



Summer Newsletter 2010

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Upcoming Events

- Oct 4 – 7 Automation Week** – Westin Galleria
Houston, TX
- Oct. 6 AD Luncheon**, 11am
- Oct. 3 AD Business Meeting**, 5:30 p.m.

A Note From The Editor:

Thanks to all of you who have sent in information to compile this Summer Newsletter. I appreciate getting the information and do my best to arrange it in a concise way for the readers to gain the information they need to participate in upcoming events as well as understand the importance and outcomes of previous events. If you would like to contribute to the newsletter or advertise, please email me at: ... AnnieBmail@yahoo.com or to my work email address at: Annie.Crabtree-Smith@c-a-m.com. All content will be approved by the Director before released into the newsletter.

Annie B. Crabtree-Smith, Editor

Automation Week:

The ISA Automation Week will be held in Houston, October 5th through the 7th, 2010 at the Westin Galleria Hotel

In addition to the technical sessions, the Division will be holding the Fall business meeting on Sunday October 3, 2010 and the AD Awards Luncheon on Wednesday October 6, 2010. The Division Awards will be announced and presented at this

AD Awards Luncheon. All members of the Division are welcome at both of these events.

Anyone who is interested in purchasing a ticket for Division Luncheons that are scheduled during the week of October 4th (Joint A&T and I&S Luncheon on Tuesday, October 5th and the Analysis Division Luncheon on Wednesday, October 6th) can complete the "downloadable registration form" located at the following URL: ...

<http://www.isaautomationweek.org/isaautomationweek/files/3552%20Automation%20Week%20Reg%20Form-AWWS10.pdf>

Please fill out the form and fax it to (919) 549-8288 or e-mail to info@isa.org. AD lunch on Wednesday, October 6th, 2010 is currently slated to be held in Plaza I on level 3 and can hold up to 140 people. No badge will be required in order to enter the luncheon. Information supplied by: Rodney Jones, ISA Technical Divisions Support.

Roy Muston has worked with ISA Headquarters to prepare 7 sessions that pertain to process analyzers. The entire program can be viewed at: ...

<http://www.isa.org/Conferences and Exhibitions>.



A Summary of Technical tracks including our GTFK award winning papers from the April AD Symposium:

1) [EPA Regulations](#) , Tuesday, October 5th 10:30 a.m. – 12:00 p.m. Session Type:, Panel, Tutorial Participants: James Jahnke (Source Technology Associates), Phil Harris (Ametek Process Instruments) , Neil Holmes (Chevron Energy Tech Co.), Don Nettles (Chevron Energy Tech Co.) Session Details: A panel session to discuss the impact of current and planned EPA regulations

2) [Analysis Division GTFK Award Papers](#), Tuesday, October 5th , 1:30 p.m. – 3:00 p.m., Session Developer: Wesley Carter These are the top three papers from the ISA Analysis Division Symposium held in April, 2010

3) [Dinosaur Process Analysis Technologies—Are They for Real?](#) Wednesday, October 6th, 10:30 a.m. – 12:00 p.m. Session Developer: Roy Muston, Tutorial and open forum on process analyzers. Tutorial Participants: Peter van Vuuren, SpectraSensors, Inc.

4) [Emission Monitoring Systems to Meet EPA Requirements](#), Wednesday, October 6th, 1:30 p.m. – 3:00 p.m., Session Type: Paper, Session Developer: Mike Chaney, Implementation of US Environmental Protection Agency (EPA) Requirements. Title-V Monitoring Implementation (With Efficiency Feedback Control) Rich Hovan, Rockwell Automation, De-mystifying GHG Monitoring and Reporting—Achieve Benefits from Compliance, Patrick Truesdale, Emerson Process Management, Acid Dew Point Analysis, Derek Stuart, AMETEK Process Instruments

5) [Online Measurement](#), Wednesday, October 6th, 3:30 p.m. – 5:00 p.m. Session Developer: Dale Merriman, Techniques to monitor plant variables. Papers: Real-time Corrosion Monitoring—Taking the Laboratory out of Corrosion Monitoring, Kristen Barbour, Pepperl + Fuchs, The Effect of Humidity in Fiber Optic Connectors, Khalid Taha, ECPI College of Technology, A Comparison of Coatings Used to Enhance the Chemical Compatibility of Analyzer Flow-Paths, Martin Higgins, SilcoTek Corp.

6) [Analyzer Shelter Safety Concerns](#), Thursday, October 7th, 10:30 a.m. – 12:00 p.m. Specialists from Analyzer Industry Approach to Shelter Safety.will convene a panel. Panel Participants: Robert Goins, Houston Refining, Bac Vu,

Baytown Engineering Services-ExxonMobil Chemical, and Mike Chaney, LyondellBasell.

7) [Benefits Achieved with Process Analyzers](#), Thursday, October 7th, 8:30 a.m. – 10:00 a.m., Session Developer: Wesley Carter, How process analyzers can reduce operating cost. Papers: Reducing Costs and Increasing Efficiency for pH Neutralization Systems, James Joy, CDM, Benefits Achieved from Regulatory Compliance, Patrick Truesdale, Emerson Process Management, Applications of an Oil-in-Water Probe Built Upon UV-Fluorescence Technology, Vadim Malkov, Hach Company

8) [Process Analyzer Marketplace Update](#), Tuesday, 5 October 3:30 p.m. – 5:00 p.m. Session Developer: Mike Chaney Discussion of the Process Analyzer Industry Market. Tutorial Participants Stephen Walton, Terry McMahon, and Jim Tatera, PAI Partners.

A Note From The Director:

Welcome to the 2010 Summer edition of the AD Newsletter. Although these are often referred to as the lazy hazy days of summer, behind the scenes in the division it is anything but.

AD2010 was held April 25 to 29 in New Orleans, and the event was deemed to be an overwhelming success. The division owes a hearty thank you to the Host Chair Bill Johnson and his committee. The success of the symposium was in large part to the two-part business plan that Bill developed. Establishing a strong committee, and maintaining effective communication in the months leading up to the actual event.

Dan Podkusi was the keynote speaker at the banquet on the Tuesday evening. Dan's talk provided an overview of ExxonMobil's expectation of Process Analyzers Systems. Many thanks to him for his time, his knowledge and preparation.

Don Nettles, AD Education Chair, organized two training sessions in conjunction with the symposium. The Introductory Process Analyzer Course was held on the Sunday. This course is conducted with members of the AD Executive. The sessions covered basic process analyzers, new technology analyzers and other widely used analyzers, sample conditioning systems. analyzer communication as well as



project management practices. The ISA Short Course, (ISA SP05PC) "Advances in Continuous Emission Monitoring [CEM] Techniques", was conducted by Dr Jim Jahnke on the Thursday following the symposium.

Sheryl Johnson put together a very comprehensive program for the spouses with tours, sightseeing and shopping from Sunday through the Wednesday.

Many thanks are due to Bill and the team he put together for AD2010:

Bill Johnson	General Symposium Chair
Mike Chaney	Technical Program Chair
Paul Barnard	Paper Review Chair
Roy Munston; Jimmy Converse;	Paper Review Committee
Jerry Clemons and Bac Vu	Education Chair
Don Nettles	Short Course Instructors
Jerry Clemons; Phil Harris;	Registration Chair
Robert Sherman, Roy Muston	Hospitality Chair
and Jim Tatera	Facilities Chair
Dale Merriman	Publication Support
Cindy Cauthen	Spousal Program
John Sablatura	Keynote Speaker
Bob Farmer	
Sheryl Johnson	
Dan Podkulski	

In addition, a special thanks go out to Rodney Jones of ISA Headquarters who serves as the coordinator for all division activities.

The Houston Analysis Division Sub-Section held their annual shrimp boil, Sept. 13th. From preliminary feedback the event was once again a success.

Plans are now underway for the AD2011 to be held at the South Shore Harbor Inn in League City, Texas in April, 2011. Many thanks to Rodney Jones, Dale Merriman and Cindy Cauthen for their work in selecting a new venue in the Houston area for the annual Spring symposium. Paul Barnard is working on the 2011 Call for Papers and it will be forwarded in early Fall of this year.

Dave Lewko, Director

Analytical Division Symposium – Spring 2010:

The Analytical Division 2010 Spring Symposium was held in New Orleans, LA this year and was widely described as a resounding success by the majority of attendees. Despite the many distractions offered by the host city, all technical sessions were well attended and the papers presented continued to demonstrate the strength of the Division as a Leader in the field of process analytics in the industry.

A full three days of presentations with authors and registered attendees representing US, Canada, Australia, England, Ireland, France, The Netherlands, and Saudi Arabia made this an international event. Evening events ensured continuity of discussions and sharing of information.

The written papers were reviewed by a team of subject matter experts (Dr. Jimmy Converse, Dr. Jerry Clemons, Dr. Paul Barnard, Roy Muston, and Bac Vu). The presentations were also evaluated by the audience for content and interest. The top three papers are given a cash award with the best paper receiving the Gilmer Thomason Fowler Konrad Award (GTFK). The quality of papers was again very high, with less than a 6 point spread out of 100 between the top 11 papers.

The 2010 Top Three Papers and Authors are:

3rd Place– Improvements in Accuracy of Analysis of Complex Gases by Mass Spectrometry, by Peter Traynor, Robert Wright, and Graham Josland, presented by Peter Traynor.

2nd Place: Real-Time Measurement Of H2S In Varying Hydrocarbon Matrices Using Optical Feedback Cavity Enhanced Absorption Spectroscopy [OFCEAS] Technology, by Bertrand Lanher and Lucien Lonigro, presented by Bertrand Lanher.

1st Place: Combining Spectroscopy and Separation Science in Process and Emissions Monitoring, by Phil Harris, Kevin Harris, and Dan Potter, presented by Phil Harris.

Paul Barnard, Chairperson, Paper Review



A Note From the ISA AD 2010 Symposium General Chairman:

"It may have been the best one I have been to.", was the quote regarding the ISA AD 2010 Symposium in New Orleans from two different long time, active ISA AD members. As the General Chairman, I know this is certainly gratifying to the entire committee that worked for many months to achieve this type of result. The Analysis Division has a tremendous group of dedicated, selfless volunteers that put forth this type of effort to assure that there is an opportunity for our membership to share and learn from each other, the experts in our industry, valuable technical information about products and applications. This interaction keeps each of us current on new techniques and trends and helps us all remain a valuable asset to our companies and industry. This year included dozens of top quality papers, training courses, and numerous opportunities, at breaks and in evening hospitality suites, for social and business networking, thanks to the extremely generous participation and sponsorships of over 3 dozen vendor / suppliers to our industry.

Records were set for attendance to both the training and general symposium, so without a doubt, this ISA AD Symposium should be considered a huge success for everyone involved. Attendees totaled 227, from 9 countries and 29 states, which gives evidence to the value and quality of this symposium.

Bill Johnson, ISA AD 2010 Symposium General Chairman

Spectroscopy TIG Update:

Filter photometers have long been the mainstay of online measurements in process analytical chemistry. However, filter design limited the performance of such devices, both because interference filters had poor transmission (high light losses) and because the filter bandwidth was often wide such that multiple wavelengths passed through the filter. This latter effect

leads to non-linearities in the measurement, since Beer's Law only applies for monochromatic light.

Recent advances in optical filter design, especially those involving hard dielectric filters, have reduced spectral bandwidths by a factor of 10 while increasing transmission by a factor of four. These new filters are also more rugged and reproducible than previous filter designs. This development is instrumental in breathing new life into a proven and reliable analyzer methodology. ...

Phil Harris, Spectroscopy TIG Chair

Education/Training TIG Update:

The Analysis Division Short Course, "Fundamentals of Process Analyzer Analysis", was held on 25Apr10 at the beginning of the 2010 Spring Symposium. This volunteer-led course provided an overview of analytical principles, equipment, and practices commonly used in the implementation of process analyzers in the refining, chemical, and power industries. Sessions covered the measurement principles involved in basic process analyzers (gas chromatography, and spectroscopy); new technology analyzers (tunable diode lasers and Raman analyzers); and other widely used analyzers (pH, conductivity, moisture, thermal conductivity, and refractive index).

Sample conditioning systems were discussed with regard to design and function. Analyzer communication connectivity to the control systems were also presented as well as project management practices and documentation required for a successful installation. These topics were presented by a team of ISA Analysis Division subject matter experts interacting with the attendees through instruction, sharing of experiences, and answering questions.

The ISA Short Course, (ISA SP05PC) "Advances in Continuous Emission Monitoring [CEM] Techniques", was conducted by Dr Jim Jahnke on 29Apr10. This seminar reviewed the regulatory and technical issues in the field of continuous emissions monitoring (CEM) and presented new developments in CEM systems and monitoring instrumentation and how current regulations impact that development. Topics



covered included: Regulatory Requirements for CEM Systems, Status of Sampling Systems, Status of Analytical Systems, CEM Certification Requirements, Specifying and Purchasing a CEM System, Quality Assurance Plans.

Don Nettles, Education TIG Chair

Maintenance TIG Update:

Refining Sites across the USA have successfully used structured Risk Assessments to identify analyzer shelter safety risks to plant and personnel. These Risk Assessment results have triggered the funding of significant budgets at multiple sites to correct the safety risks. Safer work environments for the Analyzer Maintenance personnel will insure fewer and less severe injuries as well as fewer downtimes for all.

More and more PetroChemical sites are integrating multiple analyzer vendor's hardware onto a single plant-wide Maintenance LAN to facilitate more efficient maintenance and troubleshooting of processes. The systems have been so successful that they are now implementing and extending all the way to a refinery in Yanbu.

John Sablatura, Maintenance TIG Chair

Chromatography TIG Update:

Since the beginning of the Analysis Division of ISA, Chromatography has been one of the primary topics of interest to our members. Over the years there has been one or more Sessions on Chromatography at our annual Symposium and we continue to come up with unique hardware designs and applications to present. As chairman of the Technical Interest Group on Chromatography, I encourage our members to write a paper and present your work at our next Symposium.

It is often said that many of our papers are by our Vendors and not end users which would be of greater interest. Of course many of our end users are restricted by their companies relative to what they can present, but

if possible get permission and present. We look forward to hearing about the difficult measurements you are making and how they benefit your company. ...

Jerry Clemons, Ph.D., Chromatography TIG Chair

Tidbits and Just Good Information:

Beer's Law:

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Any other info you have to put in here???

I would like the Acronym list to put here.....

Information on How To Join....

