ABB MEASUREMENT & ANALYTICS

2018 Measurement and Automation Conference

Real Solutions. Real Results.

—

Real Solutions.
Real Results.

Learn from industry and ABB experts on topics ranging from production automation and optimization, to instrumentation, to natural gas measurement. Attend one of over 20 breakout sessions, or chat with an expert at a listening post on topics from all four of our business pillars:

- **Automation**
- **Measurement**
- **Analytics**
- **Liquids**

Table of contents

—

Major Dan Rooney, USAF
Keynote speaker

—
01 Rooney is an F-16 pilot in the Oklahoma Air National Guard.

—
02 In addition to being the CEO of Folds of Honor, Major Dan Rooney is also a PGA golf professional.

—
03 Folds of Honor has raised raised over $70 million toward educational scholarships for the children and spouses of fallen and disabled service members.

Major Dan Rooney, USAF is an Aggressor Fighter Pilot with the 301st Fighter Squadron for the United States Air Force located at Tyndall AFB, PGA Professional, Patriotic Philanthropist and Author, *A Patriot's Calling: Living Life Between Fear and Faith.*

He is the founder of the Folds of Honor Foundation, served 3 combat tours in Iraq, founded of The Patriot Golf Club, is a PGA Professional, and an author. He was the only motivational team speaker for the U.S. Ryder Cup team in Wales.

Folds of Honor, a non-profit organization, provides scholarships to the spouses and children of military service members disabled or killed in action. In five short years Folds of Honor has raised over **$70 million** and awarded over **10,000 scholarships** to the family members KIA or disabled in combat.

—

"It's an amazing irony that when you reach out to help someone in need, you're often the one being helped."

A Major in the Air Force Reserve and a decorated military aviator, he is a two-time recipient of the Top Gun award and was honored with the Spirit of Attack award as a top graduate of F -16 training. He has received many decorations to include:
• Air Force Commendation Medal
• Air Medal
• Anti-terrorism Medal
• Combat Readiness Medal
• Air Expeditionary Medal.

For his service and patriotism, Rooney was presented the White House's "Presidential Volunteer Service Award" by President George W. Bush, the Air National Guard's "Distinguished Service Medal", the Air National Guard's "Directors Service Award" and the Ellis Island "Medal of Honor".

He was honored at The Masters Invitational with the "William D. Richardson Award" for his outstanding contributions to golf and received the PGA of America's first-ever "Patriot Award".

He has been recognized as one of People Magazine's "Heroes of the Year", Money Magazines "Hero of the Year" and ABC World News Tonight's "Persons of the Year".

Major Rooney has also received one of golf's most prestigious awards, the ASGCA' S 2014 Donald Ross award and just recently the Kansas University Distinguished Alumni Award which recognizes alumni who have made remarkable contributions to their profession, the nation, and the world. He is a "Significant Sigma Chi" and was featured on NBC World News Making a Difference report.

Rooney founded The Patriot, a Robert Trent Jones, Jr.-designed course in Tulsa, Oklahoma. It is currently ranked 42nd among American golf courses in Golf Weeks Modern Top 100. The Patriot is home to the Folds of Honor Foundation headquarters.

—

ABB will be presenting a check to Folds of Honor at the conference.

In addition to this donation, we encourage YOU to donate as well. All contributions from MAC attendees will be matched – dollar for dollar – by ABB.

Help us support this wonderful cause.

Extended training
Complimentary hands-on sessions

In-depth, hands-on training will be offered on the topics listed below. Pre-registration is required. Classes will be Tuesday, February 13th from 1.00p – 5.00p and Thursday, February 15th from 8.00a – 12.00p.

RTU / Flow computer
TRAINER – STEVE O'BANNON

This class is an overview of the µFLO[G5] and XSeries flow computers and explores a history of the Flow Computer Unit (FCU) and the features of the FCU including applications and operations. This session covers the 32 Bit Loader, collecting and saving data, calibration, trending, display programming, operations, and Ethernet remote communications.

RMC / XCORE automation
TRAINER – SHAWN RECTOR

Discover ABB's powerful new solution with the Remote Modular Controller. The class covers various aspects of the RMC configuration, such as functionality & performance, integration into ABB enclosures (XCORE), examples of different wellpad configuration files, interfacing with different instrumentation, host systems, and local HMIs.

Gas chromatograph
TRAINER – JEFF CUSHING

The NGC training class is designed to equip students with a basic understanding of how to configure and work with ABB's natural gas chromatographs. This class includes a comprehensive overview of chromatography, installation of the NGC, identification of the hardware components, Collection Unit Software (PCCU) setup, and NGC setup. This training utilizes ABB's NGC simulator.

Listening posts
Ask questions and chat with experts

—
Analytical measurement
Experts will be available for discussion, assistance, and to help answer questions about the NGC8200 Series, and the PGC1000 Series, and the various applications available for both chromatographs.

—
B&R automation
B&R combines state-of-the-art technology with advanced engineering to provide customers in virtually every industry with complete solutions for machine and factory automation, motion control, HMI and integrated safety technology.

—
Flow computers and RTUs
Flow computer and RTU experts will be available at the booth for discussion, assistance, and will help answer questions about the various XSeries flow computers, remote computers, and applications.

—
Flow, pressure, and temperature
See measurement solutions for oil & gas with flow, pressure, temperature, and other field devices. See the Coriolis, Wedge, Swirl, Mag, & Orifice flow meters, the 266 pressure line, temperature transmitters, valve positioners, & more.

—
Host software
Experts will be available for discussion, assistance, and will help answer questions about Totalflow host software systems. Included in this list are WinCCU, TF.net, VAS, TDS and TCI Toolkit.

—
Inside sales and training
Stop by and inquire about our training classes and enrollment process. While you are here, ask us about our various service offerings, and learn how we can meet your needs.

—
Level measurement
See & discuss continuous and point level instrumentation & the communication options available to integrate these into your process control systems. Technologies include: Ultrasonic, LMT, Magnetic, Magnetostrictive, Laser level, & more.

—
Liquid measurement
Stop by to see how Spirit IT can create a simple, seamless measurement solution with ABB's innovative Flow-X flow computer and our new measurement management system, eXLent.

—
Los Gatos Research
See & discuss new LGR ICOS series analyzers and various applications available for these exciting new products. Laser analyzers allow simultaneous measurements in seconds without any scrubbing or pretreatment.

—
RMC / *X*CORE
An overview of the features & functionality of the RMC / *X*CORE solution, our next generation RTU platform. This new package allows ABB to provide a centralized solution for all of your optimization, reporting, and measurement needs.

—
Wireless communications
Experts from the ABB Wireless group will be on hand to describe how modern networks can meet the needs of today's demanding oilfield applications while reducing operating costs.

—
Wellhead automation
Experts will discuss common scenarios where ABB products are the most beneficial to the user. This includes such topics as artificial lift apps & software, pump control, wellhead control, datalogging, and energy station apps.

—
Enjoy a warm cup of **TOPECA** coffee, an in-depth conversation with an ABB specialist, or study product demonstrations with replicas of various field instrumentation.

Breakout sessions

Advanced FCU/RTU applications
Operations and trending including NGC

TRAINERS – DAN ROECKER
Learn the basic functions and controls available utilizing the Totalflow operations and trending applications. A general explanation of these functions will be presented, as well as a "real world" custom configuration that will demonstrate how an advanced function can be developed and implemented.

Artificial lift: PAS 2.0
Using Plunger Analysis Software (PAS) for artificial lift

TRAINERS – BRADEN ROBINSON
Intro to the new PAS 2.0 software and how to optimize, Lift theory, concepts, & best practices. Learn how the logic for this app functions, the "how-to's" on set-up for plunger control, and parameter set-up for On/Off times.

Automation applications
Automation applications for the XSeries platform

TRAINER – BRADEN ROBINSON
Participants learn about the automation applications available for Totalflow Products products. Emphasis is on I/O communications plus system and utility applications including trending, alarms, valve control, pid, shutdowns, artificial lift, and more.

Coriolis measurement & applications
Gas/Liquid Coriolis interfaces and measurement applications

TRAINERS – FRANK FRENZEL
Explore how the Coriolis works, and how to choose the right one based on the application. Discussions include LACT, allocation metering, (produced water, oil) or from a separator, etc.

Field troubleshooting: FCU & RTU
Better field troubleshooting techniques for FCU & RTUs

TRAINER – STEVE O'BANNON
Study best practices for assessing and solving problems in the field. Topics include battery, configuration, charger, XMV, electronics, and comms. Come prepared to participate during the Q&A session.

Gas chromatograph
Introduction to the natural gas chromatograph

TRAINER – MERLE BELL
How to measure gas using the NGC and its TCD detectors. Review of the modular concept for the NGC/PGC analyzer platform and available analytical measurement applications. Presentation includes use of PCCU to highlight possible startup or maintenance activities.

Artificial lift: Gas lift
Getting the most from your well with the gas lift application

TRAINER – DOUG WOHLEKING
An in-depth look at the Gas Lift application, including theory & concepts, hardware and automation and Valve Control/PID set-up. Learn basic/advanced options in the app, as well as how to set up GAPL/PAGL systems.

Artificial lift: Plunger lift
Getting the most from your well with the plunger lift application

TRAINER – JOSEPH FLETCHER
Intro to Plunger Lift theory, concepts, & best practices. Learn how the logic for this app functions, the "how-to's" on set-up for plunger control, parameter set-up for On/Off Times, and our new optimization software, PAS 2.0.

Communications / Power
Powering your sites and setting up communications

TRAINER – MICHAEL STEVENS
Properly size solar/battery systems and design/configure comms for measurement & automation sites. Why & how devices and locations are considerations in sizing decisions. Sizing review for current draw based on sleep mode, transmit and receive will be discussed.

Field instrumentation devices
Pressure, level & temperature measurement solutions

TRAINER – JIM HOLDEN
Reviews the available technologies being used for level measurement, and studies how these devices can be used in custody transfer, manage inventories applications, and potential ABB solutions.

Field troubleshooting: NGC
Field troubleshooting techniques for the NGC

TRAINERS – CALEB NORTHINGTON
Topics include PCCU, what to expect when hardware fails, and proper setup and maintenance for preventing sample handling problems. Come prepared to participate during the Q&A session.

Grounding / Wiring
Protecting electronic devices in high transient environments

TRAINER – LEON BLACK
Explore simple to complex ideas for installation of equipment in transient environments. Learn how transients originate, how they impact equipment, and how to minimize their impact. Emphasis is given to wiring of ABB devices, but can also be applied to other instruments.

IEC program

Controlling the cost of chemicals in the field & LACT

TRAINER – B.J. WALKER

Discover an integrated solution for inventory, management, and optimal chemical injection across a site and a field. Learn how this system helps you better manage inventory/well optimization and site operation with meaningful data, event logging, and how it can be joined with artificial lift applications to optimize production.

Magmeter measurement

Introduction to electromagnetic flow meters

TRAINER – ANTHONY BIONDO

Attendees will cover the principles of electromagnetic Induction, how the flow of conductive fluids is measured using this principle, and learn the components of the meter. How to identify installation requirements and learn basic troubleshooting will also be covered.

Programming with IEC

Custom programming with IEC 61131

TRAINER – BROCK PATTERSON

Learn PLC programming to create your own custom solution while having access to existing applications. Through our implementation of the IsaGraf IEC-61131 industry standard you can now measure, control and automate all in one.

Remote modular controller (RMC)

ABB product updates

TRAINER – B.J. WALKER

The class covers functionality & performance, integration into ABB enclosures (*X*CORE), examples of different wellpad configuration files, interfacing with instrumentation, host systems, and local HMIs.

Spirit IT hardware / software

Exploring the Spirit IT hardware & software

TRAINERS – BRENT PALMER

This class covers liquid custody transfer applications such as LACTs, crude oil gathering stations, and pipeline metering stations along with an in depth look at configuring the Flow-X flow computer.

Wireless field networking systems

Building blocks for the modern field network

TRAINER – RENNER VAUGHN

Learn about ABB's modern wireless architecture and purpose-built solutions for the well pad that enable real-time SCADA, video, and mobile work order applications anywhere in the field.

LGR analytical measurement

TDL (Tunable Diode Laser) pipeline integrity & process control

TRAINER – JESSE ZAPIEN & MARC-ANDRE LALIBERTE

Intro to measuring various components with Model 950 OA-ICOS Tunable Diode Laser analyzer. Includes sample considerations and challenges in measuring in a hydrocarbon stream with a focus on H_2S, H_2O, CO_2, and O_2. Explore application examples in natural gas transport & processes.

Measurement applications

New enhancements in measurement applications (BLM, +)

TRAINER – BARRY BALZER

Describe and setup the ABB measurement applications as it relates to field measurement including AGA3, AGA7, V-Cone, NIST 14 gas SU, NIST 14 Liquids SU, Wedge gas SU, Nozzle SU, API Liquid SU, and Gas Coriolis SU.

Recent product solutions

ABB product updates

TRAINER – GIULIA SEIKEL

Overview of the various updates and features that will be available through 2018 such as ABB Digital (Lighthouse) and wireless intrumentation.

SCADAvantage Cloud

Cloud based Metering and Analytics

TRAINER – DARREN SCHULTZ

Attendees will study the use of SCADAvantage Cloud to schedule collections, review KPIs (based on Cloud analytics), validate and reporting of well site measurement data to minimize the reporting effort and maximize field system performance.

WinCCU

Implementation and composition of WinCCU host software

TRAINERS – ANDREW MUNN

Attendees study the use of Windows Central Collection Unit (WinCCU) software to schedule, collect, configure, edit, and report on data coming in from the well sites to maximize field system performance.

Conference schedule
Overview

Important places

📍 Registration   🥪 Dining area   ☕ Coffee Shop

🎤 General session   ⚙️ Hands-on training   📈 Breakout sessions
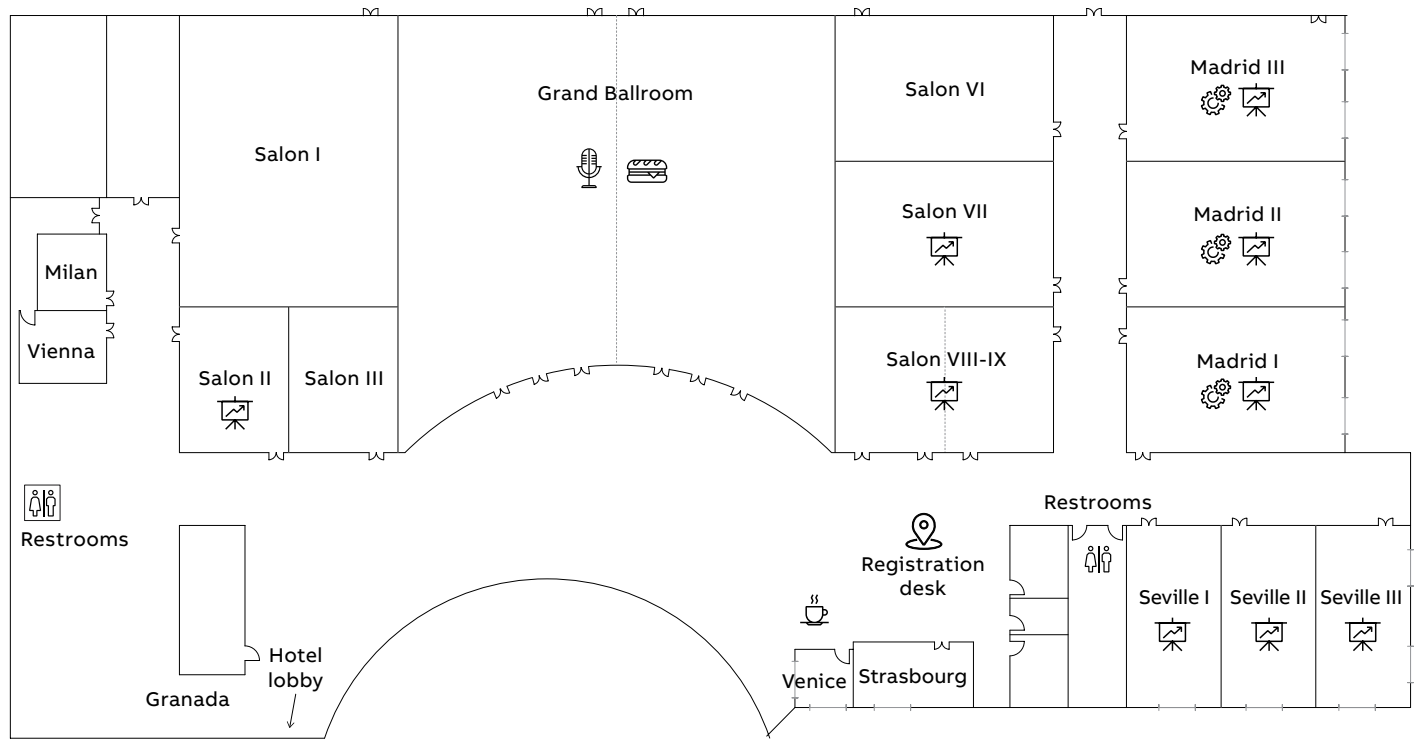
Tuesday, February 13

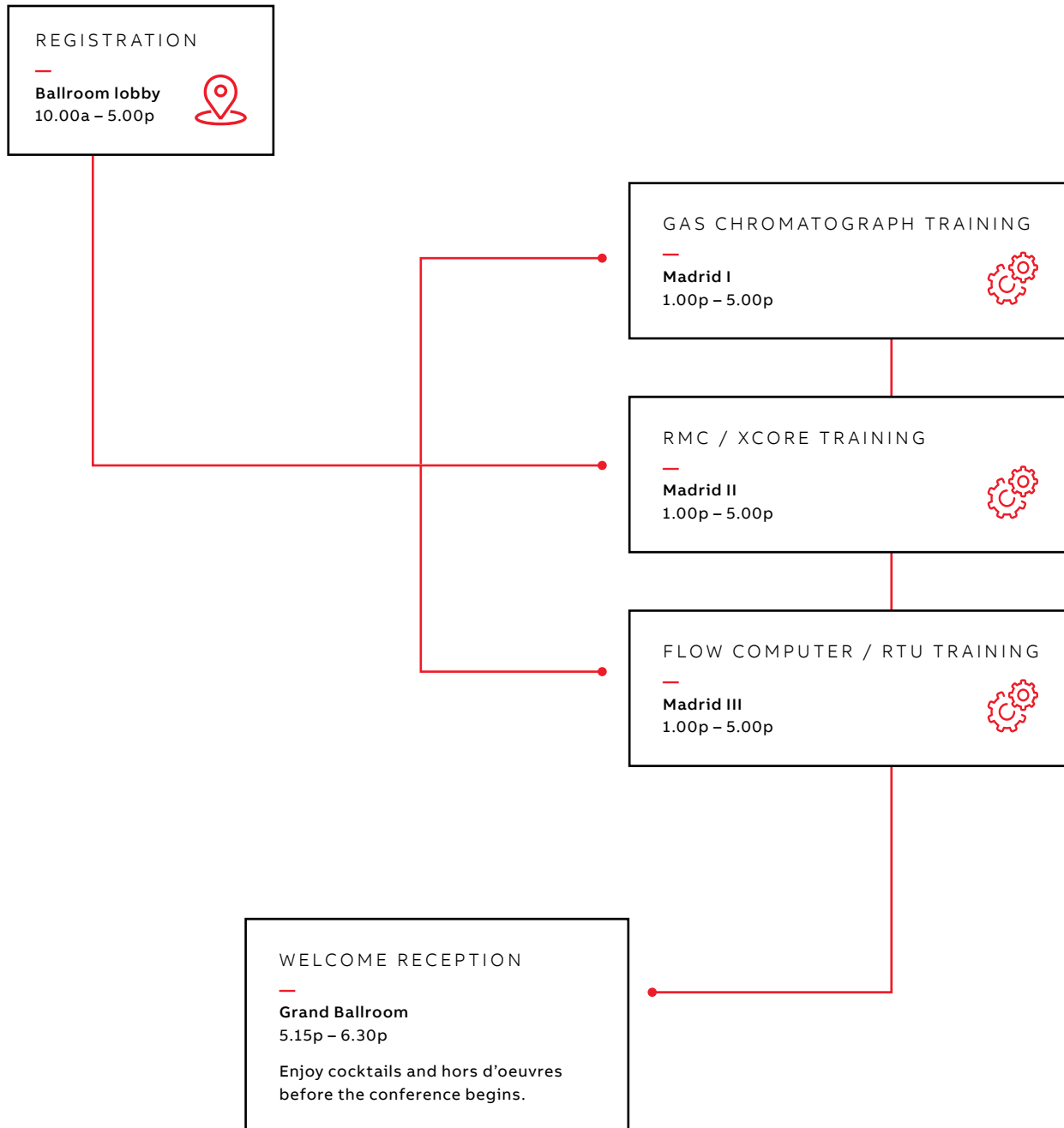|		
10.00a – 5.00p	Registration	Ballroom Foyer
1.00p – 5.00p	Hands-on training classes	Madrid I, II, & III
5.15p – 6.30p	Welcome reception	Grand Ballroom

Thursday, February 15

7.00a – 8.00a	Continental breakfast	Grand Ballroom
8.00a – 12.00p	Hands-on training classes	Madrid I, II, & III
8.00a – 9.15a	Breakout sessions	Seville I, II, & III & Salon II

Wednesday, February 14

6.30a – 5.00p	Registration	Ballroom Foyer
7.00a – 8.00a	Breakfast	Grand Ballroom
7.45a – 9.00a	General session	Grand Ballroom
9.00a – 12.00p	Listening posts	Main hallways
9.10a – 10.30a	Breakout sessions	Classrooms
10.45a – 12.00p	Breakout sessions	Classrooms
12.00p – 1.00p	Lunch	Grand Ballroom
1.00p – 5.15p	Listening posts	Main hallways
1.00p – 2.15p	Breakout sessions	Classrooms
2.30p – 3.45p	Breakout sessions	Classrooms
4.00p – 5.15p	Breakout sessions	Classrooms
5.30p – 5.45p	XWorks drone demo	Outside
5.30p – 8.00p	Entertainment/Casino	Grand Ballroom

Daily class schedule
Tuesday, February 13

REGISTRATION

—

Ballroom lobby
10.00a – 5.00p

GAS CHROMATOGRAPH TRAINING

—

Madrid I
1.00p – 5.00p

RMC / XCORE TRAINING

—

Madrid II
1.00p – 5.00p

FLOW COMPUTER / RTU TRAINING

—

Madrid III
1.00p – 5.00p

WELCOME RECEPTION

—

Grand Ballroom
5.15p – 6.30p

Enjoy cocktails and hors d'oeuvres
before the conference begins.

Daily class schedule
Wednesday, February 14

REGISTRATION
—
Ballroom lobby
6.30a – 5.00p

BREAKFAST
—
Grand Ballroom
7.00a – 8.00a

MAJOR DAN ROONEY
—
Grand Ballroom
7.45a – 9.00a

LISTENING POSTS
—
Main hallways
9.00a – 12.00p

BREAKOUT SESSIONS
—
9.10a – 10.30a

Field troubleshooting: NGC	Madrid I
Field troubleshooting: FCU	Madrid III
Field instrumentation devices	Seville I
Grounding / Wiring	Seville II
Remote modular controller (RMC)	Seville III
Advanced RTU / FCU	Salon VII

LUNCH
—
Grand Ballroom
12.00p – 1.00p

BREAKOUT SESSIONS
—
10.45a – 12.00p

Gas chromatograph	Madrid I
Artificial lift: Plunger lift	Madrid III
Communications / Power	Seville I
IEC program	Seville II
Measurement applications	Seville III
Spirit IT hardware / software	Salon VII
WinCCU	Salon VIIX-IX

LISTENING POSTS

—

Main hallways
1.00p – 5.15p

BREAKOUT SESSIONS

—

1.00p – 2.15p

Field troubleshooting: NGC	Madrid I
Artificial lift: PAS 2.0	Madrid III
Coriolis measurement & apps	Seville I
Magmeter measurement	Seville II
LGR analytical measurement	Seville III
Advanced RTU / FCU	Salon VII
Wireless communications	Salon VIIX-IX

BREAKOUT SESSIONS

—

2.30p – 3.45p

Gas chromatograph	Madrid I
Artificial lift: Gas lift	Madrid III
Field instrumentation devices	Seville I
Communications / Power	Seville III
Spirit IT hardware / software	Salon VII
SCADAvantage Cloud	Salon VIIX-IX

ENTERTAINMENT

—

Grand Ballroom
5.30p – 8.00p

—

SMITH BROTHERS BAND

The Smith Brothers Band is back again for 2017! Enjoy the sounds of classic rock throughout the party.

—

DIRT ROAD DETOURS

This local band takes playing very seriously, but don't worry, it's not all business on the stage.

—

LIVE DIGITAL CARICATURES

Have your picture drawn by the world's first iPad caricaturist! Sketches are drawn in minutes and printed instantly.

—

CASINO NIGHTS OF TULSA

The Measurement & Automation Conference wouldn't be the same without Casino Night!

BREAKOUT SESSIONS

—

4.00p – 5.15p

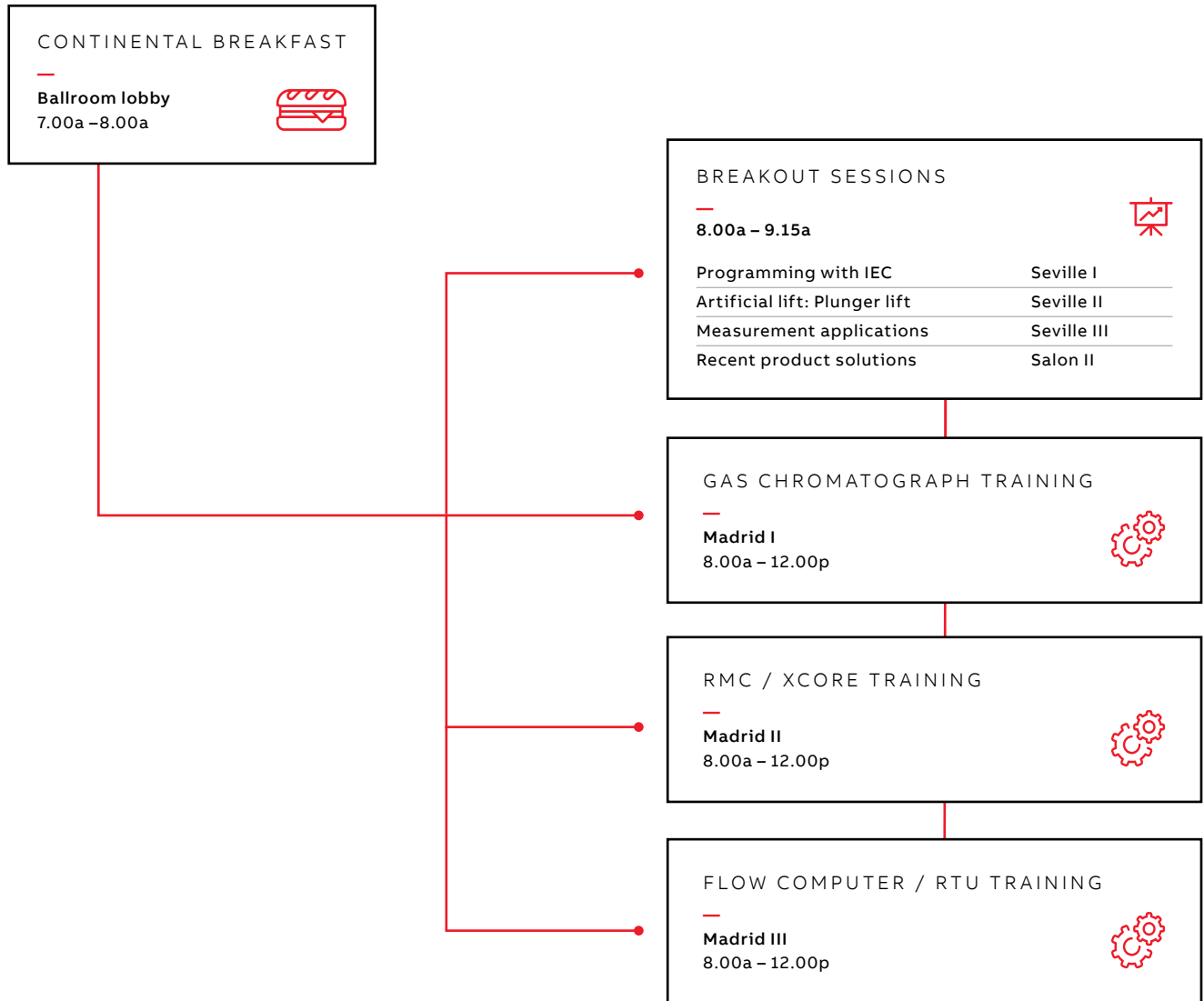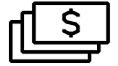|	
Automation applications	Madrid III
Recent product solutions	Seville I
Coriolis measurement & apps	Seville II
Remote modular controller (RMC)	Seville III

XWORKS DRONE DEMO

—

Outside: NE corner of hotel
5.30p – 5.45p

Daily class schedule
Thursday, February 15

CONTINENTAL BREAKFAST

—

Ballroom lobby
7.00a – 8.00a

BREAKOUT SESSIONS

—

8.00a – 9.15a

Programming with IEC	Seville I
Artificial lift: Plunger lift	Seville II
Measurement applications	Seville III
Recent product solutions	Salon II

GAS CHROMATOGRAPH TRAINING

—

Madrid I
8.00a – 12.00p

RMC / XCORE TRAINING

—

Madrid II
8.00a – 12.00p

FLOW COMPUTER / RTU TRAINING

—

Madrid III
8.00a – 12.00p

Event sponsors
Visit their booths for more information

PLATINUM

A+ CORPORATION
www.geniefilters.com

A+ will display the Analytically Correct Engineered Systems (ACES) which create a simple solution for a complex problem by combining industry leading sample extraction conditioning components with application specific problem solving expertise.

SILVER

AUTOSOL
www.autosoln.com

AutoSol leads the way in secure, reliable data transmission providing data solutions that communicate via IIoT. Our comprehensive suite of products improve data performance and ensure its reliable, secure collection and delivery.

SILVER

FLOW-CAL
www.flowcal.com

Flow-Cal, Inc.'s software is used to validate, recalculate, store, and report gas and liquid measurement data. Our line of measurement software applications range from simple data management and reporting to enterprise applications.

SILVER

MUSTANG SAMPLING
www.mustangsampling.com

Mustang Sampling, LLC is the innovator of Analytically Accurate solutions within sample conditioning systems. We provide custom solutions of products and services globally to the Natural Gas, NGL, and LNG industries.

BRONZE

CANADA PIPELINE
www.flowconditioner.com

Canada Pipeline is dedicated to the improvement of flow measurement accuracy through leading-edge equipment and engineering services. We offer consultations on meter station designs using our extensive fluid dynamic experience.

BRONZE

DEEP FORK AUTOMATION
www.deepforkautomation.com

Specializing in fit for purpose solutions, SCADA and Automation is now available. Anytime service cancellation coupled with in-house system conversion are just a few of the benefits which you won't find anywhere else.

BRONZE

EXODUS STORED ENERGY
www.exoduspower.com

Exodus' provides advanced power solutions centered on a Lithium-ion power unit called Lithium Iron Phosphate (LFP) for the commercial market. LFP batteries are one of the most advanced forms of these batteries commercially available.

BRONZE

KEPWARE TECHNOLOGIES
www.kepware.com

Kepware provides software solutions to help businesses connect diverse automation devices and software apps and enable the Industrial Internet of Things. Kepware serves a wide range of customers in a variety of vertical markets.

BRONZE

XWORKS
www.xworkshd.com

XWorks is a manufacturer and provider that is integrating drones into a global service and stewardship role. XWorks has manufactured a drone landing station that launches, recovers, replenishes power supply, and relaunches drones.

ABB

—
ABB Inc.
Upstream Oil & Gas
Quotes: totalflow.inquiry@us.abb.com
Orders: totalflow.order@us.abb.com
Training: totalflow.training@us.abb.com
Support: totalflowsupport@us.abb.com
               +1 800 442 3097 (opt. 2)

Main Office
7051 Industrial Boulevard
Bartlesville, Oklahoma 74006
Ph: +1 918 338 4888

www.abb.com/upstream

California Office
4300 Stine Road, Suite 405-407
Bakersfield, California 93313
Ph: +1 661 833 2030

Kansas Office
2705 Centennial Boulevard
Liberal, Kansas 67901
Ph: +1 620 626 4350

Texas Office – Odessa
8007 West Highway 80 East
Odessa, Texas 79765
Ph: +1 432 272 1173

Texas Office – Houston
3700 West Sam Houston
Parkway South, Suite 600
Houston, Texas 77042
Ph: +1 713 587 8000

Texas Office – Pleasanton
150 Eagle Ford Road
Pleasanton, Texas 78064
Ph: +1 830 569 8062

2018 Measurement & Automation Conference 02.2018