



Water/Wastewater Industry Division

Setting the Standard for Automation™

Calendar of WWID Events

Aug 4-6, 2015 **2015 ISA Water/Wastewater and Automatic Controls Symposium**
Wyndham Lake Buena Vista Resort
Orlando, Florida, USA

Sept 26-30, 2015 WEFTEC 2015:
Session 508: ISA Symposium Highlights
Chicago, Illinois, USA

Oct 10-13, 2015 **ISA Fall Leaders Meeting & 53rd ISA Honors & Awards Gala**
Louisville, Kentucky, USA

In this Issue

- 1..... Director's Welcome
 - 2..... Message from your Director-Elect
 - 2..... 2015 Symposium: Still time to Register
 - 4..... Symposium Planning Update
 - 5..... 2015 Symposium Program Schedule at a Glance
 - 5..... Continuing Education Credits at the Symposium: CEUs/PDHs
 - 6..... Symposium Hotel Information
 - 6..... Symposium Registration Details & Fees
 - 7..... Preview: Detailed Symposium Program Schedule
 - 10..... Thanks to our Symposium Sponsors
 - 11..... List of Symposium Exhibitors
 - 13..... ISA Bookstore: WEF Automation Book for Sale
 - 14..... ISA Bookstore: Good Tuning: A Pocket Guide, 4th Edition
 - 16..... Technical Article: Profibus and ProfiNET Troubleshooting
 - 20..... ISA President's Message: A Mid-Year Progress Report
 - 26..... WWID Contacts
- PLUS:**
2015 WWAC Symposium – Advance Program Booklet (20 pages)

Newsletter Spring/Summer 2015

Director's Welcome



Welcome to our Spring/Summer newsletter. In this issue you read about our upcoming 2015 ISA Water/Wastewater and Automatic Control Symposium, which will be taking place August 4-6, 2015 in Orlando, Florida. In these pages you will find out details about the technical program, keynote speaker, invited speakers and our symposium exhibitors. I encourage you to register for this event if you have not already done so.

As we enjoy the warm weather of summer and taking some vacation time with the family, I encourage each of you to also think about your professional credentials. This past fall, I wrote and passed the certification exam for the ISA's Certified Automation Professional (CAP) designation.

Open to automation professionals with 10 years of experience (or 5 years if you have 4-year technical degree), the CAP certification is an excellent way to verify and document your knowledge as an automation professional. The exam itself is tough – a 3 hour exam with 125 questions – but it provides a good coverage of the main areas that today's automation professionals need to know about.

Based on the US licensing exam for control systems engineers (which was also developed by the ISA), the CAP exam covers the seven core domains of automation body of knowledge.

They are: Risk Management Framework, Categorization of Information Systems, Selection of Security Controls, Security Control Implementation, Security Control Assessment, Information System Authorization, and Monitoring of Security Controls. Read more: www.isa.org/cap.

Why does this matter? For me, the CAP was a way to assess the current state of my automation knowledge and force me to do better. By preparing to write the exam, I had the opportunity to "beef up" my knowledge in a number of areas I had not yet been exposed to. The result was I now do an even better job as an automation professional.

Furthermore, by attaining the CAP certification, it was also a signal to my employer (and my clients, since I am in consulting) that I have the necessary knowledge to work effectively in the automation sector. Through the CAP certification, and the continuing education requirements that go with it, also I now have an excellent framework that I can use to both document and demonstrate how I am keeping my automation skills up to date. I encourage those of you who have not yet considered getting the CAP certification, to look into this very valuable tool for automation knowledge assessment and continuing education.

Regards,
Graham Nasby, P.Eng, PMP, CAP
WWID Director
graham.nasby@eramosa.com

Message from your Director-Elect



It's always a pleasure providing this message in our newsletter as it gives me a chance to reach out to all of our members. We have several exciting things going on, one of which is approaching rapidly in the Water/Wastewater and Automatic Controls Symposium.

I am fortunate enough to have the opportunity to be the General Chair of this year's symposium and, along with the program committee, we are happy to say that we are "all systems go" for the symposium. We have some exciting new ideas and presentations that the program committee has helped put together. I would encourage all WWID members to stay up-to-date on symposium happenings on the website at www.isawwsymposium.com.

Keep reading in this newsletter about our upcoming 2015 WWAC Symposium that is scheduled for Aug 4-6, 2015 in Orlando, Florida. The dates are right around the corner and if you are not able to make it this year, we have some big things planned for next year. Therefore, make sure you save the date for next year, which is going to take place Aug 2-4, 2016. The symposium is a great time to meet new professionals in our industry and share knowledge that will help you become better throughout your career. I hope to see you there!

Our theme for this year's symposium is "Future of SCADA". Through our keynote, invited speakers and our technical sessions, we get to collaborate on all aspects of SCADA and what role automation will play within the utility. We are very excited to have John S. Young as our keynote speaker this year. He served in numerous positions with American Water, the largest utility in North America, including Vice President-Engineering, President – American Water Works Service Company, Chief Water Technology Officer and Chief Operating Officer.

In addition to our keynote, invited, guest, and technical speakers, we are also conducting a forum session on the direction of SCADA hardware and software for the future, which is sure to be an informative discussion.

As always, feel free to contact me should you have any questions, comments, or ideas to share for the division and symposium. Make sure you keep up with all the latest water/wastewater and automation news at our website, www.isawwsymposium.com, and by attending the symposium.

Respectfully,

Kevin Patel, PE, MBA
WWID Director-Elect
knpatel@sig-auto.com

2015 Symposium: Still time to Register!

Registration is now open for our 2015 WWAC Symposium! ISA members can register for only \$350 for the 3-day event.

Register online at:

www.isawwsymposium.com/register/

Taking place 4-6 August in Orlando, Florida, USA, the 2015 ISA Water/Wastewater and Automatic Controls Symposium is a three-day event that focuses on the challenges associated with automation and instrumentation in the water and wastewater sector

The symposium features two full days of technical speakers/presentations, a tour of a local wastewater treatment plant, a general reception, networking events, a poster session and a supplier showcase. This highly focused symposium has a long tradition as an event that caters to the needs of automation professionals in the water and wastewater sectors.

"Our secret is our focus. Our annual ISA Water / Wastewater Symposium specifically caters to the needs of professionals involved with automation, instrumentation and SCADA in the municipal water and wastewater sectors. It is a unique niche event and we are proud of its increasing popularity. There is no other event like it in North America."

Patrick Gouhin
ISA CEO and Executive Director

We have selected the August timeslot for several reasons. First of all this is "low season" for the area which translates into better airline and hotel rates – we know that many of our attendees come from public utilities where every training dollar counts. We also selected the August timeslot so that participants can bring their families – in August school is out and Walt Disney World is just around the corner.



ISA Water/Wastewater and Automatic Controls Symposium

AUGUST 4 - 6, 2015
Wyndham Lake Buena Vista Resort • Orlando, FL

Highlights:

- 2.5 Day Symposium with Short courses on Asset Management Integration and Alarm Management
- Attendee Registration Rate \$425
Discounts for ISA, AWWA, WEF, and ITA members


More Information:
www.isawwsymposium.com

Presented by the ISA Water and Wastewater Industries Division, in collaboration with WEF Automation and Info Tech Committee, the Florida AWWA Section, Florida Water Environment Association, the ISA Tampa Bay Section, and the Instrumentation Testing Association, the WWAC Symposium helps professionals in the water and wastewater sectors understand how to use instrumentation, SCADA (supervisory control and data acquisition), and automatic control applications for purification, distribution, collection, and treatment of water and wastewater.

Technical co-sponsor Technical co-sponsor Technical co-sponsor Technical co-sponsor

www.isawwsymposium.com



We're here to give you a hand.
Actually, many hands.

We've got the technology, experience and expertise. You'll find it all at our Water Wastewater Competency Center.

Nearly 150 water industry specialists make up the backbone of the Schneider Electric **Water Wastewater Competency Center (WWCC)**. It is a highly dedicated team that delivers everything from world-class integrated system design to continuous service – all designed to help you manage your energy for critical water treatment systems.

Every working day, the WWCC helps customers meet and exceed requirements for sustainability and energy efficiency, site and data security, process control and optimization, lighting, demand response and renewable energy. And that's just the start. We are also committed to providing you with local, face-to-face training on a wide variety of water industry topics to help you reach operational goals. Plus, with our trusted brands, you are guaranteed top-of-the-line products and solutions.

If you're looking to optimize energy usage in your facility, look no further than Schneider Electric.



Visit www.schneider-electric.com/us Call 877-DIAL-1SE Email wwcc@schneider-electric.com

Symposium Planning Update

By Kevin Patel, General Symposium Chair

We are pleased to announce that pre-registration activity for the 2015 ISA Water/Wastewater and Automatic Controls Symposium (WWAC Symposium) has been brisk.

Taking place at the Wyndham Lake Buena Vista Resort in Orlando, Florida, the 2015 ISA WWAC Symposium is a three-day event that focuses on the challenges associated with automation and instrumentation in the water and wastewater sectors.

The symposium features more than 30 technical speakers, two full days of technical presentations, a tour of a local plant, a general reception and a supplier showcase. This symposium is unique as it focuses entirely on the needs of automation professionals in the municipal water and wastewater sectors.

“Our secret is our focus,” says Patrick Gouhin, CEO and Executive Director at ISA. “Our annual ISA Water/Wastewater Symposium specifically caters to the needs of professionals involved with automation, instrumentation and SCADA in the municipal water and wastewater sectors. It is a unique niche event and we are proud of its increasing popularity. There is no other event like it in North America.”

A strong technical program

Helping to kick off the conference will John S. Young, Jr. P.E. He will deliver a presentation to our attendees on how the water/wastewater industry has numerous challenges which must be addressed for utilities to be sustainable and provide safe, reliable service.

Mr. Young has worked in the water utility industry his entire career. In 2010, John retired from American Water, the largest water/wastewater utility in North America, after a 33 year career. At American Water, he served in numerous technical and management positions including Vice President-Engineering, President – American Water Works Service Company, Chief Water Technology Officer and Chief Operating Officer. Recently, as a utility consultant, he has supported or assessed numerous water utilities including the New York City Department of Environmental Protection, Detroit Water and Sewerage Department (during the Detroit bankruptcy) and PRASA.

Other notable speakers in the 2015 WWAC symposium technical program include:

- Albert Rooyackers, Founder, CTO, and VP of Engineering of Bedrock Automation, will deliver a talk about the importance of cyber security beyond the network titled: “Open Secure Automation: Observations for Improved ICS Reliability, Security and Performance.” This presentation will discuss how the reduction in the system attack surface can impart simplification, while hardening embedded systems from the inside out to cyber, electromagnetic pulse, and other forms of malicious

nation state attacks resulting in improved reliability and mean time between failures.

- John Krajewski, Director of Product Management HMI/SCADA for Schneider Electric | Invensys, discuss how the HMI should be designed to optimize the operator’s interpretation of the vast amount of data being displayed. The cornerstone of improving the overall HMI design is to deliver Situational Awareness (SA). Only by achieving the proper Situational Awareness can the operations team make effective decisions that will deliver overall business success.
- Michael Sweeney, deputy executive director of the Toho Water Authority and long-time member of the American Water Works Association, who will talk about current news and trends in the municipal drinking water sector.
- Tom DeLaura, Vice President of Eramosa International, and the Executive Director of the Instrument Testing Association, who will present on current news and trends in the wastewater sector.

“I continue to receive feedback that this event is truly one of the best of its kind due to the fact that the attendees and exhibitors are focused on solutions to real-world challenges and what’s actually experienced in on-the-job settings,” Patel reports. “Adding to its value are the training opportunities, and the networking, professional development and continuing education credits (CEUs and PDHs).”

For the full program schedule, including full presentation abstracts, speaker bios and the program order, visit www.isawwsymposium.com/program-schedule/

Registration is still open

Registration is still open at www.isawwsymposium.com. Attendees can register online or register by contacting ISA customer service at 1-919-549-8411. Registration for the three-day symposium is \$450, and includes catered breakfasts and lunches, as well as symposium proceedings. Discounts are available for ISA, AWWA, FWEA, ITA and WEF members.

Attendees will also receive approved continuing education credits (PDHs and CEUs) from ISA and the Florida Section of the American Water Works Association. These credits can be used toward continuing education requirements for various state-issued water operator, wastewater operator and engineering licenses. See the symposium website for more information.

**VISIT OUR SYMPOSIUM
WEBSITE**
www.isawwsymposium.com

2015 WWAC Symposium Program Schedule at a Glance

Presented by the Water and Wastewater Division of ISA, our symposium helps in the water and wastewater industry 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 storm water. The preliminary program schedule is as follows:

Monday – Tuesday, August 3-4, 2015

- Optional 2-day course: Asset Management and Enterprise Integration Using the ANSI/ISA95 Standard
- Optional 1-day course: Introduction to the Management of Alarm Systems (Tuesday)
- Symposium Registration
- Local Water Treatment Plant Tour (Tuesday afternoon)

Wednesday, August 5, 2015

- Keynote speaker
- Invited Speaker
- Presentations and Papers
- Light Breakfast, Coffee Breaks and Buffet Lunch Provided
- Supplier Showcase & Vendor Presentations
- Evening Reception

Thursday, August 6, 2015

- Invited & Guest Speakers
- Forum Session
- Presentations and Papers
- Light Breakfast, Coffee Breaks and Buffet Lunch Provided
- Poster Session
- Supplier Showcase

Attendees at the symposium can earn up to 20 PDHs (professional development hours).



Provider
#1001262

ISA has been approved as an Authorized Provider by the International Association for Continuing Education and Training (IACET), 1760 Old Meadow Road, Suite 500, McLean, VA 22102; (703) 506-3275. In obtaining this approval, ISA has demonstrated that it complies with the ANSI/IACET 1-2007 Standard which is widely recognized as a standard of good practice internationally. As a result of their Authorized Provider membership status, ISA is authorized to offer IACET CEUs for its programs that qualify under the ANSI/IACET 1-2007 Standard.

Earning CEUs and PDHs Continuing Education Credits at the Symposium

At the 2015 WWAC Symposium, attendees can earn Continuing Education Units (CEUs) and Professional Development Hours (PDHs) for attending the sessions and ISA training courses. Engaging in continuing education and professional development is an ongoing requirement for many professional designations, certifications and licenses. By attending the WWAC Symposium, you can help satisfy your personal professional development and continuing education requirements.

The numbers of PDHs and CEUs for this year are:

- Symposium attendees will receive 20 PDHs / 2.0 CEUs
- Asset Management and Enterprise Integration Using the ANSI/ISA95 Standard Course attendees 1.4 CEUs
- Introduction to the Management of Alarm Systems Course attendees: 0.7 CEUs

As an IACET authorized education provider, the ISA can issue PDHs/CEUs for symposium and training course participation.

Additionally, the ISA has also partnered with the Florida Section of the AWWA and the Water Environment Federation (WEF) to certify training credits for use for state-licensed water and wastewater operators, and for state-registered professional engineers. For the 2015 symposium, this certification process is currently in progress. An announcement will be made once this process is complete.

As part of the 2015 symposium, all attendees will have the benefit of receiving approved CEUs/PDHs for the hours spent in the training course and symposium towards their water/wastewater operator and PE license continuing education requirements. We will be doing the same this year.



**Water/Wastewater
Industry Division**



American Water Works Association
Florida Section



**Water Environment
Federation**
the water quality people™

About the Symposium Hotel

The 2015 ISA Water/Wastewater Symposium will be held at the Wyndham Lake Buena Vista Resort Hotel Orlando, Florida, USA. This modern hotel offers luxury accommodations and located right on the Walt Disney Resort property. It is also situated close to both Sea World and Universal Studio’s theme parks. We have negotiated a special \$89/night hotel rate for attendees. This rate is good from August 3 to 7, and is available for symposium attendees, speakers, exhibitors, and training course participants.

Wyndham Lake Buena Vista Resort

1850 Hotel Plaza Boulevard, Lake Buena Vista, FL, 32830
(located at Walt Disney World!)

<http://www.wyndhamlakebuenvista.com>
info@wyndhamlakebuenvista.com

Reservations: 1 877-999-3223 (toll free)
Local: 1 407-828-4444

Symposium Hotel Rate: \$89 per night

The hotel is approximately 18 miles from [Orlando International Airport](#) (airport code: MCO). Click here for [directions](#) (courtesy of Google Maps).

There are several ways to get to the hotel. If you are driving to the symposium, the hotel is not far from Interstate 4, the Florida 528 Highway, and the Florida Turnpike. For those traveling by air, 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 online at www.mearstransportation.com or by calling 1-800-223-3868. A one-way taxi trip from the airport to the hotel typically costs around \$40 USD.



2015 WWAC Symposium Hotel – Wyndham Lake Buena Vista Resort

Symposium Registration

Registration for the symposium is now open! Attendees can register online or using the provided PDF registration form.

www.isawwsymposium.com/register

Symposium Registration (Aug 4-6, 2015) includes:

- 2 full days of papers and presentations
- poster session
- networking events
- tour of a local water/wastewater facility late-afternoon of Tues, Aug 4
- admission to supplier showcase
- light breakfasts on Aug 5 and Aug 6
- full buffet lunches on Aug 5 and Aug 6
- evening reception on Wednesday, Aug 5 with cash bar and 2 free drink tickets
- name badge
- list of attendees with contact information
- printed onsite program booklet
- printed copy of symposium proceedings
- There are also two optional training courses (additional course fees applies)

Full Symposium registration

List Price.....	\$425
ISA Members:	\$325
AWWA / FSAWWA members	\$375
WEF / FWEA / ITA members:	\$375
Students:	\$125
Authors/Speakers:.....	\$125
Note: Add \$25 to above fees after July 15, 2015	

Optional Training Courses (Aug 3-4):

2-day Asset Management Integration	\$1265
1-day Intro to Alarm Management (Aug 4).....	\$575



Photo from WWAC 2014 in Orlando, Florida



Detailed Symposium Program Schedule

The Symposium program committee is pleased to announce the full technical program for the 2015 WWAC Symposium

Monday, August 3, 2015

8:00am-4:00pm	Asset Management and Enterprise Integration Using the ANSI/ISA95 Standard (day 1 of 2)**
---------------	--

Tuesday, August 4, 2015

8:00am-4:00pm	Asset Management and Enterprise Integration Using the ANSI/ISA95 Standard (day 2 of 2)**
8:00am-4:00pm	Introduction to the Management of Alarm Systems (1 day)**
12:00pm-12:30pm	Early Symposium Registration & Badge Pick-Up
2:30pm-5:30pm	Tour of Treatment Plant (transportation provided)***

** [Short courses](#) are optional. Separate course registration required.

*** Limited capacity on tour. Tour bus leaves from hotel lobby. Invitations will be sent out 3 weeks prior to tour to registered symposium attendees. RSVP required.

Wednesday, August 5, 2015

7:00am	Registration, Badge Pick-up, & Breakfast	
8:00am	Opening Remarks	
8:15am	<u>Keynote Speaker</u> Water Industry – A Utility Perspective: Challenges to Solutions – Closing the Gap John S. Young, Jr. P.E., Owner, John S. Young, Jr, LLC – view abstract	
9:00am	<u>Invited Speaker</u> Open Secure Automation: Observations for Improved ICS Reliability, Security and Performance Albert Rooyackers, Founder, CTO, and VP of Engineering, Bedrock Automation – view abstract	
9:45am	Coffee Break & Exhibits	
	Track 1	Track 2
10:30am	Migrating to Digital Bus Technology Hassan Ajami, Process Control & Instrumentation (PCI), and Anil Gosine, Detroit Water & Sewerage Department – view abstract	Effectively Deploying Alarm Management to SCADA Systems Graham Nasby, P.Eng, PMP, CAP, Eramosa – view abstract
11:00am	Challenges and Lessons Learned for the Design and Implementation of Large PROFIBUS Network Francisco Alcalá, CDM Smith, and James Powell, P.Eng., Siemens Canada Limited – view abstract	Getting the Most from Your SCADA Data Emile Richard, P.E., Portland Water District- view abstract
11:30am	The Ugly Duckling Becomes a SWAN: The Success Story of Anglian Water’s Smart Water Network Jeff Miller, P.E., ENV SP, and Ivan Nazzaretto, Schneider Electric – view abstract	Looking for Trouble on OT Networks: Tools and Techniques to Identify Threats to ICS Communications Bryan L Singer, CISSP, CAP, Kenexis – view abstract
12:00pm	Lunch & Exhibits	

1:00pm	<p>Design Assist – Not Just For Construction Projects: Using Alternative Delivery For SCADA System Replacements Charles Aycock, City of Roseville, Dean Ford, CAP, PE, Westin Engineering, Inc., and Dave Kubel, PE, Tesco Controls, Inc – view abstract</p>	<p>First – Make A Business Case For Cybersecurity Don Dickinson, Phoenix Contact – view abstract</p>
1:30pm	<p>Southern Nevada Water Systems Controls Upgrade: A Very Large Scale Controls Project Jeff Blue, CAP, Southern Nevada Water System – view abstract</p>	<p>Data Diode Cybersecurity Implementation Protects Operations Network and Facilitates Transfer of Operations Information to Business Users Dennis Lanahan, Owl Computing Technologies – view abstract</p>
2:00pm	<p>Making the Case for SCADA Master Planning Raluca Constantinescu, AquaR, Inc. – view abstract</p>	<p>Demystifying Government-Validated Solutions: Navy Case Study Shows How Critical Infrastructure and Facilities Can Benefit Frank Ignazzitto, Ultra Electronics, 3eTI – view abstract</p>
2:30pm	Coffee Break & Exhibits	
3:45pm	<p>Utilizing Instrumentation and Control Tuning for BNR Optimization Craig Fuller, P.E., AECOM Technology Corporation, Norman Anderson, P.E., Charles Nichols, Polk County – Utilities Division, David Fitzgerald, P.E., D.P. Fitzgerald, Inc, and Donald Schlicht, P.E., Curry Controls Company – view abstract</p>	<p>Achieving Operator Buy-In of High Performance Graphics Jason Hamlin, City of Lynchburg, and Carter Farley, P.E., InstruLogic Corporation – view abstract</p>
4:15pm	<p>On Demand Pump Condition and Optimization Jeff Miller, P.E., ENV SP, and Brian Hinkle, Schneider Electric – view abstract</p>	<p>No compromises for secure SCADA Communications – even over 3rd Party Networks Norman Anderson, P.E., Polk County – Utilities Division, and Sokha Hay, Tempered Networks – view abstract</p>
4:45pm	<p>Developing a Utility Analysis and Integration Model (UAIM) Cello Vitasovic, Ph.D., P.E., Metropolitan Water District of Southern California, and Barry Liner, Ph.D., P.E., Water Environment Federation – view abstract</p>	<p>WWTP – Lift Station Monitoring & Control: The Process Begins Here Alan Vance, Endress+Hauser, and Terry Sages, Rockwell Automation – view abstract</p>
5:15pm	General Reception and Cash Bar	

Thursday, August 6, 2015

7:00am	Breakfast
8:00am	Opening Remarks
8:10am	Preview of next year’s 2016 ISA Water/Wastewater and Automatic Controls Symposium
8:15am	<p>Invited Speaker Situational Awareness – The Next Leap in Industrial Human Machine Interface Design John Krajewski, Director of Product Management HMI/SCADA, Schneider Electric Invensys – view abstract</p>
9:00am	<p><u>Guest Speaker</u> WEF Current News and Trends Tom DeLaura, P.E., Past Chair, WEF Automation and Information Technology Committee & Vice-President, Eramosa International – view abstract</p>
9:15am	<p><u>Guest Speaker</u> AWWA Current News and Trends Mike Sweeney, Ph.D., P.E., Florida Section of the American Water Works Association (AWWA) & Deputy Executive-Director, Toho Water Authority</p>



9:30am	2014 Water Wastewater Automatic Control Symposium / Water Wastewater Industry Division Awards	
9:45am	Coffee Break & Exhibits	
10:30am	<p><u>Forum Session</u> The Role of Automation within the Utility of the Future</p> <p>Moderator: Tom DeLaura, P.E., Chair, WEF Automation and Information Technology Committee & Vice-President, Eramosa International</p> <p>Panel Members:</p> <ul style="list-style-type: none"> • Don Dickinson, Senior Business Development Manager – Water Sector, Phoenix Contact • Jeff Miller, PE, ENV SP, Water Solutions Architect, Schneider Electric • Dan Cote, PE, Senior I&C Engineer, McKim & Creed • Barry Liner PhD PE, Director, Water Science & Engineering Center at Water Environment Federation (WEF) • Mike Sweeney PhD PE, Florida Section of the American Water Works Association (AWWA) & Deputy Executive-Director, Toho Water Authority 	
12:00pm	Lunch & Exhibits	
	Track 1	Track 2
1:00pm	Distributed Network Protocol (DNP3) for Water Systems Keith Kolkebeck, United Water – view abstract	HMI/SCADA is Key in Preventing Unplanned Downtime Matthew Wells, GE Intelligent Platforms – view abstract
1:30pm	Designing a Wireless Network: Steps / Considerations / Do's & Don'ts Patrick Ho, Eaton- view abstract	Are You Disrupting the Control Room?: How to Manage Change and Introduce High Performance HMI Concepts in Practice Ryan Kowalski, P.E., ARCADIS – view abstract
2:00pm	Methodology to Develop Optimum Control Strategies: Controlling Wastewater Plant Inflows Maxym Lachance, Eng., Tetra Tech and Sreekanth Lalgudi, P.Eng., EPCOR Utilities Inc. – view abstract	All Aboard the SCADA Mothership Patrick Cooke, Trihedral Engineering – view abstract
2:30pm	Coffee Break & Exhibits	
3:45pm	Benefits of a SCADA Master Plan Framework for Utilities Manoj Yegnaraman, P.E., Jeff Martin, Carollo Engineers, Inc., and Norman Anderson, P.E., Polk County – Utilities Division – view abstract	Flowmeter Verification in Water/Wastewater Industry Alan Vance, and Steve Milford, Endress+Hauser – view abstract
4:15pm	The ZYX's of Control Systems Norman Anderson, PE, Polk County Utilities Division	Spare Speaking Slot
4:45pm -5:00pm	Closing Remarks	

Special thanks to our 2015 Symposium Sponsors



Platinum Sponsor



Powering Business Worldwide

Platinum Sponsor



Platinum Sponsor



American Water Works
Association

FloridaSection

Technical co-sponsor



Platinum Sponsor



Technical co-sponsor



Gold Sponsor



Gold Sponsor



Silver Sponsor



Software for Monitoring & Control

Silver Sponsor



SECURE INDUSTRIAL AUTOMATION

Silver Sponsor



A Tyco Business

Silver Sponsor



Technical co-sponsor



Instrumentation
Testing Association

Promoting Reliability & Performance of Environmental
Instrumentation and Automation Technologies

Technical co-sponsor

2015 Symposium Exhibitor List



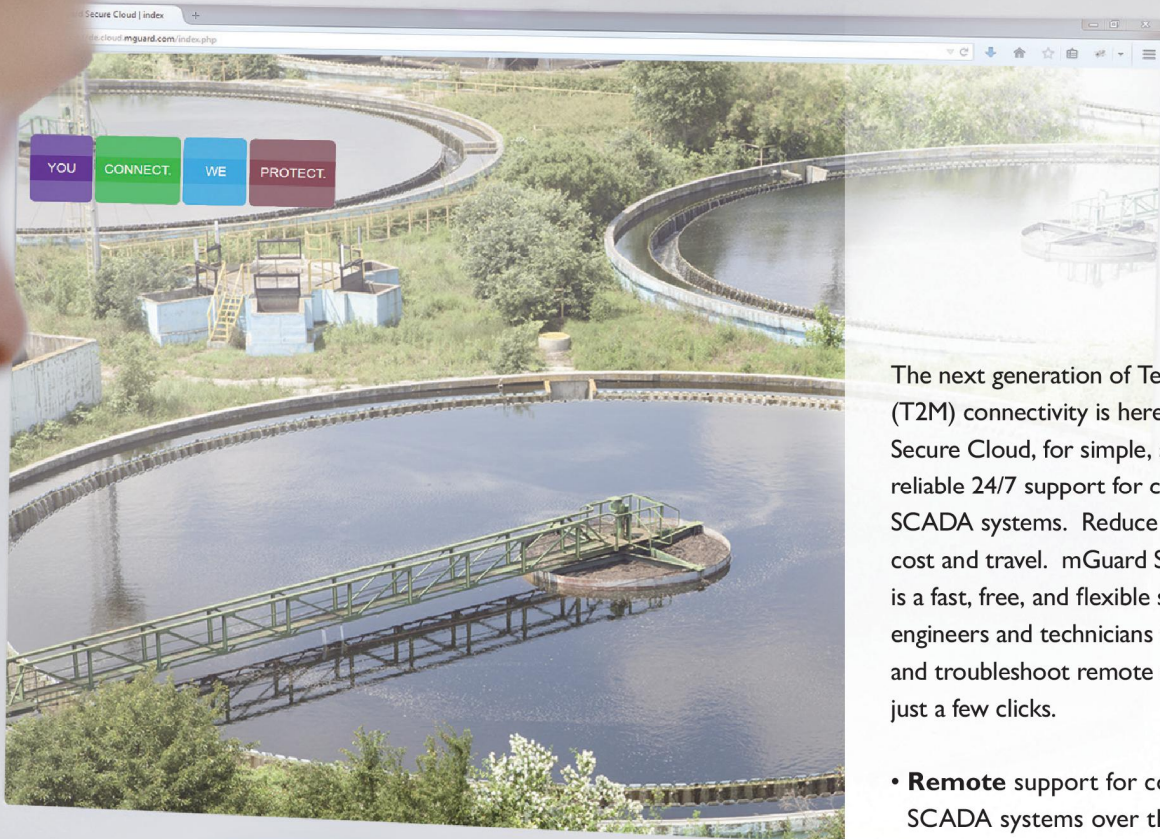
Sign up as a 2016 Exhibitor & Sponsor

For more information on how to exhibit and sponsor at the next year's 2016 symposium please visit our symposium website at www.isawwsymposium.com/exhibit-sponsor/.

The 2015 Symposium will be held on August 2-4, 2016 in Orlando Florida at the Wyndham Lake Buena Vista Resort (the same venue as this year's 2015 symposium).

mGuard Secure Cloud

Industrial VPN for secure remote access



The next generation of Tech-to-Machine (T2M) connectivity is here: mGuard Secure Cloud, for simple, secure and reliable 24/7 support for control and SCADA systems. Reduce downtime, cost and travel. mGuard Secure Cloud is a fast, free, and flexible service for engineers and technicians to access and troubleshoot remote assets in just a few clicks.

- **Remote** support for control and SCADA systems over the Internet
- **Secure** communications using an IPsec Virtual Private Network (VPN), a widely accepted and highly secure IT standard
- **Identify** and solve complex problems remotely; provide program updates; ease commissioning of new equipment
- **Save** the time and expense of travel and provide fast and secure support for remote assets
- **Increase revenue** through enhanced uptime and efficiencies

Learn more at:

www.phoenixcontact.com/msc_ce



ISA Bookstore has WEF Automation Book:

By Graham Nasby, WWID Director

As part of the partnership between our ISA Water/Wastewater Division and the AIT-committee of the WEF, we are pleased to announce that one of WEF’s newest books on wastewater plant automation is now available in the ISA’s online bookstore:

www.isa.org/books/

Automation of Water Resource Recovery Facilities, 4th Edition, Manual of Practice 21

- **Paperback:** 722 pages
- **Publisher:** Water Environment Federation; 4th edition edition (June 20 2013)
- **Language:** English
- **ISBN-10:** 1572782757
- **ISBN-13:** 978-1572782754
- **Product Dimensions:** 17.8 x 3.7 x 25.4 cm
- **Shipping Weight:** 1.2 Kg
- **ISA Price:** \$155 USD

Book Synopsis:

As automation continues to be a growing component of the water industry, new technologies and applications are constantly being developed and are producing great benefits. This manual will introduce the reader to the technological advancement and present the reader with the elements and standards of a complete automation design. The book is ideal for designers, utility managers, and operators.

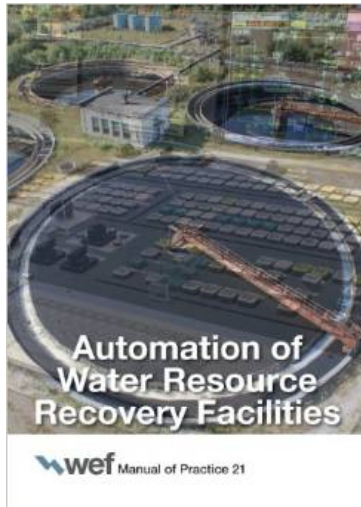


Table of contents Chapter 1: Introduction to Automation of Water Resource Recovery Facilities Chapter 2: The Business Case for Automation Chapter 3: Complete Automation Design Chapter 4: Process and Instrumentation Diagram Chapter 5: Process Control Narratives Chapter 6: Specifications Chapter 7: Process Control Strategies Chapter 8: General Instrument Characteristics Chapter 9: Sensors Chapter 10: Final Control Element Chapter 11: Communications and Connectivity Chapter 12: Physical and Cyber Security Chapter 13: Human-Machine Interfaces Chapter 14: Process Controllers Chapter 15: Maintenance and Troubleshooting Chapter 16: Control Systems Training

Table of Contents

- Chapter 1: Introduction to Automation of Water Resource Recovery Facilities
- Chapter 2: The Business Case for Automation
- Chapter 3: Complete Automation Design
- Chapter 4: Process and Instrumentation Diagram
- Chapter 5: Process Control Narratives
- Chapter 6: Specifications
- Chapter 7: Process Control Strategies
- Chapter 8: General Instrument Characteristics
- Chapter 9: Sensors
- Chapter 10: Final Control Element
- Chapter 11: Communications and Connectivity
- Chapter 12: Physical and Cyber Security
- Chapter 13: Human–Machine Interfaces
- Chapter 14: Process Controllers
- Chapter 15: Maintenance and Troubleshooting
- Chapter 16: Control Systems Training

[Read the book review](#) in the March 2015 Issue of *Water Environment & Technology*.

Automation of Water Resource Recovery Facilities is also available as an [e-book](#) for the Apple iPad or Amazon Kindle.

Chapters 3 ([Complete Automation Design](#)), 7 ([Process Control Strategies](#)) and 9 ([Sensors](#)) are also available for sale separately.

This book was prepared by the **Automation of Water Resource Recovery Facilities** Task Force of the Water Environment Federation.

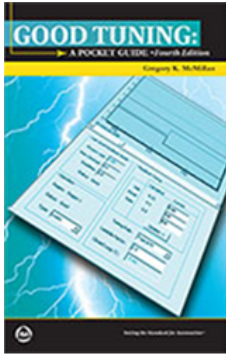
About the WEF MOP 21 Task Force Chair:

Robert D. Hill, Ph.D., P.E., is an environmental engineer with more than 28 years of experience in design, operation, and maintenance of water and wastewater supervisory control and data acquisition (SCADA) systems. He has played a key role in numerous projects, including the design of two sophisticated water resource recovery facility control systems for the City of Roseville, California; design of the SCADA system for Richardson, Texas; development of control system or technology master plans for 15 utilities; and development of operations optimization software for several water systems. Bob was the Principal Investigator for the 2002 Water Environment Research Foundation (WERF) project on Sensing and Control Systems: A Review of Municipal and Industrial Experiences as well as the Principal Investigator for WERF’s Optimizing Biotreatment: Integrated Process Models and Control Technology. Bob was also Task Force Chair for the previous edition of this Manual of Practice, which was published in 2006.

ISA PUBLISHING

Good Tuning: A Pocket Guide, 4th Edition

Our friends at ISA headquarters have a very handy reference guide to PID loop tuning:



Good Tuning: A Pocket Guide, Fourth Edition
Author: Gregory K. McMillan

Length: 274 pages
ISBN: 978-1-941546-43-7
Format: Softbound Book

List price \$59.00 USD
ISA Member Price: \$47.00 USD

Every practicing instrument, process control and process engineer will want to have this practical and to-the-point pocket guide on good tuning. Good Tuning, A Pocket Guide, Fourth Edition is a portable, concise summary of all the practical considerations for tuning loops. It includes step-by-step descriptions of the three best field-proven tuning procedures, a table of typical tuning settings, a summary of valve performance problems, logic diagrams for troubleshooting, and more than 70 “rule of thumb.”

The PID controller has an incredible number of options and parameters besides tuning settings. Most of the power of the PID remains untapped. This fourth edition provides the means to address difficult situations, meet different objectives, deal with a window of allowable controller gains, achieve more robustness, and the basis to get the most out of today’s more powerful software tools for auto-tuning and adaptive control. The understanding of the interrelationship between the process, tuning, performance, and PID features enables automation and process engineers to work together to improve process

To order a copy, go to www.isa.org/books/

Instantly Intuitive SCADA

VTScada
Software for Monitoring & Control
Trihedral
www.trihedral.com

INVESTING IN TODAY FOR TOMORROW

SCADA

Data Management

Information Technology

Instrumentation & Control

Asset Management

Cyber Security

Alarm Management

excellence. period.

www.eramosa.com
Detroit · Guelph · Calgary
Toronto · London
313 · 556 · 2840



Global market
leader in water/
wastewater

wireless solutions

We are the #1 supplier of industrial wireless solutions for water and wastewater. We provide a comprehensive water/wastewater solution with a SCADA system, Network Management System, ELPRO wireless radios and wired Ethernet switches.

Eaton is proud to be a platinum sponsor of the 2015 ISA Water/Wastewater and Automatic Controls Symposium.

Join us in Orlando to see our flexible, cost-effective, integrated solution for water management and learn how to “Design a Wireless Network—Do’s and Don’t’s” as part of the technical program.

www.eaton.com/wireless



Powering Business Worldwide

TECHNICAL ARTICLE

Profibus and ProfiNET Troubleshooting

By Carl Henning

One of the strengths of fieldbuses and industrial Ethernet protocols in general, and Profibus and ProfiNET in particular, is the diagnostic information. This diagnostic information can prevent downtime and accelerate troubleshooting.

First, an explanation of the technologies: Profibus and ProfiNET International (PI) created, support, and maintain the Profibus and ProfiNET standards. Both specifications are part of IEC 61158. Profibus is one protocol over two different physical layers: RS-485 for Profibus DP in discrete applications and Manchester-encoded, bus-powered (MBP) for Profibus PA in process applications. Profibus PA includes power delivery over the bus and is suitable for hazardous environments. ProfiNET runs on IEEE 802.3 wired (and fiber) Ethernet and IEEE 802.11 wireless Ethernet. Profibus integrates into ProfiNET using a proxy. (A proxy is like a gateway in that it connects and maps two disparate networks, but unlike a gateway, proxies are defined in the ProfiNET specification.) The proxy concept has been so successful that it has been extended to Interbus, DeviceNet, Foundation Fieldbus, and many others.

Profibus and ProfiNET use multiple means to help prevent and recover from downtime. The first line of defense is alarms, which can be announced on a human-machine interface (HMI). Alarms are available on:

- Process variables (e.g., zone 1 high temperature)
- Connected hardware (e.g., wire break on digital output 7 [heater on])
- Control devices (e.g., rack 1, module 3 is missing)

The protocols themselves define and support the alarms. In addition, the protocols convey diagnostic information about the variables being communicated: a “flag” accompanying a variable from a process instrument indicates if the value is good or suspect. Furthermore, the protocols notify and convey asset management information that can be used for predictive maintenance or condition-based monitoring.

And finally, information about the network itself is available. The network configuration tools from the controller manufacturer can be used as a first-line diagnostic tool. For a Profibus network, special-purpose tools are available for ad hoc or permanently connected monitoring of the network. Similar tools are available for ProfiNET. In addition, for ProfiNET, standard information technology (IT) protocols can be used to monitor the network. These protocols can display alarms and conditions in an HMI as well.

When devices need to be replaced, there are two methods available to speed the task. If a Profibus PA device needs to be replaced and a generic profile is used, set the address and replace the device—even if the device is from a different manufacturer! ProfiNET offers “Simple Device

Replacement,” where a device can be replaced without setting an address or using a configurator or computer. Simply replace the device, and the controller locates and activates it. Profibus devices have manually adjustable dual in-line package (DIP) or rotary switches; ProfiNET settings are all made electronically.

New projects use ProfiNET, but there are still more than 50,000,000 nodes of Profibus installed, with more added every year. ProfiNET provides a larger address space, faster speeds, and is future-proofed because it leverages Ethernet. It also adds additional diagnostic capabilities beyond Profibus. But we will start with Profibus network diagnostics, and then see how ProfiNET builds upon them.

Profibus DP diagnostics

For Profibus DP, the first line of diagnostics is alarm status. Alarms can be generated from the process and from the hardware. Figure 1 shows the hardware alarms.

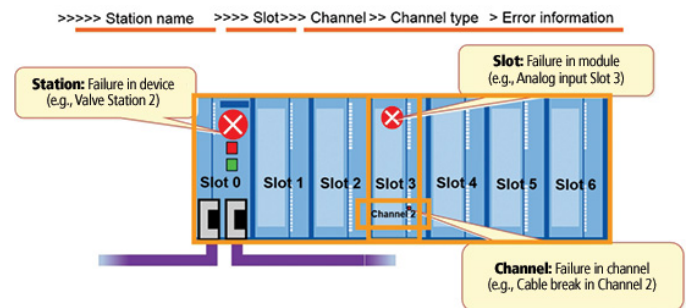


Figure 1 - Profibus DP hardware alarms

There are tools to check the network in both static and run-time modes. Static physical layer test tools can detect many types of wiring errors:

- swapped wires
- broken wire
- short circuit lines A-B
- short circuit A/B-shield
- open in shield
- missing or excessive termination
- segment length
- reflections

Run-time analysis tools connect to an operational bus and perform:

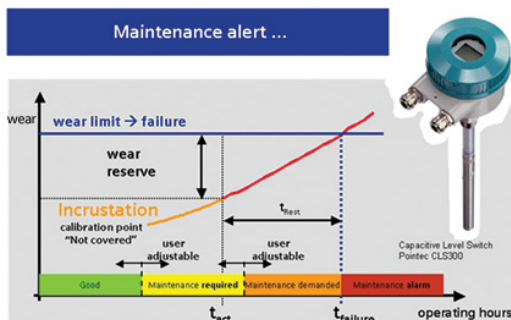
- determination of a “live list” (all active stations on the bus)
- analysis of protocol for Profibus DP and PA networks and devices
- helps find startup problems
- collection of statistics for repeats, drop-outs, corrupted messages, etc.

- trigger functions/decoding/logging

Many vendors provide tools for Profibus DP (RS-485). Runtime analysis tools perform oscilloscope functions (such as wave forms, signal levels, and reflections) and network topology determinations, and assist in locating cabling errors, faulty devices, etc.

Profibus PA diagnostics

After alarms, which parallel those for Profibus DP, checking the network is a good troubleshooting starting point. Bus and protocol analyzers are available from multiple sources. Some devices can be permanently connected to the network and some are handheld for ad hoc use.



As the probe gets coated in service, the device issues an alert for maintenance.

Figure 2 - As the probe gets coated in service, the device issues an alert for maintenance.

During operation, Profibus PA instruments carry a status byte with the process variable in every cycle. The status byte provides information regarding the “usability” of the process value. The status byte is considered an integral part of any input process variable, and it specifies the “quality/health” of the variable:

- good: value is a real process variable (PV)
- conditionally usable: may be of lower accuracy or may be a substitute value
- failure: value does not represent the PV due to an error
- function check/local override: device is under local control, maintenance, or performing a function check
- passivated (diagnostic alerts inhibited): device forced into an idle mode by operator
- The status byte also indicates the presence of a high/low limit warning or alarm with respect to the process variable value, and it provides information regarding the condition of the device:
- good: device OK, no maintenance needed

- maintenance required: based on the previous conditions, the “wear spare” will be exhausted in the medium term or faster than expected
- maintenance demanded: based on the previous conditions, the “wear spare” will be exhausted in the short term; maintenance needed in short term to guarantee availability
- maintenance alarm: the “wear spare” is exhausted or a sudden defect occurred; maintenance required immediately
- function check/local override: device is under local control, maintenance, or performing a function check

Asset management information: Vendors can build many capabilities into devices, including failure prediction (to improve asset availability) or detailed messages for the maintenance technician. Users can adjust boundaries to match their process as in this example:

Profiles: Profibus PA devices are provided with one of two types of application profiles. (An application profile is a file that is an object. It defines the characteristics of the instrument it accompanies.) The manufacturer-specific profile allows the manufacturer to extend the profile to include the uniqueness of its devices. But the generic profiles available for download from PI allow a device to be replaced with one from a different manufacturer. Using the generic profile is a clear benefit to the user if a device needs to be replaced and an exact matching device is not available.

ProfiNET diagnostics

ProfiNET uses the same alarm scheme that Profibus does (as in figure 1), then adds IT protocols like Hypertext Transfer Protocol (HTTP), Simple Network Management Protocol (SNMP), and Link Layer Discovery Protocol (LLDP). Because ProfiNET is just standard unmodified Ethernet, these protocols easily share the same infrastructure as ProfiNET.

HTTP: Many ProfiNET devices have internal web pages, so configuration and diagnostic information can be viewed with a simple Web browser.

SNMP: SNMP provides access to standard management information blocks (MIBs) in Ethernet switches, whether the switches are standalone or in an automation device like a controller. The MIBs contain useful troubleshooting and downtime prevention data, such as the number of retries on a particular port. This information can be accessed in an HMI, for example, using an SNMP OPC server.

LLDP: Support for LLDP is mandatory in ProfiNET. This protocol allows devices to know what devices are connected to their ports. Knowing this, the entire network’s topology can be retrieved and displayed. LLDP also enables one of the great downtime shortening features of ProfiNET.

ProfiNET – Simple Device Replacement: Simple Device Replacement allows ProfiNET devices to be replaced without having to set an address and without using a computer.

Summary

Comprehensive diagnostic information is available for Profibus and ProfiNET. Alarms, HMI screens, special-purpose tools, and standard IT protocols all have a place in preventing downtime and aiding troubleshooting. To prevent downtime, choose redundant networks, devices, and controllers. For white papers, videos, webinars, and additional documentation visit www.PROFIagnostics.com.

This article originally appeared in the May/June 2015 of ISA InTech. Reprinted with permission.

ABOUT THE AUTHOR:

Carl Henning was a founding member of the board of directors for the Profibus Trade Organization (PTO), 1994 through 2000. PTO is now PI North America. He joined the organization as director of ProfiNET marketing in 2005 and was named deputy director shortly thereafter. Earlier positions included vice president of international operations at Perseus Development Corporation, senior vice president and general manager for the Avantis Business Unit of Wonderware Corporation, and director of FactorySuite marketing for Wonderware. He had previous experience with controller manufacturer Eurotherm, system integrators, and a machinery original equipment manufacturer. He has an electrical engineering degree and is a life senior member of IEEE.

American Water Works Association
Florida Section
2015 FALL CONFERENCE
We Are One Water

ONE Water

Join Water Professionals At Florida's Premier Water Conference

Opening General Session:
Monday, November 30, 2015, 2:30 to 4:00 pm

Earn CEUs/PDHs:
Monday to Wednesday Workshops and Technical Sessions will be Offered

Operator Events:
Backhoe Rodeo, Tapping Competitions, and Meter Madness

Young Professionals Events:
Luncheon, Water Bowl, and Fresh Ideas Poster Session

Water For People Fundraising Event:
Exhibitor's Raffle Fundraiser

Roy Likins Fundraising Events:
Poker Night and Gold Tournament

Attendee Registration Opens on August 3rd

FOR MORE INFORMATION:
<http://fawwwa.org/2015fallconference>

November 29 to December 3, 2015 • Renaissance Orlando at SeaWorld

Sophisticated video monitoring and management solutions customized for your operations.

- Rugged industrial cameras
- Wireless or wired video solutions
- Open architecture supports a variety of cameras and networks
- Remote video monitoring
- Fully configurable & intuitive operator consoles
- Integration of video/alarming with your process control system

Learn more. Visit www.ivcco.com or call (617) 467-3059.

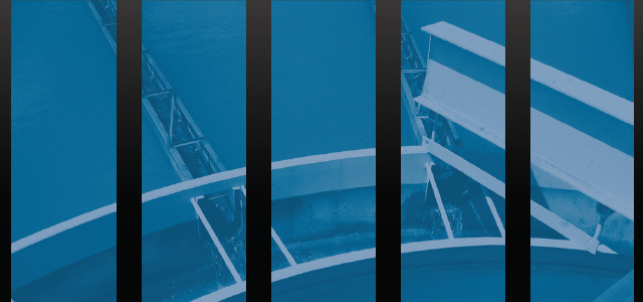
The Many Benefits of ISA Membership

Are you taking advantage of your ISA Membership?

- Information exchange and networking - 154 local sections for professional Members and 115 for student Members
- Free online viewing of ISA's automation standards - ISA has published more than 150 standards, recommended practices, and technical reports through the dedicated efforts of a network of industry experts
- Free technical library - unlimited downloads of over 2,500 technical papers published at ISA conferences and symposia
- Free access to over 40 online, pre-recorded web seminars
- Free *InTech* magazine and *Automation Weekly* e-newsletter
- Technical Division membership, connecting Members within 19 industries, sciences, and technologies—around the world
- Free online access to *ISA Transactions* - covering the latest advances in the science and engineering of measurement and automation
- Email list serves for open-forum discussions
- ISA Jobs website for free career and job postings
- Professional development opportunities, including free Leadership Development Certificate Program and volunteer opportunities that bring professional recognition
- Free Mentoring Program to enhance workforce development and careers

Signature Automation

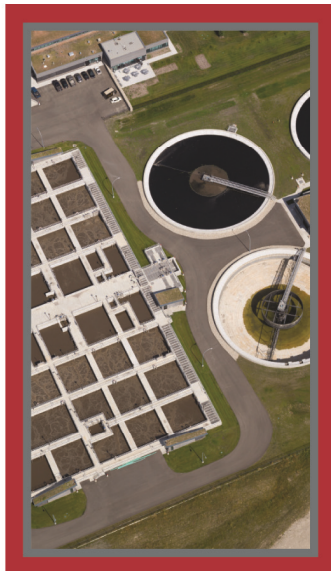
Providing automation solutions today
for a better tomorrow



Office: 469-619-1241 Fax: 469-619-1242

info@sig-auto.com

www.signature-automation.com



However ambitious your requirements, our Intelligent Motor Control provides the drive.

LISTEN.
THINK.
SOLVE.®

For simple speed control to precise torque and position control, Rockwell Automation supports you with application knowledge, industry experience and a complete family of PowerFlex drives from 0.25kW to 25MW, helping you achieve the control you need.

<http://ab.rockwellautomation.com/Motor-Control>



Allen-Bradley • Rockwell Software

Rockwell Automation

Copyright © 2011 Rockwell Automation, Inc. All Rights Reserved.

ASSOCIATION NEWS

**2015 ISA Spring Leaders Meeting –
A Mid-Year Report on ISA’s Progress**

By Rick Roop, 2015 ISA President



For this column, I want to review ISA’s Spring Leaders Meeting (SLM), which was held in Raleigh, North Carolina, USA, 13-14 June 2015. This annual meeting is attended by Executive Board members; geographic, operational and technical assembly members; department and division directors; staff; spouses and other special guests.

The purpose of the SLM is to gain a deeper understanding of Society operations and assess the mid-year progress achieved on key ISA objectives. Through targeted presentations and lively discussions and interaction, participants receive the insights needed to make informed decisions and set priorities for ISA moving forward.

Some important Society actions served as the building blocks for the SLM. Given the significance and relevance of these actions, I want to draw attention to them in the first part of my column. A key event occurred in March 2014, when the ISA Executive Board approved ISA’s formal strategy with input and deliberation from ISA volunteers, staff, industry leaders and key stakeholders.

Once again, these five strategic goals are:

- **DATA**
- **CONTENT**
- **COOLEST DELIVERY**
- **CYBERSECURITY**
- **ADVOCACY**

During the January 2015 Executive Summit, ISA held a working session to flush out detailed action plans for each of the five goals. ISA CEO and Executive Director, Pat Gouhin, appointed staff leads to accumulate volunteer input and to submit plans with timeline and budget implications to the Executive Board. Jim Keaveney, ISA President-Elect; Jon DiPietro, VP-Strategic Planning; and I reviewed the plan overviews with staff at ISA headquarters in RTP. These overviews were presented to and supported by the Executive Board at the board meeting in March.

At the same time, Executive Board members moved to self-designate themselves as either a Champion or a Liaison for each of the five goals. An Executive Board Champion works with staff and is responsible for holding other volunteer leaders accountable.

An Executive Board Liaison participates on the ISA Goal Team to offer perspective and to help promote goals while working toward completion. The staff leads have been collaborating with Executive Board members, as well as appropriate committees, to help achieve these goals. Regular meetings in RTP, facilitated by Tony Fragnito, ISA’s Director of Finance and Administration, are held to review progress and to discuss opportunities and challenges.

Ensuring a year-long commitment to goal attainment, recognizing the positive results achieved to date in 2015

At the kick-off session at the SLM, Jim Keaveney and Jon DiPietro spoke about ISA’s strategic planning process—and how very important it is that ISA has established its long-term strategic objectives and has in place a formal, organized pathway upon which to achieve them.

Vital to the Society’s progress toward meeting its goals is ISA’s Strategic Planning Department, which is continually working to coordinate the implementation of plans and ensure accountability among all parties. This involves year-long effort and commitment.

In fact, Jim and Jon explained the formal stages that ISA will follow throughout each year in order to sustain positive momentum toward goal achievement. The stages are outlined below.

- In January of each year, meetings are held to assess progress and re-confirm the value and importance of each strategic goal
- During the second quarter of the year, staff obtains input objectives and budget requirements from ISA departments and committees
- At mid-year (currently), staff considers the draft budget and—with input from volunteer groups —makes certain the guidelines of the Manual of Operations and Procedures (MOP) are met.
- Lastly culminating at the Fall Leaders Meeting (FLM) in October where final objectives and budget drafts are presented to the Executive Board for approval.

The SLM also provided an excellent opportunity for staff leads to provide updates on progress made to date in 2015 toward goal achievement. In order to achieve ISA’s five overarching strategic goals (*Data, Content, Coolest Delivery, Cybersecurity, and Advocacy*), progress must be made toward attaining several “sub goals.”

Each staff lead formally restated these sub goals and highlighted progress to date toward reaching them. In addition, an average completion percentage across all sub-goals was determined. Click [here](#) to view (in pdfs) the progress achieved to date on all five ISA goals and download the corresponding PowerPoint presentations delivered by staff leads at the SLM.

It's important to note that progress is not expected to be linear for each of the outlined objectives. I mention that because the staff leads are managing to a detailed project plan that factor in dependencies, task owners, resource requirements and other parameters.

In all, it was very impressive to recognize all the positive results that have been achieved so far this year. It was also exciting to experience the passion of the staff leads as each spoke about his or her goal and the progress being made toward completion.

I am very proud of the efforts put forth by the goal teams and the results shown at the SLM are indicative of their dedication and hard work.

Let's all work together to support these efforts and capitalize on our forward momentum. I look forward to updating you on our continued successes as the year continues.

Warm regards,

Rick Roop
2015 ISA President

Note: This article previously appeared in ISA Insights in July 2015. Reprinted with permission.

DEFINING WHAT'S
NEXT IN SAFETY

SCOTT
SAFETY

www.exida.com

	CERTIFICATION		FUNCTIONAL SAFETY
CYBERSECURITY		ALARM MANAGEMENT	

excellence in Dependable Automation

Setting the Standard for Automation™

Show your success

With ISA Senior membership

Psst, 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.

612864

ULTRASONIC FLOW METERS

RENTAL & SALES

- ✓ NEXT DAY DELIVERY
- ✓ EASY TO USE
- ✓ FREE TRAINING
- ✓ FREE SUPPORT

Instruments Direct INC.

PH: 1(888)722-5543
WWW.INSTRUMENTSDIRECT.COM

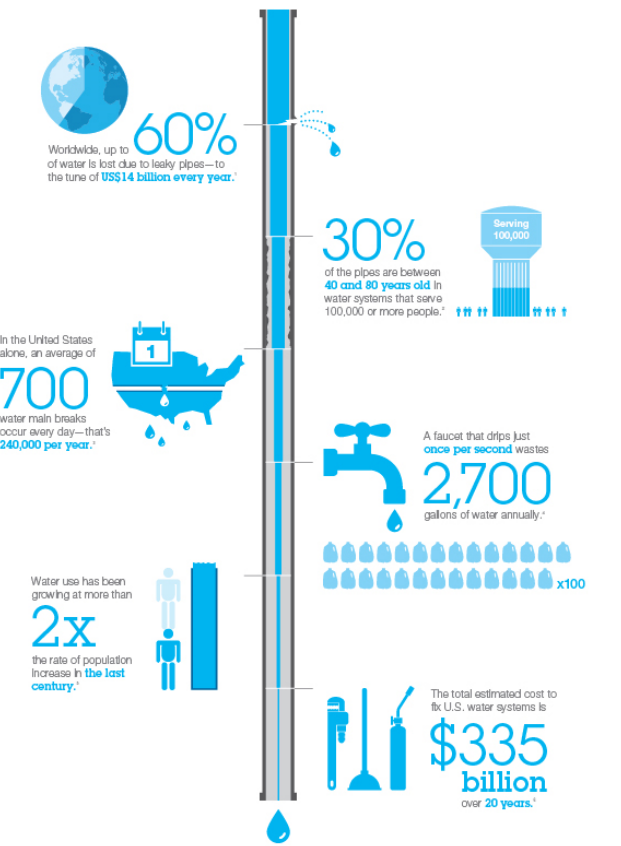
IVC displays

Industrial Touch Panel Computers

www.ivcdisplays.com

Is the world thirsty for water management?

The World Bank estimates that global costs from leaky water pipes total \$14 billion annually. Our water infrastructure, in service for upwards of 100 years in many regions, is under pressure, to say the least.



Global water usage continues to increase at twice the rate of population growth. Clearly, something must be done to better manage our water supply for a sustainable future. To find out how, visit ibm.com/smarterplanet/water

1Environmental Protection Agency
2Environmental Protection Agency
3Environmental Protection Agency
4American Society of Civil Engineers
5United Nations
6Environmental Protection Agency



WWID is on LinkedIn

LinkedIn is a social media site that is geared towards professionals and business people. Located at www.Linkedin.com, the site features online profiles, discussion groups and tools for identifying and keeping track of contacts. As of January 2014, LinkedIn has over 300 million members in more than 200 countries and territories.

In an effort to provide the latest news and information relating to instrumentation and control systems in water and wastewater management, the Water and Wastewater Industry Division has created a LinkedIn group. We invite anyone affiliated with or interested in the water and/or wastewater industries to join the group and participate in the dialog.

You may use the following link to join the group <http://www.linkedin.com/groupRegistration?gid=2031271>



Evolve your Plant with a Field Wireless Solution

Control Proof Future Proof

Power Proof

vigilantplant. **YOKOGAWA**

www.yokogawa.com/us

Setting the Standard for Automation™

Are you taking advantage of ISA's free web seminars?

Don't forget—as a Member of ISA, you have free, unlimited access to a library of more than 40 online, pre-recorded web seminars—valued at \$225 each. It's just one of the many benefits you receive as a Member of ISA.

Take advantage of this vast resource of knowledge and keep up-to-date on the latest industry practices, developments, and philosophies. It's one of your FREE benefits as an ISA Member! Visit www.isa.org/webseminars.

About LinkedIn

LinkedIn is an interconnected network of over 300 million experienced professionals from around the world, representing 250+ industries and 200 countries. You can find, be introduced to, and collaborate with qualified professionals that you need to work with to accomplish your goals.

When you join, you create a profile that summarizes your background and professional accomplishments. Your profile helps you find and be found by former colleagues, clients, and partners. You can add more connections by inviting trusted contacts to join LinkedIn and connect to you.

Your network consists of your connections, your connections' connections, and the people they know, linking you to thousands of qualified professionals.

There are already many ISA members and automation professionals on LinkedIn, as well as several other ISA-related groups. If you'd like to learn more about LinkedIn, the article "100+ Ways to Use LinkedIn" at the website www.linkedinintelligence.com/smart-ways-to-use-linkedin/ provides many different perspectives on how the site can be leveraged. We hope you'll join us there and network with other ISA, water, and wastewater professionals.

**WE'RE REVOLUTIONIZING INDUSTRIAL CONTROL
AND SETTING INDUSTRY FREE**

INTRODUCING BEDROCK™

While control systems seem to be crawling into the future, the technologies from which they are built are not. Moore's law, material science, software and standards race ahead at an accelerating pace with little concern for those left behind...until now. Bedrock Automation has reinvented all aspects of industrial control, resulting in an automation revolution that sets you free.

BEDROCK

WELCOME TO THE INDUSTRIAL CONTROL REVOLUTION

www.bedrockautomation.com

listen. think. deliver.

- Water
- Environment
- Transportation
- Energy
- Facilities

CDM Smith
cdmsmith.com

LINEATOR™
Advanced Universal Harmonic Filter

#1 Performing Passive Harmonic Mitigation Filter

An easy to apply, passive filter capable of reducing Adjustable Speed Drive (ASD) harmonics by up to 10 times with none of the inherent problems of conventional filters.

- High-efficiency harmonic solution
- Exceeds 18-pulse performance
- Guaranteed to meet IEEE 519 standards

Real-world expertise in a variety of Wastewater / Water treatment applications:

- Dewatering centrifuges*
- Aeration blowers*
- Raw Sewage Pumps*
- Grit Pumps*
- Lift Pumps*

www.mirusinternational.com
1-888 TO MIRUS (1-888-866-4787)



Collect data from remote machines.



Solve customer problems before they occur.



Increase revenue through ongoing services.

Insight After Install



Realize Immediate Value Beyond the Sale with GE's Equipment Insight Solution

Today's OEMs are expected to deliver more than machines — and now they can, with the Equipment Insight solution from GE Predictivity™. The Equipment Insight solution is a controller-agnostic remote monitoring and diagnostics solution enabling OEMs to deliver a lifetime of machine data, detailed insight and predictive maintenance programs that generate revenue beyond the initial sale. As a subscription-based service, the solution has no upfront cost and **begins delivering value in just two days**. It's one of the many ways GE Intelligent Platforms is helping the world run better.

Discover how GE's Equipment Insight can help your operations at geautomation.com/insight-after-install



Call for Newsletter Articles

The WWID newsletter is published four times a year (winter, spring, summer, and fall) and reaches the WWID's over 1,600 members. Each issue is approximately 32-44 pages long, and is electronically printed in color PDF format. A notification email goes out to all WWID members and it is available for public download at www.isa.org/wwid/.

We are always on the lookout for good articles, and we welcome both solicited and unsolicited submissions.

Article submissions should be 500-2000 words in length and be written for a general audience. While it is understood that the articles are technical in nature, the use of technical jargon and/or unexplained acronyms should be avoided. We actively encourage authors to include several photos and/or figures to go along with their article.

We actively welcome articles from all of our members. However, we do ask that articles be non-commercial in nature wherever possible. One or two mentions of company and/or product names for the purposes of identification is acceptable, but the focus of the article should be technical content and not just sales literature. If you are unsure of whether your article idea is workable, please contact our newsletter editor for more information – we are here to help.

Some examples of the types of articles we are looking for include:

- Explanatory/teaching articles that are meant to introduce or explain a technical aspect of automation and/or instrumentation in the water/wastewater sector.
- Biographical stories about personalities and/or leaders in the water/wastewater sector.
- Case Studies about plant upgrades and/or the application of new technologies and techniques. This type of article must include at least two photos along with the article text.
- Pictorial Case Studies about a plant upgrade consisting of 4-6 photos plus a brief 200-500 word description of the project undertaken. The article should ideally include one to two paragraphs about lessons learned and/or advice for other automation professionals.
- Historical reflections on changes in technology pertaining to specific aspects of instrumentation or automation, and how these changes point to the future.
- Discussions about changes in the water/wastewater sector and how these affect the automation professionals.

Once we receive a submission, we will work with you to edit it so it is suitable for publication in the newsletter.

Article submissions can be sent to the WWID newsletter editor Graham Nasby at graham.nasby@aramosa.com.

WWID Newsletter Advertising

The WWID newsletter is an excellent way to announce new products and services to the water/wastewater automation community. With a distribution of 2,000+ professionals in the automation, instrumentation and SCADA fields, the WWID newsletter is an effective targeted advertising tool.

The WWID newsletter is published quarterly, on the following approximate publication schedule:

- Winter Issue – published in January/February
- Spring Issue – published in May/June
- Summer Issue – published in August/September
- Fall Issue – published in October/November

Advertising in the newsletter is offered in full page and quarter page formats. Advertisements can be purchased on a per issue basis or for four issues at a time. The newsletter itself is distributed as a full-color PDF, so both color and black/white artwork is acceptable.

The current advertising rates are as follows:

Per Issue:

- Full page, full color (7" x 9"): \$400
- Half page, full color (7"x4.5" or 3.5"x9"): \$200
- Quarter page, full color (3.5" W x 4.5" H): \$100

Per year (4 issues):

- Full page, full color, 4 issues (40% discount): \$1200
- Half page, full color, 4 issues (25% discount): \$600
- Quarter page, full color, 4 issues (25% discount): \$300

Other sizes of advertisements are available, but are priced on an individual basis. Contact us for more information.

Please book advertising space as early as possible before the intended publication date. Artwork for advertisements should be submitted a minimum of two weeks prior to the publication date; earlier is always better than later. Artwork for advertisements can be submitted in EPS, PDF, PNG, JPG or GIF formats. EPS, PDF and PNG formats are preferred. Images should be at least 300dpi resolution if possible.

The ISA Water/Wastewater Industry Division is run on a non-profit basis for the benefit of its members. Monies raised from the sale of advertising in the newsletter are used to help offset the cost of division programming and events. Like its parent organization, the ISA, the WWID is a non-profit member-driven organization.

For more information, or to discuss other advertisement sizes not outlined above, please contact the WWID newsletter editor Graham Nasby at graham.nasby@aramosa.com.



WWID Board Member Contacts

Director

& Newsletter Editor

Graham Nasby, P.Eng, PMP, CAP
Eramosa Engineering Inc.
Tel: (519) 763-7774
Fax: (519) 763-7757
graham.nasby@eramosa.com

Director-Elect & 2015 Symposium Chair & Asst. Newsletter Editor

Kevin Patel, PE, MBA
Signature Automation
Tel (469) 619-1241
knpatel@sig-auto.com

Secretary Treasurer

David Wilcoxson, PE
MWH Global
Tel: (925) 627-4561
david.r.wilcoxson@mwhglobal.com

Past-Director & Honors/Awards Chair

Jon DiPietro
Bridge-Soft LLC & Domesticating IT
Tel: (603) 606-5937
jon.dipietro@gmail.com

Membership Chair

Pavol Segedy, PE
HDR Inc.
Tel: (919) 232-6600
psegedy@nc.rr.com

Membership Asst. Chair

Juliana Oyenyi
Signature Automation
Tel (469) 619-1241
jooyenyi@sig-auto.com

Section-Division Liaison

Sarah Papazian
AECOM
Tel: (781) 224-6083
Sarah.tremblay@aecom.com

Program Chair

Joe Provenzano, MSc.
KPRO Engineering Services
Tel: (203) 775-0903
Fax: (203) 560-1816
provenzano2@comcast.net

Program Committee

Josh Gelman, PE
CDM Smith
Tel: 703-485-6500
gelmanjl@cdmsmith.com

Program Committee

David Hobart, P.Eng, CAP
Hobart Automation Engineering
Tel (802) 253-4634
dgh@sterlingvalley.com

WEF Liaison

Tom DeLaura, PE
Eramosa International
Tel (919) 610-3559
tom.delaura@eramosa.com

Social Media Coordinator

Bosco "Bob" Loncar
Water/Wastewater Services, Halton Region
bob.loncar@halton.ca

Student Scholarships Chair

Michael Fedenyszen
Vanderweil Engineers LLP (Power Group)
Tel: (617) 956-4573
mfedenyszen@vanderweil.com

Student Scholarship Committee Members

Sean McMillan, Jones & Carter
Steve Valdez, General Electric, svaldez1210@gmail.com
Kevin Patel, Signature Automation, knpatel@sig-auto.com
Wally Ingham, Stantec Consulting, swginham@shaw.ca
Thomas C. McAviney, I&C Engineering, incengrg@centrylink.net

ISA Staff Contact

Rodney Jones
ISA Headquarters, Research Triangle Park, North Carolina
Tel: (919) 549-8411
Fax: (919) 549-8288
rjones@isa.org

2015 Symposium Details

Date: August 4-6, 2015
Location: Orlando, Florida, USA
Venue: Wyndham Lake Buena Vista Resort
General Symposium Chair: Kevin Patel, PE, MBA
Website: www.isawwsymposium.com

2016 Symposium Date – Save the Date

Date: August 2-4, 2016
Location: Orlando, Florida, USA
Venue: Wyndham Lake Buena Vista Resort
General Symposium Chair: Pavol Segedy, PE

About the ISA Water/Wastewater Division

The ISA Water and Wastewater Industry 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 the WWID 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. The division holds the annual ISA Water/Wastewater and Automatic Controls Symposium each summer, which features presentations by industry practitioners and published proceedings. For more information see www.isa.org/wwid/

About the ISA

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. For more information see www.isa.org



2015 Water / Wastewater and Automatic Controls Symposium

August 4 to 6, 2015 • Wyndham Lake Buena Vista Resort • Orlando, Florida, USA

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



Program Booklet



Setting the Standard for Automation™

TRAVEL INFORMATION

ACCOMMODATIONS

The 2015 ISA Water/Wastewater Symposium will be held at **Wyndham Lake Buena Vista Resort Hotel**, near Orlando, Florida. This modern hotel offers luxury accommodations and located right on the Walt Disney Resort property. It is also situated close to both Sea World and Universal Studio's theme parks.

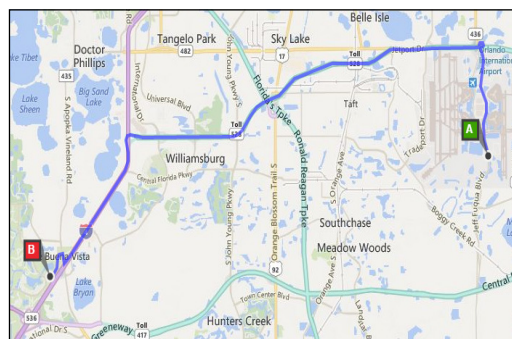
HOTEL REGISTRATION

We have arranged a discounted hotel rate of \$89/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 registration link on the symposium website. Regular hotel rates apply after July 15, 2015.

Wyndham Lake Buena Vista Resort
1850 Hotel Plaza Boulevard, Lake Buena Vista, Florida, 32830
(located on the Walt Disney World Resort!)
<http://www.wyndhamlakebuenavista.com>, info@wyndhamlakebuenavista.com
1-877-999-3223 (toll free)
407-828-4444 (local)



Wyndham Lake Buena Vista Resort
1850 Hotel Plaza Boulevard
Lake Buena Vista, Florida 32830
1-877-999-3223
www.wyndhamlakebuenavista.com



MAP & DIRECTIONS

Flying: The hotel is approximately 18 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.mears transportation.com or by calling 1-800-223-3868. A one-way taxi trip from the airport to the hotel typically costs around \$40 USD.

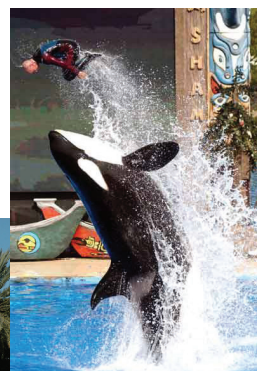
Driving: There are several ways to get to the hotel. If you are driving to the symposium, the hotel is not far from Interstate 4, the Florida 528 Highway, and the Florida Turnpike.

LOCAL ATTRACTIONS

The Orlando area provides a wealth of visitor experiences. Situated in the middle of Walt Disney World®, Wyndham Lake Buena Vista overlooks all of Disney's Florida empire, including Downtown Disney®, right across the street. Being an Official Walt Disney World® Resort means there is a shuttle to all things Disney® and family-friendly amenities like the Oasis Aquatic Playground, as well as Oasis Bar & Grill to keep the whole family full of food and fun in the sun. Be sure to also catch the Disney® Character Breakfast in their Lakeview Restaurant 3 days a week (Tuesday, Thursday, and Saturday), complete with a buffet and photo opportunities with two of the Disney "Fab Five" characters. For more information on local attractions visit www.visitorlando.com.

Distances to Orlando, Florida Attractions

City Walk at Universal Orlando Resort	8.6 miles
Downtown Disney	0.7 miles
Walt Disney World Hollywood Studios	3.6 miles
Walt Disney World Animal Kingdom	6.2 miles
Walt Disney World Epcot Center.....	3.3 miles
Walt Disney World Magic Kingdom.....	5.1 miles
Gatorland	10 miles
Universal Studios Orlando Resort.....	8.2 miles
Kennedy Space Center	58 miles
Prime Outlets.....	11 miles
SeaWorld.....	4.7 miles
Wet n Wild	8.5 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 treatment 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 2015 ISA Water/Wastewater and Automatic Controls Symposium. Now in its tenth 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 Alarm Management and Asset Management and Enterprise Integration. 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 2015 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 Alarm Management and Asset Management and Enterprise Integration. 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

Sophisticated video monitoring and management solutions customized for your operations.



- Rugged industrial cameras
- Wireless or wired video solutions
- Open architecture supports a variety of cameras and networks
- Remote video monitoring
- Configurable & intuitive operator consoles
- Integration of video/alarming with your process control system

Visit www.ivcco.com or call (617) 467-3059.

IVC
INDUSTRIAL
VIDEO & CONTROL

2015 Symposium Committee

General Symposium Chair Kevin Patel PE MBA, Signature Automation
 Asst. Symposium Chair..... Pavol Segedy PE, HDR
 Program Committee Chair..... Joe Provenzano MSc, KPRO Engineering Services
 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 CCST-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
 Mike Crawford, Haldimand County
 Jon DiPietro, Bridgesoft LLC
 Bob Dusza, City of Manchester Water and Sewer Department
 Michael Fedenyshyn, 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, HDR
 Steve Valdez, GE

INVESTING IN TODAY FOR TOMORROW

SCADA

Data Management

Information Technology

Instrumentation & Control

Asset Management

Cyber Security

Alarm Management

excellence. period.

www.erasmosa.com
 Detroit · Guelph · Calgary · Toronto · London
 313 · 556 · 2840





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 2015 Water / Wastewater and Automatic Controls Symposium which will be held at the Wyndham Lake Buena Vista Resort in Orlando, Florida from August 4-6, 2015. 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!

Mark Lehigh

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 2015 Water/Wastewater and Automated Controls Symposium, which will be held at the Wyndham Lake Buena Vista Resort in Orlando, FL from August 4-6, 2015. 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

Executive Director, 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 2015 ISA Water/Wastewater and Automatic Controls Symposium. We believe that the Symposium has an extraordinary technical program thanks to the efforts of 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 2015 this fall in Chicago, where several of the WWAC symposium presentations will be showcased at a special WEFTEC session along with several other automation presentations. 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, Water Science & Engineering Center



Instrumentation Testing Association

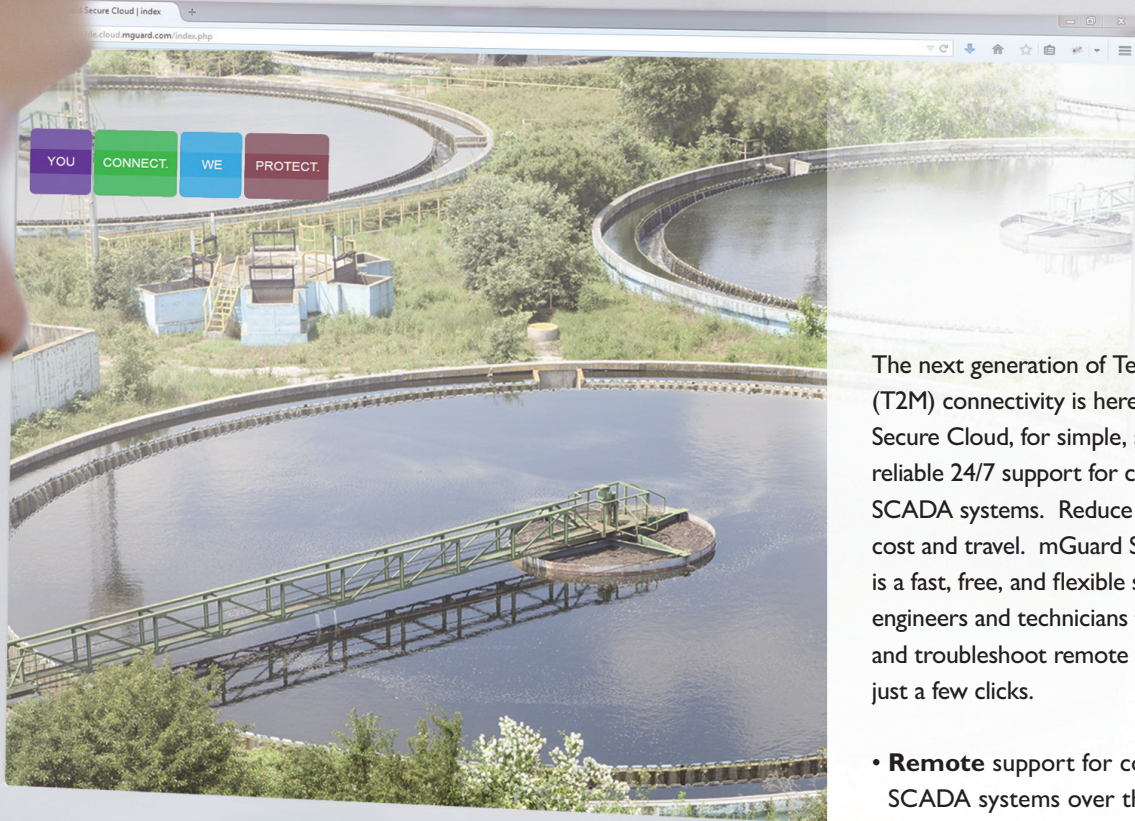
The Instrumentation Testing Association (ITA) is delighted to be a technical co-sponsor of this year's 2015 Water/Wastewater and Automatic Controls Symposium. Instrumentation plays a vital role in the effective treatment of wastewater. The symposium provides an ideal forum to discuss instrumentation 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.

Tom DeLaura, P.E.

Executive Director, Instrumentation Testing Association

mGuard Secure Cloud

Industrial VPN for secure remote access



The next generation of Tech-to-Machine (T2M) connectivity is here: mGuard Secure Cloud, for simple, secure and reliable 24/7 support for control and SCADA systems. Reduce downtime, cost and travel. mGuard Secure Cloud is a fast, free, and flexible service for engineers and technicians to access and troubleshoot remote assets in just a few clicks.

- **Remote** support for control and SCADA systems over the Internet
- **Secure** communications using an IPsec Virtual Private Network (VPN), a widely accepted and highly secure IT standard
- **Identify** and solve complex problems remotely; provide program updates; ease commissioning of new equipment
- **Save** the time and expense of travel and provide fast and secure support for remote assets
- **Increase revenue** through enhanced uptime and efficiencies

Learn more at:

www.phoenixcontact.com/msc_ce



mGuard
secure cloud

KEYNOTE SPEAKER



John S. Young Jr., PE

Retired, American Water
Consultant, John S. Young Jr., LLC

Water Industry – A Utility Perspective: Challenges to Solutions – Closing the Gap

John Young has worked in the water utility industry his entire career. In 2010, John retired from American Water, the largest water/wastewater utility in North America, after a 33 year career. At American Water, he served in numerous technical and management positions including Vice President- Engineering, President – American Water Works Service Company, Chief Water Technology Officer and Chief Operating Officer. Recently, as a utility consultant, he has supported or assessed numerous water utilities including the New York City Department of Environmental Protection, Detroit Water and Sewerage Department (during the Detroit bankruptcy) and PRASA.

John is a registered professional engineer. He holds a B.S. in Civil Engineering from Duke University and an M.S. in Environmental Engineering from the University of North Carolina – Chapel Hill.

INVITED SPEAKERS



Albert Rooyackers

Founder, CTO, and VP of Engineering
Bedrock Automation

Open Secure Automation: Observations for Improved ICS Reliability, Security and Performance

Albert's recent technical endeavors include developing parallel processors for video, hybrid propulsion systems for transportation and currently, as a Bedrock founder and CTO, designing and commercializing a revolutionary cyber secure automation platform for the global market. As a measure of the level of innovation in this Open Secure Automation platform, 75 international patents have been filed and over 20 granted in just the past two years.



John Krajewski

Director of Product Management HMI/SCADA
Schneider Electric | Invensys

Situational Awareness – The Next Leap in Industrial Human Machine Interface Design

John began his career working as a Control System Engineer in the potable water industry. Subsequently, John worked as an Application Engineer for a System Integrator. He joined Invensys Wonderware in April 2000 as a Senior Application Developer in the Product Marketing Department. John then assumed the role of Product Marketing's Functional Manager of Infrastructure. John Spent 5 years as a Domain Architect with responsibilities for architectural and functional definition of InTouch and ArchestrA technologies.

FORUM SESSION:

What is the Future of Automation Technologies in the Water Industry?



Moderator:

Tom DeLaura, PE

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



Panel Member:

Jeff Miller, PE, ENV SP

Water Solutions Architect, Schneider Electric



Panel Member:

Ryan Kowalski, PE

SCADA/Automation Technical Knowledge and Innovation Discipline Leader, ARCADIS



Panel Member:

Don Dickinson

Senior Business Development Manager - Water Sector, Phoenix Contact



Panel Member:

Dan Cote, PE

Senior I&C Engineer, McKim & Creed



Panel Member:

Graham Nasby, PE, PMP, CAP

Senior I&C Engineer, Eramosa Engineering

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. The discussion will revolve around current and future trends in the industry, needs of utilities, possible future technologies and how utilities may best plan a roadmap to incorporate them.

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.

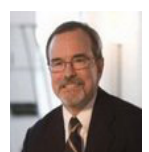
GUEST SPEAKERS



Tom DeLaura, PE

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

WEF Current News and Trends



Mike Sweeney, PhD, PE

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

AWWA Current News and Trends

A warm welcome to our 2015 Title Sponsors



Platinum Sponsor



Powering Business Worldwide

Platinum Sponsor



Platinum Sponsor



Platinum Sponsor

Special Thanks to Our Sponsors



Technical Co-Sponsor



Technical Co-Sponsor



Technical Co-Sponsor



Gold Sponsor



Gold Sponsor



Silver Sponsor



Silver Sponsor



Silver Sponsor



Silver Sponsor



Technical Co-Sponsor



Tour Transportation Sponsor

The 2015 WWAC Symposium
Is Presented by:



Water & Wastewater Industries
Division

MONDAY & TUESDAY AUGUST 3 & 4, 2015

Monday, August 3, 2015	
8:00am - 4:00pm	Asset Management and Enterprise Integration Using the ANSI/ISA95 Standard (day 1 of 2)* (Bay Lake)

Tuesday, August 4, 2015	
8:00am - 4:00pm	Asset Management and Enterprise Integration Using the ANSI/ISA95 Standard (day 2 of 2)* (Bay Lake)
8:00am - 4:00pm	Introduction to the Management of Alarm Systems (1 day)* (Park Lake)
12:00pm - 3:30pm	Early Symposium Registration & Badge Pick-Up (Solar Foyer)
2:30pm - 5:45pm	Tour of Treatment Facility (transportation provided)** (Hotel Lobby)

* Short courses are optional. Separate course registration required.

** Limited capacity on tour. Tour leaves hotel lobby at 2:45 pm. Invitations will be sent out 3 weeks prior to tour via e-mail to registered symposium attendees. RSVP required.

OPTIONAL SHORT COURSES

Introduction to the Management of Alarm Systems (IC39C)

Date: Tues. August 4, 2015

Instructor: John Bogdan

Length: 1 day

Credits: 0.7 CEUs / 7 PDHs

Cost: \$720 (\$575 for ISA members)

This course focuses on the key activities of the alarm management lifecycle provided in the ANSI/ISA18.00.02 standard, Management of Alarm Systems for the Process Industries. The activities include the alarm philosophy development, alarm rationalization, basic alarm design, advanced alarm techniques, Human Machine Interface (HMI) design for alarms, monitoring, assessment, management of change, and audit..

Asset Management and Enterprise Integration Using the ANSI/ISA95 Standard (IC55)

Date: Mon. - Tues. August 3 - 4, 2015

Instructor: Paul Nowicki

Length: 2 days

Credits: 1.4 CEUs / 14 PDHs

Cost: \$1585 (\$1265 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 Harvest Power Energy Garden. The tour takes place in the early-afternoon of Tues, Aug 4, 2015 at 3:00 PM, with the tour bus leaving the hotel at 2:45 PM, and requires prior-sign-up. Transportation to/from the hotel is provided. The bus will leave the hotel lobby.

Symposium attendees are invited to tour the Harvest Power Energy Garden. Harvest Power's Energy Garden in Central Florida is designed to simultaneously address four challenges – to recover energy and nutrients from food waste, manage odors, process biosolids beneficially, and improve the fertilizer end product quality – with one integrated solution. Located at Reedy Creek Improvement District, this anaerobic digester processes 130,000 tons per year of biosolids, fats, oils, grease, and food waste and has 3.2 MW of installed power generation capacity and 3.8 MW of recoverable heat from a biogas-fueled combined heat and power system (CHP), plus class AA granular fertilizer.

Harvest Power has found a higher and better use for Central Florida's pre and post-consumer food waste. Through a patented anaerobic digestion process, Orlando's food and organic waste can be recycled and converted into clean energy, effectively transforming the community's organic waste problem into a sustainable local resource.



WEDNESDAY AUGUST 5, 2015

7:00am	Registration, Badge Pick-up & Breakfast	
8:00am	Opening Remarks (Technical Session Room 1)	
8:15am	<u>Keynote Speaker</u> Water Industry – A Utility Perspective: Challenges to Solutions – Closing the Gap John S. Young, Jr. P.E., Retired, American Water and Consultant, John S. Young, Jr, LLC	
9:00am	<u>Invited Speaker</u> Open Secure Automation: Observations for Improved ICS Reliability, Security and Performance Albert Rooyackers, Founder, CTO, and VP of Engineering, Bedrock Automation	
9:45am	Coffee Break & Exhibits (Exhibit Hall)	
	Track 1 (Technical Session Room 1)	Track 2 (Technical Session Room 2)
10:30am	Migrating to Digital Bus Technology Hassan Ajami, Process Control & Instrumentation (PCI) Anil Gosine, Detroit Water & Sewerage Department	Effectively Deploying Alarm Management to SCADA Systems Graham Nasby, P.Eng, PMP, CAP, Eramosa
11:00am	Challenges and Lessons Learned for the Design and Implementation of Large PROFIBUS Network Francisco Alcalá, CDM Smith James Powell, P.Eng., Siemens Canada Limited	Getting the Most from Your SCADA Data Emile Richard, P.E., Portland Water District
11:30am	The Ugly Duckling Becomes a SWAN: The Success Story of Anglian Water's Smart Water Network Jeff Miller, P.E., ENV SP, Schneider Electric Ivan Nazzaretto, Schneider Electric	Looking for Trouble on OT Networks: Tools and Techniques to Identify Threats to ICS Communications Bryan L Singer, CISSP, CAP, Kenexis
12:00pm	Lunch & Exhibits (Exhibit Hall)	
1:00pm	Design Assist – Not Just For Construction Projects: Using Alternative Delivery For SCADA System Replacements Charles Aycok, City of Roseville Dean Ford, CAP, Westin Engineering, Inc Dave Kubel, PE, Tesco Controls, Inc	First – Make A Business Case For Cybersecurity Don Dickinson, Phoenix Contact
1:30pm	Southern Nevada Water Systems Controls Upgrade: A Very Large Scale Controls Project Jeff Blue, CAP, Southern Nevada Water System	Data Diode Cybersecurity Implementation Protects Operations Network and Facilitates Transfer of Operations Information to Business Users Dennis Lanahan, Owl Computing Technologies
2:00pm	Making the Case for SCADA Master Planning Raluca Constantinescu, AquaR, Inc.	Demystifying Government-Validated Solutions: Navy Case Study Shows How Critical Infrastructure and Facilities Can Benefit Frank Ignazzitto, Ultra Electronics, 3eTI
2:30pm	Coffee & Exhibits (Exhibit Hall)	
3:45pm	Utilizing Instrumentation and Control Tuning for BNR Optimization Craig Fuller, P.E., AECOM Technology Corporation Norman Anderson, P.E., Polk County – Utilities Division Charles Nichols, Polk County – Utilities Division David Fitzgerald, P.E., D.P. Fitzgerald, Inc Donald Schlicht, P.E., Curry Controls Company	Achieving Operator Buy-In of High Performance Graphics Jason Hamlin, City of Lynchburg Carter Farley, P.E., InstruLogic Corporation
4:15pm	On Demand Pump Condition and Optimization Jeff Miller, P.E., ENV SP, Schneider Electric Brian Hinkle, Schneider Electric	No compromises for secure SCADA Communications – even over 3rd Party Networks Norman Anderson, P.E., Polk County – Utilities Division David Mattes, Tempered Networks
4:45pm	Developing a Utility Analysis and Integration Model (UAIM) Cello Vitasovic, Ph.D., P.E., Metropolitan Water District of Southern California Barry Liner, Ph.D., P.E., Water Environment Federation	WWTP – Lift Station Monitoring & Control: The Process Begins Here Alan Vance, Endress+Hauser Terry Sages, Rockwell Automation
5:15pm	General Reception and Cash Bar (Exhibit Hall)	

THURSDAY AUGUST 6, 2015

7:00am	Breakfast	
8:00am	Opening Remarks (Technical Session Room 1)	
8:10am	Preview of next year's 2016 ISA Water/Wastewater and Automatic Controls Symposium	
8:15am	<u>Invited Speaker</u> Situational Awareness – The Next Leap in Industrial Human Machine Interface Design John Krajewski, Director of Product Management HMI/SCADA, Schneider Electric Invensys	
9:00am	<u>Guest Speaker</u> WEF Current News and Trends Tom DeLaura PE, Chair, WEF Automation and Information Technology Committee & Vice-President, Eramosa Engineering International	
9:15am	<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	
9:30am	2014 Water Wastewater Automatic Control Symposium / Water Wastewater Industry Division Awards	
9:45am	Coffee Break & Exhibits (Exhibit Hall)	
10:30am	<u>Forum Session</u> What is the Future of Automation Technologies in the Water Industry? <u>Moderator</u> Tom DeLaura, PE Past Chair, WEF Automation and Information Technology Committee & Vice-President, Eramosa Engineering International <u>Panel Members:</u> Don Dickinson, Phoenix Contact Jeff Miller, PE, ENV SP, Schneider Electric Dan Cote, PE, McKim & Creed Ryan Kowalski, PE, ARCADIS Graham Nasby, PE, PMP, CAP, Eramosa Engineering	
12:00pm	Lunch & Exhibits (Exhibit Hall)	
	Track 1 (Technical Session Room 1)	Track 2 (Technical Session Room 1)
1:00pm	Distributed Network Protocol (DNP3) for Water Systems Keith Kolkebeck, United Water	HMI/SCADA is Key in Preventing Unplanned Downtime Matthew Wells, GE Intelligent Platforms
1:30pm	Designing a Wireless Network: Steps / Considerations / Do's & Don'ts Patrick Ho, Eaton	Are You Disrupting the Control Room?: How to Manage Change and Introduce High Performance HMI Concepts in Practice Ryan Kowalski, P.E., ARCADIS
2:00pm	Methodology to Develop Optimum Control Strategies: Controlling Wastewater Plant Inflows Maxym Lachance, Eng., Tetra Tech	All Aboard the SCADA Mothership Patrick Cooke, Trihedral Engineering
2:30pm	Poster Session, Coffee & Exhibits (Exhibit Hall)	
3:45pm	Benefits of a SCADA Master Plan Framework for Utilities Manoj Yegnaraman, P.E., Carollo Engineers, Inc. Jeff Martin, Carollo Engineers, Inc. Norman Anderson, P.E., Polk County – Utilities Division	Flowmeter Verification in Water/Wastewater Industry Alan Vance, Endress+Hauser Steve Milford, Endress+Hauser
4:15pm	The ZYX's of Control Systems Norman Anderson, P.E., Polk County – Utilities Division	OPEN
4:45pm	Closing Remarks (Technical Session Room 1)	



Global market
leader in water/
wastewater

wireless solutions

We are the #1 supplier of industrial wireless solutions for water and wastewater. We provide a comprehensive water/wastewater solution with a SCADA system, Network Management System, ELPRO wireless radios and wired Ethernet switches.

Eaton is proud to be a platinum sponsor of the 2015 ISA Water/Wastewater and Automatic Controls Symposium.

Join us in Orlando to see our flexible, cost-effective, integrated solution for water management and learn how to "Design a Wireless Network—Do's and Don'ts" as part of the technical program.

www.eaton.com/wireless



Powering Business Worldwide

TECHNICAL CO-SPONSORS

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



American Water Works Association

FloridaSection

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 member services and networking opportunities related to the water industry. For more information see www.fsawwa.org



Water Environment Federation
the water quality people®

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



Florida Water Environment Association

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



Instrumentation Testing Association

Promoting Reliability & Performance of Environment Instrumentation and Automation Technologies

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

Special Thanks to our 2015 Media Partners

FLORIDA
WATER RESOURCES JOURNAL

Read-out
Instrumentation Signpost

InTech.

POLLUTION news
EQUIPMENT
Water • Wastewater • Air • Hazardous Waste

WATER DESALINATION REPORT

WaterWorld.

AutomationWorld®

Industrial WaterWorld®

WE&T
water environment and technology



WEF HIGHLIGHTS










Global Water Intelligence

The Water Network
powered by TallyFox

DesalData ^{GWI}

CONTINUING EDUCATIONS CREDITS – CEUs & PDHs

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:

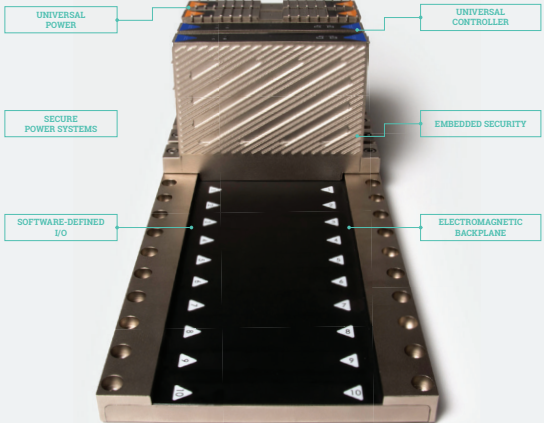
 <p>2.0 CEUs or 20 PDHs</p> <p>water operators wastewater operators engineers</p>  <p>American Water Works Association FloridaSection</p>	<p>Florida state licensed water operators and wastewater operators can earn up to 2.0 Florida Department of Environmental Protection approved CEUs by attending the 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 # 05134010).</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</p> <p>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 Asset Management and Enterprise Integration Using the ANSI/ISA95 Standard, 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 # 05134012) • 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 the Management of Alarm Systems, 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 # 05134011) • 0.7 CEUs certified by IACET (issued by the ISA) 	

Signature Automation

Providing automation solutions today for a better tomorrow

Office: 469-619-1241 Fax: 469-619-1242
info@sig-auto.com
www.signature-automation.com

WE'RE REVOLUTIONIZING INDUSTRIAL CONTROL AND SETTING INDUSTRY FREE



INTRODUCING BEDROCK™

While control systems seem to be crawling into the future, the technologies from which they are built are not. Moore's law, material science, software and standards race ahead at an accelerating pace with little concern for those left behind...until now. Bedrock Automation has reinvented all aspects of industrial control, resulting in an automation revolution that sets you free.

BEDROCK

WELCOME TO THE INDUSTRIAL CONTROL REVOLUTION

www.bedrockautomation.com

The 2015 WWAC Symposium Is Presented by:

 **Water & Wastewater Industries Division**

Thanks to our technical co-sponsors

 **Water Environment Federation**
the water quality people®

 **Florida Water Environment Association**

 **Florida Section**

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, 2015)

_ 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, 2015)

_ 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 4
- * admission to supplier showcase
- * light breakfasts on Aug 5 and Aug 6
- * full buffet lunches on Aug 5 and Aug 6
- * evening reception on Aug 5, 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 3 - 4, 2015, 8:00am - 4:00pm

Asset Management and Enterprise Integration Using the ANSI/ISA95 Standard (IC55)

Attendees will receive 1.4 CEUs (continuing education units)

_ Regular Price	\$1585
_ ISA Member Price	\$1265

Optional Full-Day Training Course: August 4, 2015, 8:00am - 4:00pm

Introduction to the Management of Alarm Systems (IC39C)

Attendees will receive 0.7 CEUs (continuing education units)

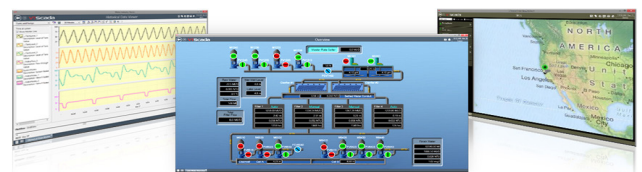
_ Regular Price	\$720
_ ISA Member Price	\$575

Register at www.isawwsymposium.com/register

DEFINING WHAT'S
NEXT IN SAFETY



Instantly Intuitive SCADA

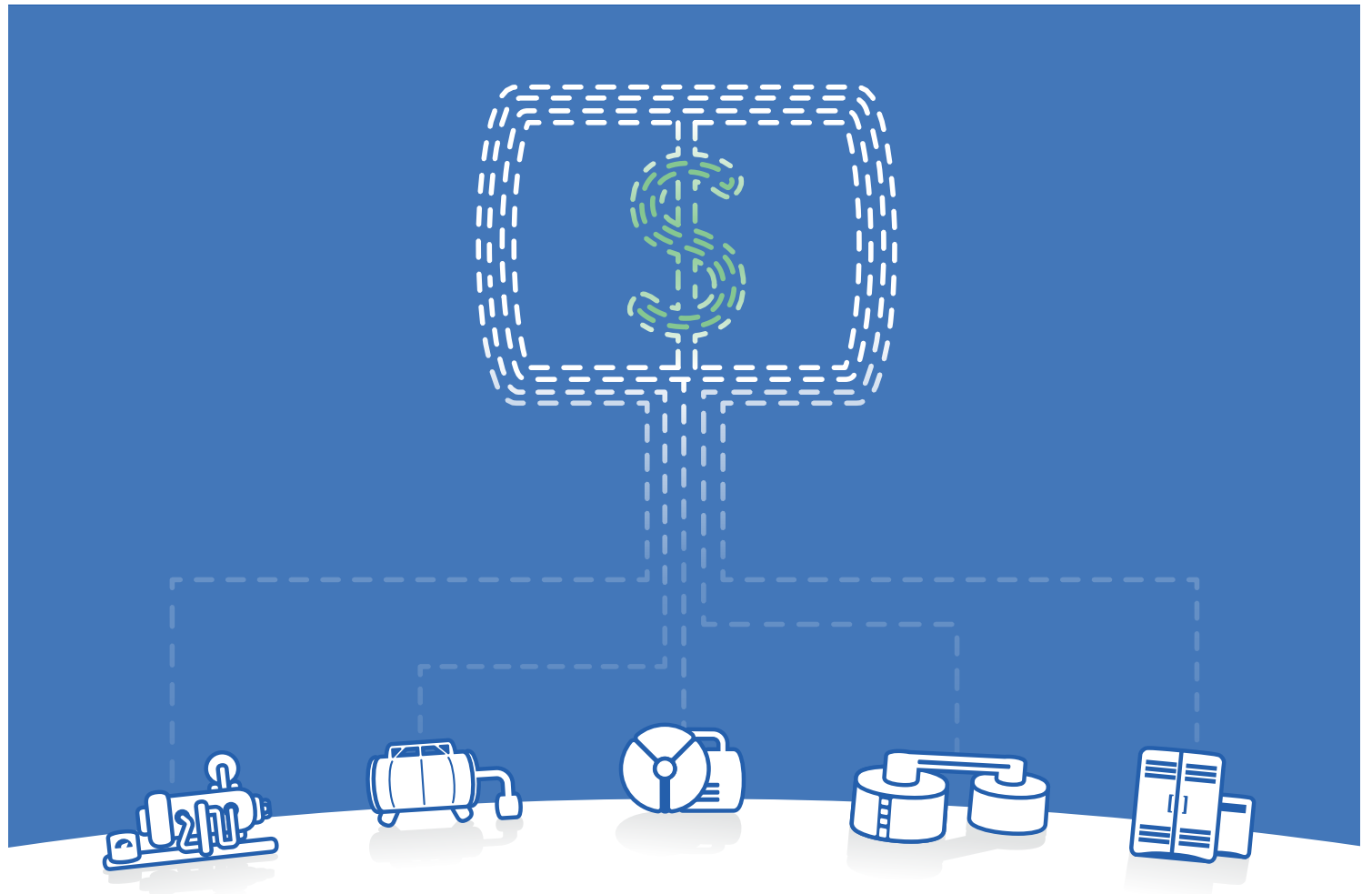


VTScada

Software for Monitoring & Control

Trihedral

www.trihedral.com



Introducing the OEM's New Tool for Getting Ahead



GE's Equipment Insight Solution

GE Intelligent Platforms helps today's OEMs deliver more than machines and become more competitive. Its newest innovation, the Equipment Insight solution from GE Predictivity™, is a controller-agnostic remote monitoring and diagnostics solution enabling OEMs to deliver a lifetime of machine data, detailed insight and predictive maintenance programs that generate revenue beyond the initial sale. As a subscription-based service, the solution has no upfront cost and **begins delivering value in just two days**. It's one of the many ways GE Intelligent Platforms is helping the world run better.

Discover how GE's Equipment Insight can help your operations at geautomation.com/getting-ahead







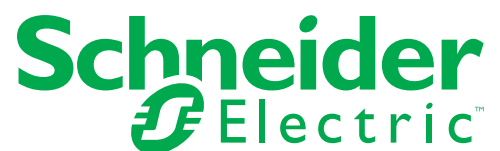
We're here to give you a hand.
Actually, many hands.

We've got the technology, experience and expertise. You'll find it all at our Water Wastewater Competency Center.

Nearly 150 water industry specialists make up the backbone of the Schneider Electric **Water Wastewater Competency Center (WWCC)**. It is a highly dedicated team that delivers everything from world-class integrated system design to continuous service – all designed to help you manage your energy for critical water treatment systems.

Every working day, the WWCC helps customers meet and exceed requirements for sustainability and energy efficiency, site and data security, process control and optimization, lighting, demand response and renewable energy. And that's just the start. We are also committed to providing you with local, face-to-face training on a wide variety of water industry topics to help you reach operational goals. Plus, with our trusted brands, you are guaranteed top-of-the-line products and solutions.

If you're looking to optimize energy usage in your facility, look no further than Schneider Electric.



Visit www.schneider-electric.com/us Call 877-DIAL-1SE Email wwcc@schneider-electric.com

2016 ISA Water/Wastewater and Automatic Controls Symposium

August 2 to 4, 2016.....Wyndham Lake Buena Vista Resort.....Lake Buena Vista, Florida, USA
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 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 DueDecember 15, 2015
Notification of AcceptanceJanuary 16, 2016
First Draft DueMarch 9, 2016
Final Draft Due.....May 18, 2016

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:

Pavol Segedy, P.E.
General Symposium Chair
HDR Inc.
+ 1 919-427-5313
psegedy@nc.rr.com

Joe Provenzano, M.Sc.
Symposium Program Chair
KPRO Engineering Services
+1 203-560-1816
provenzano2@comcast.net

Rodney Jones
Staff Contact
ISA Symposia
+1 919-990-9418
rjones@isa.org

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
- Lessons Learned

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
Implementing of ISA, EEMUA, WEF & AWWA Standards
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

2015 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.



CONTACTS

Kevin Patel, PE, MBA

2015 General Symposium Chair
Signature Automation
knpatel@sig-auto.com
(469) 619-1241

Joe Provenzano, MSc

Symposium Program Chair
KPRO Engineering Services
provenzano2@comcast.net
(203) 560-1816

Rodney Jones

ISA Staff Contact
rjones@isa.org
(919) 990-9418



International Society of Automation

67 T.W. Alexander Drive
PO Box 12277
Research Triangle Park, NC 27709
E-Mail: info@isa.org
Telephone: (919) 549-8411
Fax: (919) 549-8288
www.isa.org

Note: See symposium website for 2016 exhibitor & sponsorship opportunities

For more information visit:
www.isawwsymposium.com