



2014 Water / Wastewater and Automatic Controls Symposium

Crowne Plaza Orlando-Universal Hotel.....Orlando, Florida, USA.....Aug 5-7, 2014

Presented by the ISA Water / Wastewater Industries Division - www.isawwsymposium.com

Technical Co-Sponsors: WEF Automation and Info Tech Committee, the Florida AWWA Section, Florida Water Environment Association, ISA Tampa Bay Section, and the Instrumentation Testing Association



Program Booklet



Setting the Standard for Automation™

TRAVEL INFORMATION

ACCOMMODATIONS

The 2014 ISA Water/Wastewater Symposium will be held at the *Crowne Plaza Orlando-Universal Hotel* in Orlando, Florida, USA. 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

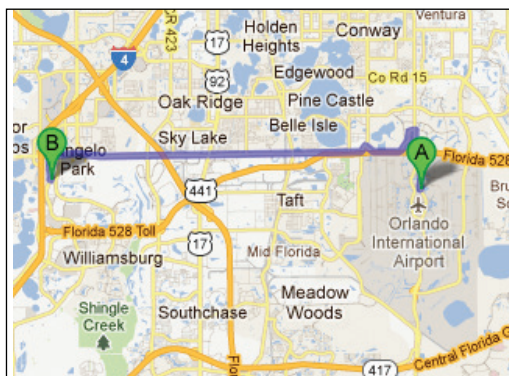
We have arranged a discounted hotel rate of \$92/night for symposium attendees for the Mon, Tues, Wed, and Thurs nights. Please mention "ISA WWAC Symposium" when booking. If registering on-line use the group code "ISA". Regular hotel rates apply after July 15, 2014.

Crowne Plaza Orlando-Universal Hotel
7800 Universal Blvd. Orlando, Florida, 32819
www.cporlando.com reservations@cporlando.com
1-866-864-8627 (toll free)
407-355-0504 (fax)



Crowne Plaza Orlando-Universal Hotel
7800 International Blvd.
Orlando Florida 32819
1-866-864-8627
www.cporlando.com

MAP & DIRECTIONS



Flying: The hotel is approximately 12 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 or by calling 1-800-223-3868. A one-way taxi trip from the airport to the hotel typically costs around \$35 USD.

Driving: From the North - Head southwest on I-4 W toward Exit 75B and take exit 75A on the left to merge onto FL-435 S/S Kirkman Road toward International Drive, 1.1 mi. Merge onto FL-482 W/W Sand Lake Road via the ramp to I-4 E to Universal Boulevard.

From the South - Take I-4 E to exit 74A and merge onto FL-482 E/W Sand Lake Road toward International Drive, 0.8 mi. Make a U-turn at Universal Boulevard.

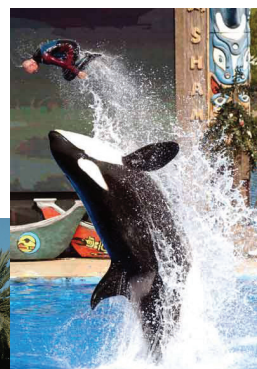
From the East - From FL-528 W, take exit 2 toward Universal Boulevard. Merge onto Universal Boulevard to the right, 3 miles. The hotel is located on the left.

LOCAL ATTRACTIONS

The Orlando area provides a wealth of visitor experiences. The Crowne Plaza Orlando-Universal is conveniently located just off the famous International Drive, the city's destination for fun, dining, entertainment, shopping and more. 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.

Distances to Orlando, Florida Attractions

City Walk at Universal Orlando Resort	1.4 miles
Downtown Disney	6.0 miles
Walt Disney World Hollywood Studios	8.4 miles
Walt Disney World Animal Kingdom	8.4 miles
Walt Disney World Epcot Center.....	8.4 miles
Walt Disney World Magic Kingdom.....	8.4 miles
Hard Rock Cafe.....	1.5 miles
Universal Studios Orlando Resort.....	1.9 miles
Kennedy Space Center	51 miles
Prime Outlets.....	3.0 miles
SeaWorld.....	5.0 miles
Wet n Wild	0.6 miles



ABOUT THE SYMPOSIUM

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; the collection and treatment of wastewater; and the management of stormwater. 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 sectors. It features 2 full days of presentations (two speaking tracks), a tour of a local wastewater facility, a general reception, networking events, a poster session, and a supplier showcase.

WELCOME MESSAGES



GENERAL SYMPOSIUM CHAIR

It is my pleasure to welcome you to our 2014 ISA Water/Wastewater and Automatic Controls Symposium. Now in its ninth year, we again anticipate record attendance numbers.

Thanks to our strong partnerships with the WEF Automation and Info Tech Committee, the Florida Section of the AWWA, the Florida Water Environment Association, and the Instrumentation Testing 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 this year.

We have a strong program planned this year, with over 30 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 training courses on SCADA cyber security and control system troubleshooting. I look forward to meeting all of you at this year's symposium.

Kevin Patel, PE, MBA
General Symposium Chair



PROGRAM COMMITTEE

On behalf of the entire program committee, I would like to formally welcome you to this year's 2014 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 symposium starts with two optional training courses on SCADA cyber security and hands-on troubleshooting of instrumentation and control systems. This is followed by early-bird symposium badge-pick up and a plant tour. Then we have two full days dedicated to technical presentations.

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 to 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 CCST or CAP certification, don't forget to request your ISA training certificate. Come join us!

Joe Provenzano
Program Committee Chair



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2014 Symposium Committee

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Asst. Symposium Chair..... Pavol Segedy PE, Brown & Caldwell
Program Committee Chair..... Joe Provenzano MSc, KPRO Automation
Past Symposium Chair..... Graham Nasby PEng PMP, Eramosa
Marketing Committee Kevin Patel, Graham Nasby, Pavol Segedy
Social Media Chair Jon DiPietro, Bridgesoft LLC
WEF Liaison..... Tom DeLaura PE, Eramosa
AWWA, FWEA, ITA Liaison..... Graham Nasby
Plant Tour Coordinator Bryan Sinkler, Trihedral Engineering
Honors/Awards Chair Dan Machado CSST-III, Cobb County Water System
ISA Staff Coordinator Rodney Jones, ISA

Program Committee

Joe Provenzano MSc, KPRO Engineering Services (Chair)
Richard Birdsell PE, Orange County Sanitation District
Peter Craan PE CAP, Hazen and Sawyer
Mike Crawford, Haldimand County
Jon DiPietro, Bridgesoft LLC
Bob Dusza, City of Manchester Water and Sewer Department
Michael Fedenyshen, R.G. Vanderweil Engineers LLP
Joshua Gelman PE, CDM Smith
David Hobart PEng CAP ISA84-SFS, Hobart Automation Engineering
Paul Lanzillotta, Consultant
Bob Loncar, The Regional Municipality of Halton
Dan Machado CCST-III, Cobb County Water System - Water Protection Division
Paul McGuire PE, North East Ohio Regional Sewer District
Graham Nasby PEng PMP, Eramosa
Kevin Patel PE MBA, Signature Automation
Matt Phillips PEng, City of Guelph Water Services Department
Emile Richard PE, Portland Water District
Pavol Segedy PE, Brown & Caldwell
Steve Valdez, GE

Setting the Standard for Automation™

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Pssst, been in the business ten years? Or, have a degree and six years of work experience? Sounds like you may qualify for ISA Senior Member grade. Why apply? ISA Senior Member grade is a statement of your knowledge and experience. It's also a requirement for becoming a candidate for ISA Fellow grade or to hold a Society-level office.

Find all the details and an application form at
www.isa.org/seniormember or call (919) 549-8411.



**Brag a little. Apply today
for ISA Senior Member grade.**



Florida Section American Water Works Association

The Florida Section of the American Water Works Association (FSAWWA) is proud to be a technical co-sponsor of the 2014 Water / Wastewater and Automatic Controls Symposium which will be held at the Crowne Plaza Orlando-Universal Hotel from August 5-7, 2014. Control systems are ever so critical to the operation of our nation's utilities. As such, our FSAWWA members have much to gain from this gathering of automation professionals. Attendees earn Florida DEP-approved CEUs and PDHs while networking with their peers and hearing about the latest automatic control applications within the industry. See you in Orlando!

Carl Larrabee

Chair, Florida Section American Water Works Association



Florida Water Environment Association

The Florida Water Environment Association (FWEA) is pleased to be a co-sponsor of the 2014 Water/Wastewater and Automated Controls Symposium, which will be held at the Crowne Plaza Orlando-Universal Hotel in Orlando, FL from August 5-7, 2014. 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.

Kartik Vaith

Chair, Florida Water Environment Association

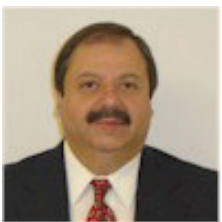


Water Environment Federation

On behalf of the Water Environment Federation (WEF), it is with great pleasure that I welcome you to the 2014 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 2014 this fall in New Orleans, where several of the WWAC symposium presentations will be showcased at a special WEFTEC session on the exhibit floor. 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 of offer.

Barry Liner, Ph.D., P.E.

Director, Water Science & Engineering Center



Instrumentation Testing Association

The Instrumentation Testing Association (ITA) is delighted to be a technical co-sponsor of this year's 2014 Water/Wastewater and Automated Controls Symposium. Instrumentation plays a vital role in the effective treatment of wastewater. The symposium provides an ideal forum to discuss instrumentation best practices, lessons learned and new technologies. The ITA rounds out this experience by providing unbiased third party testing reports on instrumentation products, to help end-users make intelligent instrumentation purchasing decisions. I encourage all instrumentation professionals to participate in the symposium and learn more about the many products and services that the ISA and ITA have to offer.

Saeed Assef

President, Instrumentation Testing Association

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NEW Water
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Optimizing the Water Lifecycle with Real-Time Data

Cities may be diverse, but they all have one thing in common: they're looking to be more efficient and sustainable. For water utilities, this involves better management of their water and wastewater operations by using OSIsoft's PI System.

About OSIsoft, LLC

OSIsoft delivers the PI System, the industry standard in enterprise infrastructure for management of real-time data and events. With over 10,000 customer installations in more than 110 countries spanning the globe, the OSIsoft PI System is used in manufacturing, energy, utilities, life sciences, data centers, facilities, and the process industries. This global installed base relies upon the OSIsoft PI System to safeguard data and deliver enterprise-wide visibility into operational, manufacturing, and business data. The PI System enables users to manage assets, mitigate risks, comply with regulations, improve processes, drive innovation, make business decisions in real time, and identify competitive business and market opportunities.

KEYNOTE SPEAKER



Thomas W. Sigmund, PE

Chair, NACWA Utility and Resource Management Committee
& Executive Director, NEW Water (Green Bay, WI)

A Vision for the Water Resources Utility of the Future

Tom Sigmund is the Executive Director of NEW Water, the brand of the Green Bay Metropolitan Sewerage District in Green Bay, WI, where he has been since 2007. NEW Water is a regional wastewater conveyance and treatment utility serving Northeast Wisconsin with 92 employees and an annual budget of \$34 million. NEW Water expresses its attitude of viewing what is sent to its facilities as a resource to be recovered and a commitment to continued improvement of the watershed. Before coming to Green Bay, Mr. Sigmund was a Vice President with CH2M HILL where he was responsible for projects and clients in the upper Midwest.

Mr. Sigmund is a Professional Engineer in Wisconsin, Illinois, and Ohio. He was the Chair of the Water Resources Utility of the Future Task Force and serves as one of the National Association of Clean Water Agency's (NACWA) representatives to the Steering Committee.

INVITED SPEAKERS



Don Lovell

Automation Consultant
& ISA Senior Life Member

Troubleshooting Instrument and Control Systems

Don Lovell is currently an automation consultant assisting customers in defining their automation road map to meet their business objectives. Don has been involved in the process automation field for 40 years with experience in batch and continuous applications. Don has a degree in Electronics Engineering and is a Senior Life member of ISA, having served in local and national positions.



Bryan Singer

Principal Investigator, Kenexis Security
& founding co-chair of the ISA99 Standards Committee

Understanding Vulnerabilities: How to Conduct Vulnerability Assessments to Know What Attackers Can and Can't Do

Bryan Singer, CISM, CAP is a principal investigator with Kenexis Security Corporation. He has over 23 years of experience in information technology security including 16 years specializing in industrial automation and control systems security, critical infrastructure protection, computer and ICS forensics, counterterrorism, network design, and software development.

FORUM SESSION:

The Role of Automation within the Utility of the Future



Moderator:

Tom DeLaura,

Chair, WEF Automation and Information Tech Committee & VP, Eramosa International



Panel Member:

Kalanithy Vairavamorthy, PhD

Dean, University of South Florida,
Patel College of Global Sustainability



Panel Member:

Zdenko Vitasovic, PhD

Senior Engineer, Metropolitan Water District of Southern California



Panel Member:

Thomas W. Sigmund, PE

Chair, NACWA Utility and Resource Management Committee
& Executive Director, NEW Water



Panel Member:

Barry Liner, PE

Director, Water Science & Engineering Center,
Water Environment Federation (WEF)



Panel Member:

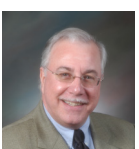
Mike Sweeney, PhD, PE

Florida Section of the AWWA & Deputy Executive-Director,
Toho Water Authority

The purpose of the forum session is to share ideas and thoughts on the utilization of automation within the utility of the future. The panel will discuss trends, benefits and challenges within the industry along with how utilities will likely operate and meet goals in the future. Furthermore, the panel seeks to create a brainstorming atmosphere engendering audience participation with the goal of developing a path forward for automation in the future.

We have gathered several industry experts to discuss this topic which will be moderated by Tom DeLaura. Tom has 40 years of experience with automation, and has seen firsthand how it can support and enhance all facets of the wastewater business. His active roles at the local and national levels of ISA, WEF and AWWA are examples of his dedication to the industry, and give him a true appreciation for the need to keep automation relevant during the many challenges and changes the wastewater industry is facing. He is joined by Tom S., Kala, Barry, Zdenko (Cello), and Mike as the panel members. They will help facilitate and provide thoughts on the discussion topics.

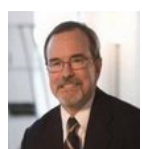
GUEST SPEAKERS



Tom DeLaura

Chair, WEF Automation and Information Tech Committee & VP, Eramosa International

WEF Current News and Trends

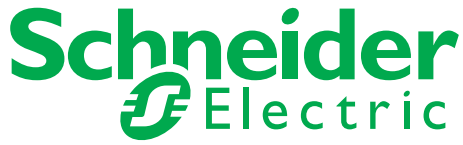


Michael Sweeney

Florida Section of the AWWA & Deputy Executive-Director,
Toho Water Authority

AWWA Current News and Trends

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MONDAY & TUESDAY AUGUST 4 & 5, 2014

Monday, August 4, 2014	
8:00am - 4:00pm	I&C Troubleshooting Short Course (day 1 of 2)* (Mezzanine A/B)

Tuesday, August 5, 2014	
8:00am - 4:00pm	I&C Troubleshooting Short Course (day 2 of 2)* (Mezzanine A/B)
8:00am - 4:00pm	SCADA Cyber Security Short Course (1 day)* (The Studio)
12:00pm - 3:30pm	Early Symposium Registration & Badge Pick-Up (Ballroom Foyer)
3:30pm - 6:00pm	Tour of Polk County Northeast Regional Wastewater Treatment Facility (transportation provided)** (Hotel Lobby)

* Short courses are optional. Separate course registration required.

** Limited capacity on tour. Tour leaves hotel lobby at 3:45pm. Invitations will be sent out 3 weeks prior to tour via e-mail to registered symposium attendees. RSVP required.

OPTIONAL SHORT COURSES

Introduction to SCADA Cyber Security

Introduction to Industrial Automation Security and the ANSI/ISA-99 & IEC 64432 Standards (IC32C)

Date: Tues. August 5, 2014

Instructor: Jon Cusimano, CFSE, CISSP

Length: 1 day

CEU Credits: 0.7

Cost: \$685 (\$535 for ISA members)

This course covers the basics of 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 Cyber Security. As well, the elements of creating a Cyber Security management system will be explained along with how these should be applied to commonly used SCADA, DCS and Automation Systems in water/wastewater.

Troubleshooting SCADA Systems

Troubleshooting Instrumentation & Control Systems (TC10)

Date: Mon. - Tues. August 4 - 5, 2014

Instructor: Don Lovell, Senior ISA Life Member

Length: 2 days

CEU Credits: 1.4

Cost: \$1630 (\$1305 for ISA members)

This hands-on 2-day course, that uses actual physical instrumentation, presents a systematic approach to troubleshooting and start-up of single-loop and multi-loop control loops. You'll see how pressure, level, flow and temperature loops operate to maintain good process control systems. Topics covered will include various troubleshooting techniques; common problems with measurements, valves and controllers; and how to use various computerized tools for diagnosing common loop configuration and tuning problems.

OPTIONAL LOCAL PLANT TOUR

As part of the symposium, attendees will have the option of attending a Tour of the Polk County Northeast Regional Wastewater Treatment Facility. The tour takes place in the late-afternoon of Tues., Aug 5, 2014 (3:30pm to 6:00pm) and requires prior-sign-up. Transportation to/from the hotel is provided. The bus leaves the hotel lobby at 3:45pm.

Invitations will be sent to registered symposium attendees 3 weeks prior to the tour. Space on the tour is limited, and attendees must sign-up beforehand. Inquiries about the tour can be sent to our volunteer symposium tour coordinator Bryan Sinkler (bryan.sinkler@trihedral.com).

The plant is a state-of-the-art BNR/Oxidation Ditch treatment facility with the following parts: an influent lift station, a screening structure (two mechanical perforated plate screens, one manual bar screen), one biological nutrient removal tank (grit removal and 3.5 million gallons of flow equalization capacity), two oxidation ditch aeration basins, three clarifiers, standby polymer feed system, four deep bed filters, six chlorine contact chambers, ten aerobic digesters, two screw presses, and a docking area for mobile sludge centrifuge. Support equipment includes RAS/WAS pump station, blower building and auxiliary buildings. The plant is operated to meet secondary treatment with high level disinfection and meets Class 1 reliability.



WEDNESDAY AUGUST 6, 2014

7:00am	Registration, Badge Pick-up (Ballroom Foyer) & Breakfast (Cafe del Sol)	
8:00am	Opening Remarks (Salon C/D)	
8:15am	<p><u>Keynote Speaker</u> A Vision for the Water Resources Facility of the Future Thomas W. Sigmund PE, Chair, NACWA Utility of Resource Management Committee & Executive Director, NEW Water</p>	
9:00am	<p><u>Invited Speaker</u> Troubleshooting Instrument and Control Systems Don Lovell, Automation Consultant & ISA Senior Life Member</p>	
9:45am	Coffee Break & Exhibits (Cafe del Sol)	
	Track 1 (Salon C)	Track 2 (Salon D)
10:30am	<p>Townsend Filter Plant SCADA Replacement - Standardization Matters! Pavol Segedy, Brown and Caldwell</p>	<p>Cyber Security: Can Standards Bring Clarity from the Confusion? David Doggett, Jeff Miller PE ENV-SP and Mark Leinmiller, Schneider Electric</p>
11:00am	<p>Municipality Moves SCADA System from Desktop Computers to Thin Clients Bosko "Bob" Loncar, The Regional Municipality of Halton</p>	<p>Which Cyber Security Standard is More Relevant for a Water Utility? Don Dickinson, Phoenix Contact</p>
11:30am	<p>HMI Development - Techniques for Reduction in Development Time Lucas Jordan PE, ARCADIS</p>	<p>Digital Energy - BPT Paul Coggin, Dynetics Inc</p>
12:00pm	Lunch & Exhibits (Cafe del Sol)	
1:00pm	<p>Sustainability through Automation of Wastewater Treatment: A Case Study on the Energy of Water Quality Impacts of DO, NH4 and SRT Control Strategies at a Conventional Activated Sludge Plant Irina Gokhman and Sarah Elger PE, Xylem Water Solutions: Sanitaire Products, and Robert Smith PhD PE, Xylem Water Solutions: YSI Products</p>	<p>Managing Complexity - Minimizing Risk: Balancing System Growth Against Destabilizing Risk Blair Sooley PEng MBA, Trihedral Engineering</p>
1:30pm	<p>New Transit Time Flowmeter for Biogas Applications Alan Vance, Endress+Hauser</p>	<p>Leveraging Real-time Data for Intelligent Utility Management Gary Wong PEng MBA CPA, OSIsoft LLC</p>
2:00pm	<p>Process Automation Upgrade of the Gilder Creek WWTP Scott Whitmore PE, CDM Smith and Sothorn Khel PE, MR Systems</p>	<p>How Ottawa Met its Environmental Regulation Requirements Using Real Time Control (RTC) and Reduced Their Combined Sewer Overflows (CSOs) by 60% Maxym Lachance Eng, Tetra Tech</p>
2:30pm	Poster Session, Coffee & Exhibits (Cafe del Sol)	
	<p>Feature Poster: Migrating from Single Monitor to Dual Monitor SCADA Workstations Juliana Oyeniyi, CDM Smith</p>	
3:45pm	<p>End-to-End Networking Solutions in the Water and Wastewater Sectors Patrick Ho and Riz Amanullah, Eaton</p>	<p>Human Factors for Project Managers David Lee CEng FICHEM, User Centered Design Services Inc.</p>
4:15pm	<p>DNP3 Implementation - The Do's and Don'ts Jeff Miller PE ENV-SP, Mike Drescher, and Mike Leinmiller, Schneider Electric</p>	<p>Putting the Operator First - Case Studies on Rethinking HMIs and Addressing Alarm Management Ryan Kowalski PE, ARCADIS</p>
4:45pm	<p>Using Cellular Machine-to-Machine Data Plans for Collection System SCADA; Is a Small Plan Big Enough? Daniel Cote PE, and Time Baldwin PE, McKim & Creed Inc.</p>	<p>Advanced Alarm Management Solutions Thomas Maczuzak MBA and Brian Heimbigner BSChE MBA, ABB Inc.</p>
5:15pm	General Reception and Cash Bar (Cafe del Sol)	

THURSDAY AUGUST 7, 2014

7:00am	Breakfast (Cafe del Sol)	
8:00am	Opening Remarks (Salons C/D)	
8:10am	Preview of next year's 2015 ISA Water/Wastewater and Automatic Controls Symposium	
8:15am	<u>Invited Speaker</u> Understanding Vulnerabilities: How to Conduct Vulnerability Assessments to Know What Attackers Can and Can't Do Bryan Singer, Principal Investigator, Kenexis Security and Founding co-chair of the ISA99 cyber security standards committee	
9:00am	<u>Guest Speaker</u> WEF Current News and Trends Tom DeLaura PE, Chair, WEF Automation and Information Technology Committee & Vice-President, Eramosa International	
9:25am	<u>Guest Speaker</u> AWWA Current News and Trends Mike Sweeney PhD PE, Florida Section of the American Water Works Association (AWWA) & Deputy Executive-Director, Toho Water Authority	
9:45am	Coffee Break & Exhibits (Cafe del Sol)	
10:30am	<u>Forum Session</u> The Role of Automation within the Utility of the Future <u>Moderator</u> Tom DeLaura PE Chair, WEF Automation and Information Technology Committee & Vice-President, Eramosa International <u>Forum Members:</u> Thomas W. Sigmund PE, Chair, NACWA Utility and Resource Management Committee, and Executive Director, NEW Water Kalanithy Vairavamoorthy PhD, Dean, University of South Florida, Patel College of Global Sustainability Barry Liner PE, Director, Water Science & Engineering Center at Water Environment Federation (WEF) Zdenko Vitasovic PhD, Senior Engineer, Metropolitan Water District of Southern California Mike Sweeney PhD PE, Florida Section of the American Water Works Association (AWWA) & Deputy Executive-Director, Toho Water Authority	
12:00pm	Lunch & Exhibits (Cafe del Sol)	
	Track 1 (Salon C)	Track 2 (Salon D)
1:00pm	What is your Cloud IQ? Is the Cloud for you? - As Technology Advances, Where Do You Need To Be? Daniel Sheldon PE, Xylem Inc.	Optimizing In-Line Booster Pumps with Unique Design Features and Control Strategies Evan Curtis PE, Hazen and Sawyer
1:30pm	Cloud Based SCADA for Small Water Districts - Efficiency Improvements With a New Control Architecture Mauritz Botha, XiO Inc.	Optimizing Water Reclamation Systems by Automation Using Continuous Water Quality Analysis Vickie Olson MBA, Honeywell Process Solutions
2:00pm	Virtualizing SCADA - Improving Control System Reliability with Proven IT Technology Jason Hamlin, City of Lynchburg Regional Wastewater Plant and Carter Farley PE, Instrulogic Corporation	OPEN
2:30pm	Poster Session, Coffee & Exhibits (Cafe del Sol)	
3:45pm	ISA CCST Certification - What, Why, Who and How Dan Machado CCST-III, Cobb County Water System	SCADA Risk Management and Emergency Preparedness Mark Leinmiller, Jeff Miller PE ENV-SP, and Mike Drescher, Schneider Electric
4:15pm	Specifying Adjustable Speed Drives for Improved Control and Integration Tom Schaefer, Rockwell Automation	SCADA Security and Control System Redundancy and Robust Design Marios Iacovou, Brown and Caldwell
4:45pm	The Benefits of Video Integration for Facility and Asset Management Gregory Santos, Industrial Video & Control	Vulnerabilities in SCADA Systems: What Are We Protecting Against? Mark Benedict, Ultra Electronics 3eTI
5:15pm	Closing Remarks (Salon C/D)	

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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



The Instrumentation Testing Association (ITA) is a non-profit technical and educational organization. ITA is internationally governed by 14 treatment facilities (both public and private, industrial and municipal and representative of small, medium and large water, wastewater and industrial systems). ITAs members include water, wastewater and industrial treatment plants, consultants, manufacturers, non-profits, and regulatory organizations. ITA was founded to address instrument performance and reliability issues arising from low bid requirements of procuring instrumentation. For more information see www.instrument.org



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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>2.0 CEUs or 20 PDHs</p> <p>water operators wastewater operators engineers</p> <p>American Water Works Association AWWA FLORIDA Florida's Water Professionals</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 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 (FSAWWA course # 0513009).</p> <p>These CEU credits can be used by both water operators and wastewater operators.</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>Symposium 20 PDHs</p>	<p>Symposium attendees also have the option of receiving a certificate for 20 Professional Development Hours (PDHs) from the ISA.</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>Control Systems Engineers</p>
 <p>1.4 CEUs</p>	 <p>1.4 CEUs</p> <p>For the optional two-day training course on Troubleshooting Instrumentation and Control Systems, attendees can receive their choice of:</p> <ul style="list-style-type: none"> • 1.4 CEUs certified by the Florida DEP (issued by the FSAWWA, course # 05134008) • 1.4 CEUs certified by IACET (issued by the ISA)
 <p>0.7 CEUs</p>	 <p>0.7 CEUs</p> <p>For the optional full-day training course on Introduction to SCADA Cyber Security, attendees can receive their choice of:</p> <ul style="list-style-type: none"> • 0.7 CEUs certified by the Florida DEP (issued by the FSAWWA, course # 05134007) • 0.7 CEUs certified by IACET (issued by the ISA)



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About the ISA Water & Wastewater Division

The ISA Water and Wastewater Industries Division (WWID) is concerned with all aspects of instrumentation and automated-control related to commercial and public systems associated with water and wastewater management. Membership in this Division provides the latest news and information relating to instrumentation and control systems in water and wastewater management, including water processing and distribution, as well as wastewater collection and treatment. WWID is invaluable to professionals interested in sanitary technology and engineering, and the operation and maintenance of wastewater facilities. The Division holds an annual symposium that features presentations by industry practitioners and published proceedings. Read more at www.isa.org/wwid

Benefits of WWID Membership

- **Quarterly Newsletter** - The division publishes a quarterly electronic newsletter. Members also have the opportunity to write articles for the newsletter.
- **Annual Symposium** - Attend and participate in the annual WWAC symposium which spans all automation aspects of water and wastewater
- **Networking Opportunities** - A chance to meet, and form relationships with, peers involved with automation in your industry
- **Online Resources** - Gain access to papers and presentations from prior division symposia via the division and ISA websites
- **Industry Knowledge** - Be part of an active group that enhances your knowledge and professionalism on Water and Wastewater topics by obtaining valuable technical information and training in the traditional areas of measurements/sensors, instrumentation systems, data and advanced system/sensor technology.
- **Targeted Training** - At its annual symposium, the WWID offers ISA training courses which are targeted towards areas of specific interest for the water/wastewater automation professional.
- **Technical Writing & Presentation Opportunities** - An opportunity to present your work to your automation peers at the annual WWAC symposium, newsletter and/or ISA Automation Week by way of papers, posters, and Power Point presentations
- **Leadership Opportunities** - Opportunities to take on leadership roles in the division, to help with planning the symposium, writing for the newsletter, updating the website, and moderating the discussion lists.
- **LinkedIn Discussion List & Email Discussion List** - The WWID maintains a LinkedIn Group and Listserv Email mailing list for its members.

More information about the ISA and member benefits can be found at www.isa.org

SYMPOSIUM REGISTRATION

Early-Bird Rate (up until June 15, 2014)

_ Regular Attendee	\$425
_ ISA Member	\$325
_ AWWA or FSAWWA Member	\$375
_ WEF or FWEA Member	\$375
_ ITA Member	\$375
_ Student Registration	\$125
_ Author/Speaker Registration	\$125

Regular Registration (after June 15, 2014)

_ Regular Attendee	\$450
_ ISA Member	\$350
_ AWWA or FSAWWA Member	\$400
_ WEF or FWEA Member	\$400
_ ITA Member	\$400

Your Full Symposium registration includes:

- * 2 full days of papers and presentations
- * poster session
- * networking events
- * tour of a local wastewater treatment facility on Aug 5
- * admission to supplier showcase
- * light breakfasts on Aug 6 and Aug 7
- * full buffet lunches on Aug 6 and Aug 7
- * evening reception on Aug 6, with cash bar
- * name badge
- * list of symposium attendees with contact info
- * printed onsite program booklet
- * printed copy of symposium proceedings

Optional Two-Day Training Course: August 4 - 5, 2014, 8:00am - 4:00pm

Troubleshooting SCADA Systems / Troubleshooting Instrumentation & Control Systems (TC10)

Attendees will receive 1.4 CEUs (continuing education units)

_ Regular Price	\$1630
_ ISA Member Price	\$1305

Optional Full-Day Training Course: August 5, 2014, 8:00am - 4:00pm

Intro to SCADA Cyber Security / Using the ANSI/ISA-99 Standard and IEC 62443 Standards to Secure Your Control System (IC32C)

Attendees will receive 0.7 CEUs (continuing education units)

_ Regular Price	\$685
_ ISA Member Price	\$535

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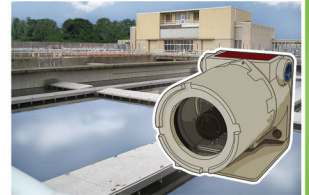


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Presented by the ISA Water/Wastewater Industries Division – www.isawwsymposium.com
Technical co-sponsors: Florida AWWA Section, the WEF Automation and Info Tech Committee ,
Florida Water Environment Association, Instrumentation Testing Association, and ISA Tampa Bay Section



Call for Abstracts

Presented by the ISA Water/Wastewater Industries Division, in collaboration with the Florida Section of the AWWA (FSAWWA), the Florida Water Environment Association (FWEA), the WEF Automation and Info Tech Committee, and the Instrumentation Testing Association (ITA), 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 a 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, guest speakers and is focused on the Future of Automation with topics geared towards SCADA, PLC, 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/).

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 **AND** provenzano2@comcast.net

Deadlines

Abstracts Due December 15, 2014
Notification of Acceptance January 16, 2015
First Draft Due March 9, 2015
Final Draft Due..... May 18, 2015

A full author information package, along with sample abstracts, templates and a list of topic ideas can be found at 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**
 - Plant Case Studies**
 - Plant Upgrades & New Facilities
 - Control System Upgrades & Replacements
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 - Process Optimization**
 - Automated Control Techniques**
 - Project Management Lessons for Integration Projects**
 - Specific Water and Wastewater Challenges**
- Speaking Track 2 – Future of Automation
 - 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**
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2014 Water / Wastewater and Automatic Controls Symposium

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