are new technical co-sponsors this year for the first time. As a result, the symposium will be offering FDEP-approved CEUs (continuing education units) for Florida-state licensed water and wastewater operators, as well as approved PDHs for Florida state-licensed engineers. Attendees from out of state and ISA members can also receive 20 PDHs via the ISA.

**Jon DiPietro**  
Director, ISA Water/Wastewater Division



### Florida Section, American Water Works Association

The Florida Section of the American Water Works Association (FSAWWA) is proud to be a co sponsor of the 2012 Water / Wastewater and Automatic Controls Symposium which will be held at the Holiday Inn Castle Resort in Orlando, Florida from August 7-9, 2012. I encourage all FSAWWA members to attend to get a better understanding on how instrumentation, SCADA, and the automation control application affects our water treatment and distribution systems. This is a perfect opportunity to get CEU credits, gain a better understanding of the automatic control applications, and take advantage of networking opportunities within the industry. We are looking forward to seeing you in Orlando!

**Rick Ratcliffe**  
Chair, Florida Section, American Water Works Association



### Florida Water Environment Association

The Florida Water Environment Association (FWEA) is pleased to be a cosponsor of the 2012 Water / Wastewater and Automated Controls Symposium, which will be held at the Holiday Inn Castle Resort in Orlando, FL from August 7-9, 2012. I encourage all FWEA members to take advantage of the reduced FWEA registration fee and consider attending the Symposium to get a better understanding of how instrumentation, SCADA, and automation control applications affect our wastewater collection and treatment systems. There will also be ample opportunities to network with other colleagues in our profession at the Symposium.

**Paul Pinault, P.E.**  
Chair, Florida Water Environment Association



### Water Environment Federation

On behalf of the Water Environment Federation (WEF), it is with great pleasure that I welcome you to the 2012 ISA Water/Wastewater and Automatic Controls Symposium. We believe that the Symposium has an extraordinary technical program thanks to the efforts the symposium's program and organizing committees. We are pleased to be a technical co-sponsor of this year's symposium, and promoting stronger ties between the ISA and WEF. We also welcome you to attend WEFTEC 2012 this fall in New Orleans, where several of the WWAC symposium presentations will be showcased at a special "Highlights of the ISA water/wastewater Symposium" WEFTEC session. We encourage all members of the water community to participate in both larger vertical-events like WEFTEC and in focused niche events like the ISA WWAC symposium, as together they have a lot to offer.

**Barry Liner, Ph.D., P.E.**  
Director, WEF Water Science & Engineering Center

## Invited Speakers



### KEYNOTE

#### **Facing Utility Challenges: Managing Risk and Addressing Aging Infrastructure Needs**

**Celine Hyer**

Principal  
Malcolm Pirnie/ARCADIS



### INVITED SPEAKER

#### **An Overview of Cybersecurity and ISA99 for the Water or Wastewater SCADA Specialist**

**Bryan Singer**

Principal Consultant  
Kenexis Security Corp



### INVITED SPEAKER

#### **The High Performance HMI – Better Graphics for Operations Effectiveness**

**Bill Hollifield**

Principal HMI Consultant  
PAS



### GUEST SPEAKER

#### **Automation Technology Trends in the Wastewater Sector**

**Tom DeLaura**

Chair  
WEF Automation and Info Tech Committee  
Vice President  
Eramosa Engineering International



### GUEST SPEAKER

#### **Florida Drinking Water Trends and Automation Trends**

**Kim Kunihiro**

Water Quality & Water Production Manager  
Orange County Utilities  
Trustee  
Florida Section of the AWWA

## Why you should attend

*Opportunity to learn from others and “talk shop” with people who understand the challenges of your sector*

*Earn CEUs (continuing education units) for your operator license*

*Earn PDHs (professional development hours) for your PE license*

*Get to compare experiences and lessons learned*

*Learn about new technologies, products and services*

*Be actively involved in your professional development*

*Establish contacts in the industry*

*Share ideas and experiences with others in the sector*

*Learn Something*

*Have Fun*

## Benefits for Water Utilities

*Inexpensive professional development*

*2.0 CEUs for \$350*

*Group discounts available*

*Opportunity for staff to learn about new ideas and industry innovations*

## Benefits for Engineering Firms

*Exposure to new ideas*

*Learn from plant case studies*

*Talk to operations and maintenance professionals in an informal environment*

*Learn about new products and techniques*

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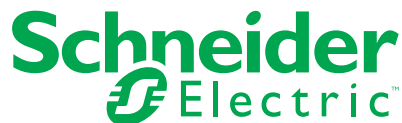
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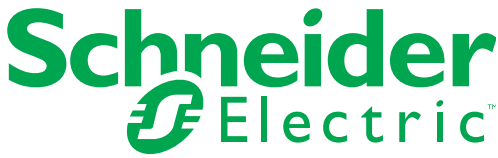
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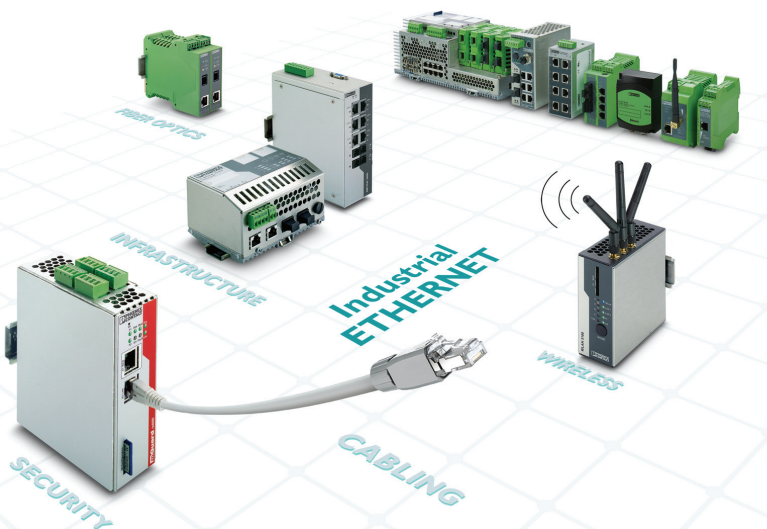
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## Schedule At A Glance

### Day 1 - Tuesday, August 7

- 8:00am-3:00pm **Automation & SCADA Cyber Security Short Course**  
3:00pm-3:45pm Badge Pick-up for Tour Attendees  
3:45pm-6:30pm **Tour of Southern Regional Water Supply Facility**  
6:30 pm Free Evening

### Day 2 - Wednesday, August 8

- 7:15am Registration & Breakfast  
7:45am Opening Remarks  
8:00am Welcome from ISA President Bob Lindeman  
8:15am Keynote Speaker  
**Facing Utility Challenges: Managing Risk and Addressing Aging Infrastructure Needs**  
*Celine Hyer, Principal, Malcom Pirnie/ARCADIS*  
8:45am Invited Speaker  
**An Overview of Cybersecurity and ISA99 for the Water or Wastewater SCADA Specialist**  
*Bryan Singer, Principal Consultant, Kenexis Security Corporation*  
9:15am **Securing Critical Control Systems in the Water Sector – Where do I begin?**  
*Don Dickinson, Phoenix Contact*  
9:45am **Using Cyber Security Evaluation Tool (CSET) for a Wastewater Treatment Plant**  
*Bob Dusza, Manchester Water & Sewer Dept. - Manchester, CT*  
10:15am Coffee Break & Exhibits  
10:30am **Wastewater Plant Process Protection: Process Hazard Analysis**  
*Thomas McGovern, Broward County Water and Wastewater Services - Broward County, FL*  
11:00am **Improving Water and Wastewater SCADA Cyber Security: Based on Work Performed for Large and Small Utilities**  
*Bill Phillips and Norman Anderson, CH2M HILL*  
11:30am **Mobile Devices for SCADA Integration and Beyond: Considerations, Security and Applications**  
*Pavol Segedy and Brandon Erndt, Brown & Caldwell*  
12:00pm Lunch & Exhibits  
1:15pm **Solar Powered Wireless Sensors & Instrumentation**  
*Michael Macchiarelli, Imagine Instruments*  
1:45pm **HMI Testing of Multiple PLCs using Simulations on Virtual Machines**  
*Marcelo Avendano and Kevin Patel, CDM Smith*  
2:15pm **High Fidelity Extended Period Dynamic Simulation in Development and Testing of Control Systems for Water Treatment and Distribution Facilities**  
*Creig Wilson and Jared Thorpe, CH2M HILL*  
2:45pm Poster Session, Coffee, and Exhibits  
4:00pm **Successful SCADA specifying and Implementation for Water and Wastewater Projects**  
*Robert Reinhart, ControlsLink*  
4:30pm **FOUNDATION Fieldbus Provides a Unified Solution for Remote Operations Management**  
*Larry O'Brien, Fieldbus Foundation*  
5:00pm **Developing an Integrated Business Solution with Telemetry and GIS**  
*Michael Waddell, CDM Smith and Isabel Szendrey, Puerto Rico Water Authority*  
5:30pm General Reception with Cash Bar





## Day 3 - Thursday, August 9

- 7:15am Breakfast
- 7:45am Opening Remarks
- 7:50am **Welcome from ISA Tampa Bay Section**  
*Bob Rienhart, President, ISA Tampa Section*
- 8:00am *Invited Speaker*  
**The High Performance HMI – Better Graphics for Operations Effectiveness**  
*Bill Hollifield, Principal HMI, PAS*
- 8:45am *Guest Speaker*  
**Automation Technology Trends in the Wastewater Sector**  
*Tom DeLaura, Chair, WEF Automation and Info Tech Committee & Vice President, Eramosa Engineering International*
- 9:00am *Guest Speaker*  
**Florida Drinking Water Trends and Automation Trends**  
*Kim Kunihiro, Orange County Utilities, on behalf of the Florida Section of the AWWA*
- 9:15am **Common Pitfalls that Affect Water and Wastewater Instrumentation, Control and Automation Systems**  
*Francisco Alcalá and Tim Wiley, CDM Smith*
- 9:45am **Integrated Process Control & Management Systems: Creating More Effective Working Environments**  
*Mark Presti, Gray Matter Systems*
- 10:15am Coffee Break & Exhibits
- 10:30am **Hybrid RO & Softening Water Treatment Plant Process Design**  
*Ali Farahmand, Nassir Gifani, and Mohsen Farivar, ToosAb Consulting Engineers Co., Iran*
- 11:00am **Flowmeter Challenges in a Multi-Pass Reverse Osmosis System**  
*Chris Caglioti and Andrew Fenske, City of Cape Coral, and David Ramsey, AMJ Equipment Corp.*
- 11:30am **Should we Keep DO for Nitrification Control? The Proof is the Ammonium Electrodes**  
*Robert Lagrange, Lagrange Consulting; Sue Baert, Wheaton Sanitary District; Amanda Poole and Dave Green, Baxter & Woodman Inc.; Nick Camin, Endress+Hauser*
- 12:00pm Lunch & Exhibits
- 1:15pm **Modernization and Improved Operations: Process Automation Upgrade of the Gilder Creek WWTP**  
*Scott Whitmore, CDM Smith and Blake Visin, Renewable Water Resources (ReWa) – Greenville, SC*
- 1:45pm **Efficient Control of Potable Water Distribution**  
*Raed Al Nuaimi, Rajendra Kumar Ramakrishnan and Mohammed Barghothi, AECOM (United Arab Emirates)*
- 2:15pm **Optimization of Wastewater Lift Stations for Reduction of Energy Usage and Greenhouse Gas Emissions**  
*David Wilcoxson, MWH Americas and Travis Crane, JEA*
- 2:45pm Poster Session, Coffee Break & Exhibits
- 3:30pm **The Role of Rugged HMIs in Water and Wastewater Plants**  
*Jeff Hayes, Beijer Electronics*
- 4:00pm **SCADA Upgrades to Otay Water Treatment Plant**  
*Noune Garounts, MWH Global*
- 4:30pm **So you have SCADA, what's next?**  
*Grant Van Hemert, Schneider Electric*
- 5:00pm **Asset Tracking and Revision Control for Automated Water/Wastewater Control Systems**  
*Blair Sooley, Trihedral Engineering*
- 5:30pm **An Overview of Applicable ISA Standards to the Water and Wastewater sectors**  
*Graham Nasby, Eramosa Engineering*
- 6:00pm Closing Remarks





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## Technical Co-Sponsors

We are pleased to announce that this year's WWAC symposium has the following technical co-sponsors.



The Florida Section of the American Water Works Association is dedicated to ensuring Florida's present and future generations a sufficient supply of high quality drinking water by providing critical information and opportunities to over 2,500 members. We offer comprehensive technical training and continuing education programs, effective legislative and regulatory policy development, high quality members services and networking opportunities related to the water industry. For more information see [www.fsawwa.org](http://www.fsawwa.org)







Founded in 1928, the Water Environment Federation (WEF) is a not-for-profit technical and educational organization of 36,000 individual members and 75 affiliated Member Associations representing water quality professionals around the world. WEF members, Member Associations, and staff proudly work to achieve our mission to provide bold leadership, champion innovation, connect water professionals, and leverage knowledge to support clean and safe water worldwide. For more information see [www.wef.org](http://www.wef.org)



The Florida Water Environment Association (FWEA) through local chapters, student chapters, committees and Utility Council help to unite Florida's clean water professionals responsible for protecting the environment through education programs, professional development and promotion of sound public policy. For more information see [www.fwea.org](http://www.fwea.org).

## Continuing Education Credits – CEUs & PDUs

Symposium participants will earn valuable Continuing Education Units (CEUs) and Professional Development Hours (PDHs) by attending the symposium. Participants will receive their choice of CEUs or PDHs from one of the following organizations:

 <p><b>2.0 CEUs or 20 PDHs</b> water operators wastewater operators engineers</p> 	<p>Florida state licensed water operators and wastewater operators can earn up to 2.0 Florida Department of Environmental Protection approved CEUs by attending in the symposium.</p> <p>Florida state licensed engineers can also earn up to 20 Florida DEP-approved PDHs by attending the symposium.</p> <p>As part of the partnership between the ISA and the Florida Section of the AWWA, official certificates for these CEUs and PDHs will be issued by the FSAWWA.</p> <p><b>These CEU credits can be used by both water operators and wastewater operators.</b></p> <p>Florida Statutes require anyone who operates a drinking water treatment plant or a domestic wastewater treatment plant to be licensed by FDEP. Beginning May 1, 2011, licensure for Water Distribution System Operators became mandatory. CEUs and PDHs that attendees receive at the symposium can be used to satisfy the continuing education requirements for their licenses.</p>	
	<p><b>Symposium</b> <b>20 PDHs</b></p>	<p>Attendees also have the option of receiving a certificate for 20 Professional Development Hours (PDHs) from the ISA.</p>   <p><b>Control Systems Engineers</b></p> <p>These PDHs can be used towards your ISA CAP or CCST certification, or towards continuing education requirements in other jurisdictions as applicable.</p>
 <p><b>0.7 CEUs</b></p>	 <p><b>0.7 CEUs</b></p>	<p>For the optional full-day training course on SCADA &amp; Automation Security, attendees can receive either:</p> <ul style="list-style-type: none"> <li>• 0.7 CEUs certified by the Florida DEP (issued by the FSAWWA)</li> <li>• 0.7 CEUs certified by IACET (issued by the ISA)</li> </ul>

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## Symposium Tour

### Orange County Utilities Southern Regional Water Supply Facility

Tuesday August 7th, late afternoon

Located approximately 20 minutes from the symposium hotel, the tour offers a unique look at a state-of-art ozone-based water treatment facility. The plant, which was brought on line in 2012, uses a highly optimized process for removing the naturally-occurring sulfide that is present in much of Florida's groundwater. Its fully automated and redundant control system ensures that the plant is able to continuously provide a reliable source of water for both drinking and fire-protection needs in Orange County. The tour will give symposium attendees a glimpse at how leading edge automation is being used in the municipal water sector to minimize costs, increase efficiency, and offer enhanced reliability.



## Optional Short Course

### Introduction to Industrial Automation Security and the ANSI/ISA99 Standards (IC32C) - SCADA & Automation Cyber Security

Date: Tues, August 7, 2012

Instructor: Bryan Singer, CISM, CISSP, CAP

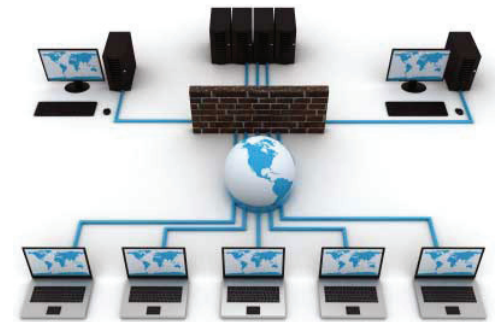
Length: 1 day

CEU Credits: 0.7

Course Hours: 8:00 a.m. – 3:30 p.m.

Register: [www.isawwsymposium.com/register](http://www.isawwsymposium.com/register)

Cost: \$630 (\$495 for ISA members)



Security for Automation, SCADA and DCS systems is a hot topic in our sector. Recent news reports about hackers infiltrating public utility control systems has brought renewed attention to the importance of security for our all-important water/wastewater infrastructure. As part of the WWAC symposium, we are offering a timely automation security course that gives an overview of why automation security is needed, how to identify potential risks, and how to go about putting a program in place to mitigate risks.

This full day course covers the basics of the ANSI/ISA99 Security for Industrial Automation and Control Systems family of standards and how these can be applied in a typical water or wastewater district. You will be introduced to the terminology, concepts, and models of ANSI/ISA99 CyberSecurity. As well, the elements of creating a CyberSecurity management system will be explained along with how these should be applied to commonly used SCADA, DCS and Automation Systems in the water and wastewater sectors.

#### Symposium Registration

##### Early-Bird Rate (up until June 15, 2012)

- Regular Attendee . . . . . \$400
- ISA Member . . . . . \$300
- AWWA or FSAWWA Member . . . . \$350
- WEF or FWEA Member . . . . . \$350
- Student Registration . . . . . \$110
- Author/Speaker Registration . . . . \$100

##### Regular Registration (after June 15, 2012)

- Regular Attendee . . . . . \$425
- ISA Member . . . . . \$325
- AWWA or FSAWWA Member . . . . \$375
- WEF or FWEA Member . . . . . \$375

##### Optional Full-Day Training Course:

Introduction to Industrial Automation Security and the ANSI/ISA99 Standards (I32C-FL)

August 7, 2012, 8:00 am. - 3:30 p.m. - Attendees will receive 0.7 CEUs (continuing education units)

- Regular Price . . . . . \$630
- ISA Member Price . . . . . \$495

#### Your Full Symposium registration includes:

- \* 2 full days of papers and presentations
- \* poster session
- \* networking events
- \* tour of a local water treatment facility on Aug 7
- \* admission to supplier showcase
- \* light breakfasts on Aug 8 and Aug 9
- \* full buffet lunches on Aug 8 and Aug 9
- \* evening reception on Aug 8, with cash bar
- \* name badge
- \* list of symposium attendees with contact info
- \* printed onsite program booklet
- \* printed copy of symposium proceedings

Register at [www.isawwsymposium.com/register](http://www.isawwsymposium.com/register)

# SAVE THE DATE

August 6 to 8, 2013



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Presented by the ISA Water / Wastewater Division

Technical Co-Sponsors: WEF Automation and Info Tech Committee & Florida AWWA Section

- 2 full days of technical speakers
- Keynote address and guest speakers
- Local water/wastewater plant tour
- Optional full-day training course

Attendee registration is \$400 per person

Discounts for ISA, AWWA, Florida AWWA, WEF and Florida WEA Members

Interested in speaking? Call for Abstracts is available at [www.isawwsymposium.com](http://www.isawwsymposium.com)

Submissions are due Dec 15, 2012.

Exhibitor booths are \$875 and includes two full symposium passes

Sponsorships available at \$500, \$1500, and \$3000 levels

Media partnerships also available

*For more information visit:*

[www.isawwsymposium.com](http://www.isawwsymposium.com)

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## Call for Abstracts

Presented by the ISA Water and Wastewater Industries Division, in collaboration with the Florida AWWA and the WEF Automation and Info Tech Committee, the WWAC Symposium helps professionals in the water and wastewater industries understand how instrumentation, SCADA (supervisory control and data acquisition), and automatic control applications are vital to the treatment and distribution of water, and the collection and treatment of wastewater. The symposium also provides an excellent opportunity to gain valuable technical information, networking, professional development, and continuing education credits (CEUs and PDHs).

This 3-day symposium is focused on the challenges associated with automation and instrumentation in the water and wastewater sector. It features: 2 full days of presentations, a tour of a local water/wastewater facility, a general reception, networking events, a poster session, and a supplier showcase. The first day begins with registration, an optional full-day short course on a current SCADA/automation related topic, and an evening plant tour. The second day kicks off with a keynote speaker, followed by presentations on general topics such as instrumentation; system integration, automation, plant case studies, new technologies and process optimization/automation. The third day starts with an invited speaker on effective plant automation techniques, and is focused on leveraging "Smart Water" technology with topics geared towards SCADA, HMI, Expert Systems, Data Modelling, and Alarm Management. The Tuesday-Thursday timeslot has been selected so that families can easily take their kids to Disney World, both during and before/after the symposium. Proceedings will be published and made available to water/wastewater division members, and papers will be considered for publication in the ISA's technical journal, *ISA Transactions* ([www.isa.org/isatrans/](http://www.isa.org/isatrans/)).

### Guidelines for Submission

- All authors/speakers must pay the speaker registration fee (\$125)
  - The speaker registration fee is a discounted conference rate (regular \$425)
- 250 word (max 300 words) abstract in US English shall be submitted electronically
- Authors must indicate what format they wish to present in:
  - 30 minute presentation (no paper)
  - 6-12 page paper and 30-minute presentation
  - Large format 3 foot wide x 4 foot high poster
- Final presentations must be on the supplied symposium PowerPoint template
- Final papers must be submitted in MS Word using supplied symposium template
- Papers/presentations/posters accepted for presentation and/or publication will require completion of ISA Rights and Responsibilities form
- Student papers and posters are welcome
- The lead author is the main contact

### Submissions

Submit your abstract via email in MS Word format to:

[abstracts@isawwsymposium.com](mailto:abstracts@isawwsymposium.com) **AND** [provenzano2@comcast.net](mailto:provenzano2@comcast.net)

### Deadlines

Abstracts Due ..... December 15, 2012  
 Notification of Acceptance ..... January 16, 2013  
 First Draft Due ..... March 6, 2013  
 Final Draft Due..... May 15 , 2013

A full author information package, along with sample abstracts, templates and a list of topic ideas can be found at [www.isawwsymposium.com](http://www.isawwsymposium.com)

For additional information, contact:

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### Topics include but are not limited to:

#### Speaking Track 1 – General Topics

- Instrumentation: New Technologies and Applications**
- SCADA Security, ISA99, CSET, and Mitigating Risks**
- Control System Redundancy and Robust Design**
- Wireless Technologies**
- System Integration**
- Automation Techniques for Existing Plants**
- New Control System Technologies**
- Project Management for Integration Projects**
- Plant Case Studies**
  - Plant Upgrades & New Facilities
  - Control System Upgrades & Replacements
  - Lessons Learned
- Process Optimization**
- Automated Control Techniques**
- Project Management Lessons for Integration Projects**
- Specific Water and Wastewater Challenges**

#### Speaking Track 2 – Smart Water

- SCADA – Supervisory Control and Data Acquisition**
- Modelling Non-revenue water & collection networks**
- Energy use modelling and Optimization with SCADA**
- Capturing and Evaluating Stakeholder Needs**
- HMI Design for Operator Effectiveness**
- Effective Use of Multiple HMI Screens**
- Human Factors and Control Room Design**
- Intelligent & Expert Systems**
- Alarm Management & Alarm Rationalization**
- Implementing of ISA, EEMUA, WEF & AWWA Standards**
- Techniques to Reduce Nuisance Alarms**
- Call-Out Alarm Rationalization and Techniques**
- Data Reporting & Presentation Techniques / Strategies**
- Data Management, Historians, and Data Retrieval**
- SCADA and the Current Regulatory Environment**
- Mobile HMIs, Tablets, Remote Access, and Dashboards**

# 2012 Water / Wastewater and Automatic Controls Symposium

Founded in 1945, the International Society of Automation 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 conferences and exhibitions for automation professionals.



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For more information visit:

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