Analyzer Technology Conference Program

April 17 - 21, 2023

Galveston Island Convention Center

"Analytical Solutions by the Sea"

Date/Time	Session /Topic		Title / Developer	Location
7:30 - 5:00	Registration		Symposium and Short Course Registration	Convention Center Lobby
MONDAY APRIL 17, 2023				
8:00 - 8:15	Track 1		**Fundamentals of Process Analysis**	Galleon I and II
	Welcome		Introductions for Training Safety Moment Agenda Review & Class Protocol	
			J.C. Arenes, Bobby Singh - Moderators	
8:15 - 9:15	Track 1		**Fundamentals of Process Analysis**	Galleon I and II
	Session 1		Fundamentals of Spectroscopy	
			Bob Bear - Instructor	
9:15 - 10:15	Track 1		**Fundamentals of Process Analysis**	Galleon I and II
	Session 2		Fundamentals of Oxygen Analysis	
			Stuart Simmonds - Instructor	
10:15 - 10:30	Break			Meeting Room Area
10:30 - 11:30	Track 1		**Fundamentals of Process Analysis**	Galleon I and II
	Session 3		Fundamentals of Moisture & Dew Point Measurement	
			John Kerney - Instructor	
11:30 - 12:30	Track 1		**Fundamentals of Process Analysis**	Galleon I and II
	Session 4		Fundamentals of Water Quality Analysis	
			Howard Jordan - Instructor	
12:30 - 1:30	Lunch			Meeting Room Area
13:30 - 15:00	Track 1		**Fundamentals of Process Analysis**	Galleon I and II
	Session 5		Fundamentals of Gas Chromatography	
			Michael Roecker - Instructor	
15:00 - 15:15	Break			Meeting Room Area
15:15 - 16:15	Track 1		**Fundamentals of Process Analysis**	Galleon I and II
	Session 6		Fundamentals of Mass Spectrometry	
			Tony Kou - Instructor	
16:15-16:30	Track 1		**Fundamentals of Process Analysis**	Galleon I and II
	Conclusion		Wrap-up and closing remarks - J.C. Arenes, Bobby Singh	
			J.C. Arenes, Bobby Singh - Moderators	
8:00 - 16:00	Track 2		**Advanced Process Analysis**	Galleon III
	Session 1		Increasing Sample System Reliability by Better Design	
			Phil Harris - Instructor	
4:00 - 5:00pm	ATC		**Analyzer Techncial Conference Business Meeting**	Galleon I
			venues	
5:00 - 7:00 PM			**Vendor Exhibit Tables**	Exhibit Hall A/B
			Hospitality and Welcoming to ATC 2023	

TUESDAY APRIL 18, 2023

6:00 - 8:00	Attendee		Attendee Breakfast	Ballroom Reception Area
7:30 - 5:00	Registration		Symposium Registration	Convention Center Lobby
7:30 - 5:00	Visitors	VIP Visitors' Day		The Technology Forum - Exhibit Hall A/B
8:00 - 5:00	Spouses Program		Spouses Lounge - Tours, Shopping, Site-Seeing, & Recreation (open from 7:30 AM - 10 PM)	Check in at Registration

Date/Time	Session		Paper Title - Author - Presenter	Location
8:00 - 8:45	OPENING		Welcome and Review of ISA / ATC Positions - Wesley Carter and Stuart Simmonds [Conference Co-Chairs]	Grand Ballroom
8:45 - 9:45			Session 1 - Session Moderator - JC Arenes	Grand Ballroom
	1-1-1	Author(s) - Presenter - Title -	Peter Geiser, Ove Bjoroy, Nate Gomez, Viacheslav Avetisov and Stuart Rye Peter Geiser Hydrogen TDLAS for applications from feedstock to energy	
	1-1-2	Author(s) - Presenter - Title -	Tim Kuiken, Don Gamiles, Cliff Gordon, Eric Stevenson, and Pawel Kluczynski Tim Kuiken Innovative Open-path Tunable Diode Laser for Monitoring Hydrogen Sulfide Gas at the Fence Line	
9:45 - 10:30	Break		Vendor Exhibit Tables	The Technology Forum - Exhibit Hall A/B
10:30 - 12:00			Session 2 Moderator - Rocky Marlatt	Grand Ballroom
	1-2-1	Author(s) - Presenter - Title -	Jean-Philippe Amiet, Mathilde Mascles and Damien Bazin Mathilde Mascles A turnkey and autonomous system for water and wastewater analysis for industrial processes	
	1-2-2	Author(s) - Presenter - Title -	Tony Sandfoss Tony Sandfoss Increased Compliance and Reliability Thru Use of Automated pH Measurements in Outfall Applications	
	1-2-3	Author(s) - Presenter - Title -	William Johnson and CT Starkweather CT Starkweather Total oxygen demand (TOD) rapid monitoring of Industrial discharge	
12:00 - 1:15	Lunch		Vendor Exhibit Tables	The Technology Forum - Exhibit Hall A/B
			Announcements - Information	Grand Ballroom
1:15 - 2:45			Session 3 - Moderator - Rod Merz	Grand Ballroom
	1-3-1	Author(s) - Presenter - Title -	Koji Ishikawa, Frank DeThomas, Brian Ross, Kevin Welch and Paul Cammarata Koji Ishikawa Real-time measurement of Impurities in Ethylene Production using a Process Laser Gas Analyzer with Infra Red Laser Absorption Modulation	
	1-3-2	Author(s) - Presenter - Title -	Jonathon Speed and John Martin Adam Wilson Mid infrared measurement of organic acid build up in glycol dehydration of water by mid infrared	
	1-3-3	Author(s) - Presenter - Title -	Nate Watson, David Pinkerton, Todd Ratajczak, Jie Zhu, Joshua Chritian and Paul Little Nate watson Real-time Batch Interface Detection and Transmix Reduction UsingNe arInfrared Spectroscopy and Machine Learning Algorithms Revisited.	
2:45 - 3:30	Break		Vendor Exhibit Tables	The Technology Forum - Exhibit Hall A/B
3:30 - 4:30			Session 4 Session Moderator - Tim Kuiken	Grand Ballroom
	1-4-1	Author(s) - Presenter - Title -	Michael Hoffman and Kris McGarvey Michael Hoffman Reliability in analyzer management - the value of data	
	1-4-2	Author(s) - Presenter - Title -	Hans-Peter Visser Hans-Peter Visser Automatic validation of process analyzer systems can be full of surprises for end-users & students	
9:00 AM - 7:00 PM			Vendor Exhibit Tables	The Technology Forum - Exhibit Hall A/B
5:00 PM - 7:00 PM			*Reception in the Technology Forum - Exhibit Hall B*	

WEDNESDAY APRIL 19, 2023

6:00 - 8:00	Attendee			Attendee Breakfast	Ballroom Reception Area
7:30 - 5:00	Registration			Symposium Registration	Convention Center Lobby

8:00 - 5:00	Spouses Program			Spouses Lounge - Tours, Shopping, Site-Seeing, & Recreation (open from 7:30 AM - 10 PM)	Check in at Registration

Date/Time	Session			Paper Title - Author - Presenter	Location
8:00 - 8:30				Welcome Introduction - Conference Co-Chair	Grand Ballroom
8:30 - 9:30				Session 5 Session Moderator - Stuaret Simmonds	Grand Ballroom
	2.5.1	Author(s) -		Al Kania and Mike Roecker	
		Presenter -		Mike Roecker	
		Title -		Challenges and Benefits of Standardizing Process GC Application Solutions	
	2.5.2	Author(s) -		James Tomlinson, Debra Hall and Eric Colinet	
		Presenter -		Jsmes Tomlinson	
		Title -		Micro Gas Chromatography for Monitoring Capable of measuring H2 through C32 in a Single Process Instrument	
9:30 - 10:15	Break			Vendor Exhibit Tables	The Technology Forum - Exhibit Hall A/B
10:15 - 11:45				Session 6 Session Moderator - Al Kania	Grand Ballroom
	2.6.1	Author(s) -		John Calame	
		Presenter -		John Calame	
		Title -		The Importnace of accurately measuring industrial nitrogen oxide emissions	
	2.6.2	Author(s) -		Tim Kuiken, Cliff Gordon, Lee Robison, Jeremy Stein, Ryan Mead, and John Tryon	
		Presenter -		Jeremy Stein	
		Title -		Measuring Low Level Sulfur Dioxide in the Presence of Ammonia Utilizing a Custom Probe Design in a Compliance Application	
	2.6.3	Author(s) -		David Inward	
		Presenter -		David Inward	
		Title -		Enhanced Emission Monitoring Requirements From Sulfur Recovery Unit	
11:45 - 1:15	Lunch			Vendor Exhibit Tables	The Technology Forum - Exhibit Hall A/B
				Announcements - Information	Grand Ballroom
1:15 - 2:45				Session 7 Session Moderator - Bobby Singh	Grand Ballroom
	2.7.1	Author(s) -		Corentin Thierry and Josef Kraus	
		Presenter -		Corentin Thiery	
		Title -		A solution for trace level moisture measurement in challenging gaseous and liquid chemicals	
	2.7.2	Author(s) -		Wolter Last	
		Presenter -		Wilfred Brink	
		Title -		Coming to a consensus - How to identify bad actors in the Oil and Gas Industry	
	2.7.3	Author(s) -		Amanda Tyndall and Sage Mosteller	
		Presenter -		Amanda Tyndall	
		Title -		Pain Points of Process Organics Monitoring and How to Overcome Them	
2:45 - 3:30	Break			Vendor Exhibit Tables	The Technology Forum - Exhibit Hall A/B
3:30 - 4:30				Session 8 Session Moderator - Jie Zhu	Grand Ballroom
	2.8.1	Author(s) -		David D. Haydt	
		Presenter -		David Haydt	
		Title -		Multi-Parameter Gas Quality Analysis Using Tunable Diode LaserAbsorptionSpectroscopy (TDLA	
	2.8.2	Author(s) -		Allan Rilling, Henry Lin and Edward Orr	
		Presenter -		Edward Orr	
		Title -		Measurement of Natural Gas Contaminants using Off Axis integrated cavity output spectroscopy Laser Based Technology	
9:00 AM - 7:00 PM				Vendor Exhibit Tables	The Technology Forum - Exhibit Hall A/B
5:00 PM - 7:00 PM				*Happy Hour in the Technology Forum - Exhibit Hall B*	

THURSDAY April 20, 2023

6:00 - 8:00	Attendee			Attendee Breakfast	Ballroom Reception Area
7:30 - 5:00	Registration			Symposium Registration	Convention Center Lobby
8:00 - 5:00	Spouses Program			Spouses Lounge - Tours, Shopping, Site-Seeing, & Recreation (open from 7:30 AM - 10 PM)	Check in at Registration

Date/Time	Session			Paper Title - Author - Presenter	Location
8:00 - 8:30				Welcome Introduction - Conference Co-Chair	Grand Ballroom
8:30 - 9:30				Session 9 Session Moderator - Kraig Kmiotek	Grand Ballroom
	3.9.1	Author(s) -		Lukas Bimmerle	
		Presenter -		Lukas Bimmerle	
		Title -		Data-driven optimization of overall analyzer effectiveness	
	3.9.2	Author(s) -		Brian Rohrback	
		Presenter -		Brian Rohrback	
		Title -		Streamlining the Use of AI/Machine Learning in the Chemical Industry:Chemometrics	
9:30 - 10:15	Break			Vendor Exhibit Tables	The Technology Forum - Exhibit Hall A/B
10:15 - 11:45				Session 10 Session Moderator - Paul Barnard	Grand Ballroom
	3.10.1	Author(s) -		Matthew Long and Michael Ku	
		Presenter -		Matthew Long	
		Title -		Challenges and Design Solutions for Sample Probes in Sulfur Recovery Units	
	3.10.2	Author(s) -		Phil Harris and Kevin Harris	
		Presenter -		Phil Harris	
		Title -		Whats the Scoop? Advances in Process Sampling	
	3.10.3	Author(s) -		Henry Lin and Ed Orr	
		Presenter -		Edward Orr	
		Title -		Low level gas analysis in process and area monitoring	
11:45 - 1:15	Lunch			Vendor Exhibit Tables	The Technology Forum - Exhibit Hall A/B
1:15 - 2:15	Moderator - Wes Carter			Roundtable Discussion of current regulatory affairs that impact the Process Analyzer World	Grand Ballroom
	3.11.1			Troy Boley James Dorsey Marko Puzic	
2:15 - 2:45				*Best Paper Award - Session Moderator Paul Barnard*	
				Closing Remarks- Wes Carter, dale Merriman and Stuart Simmonds	

FRIDAY APRIL 21, 2023

7:30 - 4:30	Registration			Vendor Training Registration	Convention Center Lobby
8:00 - 12:00	Spouses Program			Spouses Lounge - Tours, Shopping, Site-Seeing, & Recreation (open from 8:00 AM - noon)	Check in at Registration
12:00 - 1:00	Lunch				
8:00 - 4:00pm	Track 4			**Siemens Training (8 hour)**	Galleon I
	Session 1			**Maxum edition II (Gas Chromatograph)**	
				This session will cover a number of maintenance topics for the Maxum GC. After a quick update on new features for the Maxum GC, a discussion will occur on network communications and troubleshooting. The Maxum GC 6.0 software maintenance tool then will be reviewed with student participation. Time permitting before lunch, an introduction to the Analyzer System Manager (ASM) will be done. Following lunch, a short workshop will be done for customers that bring AMD files from their analyzers looking for advise on how to correct and optimize them.	
8:00 - 4:00pm	Track 4			**ABB Training (8 hours)**	Galleon II
	Session 2			**PGC5000 (Gas Chromatograph)**	
				Although not a substitute for a full, factory certified, training course, the PGC5000 - Basics of Operation class intends to get those that are, or may be technically involved with the ABB Process Gas Chromatograph familiar with the hardware, configuration and operation, including local touch screen and remote interface options	
8:00 - 4:00pm	Track 4			**Ametek Training (8 hour training)**	Yacht Room
	Session 3			**WDG Series of (Zirconia) Combustion Analyzers**	
				This oxygen analyzer training provides technicians with the knowledge and skills needed to get the most out of their WDG analyzers. It covers topics such as theory, how it works, maintenance, and troubleshooting tips and can be completed in just four hours	
8:00 - 4:00pm	Track 4			**COSA Calorimeters (4 hours in PM)**	Schooner Room
	Session 4			*Online calorimeters report calorific value, Wobbe Index, specific density, CARI, and heating value, for fuel and flare gas applications, ranging from feed-forward process control to environmental compliance. Calorimeters come in many types. This comprehensive, hands-on training will focus on two innovative designs for flameless industrial calorimeters from Process Insights, the 9610 CXc continuous-sample calorimeter and the new 9800 CXi injection-style calorimeter. We'll review what applications are best suited to each type, along the procedures necessary for operation and maintenance.*	
8:00 - 4:00pm	Track 4			**Yokogawa Training**	Galleon III
	Session 5			**(TDL 8000)**	
				This Yokogawa TDLS 8000 series analyzer training session will provide the student with the knowledge to trouble shoot and maintain the analyzer while also covering topics such as installation and application considerations. This class is well suited for analyzer technicians, analyzer project managers, and analyzer engineers.	
8:00 - 4:00pm	Track 2			**A+ Sample Handling for Process Analyzers**	Clipper Room
	Session 6			*The session will begin with questions and answers to ensure the topic of greatest interest for every individual attendee will be addressed by the instructors. Questions are also encouraged throughout the session. Initial Q&A will be followed by an overview of guidelines and considerations for the design and troubleshooting of processor analyzer sample handling systems. Sample extraction for composite sampling and manual collection, are also potential topics. Next, best practices for selecting the most appropriate compliment of sample extraction and preconditioning equipment will be covered. Some of the most commonly used sample handling components will be available for detailed examination and for hands-on training in their application, installation, operation, maintenance, and troubleshooting.*	
8:00 - 4:00pm	Track 2			**Extrel Mass Spectrometer and ATOM Total Sulphur Analyzer (8 hour with Extrel in the AM and ATOM in the PM)**	Schooner Room
	Session 7			*This is a hands-on training covering two complimentary analyzer technologies from Process Insights. Continuous, online analysis for Total Sulfur (TS) is essential in many fuel and flare gas applications. An Excimer UV Total Sulfur analyzer oxidizes all sulfur compounds and measures TS directly, while a mass spectrometer measures all components in the stream and calculates TS from the result. Both approaches are approved by the EPA and offer fast, accurate results. This session is for both process control and environmental compliance users, and offers live, hands-on training with two analyzers from Process insights, the FGA-1000 Total Sulfur Analyzer and the Extrel MAX300-RTG 2.0.*	
8:00 - 4:00pm	Track 2			**Neo Monitors LGIII O2/CO/CH4 T-Flange**	Harbor Room
	Session 8			*We will be going over TDLAS IROSS and Ultra software. With our LG3 T-Flange demo, we will show installation and alignment, then go through commissioning of the LG3, and finish off with other installation options*	