Hello there and welcome to the Spring edition of the ISA AD newsletter from your friendly editor. As it always seems to do, once again the Symposium has crept up on us all and is just around the corner. This is of course a fantastic annual surprise but it does mean that everyone needs to get ready, make time in their busy schedules and get booked for the premier event of our calendar year. This year are once again back on our home field in Galveston, Texas. Last year we had an excellent symposium in Pasadena, California and as we’ve mentioned in the past we will be looking for alternate locations in the near future.

But Galveston is the home of ISA AD, as too are our origins, as part of the Texas chapter of ISA. We are familiar with the location and it with us. The exhibition space can always accommodate our needs, no matter how much we have expanded in the recent years, there is a ready plethora of hotel options close by and for those of us coming for the colder parts in the north, a little sunshine in April is always welcome.

The well-oiled machine of the ISA AD committee of volunteers have all the preparations well in hand. Our regulars can expect the usual high-quality action-packed week of training courses, symposia papers, special forums and an exhibition hall packed with all the latest and greatest from the world of process analysis. For the new comers, we heartily welcome you to the family (for that truly is what this is) and suggest you peruse this Newsletter and the ISA AD website (www.adsymposium.org) for all the details on this event and those of the recent past.

As we look to the future and discuss our role within the greater forum of the ISA family, we will gather on Thursday as part of our AD Workshop series to discuss and collate thoughts and feedback on these Symposia in our ever-changing technology driven world. It is imperative that ISA AD remains relevant and above all useful to the industry. We have become the leading event in North America in process analysis and we intend to remain so. We will expect a lively and entertaining discuss from all aspects (end-users, manufacturkers, employees and employers alike) of our diaspora.
ISA AD also continues to expand its horizons beyond North America. We held the 2nd annual event in Abu Dhabi in this year plus our first Symposium in Singapore. Both were a marked success, lead by our friend and associate, Mo Loch and we continue to see expanded potential for both these events. There are more details on both these symposia within the pages to follow and our website.

So, as always, if you have not signed up yet please peruse all the details for the symposium contained herein or visit the ISA AD website – then grab your sunglasses, book your flights and see you in Texas. And without further ado please dive into the Spring edition of our newsletter.

Stuart Simmonds
ISA Analysis Division Newsletter Editor

Message from the Director:

Spring rolls around, and here in Texas that means it is getting warmer, and more humid as we once again drive towards the heat of a steamy Gulf Coast summer. It also means that annual gathering of the analysis community [the ISA Analysis Division Symposium] is about to take place, this year at the seaside resort of Galveston, TX. I am sure many people ask why it is held so often at this location. There are many factors that go into that decision, some of which I am open to sharing with you. I think the predominant reason is the proximity to the industry located Houston, many of our community simply live here in the greater Houston area and therefore it is convenient for a majority. I mentioned last year that our new Exhibit Hall format, which has grown so much since 2011 now means that we now challenged by the right combination of Convention Center and Hotels that can meet our needs. Having members of the organizing committee here in Houston also helps with logistics at the convention center. Another but often overlooked reason is simply the cost of holding the Symposium here. This Symposium does contribute to the overall finances of the ISA, and Galveston allows us to keep registration rates reasonable. Last year we had a great symposium in Pasadena, CA. California brings some unique aspects to the equation – increased costs for the convention center, for catering, and symposium services [audio/visual, carpeting, booth set up, etc.], which required a modest rate increase – an increase I am happy to report was reduced this year due to the lower costs of Galveston. Having said all that, I like taking this show on the road, so we are looking for opportunities for 2020. A plan to locate the symposium in Edmonton, Alberta was considered but the overall impact of quasi-international travel was thought too much at this time. We have been to Calgary twice [2003 and 2008] with weather disruptions on both occasions, but I want to state publicly we will revisit Canada as a location.

I want to finish by talking about my trip to the Fall Leaders Meeting in Tampa, Florida, in October 2017. This was certainly time well spent as I got to talk more with ISA Leaders. In particular there was much discussion about the ISA as an organization, and what its membership expects for the annual dues. I think the ISA has struggled recently to define itself, and to be able to reach out to a younger audience in the Automation world. For the symposium in 2018 I have organized a half-day session to address the subject of “What will the AD Symposium look like in 2025?”. Our keynote speaker will be Mr. Paul Gruhn, the ISA President Elect, who will talk about this very topic, and we will follow that up with a wider discussion about what we can do to our own Symposium to keep it relevant. Please make sure to stay for that event on the Thursday of Symposium week. I want to hear your ideas, and we will present some thoughts on embracing technology in the planning and execution of future Symposia. I hope to see you then.

Paul Barnard
Director ISA Analysis Division (2017-2018)

Message from the Symposium Chair:

Hello! April around the corner, and it is time for ISA AD in Texas again. We have another great program in Galveston this year. I am honored, once again, to be part of such a dedicated team of professionals. Without their hard work during their “free time” we would not have this outstanding forum.

Each year speakers and attendees come to the Symposium from all over the world to participate in informal discussions, see exhibited new technology, and hear the latest information about analytical science in the industry. This year we are pleased to offer three choices to attend in our fundamentals and advanced courses on Sunday, followed by three days of various technical papers and on Thursday there will be vendor training courses and our AD special forum. Please see our website www.adsymposium.org for all the details.

Monday is open day in the vendor forum where we encourage you to invite analyzer engineers/techs and analyzer students from the surrounding area to walk around and get an opportunity to talk with different manufacturers in our industry.

I look forward to seeing everyone and hope you enjoy our 63rd ISA Analysis Division Symposium.

Cindy Cauthen
Symposium (General) Chair

Message from the Technical Chair:

The 62nd Annual Symposium of the Analysis Division Technical Program provides a complete array of Process Analyzer events. Beginning on Sunday, three training courses are offered in parallel sessions: “Fundamentals of Process Analysis”, “Increasing Sample System Reliability” and “Multivariate Analysis for Inferentials and Analyzers”. Monday through Wednesday, 30 peer reviewed papers are presented on a variety of analytical topics. Topics covering analyzer engineering, applications and new technology are presented. Tuesday Mohammed Loch will give us an update on the 2017 AD symposiums in UAE & Singapore. On Wednesday we will have several papers with a special focus on papers discussing Industry 4.0. Also on Wednesday this year we will have a panel session to review New Refinery Sector Rule Requirements. There is extensive scheduled time for visiting Vendor Exhibits beginning Sunday night and continuing through Wednesday afternoon. We anticipate 80+ manufacturing booths displaying hardware and engaging in one on one discussion regarding your applications.
Thursday’s agenda offers two parallel venues. One session is AD Workshop to discuss the future direction of the division, “What will the Analysis Division Symposium look like in 2025”. This is an opportunity for all members to discuss the future directions of AD. The second venue is composed of 9 Manufacturer Hands-on Training classes which involve instruction on vendor specific hardware and software, operation, troubleshooting and maintenance. This year training is offered by ABB, Ametek, Emerson, Process Instruments, Servomex, Siemens, ThermoFisher Scientific, Falcon Analytics and Yokogawa.

Please attend the annual Analysis Division Business Meeting Sunday. It is open to all members.

Thanks to everyone for supporting the Analysis Division and we welcome you to attend, share and learn with us.

Mike Chaney
Technical Chair

Message from the Education Chair:

As in the past, the AD Symposium offers a number of training opportunities for attendees. On Sunday April 22nd, we will feature 3 programs:

- **Fundamental of Process Analytics** – a full day program with modules covering Analyzer Engineering, Spectroscopy, Oxygen Analysis, Gas Chromatography, Sample Conditioning Systems, and System Design. These courses are presented by recognized industry experts and serve as an introduction to these core concepts of process analytical technology and system engineering.

- **Increasing Sample System Reliability by Better Design** – a full day program presented by Tony Waters, this advanced course is suited for students already having a basic understanding of sample conditioning systems and their use with process analyzers. Attendees will receive a course workbook that contains all of the presentation slides and detailed descriptions of the procedures used. The workbook also contains several class exercises that are completed during the course – most involving calculations.

- **Multivariate Analysis for Inferentials and Analyzers** – a full day program presented by Brian Rohrback and Michael Roberto, this advanced course examines a series of multivariate analytical techniques critical to the efficient operation of process monitoring and control. By the end of the course, attendees will have been instructed on chemometrics best practices and the practical application of new techniques.

On Thursday April 26th, a number of vendors will offer full and half-day hands-on training sessions. This is an excellent opportunity to learn from the people who make the equipment, as well as your peers! The following sessions are available:

- Siemens: Maxum Edition II
- Ametek: WDG-IV and WDG-V
- Yokogawa: TDL8000 (AM) & GC8000 (PM)
- ABB: PGC5000
- ThermoFisher Scientific: SOLA II
- Falcon Analytical: Ultrafast GC
- Servomex: 2700 Series (AM) & 1910/2200 (PM)
- Emerson: XA Series

Detailed descriptions of the courses are available in the Symposium program. If you have an interest in any of these courses, register now to secure your spot.

J.C. Arènes, B.E.Sc.
Education Chair

Honors and Awards:

The deadline for submitting candidates for Excellence in Service and Technical Achievement is March 31, 2018. The deadline for Fellow nomination is April 30, 2018. It will probably not be possible to make the March submission, but there may still be time to submit a Senior member for Fellow. Remember you have to have five reference letters with your submission. To my knowledge we have submitted one candidate for a Service Award and one for Fellow member status.

If you wish to submit a nomination for an ISA award, either Technical or Service, go to the ISA webpage (isa.org) click on Professional Development Tab, go to the column on the left and click on Get Recognized. Look at all the awards that are given by ISA and nominate a candidate. The awards are presented at the Fall Leaders Conference.

Jerry Clemons
Honors and Awards Chair

2018 ISA AD Workshop: What will the AD Symposium look like in 2025?

Keynote speaker: Mr. Paul Gruhn, the ISA President Elect

April 26, 2018 ISA Analysis Division Symposium, Galveston, Texas

Paul Gruhn will outline his vision for the future of ISA symposia. Which will be followed by a number of presentations from specific end users groups and a wider discussion on how to keep the ISA AD Symposium relevant. ISA AD wants to hear ideas and feedback, and we will present some thoughts on embracing technology in the planning and execution of future Symposia.

More details on this event at the ISA AD Website.
Analysis Division International Symposiums 2017:

Continued collaboration between ISA’s international partner DMS Global and the Analysis Division combined to present two AD Symposiums in 2017. The second annual AD Symposium in UAE was held on October 3-4 and expanded to two days for the previous one day event in 2016. We were gratified to see attendance double to 300 attendees, vendors increasing from 12 in to 20 and the technical presentations from 23 to 31.

DMS had done their homework and centered on Singapore as a second venue. Known as a center of process analytics in the Pac rim for many decades Singapore was a natural choice. The inaugural symposium was held on December 6. The participation was very gratifying; attendees numbered 222, vendors 13 and 13 speaker presentations.

The Analysis Division is proud to participate with DMS Global to grow international awareness of our profession. Two more events are planned for 2018 and additional venues under consideration.

Randy Hauer
Marketing Co-Chair

In Memoriam
TERRENCE KENT MCMAHON

It is with sadness that we report that Terry McMahon passed away in February 2018 after struggling with cancer since 2014. Since 1999, Terry and Steve Walton have collaborated as PAI Partners (Jim Tatera joined the group in 2006); Terry was instrumental in establishing it as a widely recognized and respected brand in process analyzer instrumentation (PAI) market research.

Terry earned his bachelor’s degree in chemical engineering from M.I.T. and followed this with master’s and doctor’s degrees from Yale, also in chemical engineering. While completing his PhD research (1959-61), he was an IBM Fellow helping the Yale community solve large-scale problems with the shared IBM 709 at M.I.T.

Terry joined IBM in 1961 as a member of their original industrial computer control marketing group. This group helped establish industrial control as a viable and economically justifiable computer application. After 5 years, he became marketing manager for Realtime Systems, Inc., a pioneering control systems integrator. He was recognized by ISA (then Instrument Society of America) in the early 1990s as a Pioneer in the practice of computerized industrial automation.

Terry was an independent business consultant in the instrumentation, automation and control fields for nearly 50 years operating primarily as McMahon Technology Associates and PAI Partners. Since 1973, he authored over 60 multiclient industrial market reports, mostly addressing instrument and control markets, and he completed hundreds of proprietary investigations for individual clients. Most recently, he made significant contributions to PAI/2016, the 5th Edition of the PAI Market Report.

Terry was proud of his activities as journalist and columnist. His AROUND THE LOOP column was carried monthly by CONTROL Magazine for 14 years (1992-2006). Following that, his new column, Process Automation Corner, ran quarterly in CHEMICAL ENGINEERING PROGRESS until his reluctant retirement from journalism in 2015. He also wrote features for MCAA’s Quarterly Newsletter, MEASURING MARKETS, and other journals.

With his strong technical background and wide interests, Terry was an astute observer of the changing PAI market landscape. And while always focused on new technologies and emerging trends, he never forgot the historical context of automation markets, in general, and PAI markets in particular. This is embodied in the PAI Timeline which Terry originally prepared for an early PAI market report. It continues to be relevant, today

In the words of Cynthia Esher, retiring MCAA president, “(Terry) was a gentleman and a gentle man.” He was also a bright and creative observer of the marketplace. For our part, it has been an honor and privilege to work with Terry for nearly 20 years. He will be missed.

For condolences please visit: http://frankpatli.com/tribute/details/423/Terrence-McMahon/obituary.html

Stephen A. Walton & James F. Tatera
Senior Partners at PAI Partners
AD-2018 Galveston, TX Headline News:

Cindy Cauthen is our returning Symposium Chair and is in the process of forming her team.

Details of the 63rd annual AD Symposium will be posted on the web site shortly with the following information as it becomes available;

Call for Papers:

See the web site for details (www.adsymposium.org). Abstracts will be accepted in the order they are received and a waiting list will form when the program is filled.

Hotel(s)

The conference hotel is the Hilton Galveston Island Resort, right next door to the convention center. Book early if you expect to have space here.

As with other conferences we will have overflow space at adjacent properties

Technical Program

Technical Program managed by Rod Spitler and Mike Chaney. The preliminary program is on the web site. There will be the usual three full days of peer reviewed papers.

Educational Programs:

The Fundamentals courses and the Advanced courses will be held on Sunday prior to the symposium.

The schedule is be posted on the web site. The Hands-On courses will be held on the Thursday, details are also posted to the ISA AD web site.

Vendor Technical Forum:

Shana Kiser is our Vendor Chair. We expect 90+ vendors, registration information available on the web site and also by contacting Shana.

Banquet and Keynote Speaker:

The banquet will be held on Tuesday night. The Banquet sold out early last year; be sure to sign up for your tickets when you register.

Spouses Program

There will be a full spouses program; details will be available on the website
Press Release: PAI Partners Collaborates with Top-Down Analytics

PAI Partners (PAI), a leading business and marketing consultancy firm for process analytical instrumentation, and Top-Down Analytics (TDA), a market research company specializing in laboratory instrumentation technologies, today announced that they are collaborating to provide easier access to PAI’s industry data.

PAI has been publishing the The Worldwide Process Analytical Instrument Market report every four years since 2000. PAI will leverage TDA’s dynamic online platform to deliver up-to-date information to license holders of the PAI/2016 Report. As PAI continuously performs research in the process analytical instruments market, new information becomes available. Until now, there has been no practical method to incorporate and distribute the newly acquired information effectively. Through an annual subscription license, end-users will have access to the latest data from PAI. “We are excited to work with TDA, and we are impressed with what the platform will provide to our clients,” said Stephen Walton, Senior Partner at PAI.

In addition, TDA will produce an interim report (expected publication date: March 2018) for the process analytical instrument market. Instead of having to wait until 2020 for the next iteration of the PAI Report series, annual subscribers will have access to new information and the market forecasts. “With PAI’s decades of experience in the process analytical instrument industry and TDA's market research approach and capabilities, together we can deliver the most accurate strategic information for the market,” said Glenn Cudiamat, General Manager, TDA. “I look forward to servicing the market on behalf of PAI.”

Laboratory and process analytical instrumentation are closely related industries, with many companies playing in both markets. The process and lab analytical instrument companies will be able to leverage the combined strengths of TDA and PAI to streamline the way they obtain custom market data. From PAI’s expertise in the process analytical instruments market to TDA's vast knowledge of lab instruments and its robust surveying capabilities anywhere in the world, the collaboration will provide a 360-degree view of the market, from lab to process scale.

About Top-Down Analytics

Top-Down Analytics (TDA) is a management consulting firm focused on providing strategic services for scientific technology companies. We are specialized in scientific markets for laboratory instrumentation, technologies and applications, from clinical research and industrial instruments to process control, security and other applications of analytical technologies.

About PAI Partners

PAI Partners (PAI) provides business and marketing consulting for process analytical instrumentation. The Principals of PAI: Terrence K. McMahon, Stephen A. Walton and James F. Tatera, have lengthy records in industrial analyzer market analysis, are recognized professionals in this field with access to relevant practitioners, and have published authoritative reports on the process analytical instrument market (e.g., the PAI Market Report Series) since the mid-1990s. In addition, PAI has executed hundreds of proprietary investigations in the process analyzer marketplace for a wide range of market participants.

Contacts:
Top-Down Analytics
Glenn Cudiamat, +1-888-953-5655 ext. 88 or +1-747-238-6880
General Manager
glenn.cudiamat@tdaresearch.com
http://tdaresearch.com

PAI Partners
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Contact Rod Merz or Randy Hauer for details

A Special Thank You to Johnny Austin who kindly formats the Newsletter for us.
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2018 ISA Division Symposia

ISA’s unbiased technical conference programming provides access to worldwide experts and content on the latest technologies, trends, real-world challenges, and industry updates needed to remain competitive in today’s marketplace.

Mark your calendars and make plans to attend an ISA technical conference program in 2018!

- **Leak Detection and Repair/Fugitive Emissions Symposium (LDAR)**
  - Training: 5 & 8 March • Conference: 6–7 March
  - Galveston, TX, USA

- **Analysis Division Symposium (AD)**
  - Training: 22 & 26 April • Conference: 23–25 April
  - Galveston, TX, USA

- **Power Industry Division Symposium (POVID)**
  - Training: 25 June • Conference: 26–28 June
  - Knoxville, TN, USA

- **Water/Wastewater and Automatic Controls Symposium (WWAC)**
  - Training: 6–7 August • Conference: 8–9 August
  - Bethesda, MD, USA

- **Food and Pharmaceutical Industries Division Symposium (FPID)**
  - Training: 15 October • Conference: 16–17 October
  - Montreal, Québec, CA

- **International Instrumentation Symposium (IIS)**
  - Training: 15 October • Conference: 16–17 October
  - Montreal, Québec, CA

- **Process Control & Safety Symposium and Exhibition (PCS)**
  - Training: 5 November • Conference: 6–8 November
  - Houston, TX, USA

Find developing program details at: [www.isa.org/events](http://www.isa.org/events)