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Upcoming Events

15 Oct  
International Instrumentation (IIS) Symposium, Montreal, Quebec, Canada

Oct 29- Nov 1  
Process Control & Safety Symposium, Houston, TX

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Greetings ISA Process Measurement and Control Division (PMCD) Members!

Each year PMCD continues to grow in membership and in the number of symposia that we bring to you. The PMCD division is committed to providing the latest and advanced topics in Process Measurement and Control to its members.

This year the PMCD Board has planned another year of programmed opportunities for us to grow together. This includes our advanced technical conferences, scholarships, mentorship, and social events. PMCD plans to hold the International Instrumentation Symposium (IIS) in Montreal, Canada in October, and the 2018 Process Control and Safety Symposium (PCS) in Houston, Texas in November.

PMCD is committed to growing our partnerships with local sections such as the Houston Section, and increase our value by having more collaborations with other ISA divisions like the Safety and Security and Communication and Educational divisions.

ISA events, meetings, and committee work provide opportunities for us to participate. Be sure to enjoy the full benefits of your membership by getting engaged in the PMCD division. You can take part in advancing the mission of the PMCD division by:

- Presenting your work at ISA events and conferences
- Recommending a student for a PMCD ISA Technical division scholarship
- Serve as a volunteer/sponsor for our events

I also want to thank all our leaders and volunteers by congratulating them on their exceptional work during last year.

Sincerely,

Kash Behdinan PhD., PMP
Director, Process Measurement and Control Division – ISA
Abstract:
This presentation explains the Open Process Automation (OPA) vision and purpose, the evolution from concept to industry collaboration, and the current status of the effort. The origin of OPA is a shared set of business problems all control system users face. The vision of OPA is to address these problems by using current technology to provide desired features and functionality to address these business problems. ExxonMobil created a reference architecture for OPA as a starting point to the discussion and invited feedback through public discussion of these ideas. The Open Process Automation Forum was established in November 2016 with the Open Group as a collaboration of 30 End Users, Suppliers, and System Integrators. By March 2017, there were 47 members of the OPA Forum. The current plan includes a proof of concept prototype by ExxonMobil and Lockheed Martin, standards establishment by the OPA Forum, and commercial system development over the next 3-4 years. The status of the prototype is discussed as part of this presentation. The OPA Forum requires the correct balance of End Users, Suppliers, and System Integrators to function well. A critical mass of End Users is required for OPA to be successful.

1. Introduction

You may recognize the conceptual reference architecture picture from previous presentations by Don Bartusiak and Steve Bitar of ExxonMobil or from articles in the trade press. ExxonMobil has proposed that a standards-based, open, secure, and interoperable process control architecture would promote innovation and value creation. Such an architecture addresses both technical and commercial issues with the current Control Systems.

The Reference Architecture includes several new items we envisioned. The Distributed Control Node or DCN offers a platform for I/O processing, regulatory control, and application hosting. The Real-Time Advanced Computing Platform we call an RTAC and offers services like abnormal event detection, procedural automation, advanced control, and process optimization. The real-time bus provides redundant, peer to peer communications for all new and existing functions. Note that the DCS does not serve as the central broker of data and the systems are not dispersed across separated L1 through L3 levels as in legacy systems.

It is not our intent to prescribe how such a system should be built, but rather what a future control system should provide in capability. We think that the technologies required to satisfy the functional characteristics already exist. They just need to be applied to control systems.

2. Future Path – Three Tracks

The ExxonMobil vision is for an Open Process Automation system to achieve technical readiness in 2021. Moving forward, the ExxonMobil Open Process Automation team has several objectives.
The first track is where the ExxonMobil proof of concept is being developed in the Lockheed Martin lab. ExxonMobil will be taking the Proof of Concept technology to an on-process pilot in 2018 and continue exploring more proof of concept ideas. This will be our first step down the path to technical readiness.

The second track is to encourage others to join and actively participate in the Open Process Automation Forum. The forum needs a balance of users, vendors, suppliers, and system integrators to be a force for positive change in the control system space. The first Standards planned to be released in late 2017 and 2018 are just the beginning.

Lastly, ExxonMobil is actively seeking collaboration partners for development and field trials and invites others to join us for prototyping and development efforts over the next 3 years. ExxonMobil operates in very specific industries and processes. Our concerns may not perfectly overlap with companies in other industries. Our desired quality attributes may not be exactly the same ones your companies want.

3. Proof of Concept

This ExxonMobil proof of concept has been constructed, programmed, and integrated by Lockheed Martin. The ExxonMobil team provided guidance, direction, and industry expertise. The Proof of Concept has been created using hardware and software from a variety of vendors selected during the RFP process in early 2017.

4. Close

The ExxonMobil proof of concept development has been successful and will be moving forward to an on-process pilot. The Open Process Automation Forum needs participation from Users, System Integrators, Suppliers, and Vendors. I want to inspire a few questions, encourage learning more about this effort, and motivate people to participate.

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http://www.isa.org

2018 ISA Process Control & Safety Symposium and Exhibition

ISA’s Process Control & Safety (PCS) Symposium and Exhibition returns to Houston this October and November. Sponsored by the Process Measurement and Control, Safety and Security, Chemical and Petroleum, Communications, Education, Pulp and Paper, and Management Divisions of ISA, this word-class event will bring together the best and brightest minds process control and safety to provide the latest updates, trends, and expert projections!

Presentation Topics Include:

**Process Control**
- Process Optimization
- Procedural Control Applications
- Automation Projects and Project Management
- Operator Performance (HMI, Alarm Management, and Training)
- Instrument Calibration
- Intelligent Device Management
- SCADA Projects and Applications

**Cybersecurity**
- Cybersecurity and Functional Safety Lifecycle
- Supply Chain Cybersecurity
- Best Practices in Cybersecurity Risk Assessment

**Safety Systems**
- SIL Determination
- Functional Safety Lifecycle Data Flow

http://www.isa.org/2018
PMCD Scholarship Program (2018-2019)

The ISA Process Measurement and Control Division is accepting scholarship applications for 2018/2019. Applicants must be nominated by PMCD members and be enrolled in an undergraduate or graduate program related to process measurement and control. The application deadline is April 30th, 2018. ISA student members who contribute to the Society early in their careers are apt to become members for the long term. Do you know such promising students? If so, please encourage them to apply.

To be considered for the scholarships, applicants must submit the following documents:
- Completed application form
- Transcript
- Letter of recommendation
- ISA membership form, if not a member

Please click here to access the scholarship form or type https://www.isa.org/WorkArea/DownloadAsset.aspx?id=156867 in your browser.

2018 International Instrumentation (IIS) Symposium

The 2018 International Instrumentation Symposium (IIS) is sponsored jointly by the Aerospace Industries, Test Measurement, and Process Measurement and Controls Divisions of ISA. IIS is recognized internationally as the outstanding forum for discussion of new and innovative instrumentation techniques, development, and applications. The symposium will include ISA Training, paper sessions, short courses, workshops, and tutorials. Papers will be considered for publication in ISA’s technical journal, ISA Transactions, On-line Conference Proceedings and other ISA Journals.

Sponsored by ISA’s Aerospace Industries (ASD), Test Measurements (TMD), and Process Measurement and Control (PMCD) Divisions, in collaboration with ISA’s Automatic Controls and Robotics (ACARD) and Chemical and Petroleum Industries (ChemPID) Divisions, and the Propulsion Instrumentation Working Group (PIWG).

For more information on registration, program/speakers, as well as vendor exhibit-sponsorship opportunities, call ISA at +1 919-549-8411 for more details.
PMCD Membership

Get the Most out of Your Membership

- **Annual Events** - Participate in a joint symposium with the Aerospace Division and the Test Measurement Division to become a co-sponsoring division for the International Instrumentation Symposium (IIS)
- **Industry News** - Receive PMCD director and director-elect messages posted on the division website
- **Leadership Opportunity** - Sharpen your leadership skills by helping plan and conduct various annual PMCD events
- **Technical Writing** - Submit industry papers, review papers, and participate in developing sessions
- **Networking** - Take advantage of the opportunity to network with other PMCD industry leaders
- **Valuable Information Resource** - PMCD provides its members with comprehensive technical information to aid them in their profession, and their membership supplies:
  - Comprehensive industry newsletters featuring articles and papers from PMCD members and symposium participants
  - Access to the PMCD website that provides industry technical papers, web seminars, and a list serve of industry peers

- PMCD focuses on primary sensors, control hardware and software, and final control elements. Our active technical committees reflect these areas of interest:
  - Automation and Control Systems
  - Flow Technology
  - Pressure Technology
  - Temperature Technology
  - Level Technology
  - Field Calibration Technology
  - Final Control Elements

PMCD promotes a highly professional, responsible image of the process measurement and control industry through its various programs and helps its members to develop that image and to succeed in a highly competitive market. As a PMCD member, you gain access to a wealth of professional knowledge, you now have the opportunity to share your experiences and learn from your peers.

**PMCD supports nearly 6,000 members within ISA!**
2017 Process Control Safety Symposium in Pictures
2017 Outstanding Member of the Year

ISA PMCD Webmaster Sandeep Kumar Raju Vysyaraju is PMCD’s 2017 Member of the year. Sandeep works as a Controls and Instrumentation Engineer with Searles Valley Minerals. Sandeep has helped to manage the website and other Symposium Updates for the Website and Share Point Access Administrator for ISA PMCD conducted Symposia.

Sandeep has served as Public Relations Officer and Alumni Affairs Coordinator for ISA at OSU Automation Society in Oklahoma State University. Been a member of ISA since 2013. Sandeep has contributed towards the success of PCS and IIS Conference by being a part of the planning Committee since 2015. He has served in various capacities as Co-Program chair, Session chair, YAPFEST Organizer, XCD Website Manager. Sandeep is acting as Program Chair for the IIS Conference going to be held at Montreal, Canada.

Apart from serving ISA-PMCD Division, Sandeep is also serving ISA MMID Division as Committee Member and ISA ACARD Division as Director-Elect. Overall, Sandeep have been serving ISA since 2013 and in total 5+ years and wishes to continue to be with ISA during coming years. Sandeep’s dedication to the society, and the division hasn’t faded over the years. It seems Sandeep is intent on improving his contribution. Congratulations, Sandeep!
The 2018 ISA Process Control & Safety Symposium and Exhibition is recognized as the outstanding forum for discussions of new and innovative process control and safety techniques, developments, and applications. A worldwide array of speakers and attendees alike have the distinct opportunity to participate in informal discussions and social gatherings to acquire the latest information about process control and safety.

Papers are currently being accepted which address topics in instrumentation, communications, and control systems in process control and safety industries.

**SUBMISSION GUIDELINES:**
Abstracts should be 200 words or less and describe what the noncommercial presentation will cover. All papers must be submitted in electronic format (MS Word) suitable for publication in the proceedings, and slide presentation materials must be provided in electronic format (MS PowerPoint) prior to the symposium for review and approval. A publication release form will also be required for all approved papers. If your abstract is accepted and you agree to submit a presentation for the conference proceedings or handout, you are also agreeing to register and present at ISA’s 2018 Process Control & Safety Symposium and Exhibition.

Submit your abstract at [https://www.xcdsystem.com/pcs](https://www.xcdsystem.com/pcs)

You will be notified via email that your abstract has been reviewed, accepted, or rejected by our technical committee. **Abstract due date is 4 May 2018.** Once Accepted, a discount registration fee is required in order to participate and present.

**IMPORTANT DEADLINES:**
- Abstracts: 4 May
- Acceptance: 1 June
- Draft Papers/Presentations: 3 August
- Reviewer’s Comments to Authors: 7 September
- Final Papers/Presentations: 5 October
- Rights and Responsibilities Form: 5 October
- Speaker Registration: 5 October


**General Subject Areas of Interest**

**Safety Systems**
- SIL Determination
- Functional Safety Lifecycle Data Flow

**Cybersecurity**
- Cybersecurity and Functional Safety Lifecycle
- Supply Chain Cybersecurity
- Best Practices in Cybersecurity Risk Assessment

**Process Control**
- Process Optimization
- Procedural Control Applications
- Automation Projects and Project Management
- Operator Performance (HMI, Alarm Management, and Training)
- Instrument Calibration
- Intelligent Device Management
- SCADA Projects and Applications