Setting the Standard for Automation™

ChemPID

Spring
Newsletter 2012

In this Issue

Upcoming Events

4-8 June	58th International Instrumentation Symposium (IIS)
9-12 June	2012 ISA Spring Leaders Meeting
15 August	7th ISA Marketing and Sales Summit
22-25 September	2012 ISA Fall Leaders Meeting

Director
Prabhu Soundarrajan
Business Unit Manager
(512) 203-2953

Editor
Rhonda Pelton
(770) 829-6500

Message from the Director

CHEMPID is charging forward with revised division purpose, Collaborating with ISA divisions and expanding social media visibility

Dear Fellow Chemical and Petroleum Division Members:

In my last winter newsletter, I introduced the new ChemPID board to you. We have been working tirelessly for the past few months to advance ChemPID's new division purpose, outreach and collaborative activities. The board with inputs and recommendations from several members and ISA leaders reframed the division purpose to accurately reflect our membership's interest. I am including ChemPID's new divison purpose and welcome your input on the new direction, vision and mission.

ISA ChemPID Division Purpose
(Revised December 2011)

The Chemical and Petroleum Industries Division (also known as ChemPID) is organized within the Industry and Sciences Department of ISA. ChemPID aims to contribute to the professional involved in the processing of chemicals, petrochemicals, petroleum, and natural gas. From raw materials to products ChemPID strives to advance best practices in: Safety, Environmental, Production Efficiency, Operations, Process Control, and Automation.

With Global Competition No Operation can run the same year after year. Your plant is either improving or declining. ChemPID is here to give you the tools you need to improve your plant! Have you ever wondered if someone else has already figured it out? Why re-invent the wheel? The key to success is to capitalize on problems that have already been solved and focus your engineering talent on problems that require innovation!

I hope you support our new direction, your input and feedback is very important to us. I would like you to read our board's bio and know more about our individuals who are working very hard for the ChemPID membership. Everyone in the board has become an active contributors and leaders. We have several board positions open, so please contact one of us to get involved. We will guarantee you a great professional and leadership experience with ChemPID.

Our Social media activities and LinkedIn group has almost doubled since my last message to you. We have had over a dozen discussions on the LinkedIn group that have received great interest from our membership. If you are not in our LinkedIn group, please join us. Do not miss out on the thought provoking discussions in critical subjects of interest in chemical and petroleum industry. Send me a note and I will send you a personal invitation to join our Linked in group. Please do not miss out on the exciting networking opportunity – you may get answers from experts, solve your technical challenge or even find the next career opportunity. DO NOT MISS OUT – JOIN THE OUR GROWING LINKEDIN GROUP BY CLICKING: www.linkedin.com/chempid

Collaboration is the key to our success at all levels. I am very happy to report that ChemPID has successfully collaborated with

ISA analysis division (AD), ISA Food and Pharma Division (FPID), ISA Management Division, ISA local and regional chapters. I welcome you to read about what other leaders have to say about ChemPID's collaboration in this newsletter. Please note that we are making ChemPID more popular and accessible for your benefit and professional growth.

We are also sponsoring panel sessions at the 57th ISA Analysis Division Symposium and 58th ISA International Instrumentation Symposium ISA events. Please look for ChemPID members and papers in the following events in California.

April 22-26
57th ISA Analysis Division Symposium
Anaheim, www.adsymposium.org

Jun 2-7
58th ISA International Instrumentation Symposium
San Diego, www.isala.org/iis.html

Jun 9-12
ISA Spring Leaders Meeting
San Diego, www.isa.org/slm

As always we request your candid feedback and participation to enhance our division. Please get involved and feel free to contact the board with your comments and feedback.

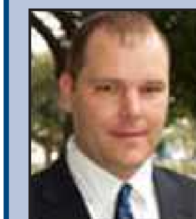
Respectfully,

Prabhu Soundarrajan

Meet your board - ChemPID Board

ChemPID Division Director
Prabhu Soundarrajan

Growth leader for Lumasense Technologies' Gas Sensor Business
Leads development and commercialization of infrared and photo acoustic gas analyzers for the chemical, petroleum, energy, clean-tech, medical, and utility markets.

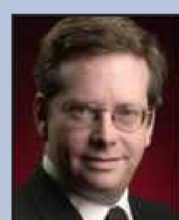


Division Director-Elect
Matthew Conklin

Senior Systems Engineer at R.E. Mason Company in Charlotte, NC.
Conduct industrial automation projects for Chemical, Pharmaceutical, Nuclear Waste Disposal, Petro-Chemical, and Pulp & Paper Facilities. Specialize with Emerson's DeltaV Distributed Control System.

Newsletter Editor
Rhonda Pelton

Process Automation Manager at Dow Chemical Company
Develops and implements process automation improvement strategies, to ensure the optimization and of process automation systems and leads the execution of major process automation improvement projects and initiatives



Webmaster/Social Media Expert
George Robertson

Symposium Chair
Alan Bryant

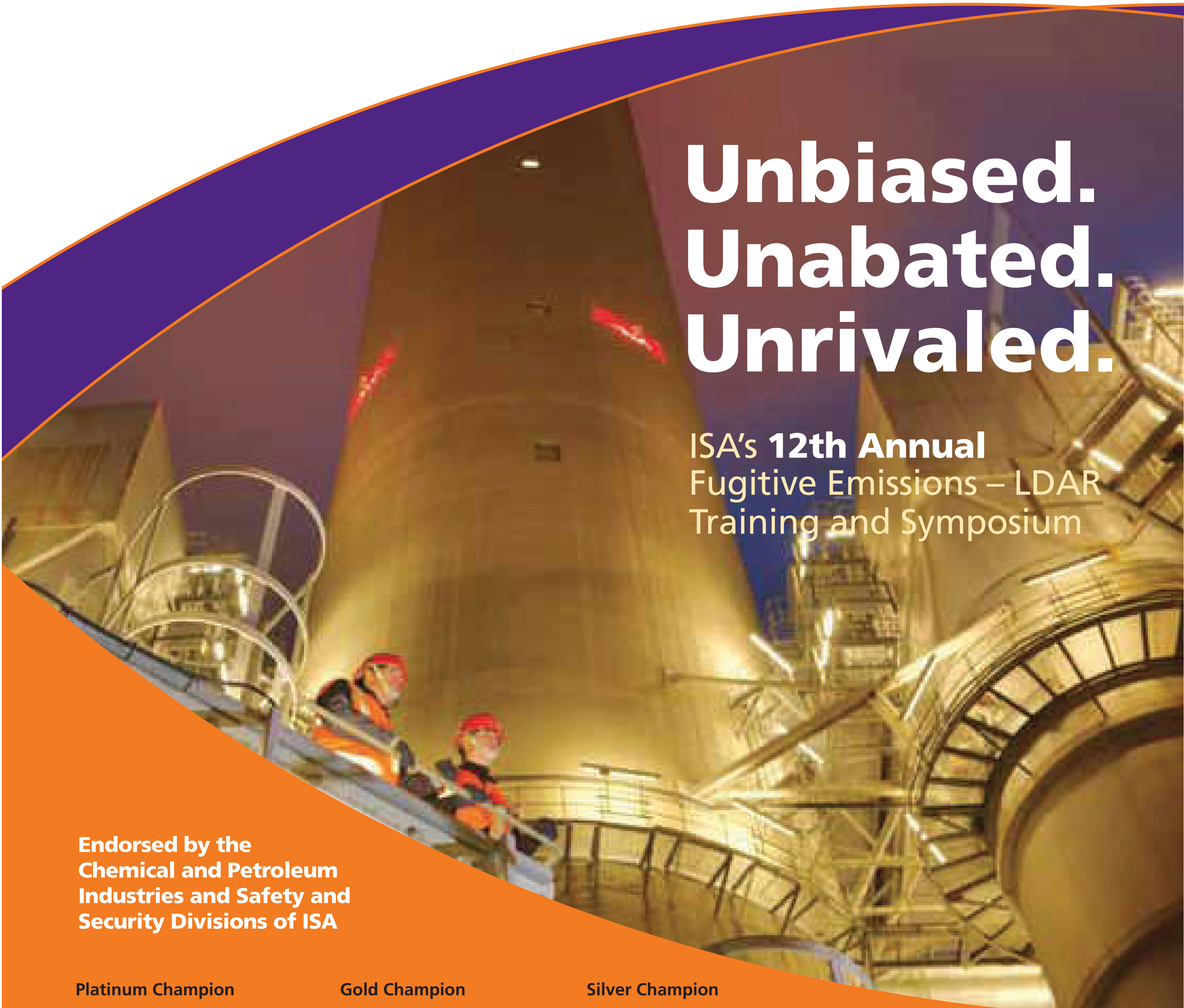
Senior Engineering Advisor Occidental Petroleum
Alan Bryant has a BS and MS in electrical engineering from the University of Missouri at Rolla. He spent 9 years at Exxon working in oil and gas production in the central U.S. as a control systems engineer and a facilities engineer. Alan worked for a small consulting firm for a year then as one of the product marketing managers for the Modicon Quantum PLC at Schneider Electric. Alan currently works for Occidental Petroleum as a senior engineering advisor in the automation technology group in Houston supporting Oxy's automation systems globally.

ChemPID Board Open Positions:
Newsletter Editor-Elect
Webmaster/Social Media Expert-Elect
Symposium Chair-Elect

ISA

LDAR Symposium2012

14–17 May 2012
Astor Crowne Plaza
New Orleans, Louisiana USA



Unbiased. Unabated. Unrivaled.

ISA's **12th Annual**
Fugitive Emissions – LDAR
Training and Symposium

Endorsed by the Chemical and Petroleum Industries and Safety and Security Divisions of ISA

Platinum Champion
Avanti environmental

Gold Champion
LeakDAS

Silver Champion
SUMMIT Inspection Services, Inc.

Setting the Standard for Automation™

The Missing Link between Operator Alarms, Process Control and KPI's

Robin Brooks, Alan Mahoney, John Wilson, Na Zhao Process Plant Computing Limited (PPCL), PO Box 43, Gerrards Cross, UK.
Robin_Brooks@ppcl.com

Operating Envelope is one of those phrases that everyone uses and understands until they are asked to describe and define an operating envelope for their process. Then they discover that the words they need just don't exist in English (and probably not in any other language either), that they can't draw a picture of an operating envelope and that even with advanced mathematics they can't describe an envelope of their process with equations. So how have plants managed to operate all these years without being able to know whether they were operating inside or outside of the nebulous and undefined Envelope within which they achieve all of their product and KPI objectives? There are three things that all plants do to a greater or lesser extent…

1. They have defined target operating values or small target ranges for all their primary setpoints from past experience of having achieved good product and KPI results and use process control to maintain operation as close as possible to this target point or inside the target ranges. Quite possibly they could get good results or maybe even better results outside this very small target zone but as no one knows where the boundary of the good-results operating envelope actually is, process control is worked hard to operate very close to the target and to quickly return the process to the target zone in the event of a process disturbance.
   Optimising controllers and constraint-pushing controls venture cautiously out of the target zone relying upon feedback of some sort to tell them they have reached a boundary of the good product envelope in the direction that they moved. If this were done often enough and all the 'touch-points' captured it could give some information about the envelope. But a point on the boundary of the envelope may be a better place then the target zone to operate at but is not necessarily the best because most or all processes are non-linear whereas many optimising controllers presume linearity so are unable to see local optima that they pass on their path to the boundary of the envelope.

2. They define Operating Ranges on individual variables and for several variables call the collection an Operating Windows. Operating inside all of the variable ranges and thus inside the window will produce better results than operating outside the window. So an Operating Window is a simplified representation of an operating envelope. An Operating Window is larger than a target zone. It is called a window because the effects of interaction between the individual variable ranges are largely ignored hence they form a rectangle in two variables, a cuboid in three and a hypercube or Operating Box in four or more variables. Useful Operating Windows usually have more than four variables so should really be called Operating Boxes but Operating Windows has become common usage.
   An Operating Window created without knowledge of the Operating Envelope that it is approximating is very likely to be capable of improvement.

3. They try to place Operator Alarms, as often advised, "at the boundary of where the process normally operates" so that when an alarm annunciates it acts similarly to a level probe on a tank by giving just 1 binary bit of information about the position of an envelope boundary. But as the position of "the boundary of where the process normally operates" was unknown the alarm limits were placed by trial-and-error methods so may or may not be on the boundary of the intended envelope or even all on the boundary of the same envelope.

Operating Envelopes are therefore the missing link between process control, operating windows and operator alarms. Surprisingly, they are relatively easy to find, see, work with and model.

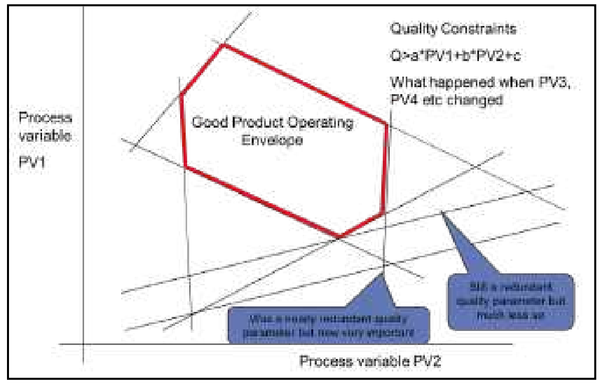


Figure 1, 2-variable cross-section of an envelope

Figure 1 shows in a very simplified form the many constraints that can exist between two process variables that between them outline the red boundary of the 2-dimensional space within which the desired good results may be obtained. But these constraints are functions of many other variables so will move as those other variables change value causing the shape of the red cross-section of the operating envelope to vary with time as in Figure 2 where a third axis has been drawn for time so that we can imagine the operating envelope as a tube of varying cross-section extending through time. But real processes need many more than two process variables to describe their operating envelopes so how can we draw a fourth, fifth, fiftieth and even five hundredth axis at right angles to all the others?

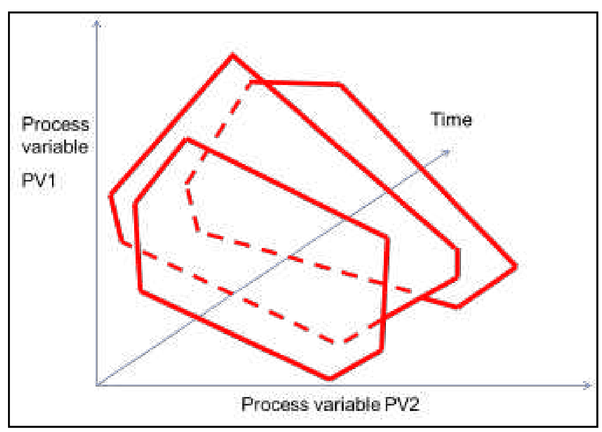


Figure 2, How can more than two process variables be shown?

The answer is don't draw the axes at right angles to each other but draw them parallel to each other instead so that the number of axes is limited only by the width of the paper or the size of the computers memory. This is called a parallel coordinate graph and is actually a coordinate transformation from n-dimensional space to 2-dimensional space so it has many other mathematical properties. An example is shown in Figure 3. The zigzag line is the transformation of a point from an imaginary 27-dimensional space, where it would have 27 coordinate values instead of the 3 we are used to in our 3-d world. The point is actually the values of all the variables at an instant in time and could have come from the DCS or from the plant historian. It is simple to read and understand but only becomes useful when many points are plotted to form patterns that can be recognised and understood.

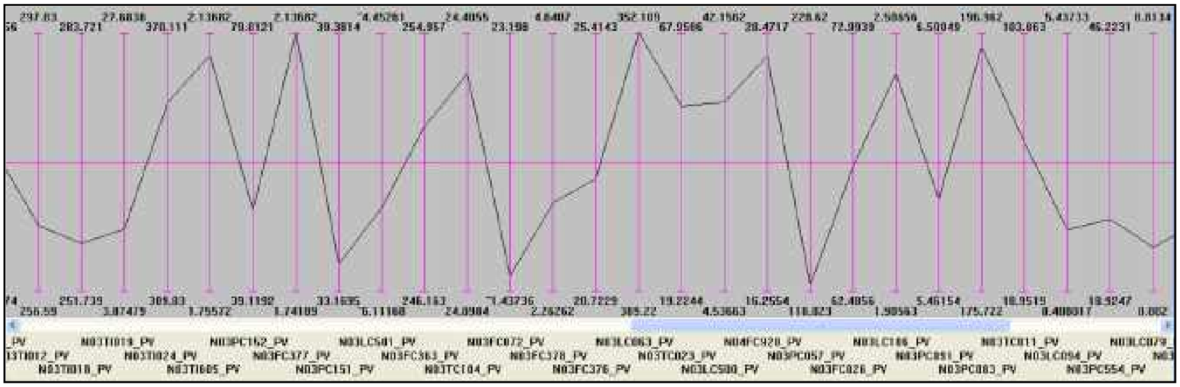


Figure 3, A parallel coordinate graph showing a single point and 27 out of 178 variables.

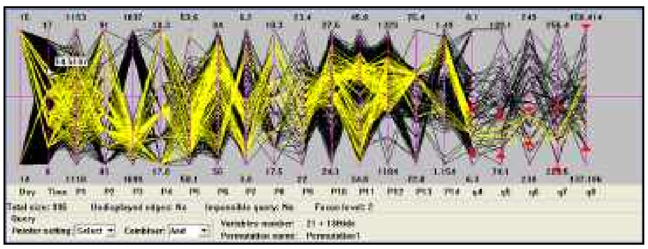


Figure 4, The Operating Envelope for 1st grade product in yellow

Figure 4 shows a simple process with 996 data points at 1-minute intervals. The process variables are labelled P1 – P14. The laboratory analyses of the 1-hour product samples have been joined using sample time as the connecting field and are the q4 – q8 variables.

Finding an Operating Envelope

The product specification for top-grade product is shown as red triangles delineating the allowable ranges of the specifications and all polygonal lines passing through all five ranges have been coloured yellow so it is very clear how the process was operated to make 1st grade product and how it was operated to make something else.

The yellow shape is actually the Operating Envelope for 1st grade product. It includes some prominent non-linearities shown by the yellow bands on P6, P7, P11, P13 and P14 and should be reduced in size before use to exclude the black holes between the bands since there are no process control algorithms available that can recognise and 'jump over' these holes. Non-linearities such as these are not easily seen by other methods.

Finding a Consistent Operating Window

An Operating Window or hypercube uses only the values on the axes of the graph and ignores the information between the axes. In this case it appears the individual process variable operating ranges defining are the solid black ranges on each axis. They are clearly too wide on variables P10 – P13 and too tight on P4 so form an Inconsistent Operating Window around the operating envelope. The enclosing Consistent Window is easily found by using the yellow ranges on the process variables to define the window and using the selectivity of the individual process variables in achieving the desired result to reduce the number of variables necessary to define the Consistent window to just those from Time (shift changeover procedures were very poor in this plant) to P5 in Figure 5

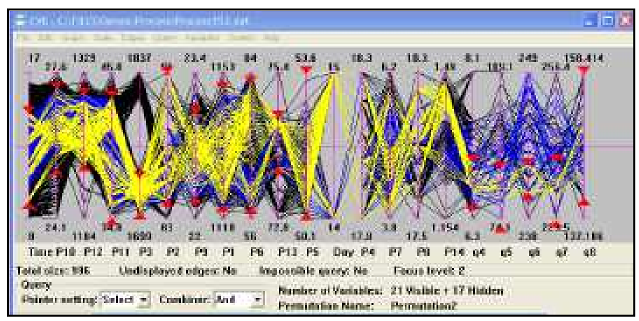


Figure 5, Consistent Operating Window in blue increases yield from 12% to 30%

The Consistent Operating Window encloses all of the yellow 1st grade product points and some additional points from ignoring interactions and not removing black holes but still encloses 39% of the total points including the 12% of yellow points so would give a yield of 1st grade product of 12/39 or approximately 30% if the process was always operated – which is the role of process control - to stay inside the Window. This represents an overnight Yield increase of 250% and is probably achievable without capital investment.

There are many other Operating Windows that are of interest. For instance, the Window on the Manipulable variables can give us information about whether our Manipulable variables are currently capable of controlling to stay within the Window on the process variables or whether and to what extent process control improvements may be needed.

Operating Targets

Even more information can be obtained by comparing operating envelopes as in Figure 6 where an 2nd grade product is shown in blue and super-grade product that is occasionally made almost by accident when everything goes right is in pink. The pink window is probably too small to operate in but gives ranges that can be used as Target Ranges to increase the probability of making super-grade more often in the future. Notice also that the pink window traces a path through the non-linearities showing how they are best avoided.

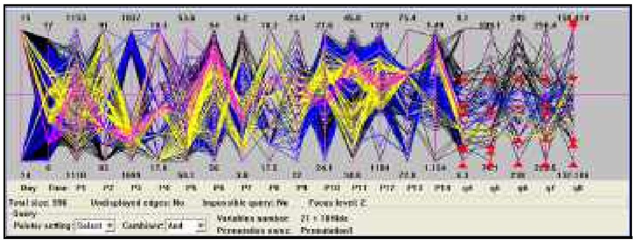


Figure 6, Finding Target operating ranges

All the data behind these graphs has come from existing process history and LIMS databases. The information was always there but just too hard to extract.

Finding Alarm Limits

We need to take enough process operating data from the process historian to adequately represent the range of normal operation with a year being typical so that the annual ambient cycle is covered. Then we import the alarm limits as a query and usually obtain a picture something like that of Figure 7 where many alarm limits are seen to be far outside the envelope of all-operation so can probably never annunciate and others are inside the black area where the process operates so are a cause of false alarms. There is no colour showing that there was at least one alarm visible on the operators alarm list throught the whole of the 92 days covered by this data.

Because we started from process history data there we can calculate alarm counts and annunciation rates and show them as conventional time-trends as in Figure 8. These graphs will update as the red triangles are moved so we can interactively adjust alarm settings during the alarm review process and predict the performance they would have given had they been in use during the period of the data. This saves considerable time and debate during the review process and the visibility of the operating envelopes for varying objectives allows the alarm limits to be set much more tightly around the envelope than is possible with other methods to give the operator earlier notification of process excursions with far fewer false alarms yet lower annunciation rates and lower standing alarm counts.

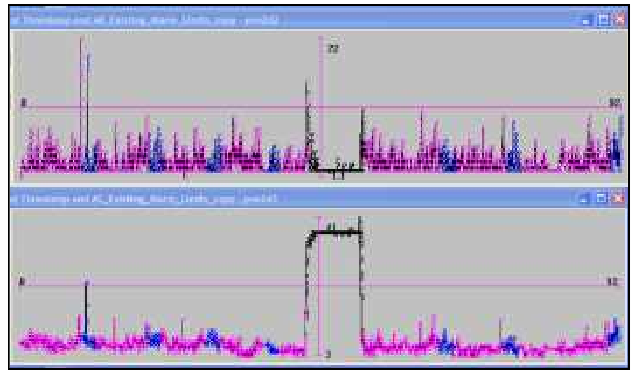


Figure 8, Annunciations/hour (top) and Standing Alarm count over 92 days of operation

Operating Windows, Process Control and Operator Alarm Limits come together in Figure 9 which shows a small number of 178 alarmed variables out of a total of several hundred process variables. The kerosene product operating mode was found using process historian values from an on-line densitometer. Importing the lab analyses of periodic samples and superimposing the product specifications for kerosene gave the turquoise operating envelope. The immediate question was 'why are they different' followed by 'how can they be made the same?' Now that the envelopes and therefore the problem can be seen it is very likely that process control improvements can be made to improve the economic performance of the plant. The control improvements have to be made and be effective before the alarm limits are tightened to capture and lock-in the improvement which is, of course, an on-going process stewardship activity rather than a project activity.

We have seen how to find and use Operating Windows. It is also possible to model the Operating Envelope including variable interactions as a multi-dimensional geometric solid. This is too complex a picture to show statically so a variant display is used to show the process operator in real-time where the process operating point is currently relative to the operating envelope. This real-time variant including variable interactions has many uses including process control, predictive alarming, condition monitoring and prediction of events such as compressor surge and sticking bits while drilling oil wells.

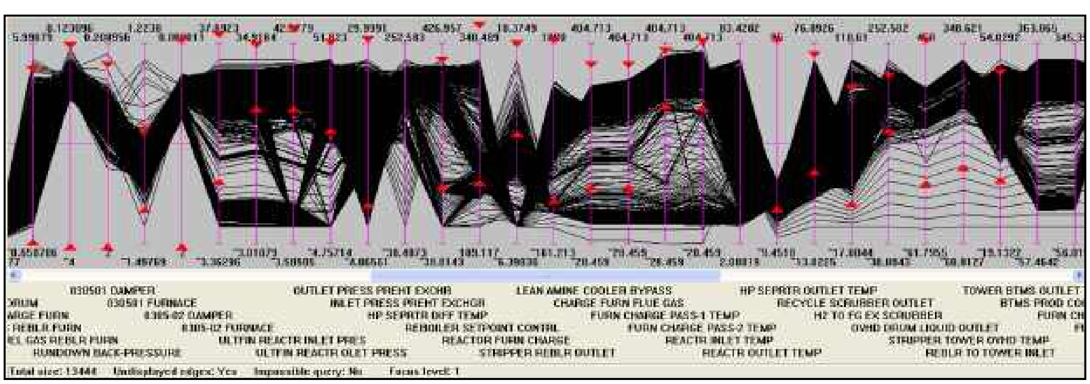


Figure 7, 92 days of operation with at least one alarm present at all times.

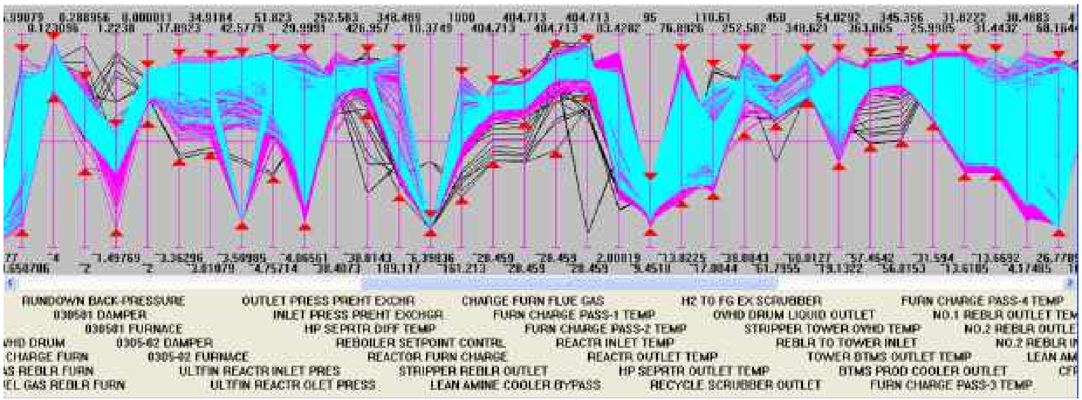


Figure 9, Kerosene Operating Envelope in pink, Best Kerosene Envelope in turquoise. Why are they different?

CASE STUDY: Ineos Chlor, Runcorn, UK

A Best Operating Envelope was selected and a GPC model built using the real-time C-Process Modeller (CPM). Operator Alarms were reset to the best possible values using existing methods and then benchmarked showing a false alarm rate of 49%. A repeat of the benchmark three weeks after implementing the GPC model had reduced the false alarm rate to less than 10%. At the same time there was a 2% improvement in the efficiency of the process, which does not sound like much but equates to a gain of £700,000 per annum. The start-up time was also reduced by a factor of six, which provided Ineos with one full day extra for production each month.

One of the main advantages of Geometric Process Control for an operating plant is that it is so easy to use, requires no mathematical training and plays to the strengths of the person who knows his process. It is generally predictive of the improved results and alarm performance that can be achieved so does not demand a big leap into the unknown to use its results. Everything stems from being able to see, compare, manipulate, work with and model Operating Envelopes for the first time ever so it is truly a new technology.

More on the results of the Field Trial and on GPC Technology generally can be found on our website www.ppcl.com.

Upcoming ISA Events

57th Annual Analysis Division Symposium

22 – 26 April, 2012
Crowne Plaza Anaheim Resort
Garden Grove, California

ChemPID/FPID Panel: "Integrating analyzers with automation systems for real-time control"
Wednesday, April 25th from 4:30 – 5:00 PM (PST)
Alex Habib FPID Panel Chair

Presenters:
Joseph George of Genentech
David Schilhabel of Oxy
Chris Watts of NNE Pharmaplan

58th International Instrumentation Symposium (IIS)

4-8 June, 2012
Hyatt Regency La Jolla
3777 La Jolla Village Drive
San Diego, CA 92122

ChemPID Paper Sessions
Wednesday, June 6th from 1:30 – 3:00 PM (PST)
Wednesday, June 6th from 3:15 – 3:45 PM (PST)

"Evaluation of Capacitance Sensor for the Liquid Holdup Measurement in Two-Phase with Highly Viscous Liquid"
Authors:
R. Brito, - The University of Tulsa
S. Graham - The University of Tulsa
E. Pereyra - The University of Tulsa
C. Sarica - The University of Tulsa

"Increasing Automation System Security with Better Configuration Management Practices"
Authors: Bill May and Nick Cappi of PAS Inc.

"The Truth About ISA100 Networks & Devices"
Author: Carlo Corso of Honeywell Process Solutions

"Prevention is Better Than a Cure"
Authors: Jo Agar and Gary Fransen of Agar Corporation Inc

2012 ISA Spring Leaders Meeting

9-12 June 2012
Hyatt Regency La Jolla at Aventine
3777 La Jolla Village Drive
San Diego, CA

7th ISA Marketing and Sales Summit

15 August, 2012
The Driskill Hotel
Austin, TX, US

2012 ISA Fall Leaders Meeting

22 -25 September, 2012
Rosen Centre Hotel
Orlando, FL

ChemPID Collaboration Corner

The Food and Pharmaceutical Industries (FPID) and Chemical and Petroleum Industries Division (ChemPID) teamed up for a Panel Discussion at the 57th Annual Analysis Division (AD) Symposium in Anaheim, CA on April 25th, 2012. The theme for this panel is “Integrating analyzers with automation systems for real-time control”. The objective is to bring ISA Members together across divisions to share how various industries implement real time analyzer data to control their processes. With presenters from the Biotech and Petroleum fields discussing analyzers and control we hope this panel will lead to more discussions between the three divisions and papers in future symposiums. Thanks to ChemPID for working with FPID! The Analysis Division is pleased to host this joint panel at AD 2012 Symposium and look forward to future collaborations!

- Sandra Krauthamer

The Chemical and Petroleum Division teamed up with the Management Division to improve Social Media Services to its members.

ChemPID thanks Juliann Grant and the Management Division for Social Media Collaboration!

From our collaborative efforts, we have implemented the following actions:

- Strategies to maximize the LinkedIn Group
    - Started a Blog on ChemPID Website and LinkedIn Group
    - Pull in RSS Feed from other industry blogs
- Share articles on a regular basis
- Use Polls to find out what ChemPID Members want from Social Media

Our challenge to the ChemPID membership is to provide feedback on what you want from Social Media and to start discussion of your own.

ChemPID Networking – JOIN the Discussion on ChemPID on Linked In!

Hot topics on ChemPID Linked in:

Should the people who design and implement your process control system be licensed professional engineers? Why or why not?

Alarm Me and Interlock Me at the Same Time

Find the Golden Egg in Your Batch System

Upgrading your DCS

This post was published to Emerson Process Experts at 4:23:26 PM 2/8/2012

Communications Key in Control System Migration Justification and Approval

Account

At a recent conference, Momentive’s Brooke Robertson was a presenter on a Control System Migration panel. She described their process to arrive at a global control system modernization decision—from the motivations to the justification process, internal communications, and results.

The motivation for change was control system obsolescence and increasing support costs. This situation increased the risk of extended downtime from hardware failures. Given the constant march of technological advancement over time, control system computing capability was also limiting ongoing optimization efforts.

Other motivations included the desire to standardize control system technology across all global plants to leverage in house expertise for projects and ongoing lifecycle support and gain favorable commercial terms. These motivations together pointed to the need for modern control systems to meet business goals.
Brooke provided many key takeaways for process manufacturers in describing the justification process that they used. It started with developing a vision for the project. This process involved working with the stakeholders from operations, engineering, and plant management to align on the scope, considerations for the risk assessment, and overall project roadmap. Using six sigma-based tools, stakeholders evaluated and prioritized what was important from their individual perspectives. The results of this process not only facilitated communications, it also helped to create a shared vision throughout the organization.

An important part of this process was pictures to help tell the story. One chart that proved to be very effective was an analysis of the age of the control and instrumentation ranked from state of the art to past due versus timeline to repair from hours to months. This helped visually convey the risk of remaining with the status quo.

The output from the stakeholder prioritization process was a customer/vendor matrix of requirements that was provided to the automation suppliers in the request for quote phase. A global team was assembled to review how the suppliers met the elements in the customer/vendor matrix. Initial polling was done to see if a clear supplier emerged from the responses and review process—unfortunately, the views diverged greatly. Through the course of discussions and clarifications, a unanimous decision was reached that was global in scope.

The process that facilitated global stakeholder communications also was effective in receiving full board support for the entire scope of the modernization effort. Projects are now underway, and processes being developed to have collaborative communications channels for engineers, operators, and maintenance teams to share their skills across the organization.

Brooke highlighted the major lessons learned were to involve the senior management team early in the process, open and sustain channels of communications with the stakeholders throughout the vision setting and vendor selection process, and clearly define and communicate the process to the vendors so that expectations were clear.

If you’re facing similar issues with obsolescence, increasing support costs, and system limitations to optimization opportunities, perhaps you can apply some of these practices to successfully navigate your organization.

Welcome new CHEMPID members!

Aaron Rodgers
Bishop State Comm Coll

Abdulrahman Saleh Al-Ejji
Dolphin Energy
Instrumentation Reliability Engineer

Ahmed Emam

Alejandro Alvarez Vazquez
Instituto Tecnologico De Ciudad Madero

Alessio Biasin
RealControl

Alex Dos Santos
Yokogawa America Do Sul
Supervisor De Treinamento

Alyson Tanner
ITI Technical College

Amanda Lucarino
Detection and Measurement Systems Inc
Regional Sales Manager

Andre Henrique De Paula
Translation Design
Coordenador

Andrew Vignes
Real Time Data Application Specialist

Angel Roberto Menjivar Calderon
La Geo SA de CV
Geocientista Jr

Anthony Vance Flosenzier
INVISTA
Process Engineering Supervisor

Ardell Walters
Kelly Engineering Resources
Sr Recruiter

Augusto Gomes
Stonel
Gerente De Vendas

Ben Thomas
Instrumentation SME

Blaine A. Ford
Bishop State Comm Coll

Blair Adam Hargrave
Sowela Technical Community College

Blake Colin Smith
Sowela Technical Community College

Bruno Alexander Felix Bezerra
Invensys Operations Management
Engenheiro De Instrumentacao

Bruno Mendes Valle
ThyssenKrupp CSA
Tecnico Em Automacao

Carl Scrivner

Carlos Córdova
Ingenia S A De C V
Director De Servicio

Carlos Enrique Recinos Ardón
Sherwin Williams De CA SA
Gerente De Calidad

Carlos Hernan Cabrera
Occidental De Colombia
Supervisor Instrumentacion

Carlos Leone Romanholli
Consulat Engenharia
Diretor Técnico

Cesar Augusto Rangel
Occidental De Colombia
Ingeniero Electrico De Facilidades

Charles R. Kelman, ISA84 SFS
INVISTA
Senior Technology Associate

Charlie Brown
Cumberland Valve and Fitting
Regional Sales Manager

Christian P. Bouchard
SK Institute of Science & Tech

Christo Conradie
Lakeside Process Controls
Process Engineer

Christopher D. Rivers
Bishop State Comm Coll

Christopher S. Hebert
Aristotle's Alexander LLC
CEO

Christophor I. Hall
Marathon Oil Company
Instrument Engineer

Clinton Hebert
Sowela Technical Community College
STUDENT

Consuelo Pujaico
Universidad Nacional del Callao

Corey Darensbourg
ITI Technical College
Material Handler

D Angelin
Panimalar Engineering College

Dan Poole
Romatec Inc
Area Sales Manager

Daniel Alves Souza
ThyssenKrupp CSA
Tecnico Instrumentacao E Control III

Danilo Yuri Alves de Lima
UFRN

Danny Emmanuel
Texas State Technical College

Danny J. Soria
Universidad Nacional del Callao

Darcy W. Wright
Aristotle's Alexander LLC
VP of Operations

Darren Taylor
Williams
OpTech III

David Naizer
D&D DesignTech Inc
Co-owner/engineer

David Niedermaier
STUDENT

Demetri Babinsky
Jacobs Industrial Services Ltd
Instrumen Tech 4th Yr Apprentice

Dennis M. Sánchez
Profesional 2

Diego Neves Sá
Engineer

Djoko Rahardjo
petronas
Senior Engineer

Douglas Root
CH2M
EI&C Engineer

Dr. Abhijit S. Badwe
Research Fellow

Dr. Alexey Kozlesov
Tersys LLC
Head of MES Department

Dr. Jose Sergio Rocha Neto
Federal Univ of Campina Grande
Professor

Dr. Julio C. Casquero
Universidad Nacional del Callao
Professor

Dr. Karlene A. Hoo
Texas Tech University
Associate Professor

Dr. Ognjen Kuljaca
Researcher

Dr. Osmar Ogashawara
Universidade Federal De Sao Carlos
Professor Dr Engenharia Eletrica

Dr. Paul W. Murrill
Gulf State Utilities

Dr. Roger Hutton
Crowcon Detection Instruments
Head of Research

Dr. Sérgio LUCENA Lucena, Sr.
Universidade Federal De Pernambuco
Coordenador De Laboratorio

Dr. William Kohley
Spraying Systems Co
VP

Dustin Lane Landry, Mr
ITI Technical College
Mechanic

Eduardo Freitas
Engineer

Edward R. Nugent
Integrated Process T
Branch Manager

Edwin D. Figueroa
SUN CONST
Electrician

Eiji Murakami
Azbil Korea Co Ltd

Elço Pereira Oliveira, Sr.
Net Campinas
Tecnico Em Eletronica

Erick Salvador Ayala Figueroa
Distribuidores Y Productos SA De CV
Supervisor De Producción

Erin Stout
Oxy
Facility Engineer

Esteban Valles Sanchez
General Director

Fabrício Oliveira De Andrade
Emerson Process Management
Tec De Instrumentação Pleno

Femi A. Alabi
Total E&P Nigeria
Production Operator

Fernando Romualdo Gallego
Tecnicas Reunidas
Ingeniero De Instrumentacion

Flavio Jose Da Silva
ThyssenKrupp CSA
Coordenador De Automacao E Processo

Francisco Espinosa Rosario, Sr.
Schneider Electric Mexico
Automation Projects Chief

Francisco Morales Martínez, Sr.
Engineer

Fredy Junior Suwarno Arita
Unilever de Centroamerica
Coordinador De Mantenimiento

Gabriel Aristoteles Ortolan
Senai Zerbini

Gamesh N. Sundar
Panimalar Engineering College

Giuliano Pietrasanta
Solvay Solexis
Electrical Assistant

Gregory G. Weidner, ISA84 SFS
Huntsman
Process Safety Principal Specialist

Guilherme Augusto Rutzen
Engenheiro

Guilherme Quevedo Sette
Conault Controles Automaticos Ltda
Engenheiro De Medicao

Hans Van Bodegraven
Kemira Polymers
Process Control Engineer

Hao Xu
Paton Controls Inc
Control Systems Engineer

Heather Broussard
College of the Mainland

Ignacio Atanasio Banda
Instituto Tecnologico De Ciudad Madero

Ilangeswaran B
Panimalar Engineering College

J. C. Mackeand

Jad Souhail
GCM Consultants
I & C Engineer

James E. Faubion
Select Engineering
I&E Field Supervisor

James Palomar
Chevron
Engineer

Janina Laughton
DMG Events
Marketing Manager

Jarrid A. Bakanec
SK Institute of Science & Tech

Javier de La Morena Cancela
WEG Iberia SL
Responsable De Grandes Cuentas

Jeferson Luiz Carvalho Mayer
ETM Integrazdora De Servicos De Engenharia Ltda
Instrumentista

Jeff Allan Fitzwater
Additive Systems Inc
Engineer

Jeffrey Curtis
Burns & McDonnell
Controls Specialist

Jenny Singletary
TASC
Business Development

Jesi Leite Da Silva
Devemada Engenharia
Projetista De Instrumentacao

Jesus Balarezo
Fametal SA
Engineering & Project Manager

Jesus Cruz, Sr.
PEMEX
Instrument Engineer

Jim Silva Naturesa
Eletrobras
Engenheiro Eletricista

Joao Carlos Mendonca
Conault Controles Automaticos Ltda
Gerente Geral

Johanna Alexandra Rojas
PDVSA Gas
AUTOMATION PROJECT ENGINEER

Johannes Koeth
NanoPlus Nanosystems & Technologies
CEO

John Paul Havener
Solomon Associates
Sr Consultant

John S. Barnes
CCI
Regional Sales Manager - New Construction Oil & Gas, N. America

Johnathan J. Nance
Instrumentation Design 1

Jonathan Fant
Electrical Supervisor

Jonathan Lee Cardoso Dos Santos
Deten Quimica
Tecnico Em Instrumentacao

José M. Silberman
Sinopec Argentina

Joshua L. Brossette
Sowela Technical Community College
STUDENT

Joshua P. Bostick
Automation Technician

Joshua Rose
St. Louis Fluid System Technologies
Swagelok Sales Rep / Territory Manager

K Jeeva
Panimalar Engineering College

Keith Kornegger
Account Manager

Kerry P. Mulloy
S B Enginners and Constructor
Process Engineer

Kimberly M. Hanks

Livia Martins Tizzo
Engineer

Lourival Jose Zago
Conault Controles Automaticos Ltda
Coordenador Tecnico

Lucilene Dempesey Heinowitz
Super Acesso Informacao
Diretora

Luis Penaherrera Castillo
Pluspetrol Norte SA
Supervisor De Instrumentación Y Control

Marcelo Flores Calderon
RECOPE
Engineer

Marcos Paulo Da Silva Campos
Faculdade Pitagoras

Mario Franco
Advantech
Director

Martin D. Paulk
Halliburton
Technology Director

Matheus Ferreira Da Rocha
Senai Zerbini

Matt Kaltenbach
I&C Engineer

Matthew Wuthrich
Spectra Energy
SCADA Specialist

Michael Dearinger
MRW Technologies Inc
VP

Michael Osenni
Franklin & Marshall Coll

Mike Costello
Enpro Inc
Sales Engineer

Mike Kipngetich Kirarei
Northwest Iowa Technical College

Mitchell Joseph Cote
Lake Superior College Duluth

Mr. A Gunasekaran
Panimalar Engineering College

Mr. A. K. Bandukwala
Norman Equipment Co
Vice President Chief Engrg

Mr. A. L. Dorsey
Inst Tech

Mr. A. O. Retteghy
TCI Int Inc
President

Mr. A. R. Huse

Mr. Aaron Cash Higginbotham
Lyondellbasell
Reliability Engineer

Mr. Abdul Baqui
Fluor
Senior Design Engineer

Mr. Abdullah Ali Alghamdi, Sr.
Saudi Aramco
Instrumentation Engineer

Mr. Abey Jacob C
It Sys Technologies
Consultant

Mr. Abimbola Adegoke Ogunlade
Chevron Nigeria
DCS - Control Systems Specialist

Mr. Adam Kingsnorth
Instrument Engineer

Mr. Adam M. Grieco
Emerson Process Management
Sales Engineer- Flow and Density

Mr. Adel Alshakar
Saudi Aramco
Engineer

Mr. Adewole Adekola Ayoade
GIL Automations & Control Services Ltd
Project Engineer

Mr. Adnan Khawaja Zaheer, II
ASSA Co
Sales & Services Manager

Mr. Agung Imayodya Widharta
Qatar Fuel Additives Co Ltd (QAFAC)
Control System Engineer

Mr. Ajibola O. Olabintan
GIL Automations & Control Services Ltd
Project Engineer

Mr. Alan Liberalesso
BASE Automacao
Diretor Técnico/Comercial

Mr. Alcides Rey Dos Santos
Petrobras Repar
Engenheiro

Mr. Alcinei Moura Nunes
UNISAL
Professor

Mr. Alecsandro Jesus Nelli
Wika Do Brasil
Vendas Externas

Mr. Alejandro Fernandez
Dietsmann
Project Manager

Mr. Alessandro Lancaster Nascimento, Sr.
Siner
Gestor De Projetos Júnior

Mr. Alex Javier Sepulveda
ITPR

Mr. Alexander Botek
Honeywell
Advanced Solutions Consultant

Mr. Alexander Millan
Foster Wheeler
Principal Control Systems Eng

Mr. Alfredo Tavares Mello
The Dow Chemical
Process Automation Lead

Mr. Alfredo Shor
Eletrus
Engenheiro

Mr. Ali Barkatally
Cameron - Flow Control
Advanced Product Engineer

Mr. Alireza Sahraei
Enrbridge
Senior Control Systems Engineer

Mr. Allan Liddle
Rockwell Automation
Account Manager

Mr. Allan Soon
Tetranex Solutions
Control Systems Engineer

Mr. Allen Wayne Bennett
LANXESS Corp
PCS Technician

Mr. Amir Or
YW Galil Engineering
I&C Department Manager

Mr. Anand Govindarajan
Oklahoma State University

Mr. Anders A. Andersson
SP Technical Research Instute of Sweden
Metrology Engineer

Mr. Anderson Luis Ambrosio
Rhodia
Assistente Técnico De Engenharia

Mr. Andre Luis Da Silva Moreira
Ingeteam

Mr. Andre Vinicius Chiaradia Berti
Marketing & Sale Manager

Mr. Andrew M. Sass

Mr. Andrew Mueller
Chevron
Automation and Control Engineer

Mr. Andrew Pyrka
Senior Instrumentation Specialist

Mr. Andrew Spence
Coanda Research
E&I Suprevisor

Mr. Andrew W. Burns
WorleyParsons
Senior Instrumentation Specialist

Mr. Anirudh R. Patrachari
Oklahoma State Univ

Mr. Anthony J. Dickenson
WorleyParsons
Snr Instrument Engineer

Mr. Antonio Rampola, Jr.
SNC Lavalin
DCS Specialist

Mr. Anwar A. Ahmed
Northern Alberta Institute of Technology

Mr. Appandai Rajan
GASCO
Instrument Supervisor

Mr. Arthur L. Chapman, Jr., CCST
BG LNG Services LLC
Engineering Superintendent Consultant

Mr. Asad Zaidi
Junior Control Engineer

Mr. Ashoak Niranch Nagarajan
Hurst Technologies
I & C Engineer

Mr. Askar Jaffer
AbuDhabi Gas Industries Ltd
GASCO
Automation Engineer Engineering and Technical Support Div

Mr. Austin David Carley
Quality Plus Services
Instrumentation Industrial Automation Technician

Mr. Ayman Adel AL-Issa
ADMA-OPCO
Information Security Section Leader

Mr. Azael Mendonça Junior
Vector
Mediador De Negócios De Automação

Mr. Bahaa Eldin E. Bonna
Uhde Engineering Egypt
Lead Instrumentation and Control Systems Engineer

Mr. Bakulesh S. Vadgama
Reliance Engineering Associates Ltd
General Manager - Instrument Engineering

Mr. Barry Henry O'Brien
Idaho National Laboratory
Advisory Engineer

Mr. Benjamin C. Cox
Cincinnati State Community College
Electrician

Mr. Benjamin Owusu Arthur
AngloGold Ashanti
Control Systems Engineer

Mr. Biliaminu Faleti
Instrument Technologist

Mr. Binu Philipose
Jacobs Canada
Control System Specialist

Mr. Bleriot Ortiz Castaneda
Siemens S A
Ingeniero De Producto

Mr. Bob Gallagher
Kinder Morgan
Maintenance Technician 1

Mr. Brandon Caka
Seadrift Coke LP
Instrument Technician

Mr. Brennan N. Brow
SAITech
Instrumentation Sales Specialist

Mr. Brent Buckingham
Sr. Instrumentation Engineer

Mr. Brian J. Maher
Commercial Engineer Safety

Mr. Brian Thomas Peterson
BRMC

Mr. Brian Van Vliet
Spartan Controls

Mr. Brock Matthew Moore, CST Associate
Oklahoma Natural Gas
Field Specialist

Mr. Bruce Van Peursem, ISA84 SIS Expert
Savannah River Remediation
Electrical Engineer

Mr. Bruno de Oliveira Castro
Iesa Oleo & Gas
Engineer

Mr. Bryce Harry Elliott
Shaw Energy & Chemicals
Project Engineer

Mr. Byron Birch, P. Eng.
Birch Engineers Ltd
President

Mr. Cal S. Eschete
Grand Isle Shipyard

Mr. Carl Ekrut, III
Maintenance Electrician

Mr. Carl W. Paul
Sr Instrument Design

Mr. Carlos Guapyassu Machado
Wika Do Brasil
Manager

Mr. Carlos Gustavo Lisboa De Morais
FEI
Estudante

Mr. Carlos José Da Silva Matos Pombo, CAP
Petrobras
Equipment Engineer

Mr. Carlos William Rogers
CEO / Sr. Controls Engineer

Mr. Chad H. Brown
Flow Control Products
Business Development

Mr. Charles A. Mills
AE Solutions
Principal Specialist Control Ssytems

Mr. Charles David Sharp, Jr., ISA84 SFS
Maverick Technologies
Senior Controls Specialist

Mr. Charles Franklin Watson
Koch Mineral Services
Sr Process Controls Engineer

Mr. Charles W. Hecker, III, ISA84 SFS
MS Benbow & Associates

Mr. Chinyeaka Christian
Ekenedu
Nait
Student

Mr. Chris Chandler
CB Engineering
Account Manager

Mr. Chris G. O'Reilly
Sylvan Automation
Area Manager

Mr. Christiam A. Baldeon
Universidad Nacional del Callao

Mr. Christiam Morales
EPUSP

Mr. Christian R. Baez
Universidad Nacional del Callao

Mr. Christopher R. Deemer, CCST
Columbia Gas Transmission
A&E Mechanic

Mr. Chuck Jedlicka
Jacobs Engineering
Project Manager

Mr. Claudinei De Oliveira Talieri
CAF
Técnico Elétrico

Mr. Claudio Almeida
Pensalab
Gerente Geral

Mr. Claúdio Oliveira Preto
SMC Pneumáticos do Brasil Ltda
Project Leader

Mr. Claudio Torres
Universidade Federal De Itajuba
Aluno

Mr. Clyvian R. Borges
UFRGS

Mr. Colin E. Dwyer
Northern Alberta Institute of Technology

Mr. Conor Twomey
Tyco International
Director, R&D

Mr. Corey Howard
ITI Technical College
STUDENT

Mr. Craig Alan Stevens, Jr.
Mustang Engineering
Instrument Engineering

Mr. Dan C. Pillar
Dakota Gasification Co
E&I Maintenance Superintendent

Mr. Dan L. Richardson
Big West Oil
DCS Technician

Mr. Daniel B. Sieve
RDS
Principal Engineer, Instrument & Control Systems

Mr. Daniel G. Ndansi
Northern Alberta Institute of Technology

Mr. Daniel J. Brinker
GE Energy
Sales Manager

Mr. Daniel Maia Guimaraes Miranda

Mr. Daniel R. Green, CCST
Flint Hills Resources
Instrumentation Reliability Engineer

Mr. Daniel Sanchez Ruiz
Universidad Nacional Federico Villarreal
Engineer

Mr. Daniel Vranjes, Jr.
ECI
Sr Control Systems Engineer

Mr. Darin A. Sayers
Northern Alberta Institute of Technology

Mr. Dario F. Bagattini
Monsanto
Maintenance Specialist

Mr. David A. Boyko
Dab Automation
Instrument Technician

Mr. David Anthony Lee
UCDS
VP Operations Sr Consultant

Mr. David M. Warfield, PE
Day & Zimmermann
E & I Lead Engineer

Mr. Dean Sheridan
Fluor
Engineer

Mr. Derrick J. Dieringer
University of Alaska Fairbanks

Mr. Desmond Lee
Emerson Process Management
Senior SIS Manager

Mr. Dick Smit
Hinz A Rockwell Automation Co

Mr. Donald D. Gilmore
Veliscol Chemical Corp
Instrument Technician

Mr. Doug Sinclair
Enogex
I&E Design Engineer

Mr. Douglas Gernetzky
E&I Engineer

Mr. Douglas Lewis, Sr.
ITI Techincal College

Mr. Douglas S. Esplin
DSE Consulting
Engineering Consultant

Mr. Dragoljub Il Gajic
School of Electrical Engineering
University of Belgrade
PhD

Mr. Duane Svenson
Shaw
Control System Specialist

Mr. Dub Legendre
Promag Ltd
General Manager

Mr. Éber Gustavo Oliveira
Kagetec Industrial Automation
Diretor

Mr. Eddie Jim Whitfield
OSIsoft Inc
Account Manager

Mr. Edinei Monteiro Quadros
Autec Instrumentacao
Manager

Mr. Edson Alberto de Souza
Levorin
Supervisor De Manutencao Eletronica

Mr. Eduardo Nunes Barros
LUPATECH S/A
ASSISTENTE DE ENGENHARIA

Mr. Eduardo Soares De Sá Corrêa Da Veiga, Sr.
Alfa Laval Aalborg
Electrical Engineering Manager

Mr. Eduardo Valério Alves Da Silva
UNICAMP
Físico

Mr. Edward Dubreuil

Mr. Edward Sablatura
BASF Co
Analyzer Technician

Mr. Elder Fernandes
Bray Controls Industria De Valvulas Ltda
Estagiario De Engenharia Mecanica

Mr. Eliezer Mendoza Trujillo
Grupo Proasip S a De C V
Instrumenation Supervisor

Mr. Elio Antunes De Oliveira
BR Cometion
Instalador

Mr. Enio Jose Viana
Braskem
Project Technician

Mr. Eric J. Vehr
McJunkin Corp
Regional Manager

Mr. Erick Leopoldo Martins
Monsanto Do Brasil
Manufacturing Supervisor

Mr. Eugene Heuschel, III
Booz Allen Hamilton
Engineer

Mr. Evaldo Stenzel
Citrovita

Mr. Evanilso Oliveira
Schneider
Técnico Eletricista

Mr. Fabio Luiz Viana
UNIFEB
Coordenador De Curso

Mr. Fahd Mohammad Saghir
Senior Automation Engineer

Mr. Felipe Gabriel Kuhn Soares
Braskem

Mr. Felipe Soares Lacerda
Project Assistent

Mr. Fernando Antonio De Medeiros
Jav Automacao Industrial Ltda
Consultor Tecnico Comercial

Mr. Fernando Antonio Pupim
Conault Controles Automaticos Ltda
Gerente Operacional

Mr. Flavio D. Lencina
Petrobras-Petroleo Brasileiro SA
Electronic Technician

Mr. Francisco José Medina
Electronics Engineer

Mr. Franck C. Vigil
Universidad Nacional del Callao

Mr. Franco Antonio Silva
Sanepar Cia De Saneamento Do Parana
Tecnico Em Electrotecnica

Mr. Frank Jacobs
Perigon PA A & E Associates
Process Automation Coordinator

Mr. Fred C. Conklin
Fred Conklin Engineering Services
Owner

Mr. Fred Cowen
Aecometric Corp
Chief Engineer - Electrical

Mr. Furkan Dodurka
Istanbul Techinical University

Mr. Gabriel De Abreu Parantos, Sr.
Unip
Estudante

Mr. Gabriel Porto Quadros
Unipampa

Mr. Gar Li
Parker Drilling Co
Manager - Elect Engineering

Mr. Gary A. Spies
Aces Engineering Inc
President

Mr. Gary D. Wilson
Cannon
Civil Associate Engineer

Mr. Gary R. Bourrette
Simplot Phosphates LLC
Process Control Analyst

Mr. Gary R. Pfrehm
eCORP
Vice President

Mr. George C. Malone
Parsons Energy & Chemicals
Control Systems Engineering

Mr. George H. Lee
Engineer

Mr. George Havlik
CH2MHILL
Engineer

Mr. George L. Cuevas
Lee Coll
Student

Mr. Georges COUVAL
Arkema
Instrument Engineer

Mr. Gerald W. Langham
DuPont

Mr. Giancarlo L. Cuentas
Universidad Nacional del Callao

Mr. Gilbert Richards
Richards Industries Inc
Chairman Emeritus

Mr. Glenn A. Staudt, CCST
Flint Hills Resources
Instrument Technician

Mr. Glenn Edward Scott
McMaster University

Mr. Glenn W. Knezek
Seadrift Coke LP
Instrumentation Supervisor

Mr. Graeme Richard Frankham
Central Qld TAFE
Leading Vocational Teacher

Mr. Greg Jones
Arrow Energy
SCADA and Data Systems Engineer

Mr. Greg Pajak, ISA84 SFS
Triumph epcm
Instrumentation Specialist

Mr. Grzegorz Dzieza
Combustion Solutions Inc
Facilities Manager

Mr. Guido Vilela
Universidad Nacional del Callao

Mr. Guilherme Neves Lopes
UFRJ

Mr. Gustavo Deckers
Foxautomation Sistemas de Controle de Automação Ltda
Técnico De Projetos

Mr. Gustavo Melo Lima
Universidade Federal do Rio de Janeiro

Mr. H. A. Clayton

Mr. Hamed Ademayowa IDOWU
Chevron Nigeria Limited
DCS Control Support Specialist

Mr. Harold B. Dygert
Clark Richardson & Biskup
Electrical Engineer

Mr. Harold W. Thomas, P.E.
Exida
Partner

Mr. Harshdeep Rahul
Indian Oil Corporation Limited
Senior Instrumentation Engineer

Mr. Harvey Ghiz
GSB Process
Vice President

Mr. Hasan Shakuri, CAP
WorleyParsons
Senior Instrument Engineer

Mr. Hendrik A. Alberts
Honeywell
Sr APC Engineer

Mr. Henk Ludwig Barnard, II
Iritron
Instrumentation Design Engineer

Mr. Henrique Cunha Barroso
Universidade Federal De Campina Grande
Aluno Doutorado

Mr. Henrique Yuji Suenaga
FEI

Mr. Henry E. Watson
LodeStar
Control System Engineer

Mr. Henry Paris
OXY Permian
Automation Tech II

Mr. Henry Schadt, Jr.
ConocoPhillips Co
I&E Technician

Mr. Herbert E. Harpster, PE
The Lubrizol Corp
Maint Supt

Mr. Himanshu R. Desai
SSM Infotech Solutions Pvt Ltd
General Manager

Mr. Hiroshi Hayano
Mitsubishi Kakoki Kaisha Ltd

Mr. Hitesh Gill
NAIT

Mr. Hosam Elden Mohamed Ali
Ghabban
Qarun Petroleum Ci
Instruments First Engineer

Mr. Hussainudeen Ansar
Tamimi Trading & contracting Co
Project Manager

Mr. Imran Abulhassan
I&C Solutions
Technical Manager

Mr. Inadinimi Benjamin Asuku
Shell Nigeria Exploration & Production Company Limited
Controls & Automation Engineer

Mr. Istvan Nyikos
BAPCO Bahrain
Senior Control Engineer

Mr. Ivan Scott Bufkin
US Amines
I&E Engineer

Mr. Izac Tenorio Correia
Uniao Engenharia
Tecnico De Planejamento

Mr. Izaias Gomes Reis
Metrocamp
Técnico Em Manutenção

Mr. J. D. Hofer
Maverick Engineering Inc
Senior Control Systems Consultant

Mr. Jack D. Harshman, T.S.
Welker vFlow Measurement
Engineer

Mr. Jackson Barboza
MVCS Campinas
Enginner

Mr. Jagmilan Singh Momi
Northern Alberta Institute of Technology
Student

Mr. Jaime Urzua, Sr.
Outotec

Mr. James A. Ginsel, CCST
Flint Hills Resources
Instrumentation Technician

Mr. James A. Robinson, P.E.
BE & K Engineers Delaware
Senior Instrument Engineer

Mr. James A. Wonderly, P.E.
Hughes Machinery Co

Mr. James Beres
Tyco Thermal Controls
Vice President

Mr. James Book
PC & E

Mr. James E. Stanton
WESCO
Instrumentation Specialist

Mr. James Hugh Jenkins
INVISTA
Instrumentation Reliability Specialist

Mr. James K. Johnson
Novaspect
V.P. Engineering

Mr. James L. Bryant
Bryant Instrumentation Consulting
Consultant

Mr. James M. Goodnight
Electrical Engineer

Mr. James Michael Garvey
EN Engineering
Vice President of Business Development

Mr. James N. Nail, III
Nicholas
President

Mr. James P. Kennedy
Carrier Oehler
Application Engineer

Mr. James P. Neal, IV

Mr. James R. Anderson
Northern Alberta Institute of Technology

Mr. James S. Bridges, P.E.
Jacobs
Sr Control Systems Engineer

Mr. James W. Evers
Electric Power Systems Inc
Sr Control Engneer

Mr. James W. McCauley
Seadrift Coke LP
Instrument Technican

Mr. Jay Ahuja
Valdes Engineering Company
Senior Engineer (E&I)

Mr. Jayant Ramdas Rane, CAP
Saudi Aramco
Process Control Engineer

Mr. Jeff Buchman
Invensys Triconex
Principle Test Engineer

Mr. Jefferson Estanagel Albuquerque
Flextronics International Tecnologia Ltda
Téc Suporte De Testes

Mr. Jeffery A. Parsons
ABB Automation
Senior Engineer

Mr. Jeffrey Scott Umbach
Orochem Technologies
Process Engineer

Mr. Jeremy G. Ottenbreit
Spartan Controls
Inside Sales

Mr. Jerry L. Glines
JG Engineering Contractors
E&I Technician

Mr. Jerry Mateo Hipolito
Nexen Inc
Senior Technologist-Process Automation

Mr. Jerry T. Waldron
Shell PSR
Instrument Specialist

Mr. Jerson J. Chuco
Universidad Nacional del Callao

Mr. Jerzy Dutkiewicz
Sunoco Inc R&M
Operational Architecture Consultant

Mr. Jia-Ren Huang

Mr. Jim Arrowood
Director of InfoSec

Mr. Jim Halbleib
Control Analytics
Regional Manager

Mr. Joan Daniel Ruiz Urdinola
Occidental De Colombia
Ingeniero De Facilidades

Mr. Joao Carlos Zetola
Zetola and Cia Ltda
Diretor

Mr. Joao Luiz Fabri
J L Fabri Engenharia Ltda
Diretor

Mr. Joao Paulo Druzina Massignan, Sr.
Petrobras
Equipment Egineering

Mr. John A. McIlwain, CAP
Honeywell
Sr. Automation Engineer

Mr. John Alan Warner
EnerSys Corp
Project Manager

Mr. John C. Pfeiffer, PE
Pfeiffer Engineering Co
President

Mr. John Crippen
Chevron Pipeline
I & E Tech

Mr. John Curtis
Avanceon
Controls Engineer 3

Mr. John D. Elledge
Maverick Technologies
Controls System Specialist

Mr. John E. McDonough
Protectoseal Co
Sales and Marketing Manager

Mr. John Lenno
Jaragua Equipamentos Industriais
Gerente Industrial

Mr. John Mark Norrell
CH2M Hill Engineers
Discipline Lead Control Systems

Mr. John R. Summerfield
Jacobs
Engineer

Mr. John T. Dueker
Self Employed
Consultant for Manufacturing/Electrical/Automation

Mr. John V. Tashijan
Wachter Inc
Sr Engineer

Mr. Jon Pierre Tillman, Sr.
ITI College Baton Rouge Campus

Mr. Jonathan E. Freyer, CAP
Sandy Creek Services
Instrumentation and Controls Engineer

Mr. Jorge A. Pareja
Universidad Nacional del Callao

Mr. Jose A. Blanco
Universidad Nacional del Callao

Mr. Jose Antonio Casla Luzuriaga
Ingeoman

Mr. Jose Gabriel Montanez Munoz
CES San Juan Bosco Cartagena

Mr. Jose J. Suybate
Universidad Nacional del Callao

Mr. Jose M. Fernandez
Jacobs Eng Group
Control Systems Engineer

Mr. Joseph A. Russell
De La Guerra Power Inc
Owner

Mr. Joseph Hole
STV Inc
Controls Engineer

Mr. Joseph M. Laplante
WorleyParsons
Supervising Control Systems Engineer

Mr. Josh Gurney
Oneok
Manager Measurement/Instrumentation

Mr. Joy Kumar Debnath
Oil India Ltd
DySE(Instrumentation)

Mr. Justin M. Kates
Alloy Metals & Tubes Intl
Project Manager

Mr. Justin Patrick McCarty
Motiva Enterprises LLC
Process Analyzer Engineer

Mr. Justin Robert Trupp
British Columbia Institute of Technology

Mr. K. Y. Wai
ConocoPhillips
Staff Electrical Engineer

Mr. Kaidi Su
University of Alberta

Mr. Kalliu Saraiva Martins
Valeo Thermal Systems
Compras

Mr. Kamaljit S. Ahluwalia
North Elizabeth EXXON
President

Mr. Karthik Nimmagadda
L&T- GULF
Engineer - I&CE

Mr. Keith A. Pace, CAP
Nissan Chemical Houston Corp
Plant Manager

Mr. Keith W. Batchelor
Encana Corp
Instrumentation Technologist

Mr. Kenneth Blyth McNaughton
Culter Engineering Design Ltd

Mr. Kenneth Poteete, ISA84 SFS
Pegasus International
Engineer

Mr. Kevin Cassidy
James Controls

Mr. Kevin D. Smith
Burns & McDonnell
Senior Instrument & Controls Engineer

Mr. Kevin G. Bryan
Parker Hannifin Corp
Sales Manager

Mr. Kevin LB Cunningham
Stantec Consulting

Mr. Kevin Lucas

Mr. Kevin McLeod
Spartan Controls Ltd
Account Manager

Mr. Kevin Speller
Conax Technologies
Gulf Coast Sales Manager

Mr. Kingsley Efosa Erhabor
Shell Nigeria E&P Company
Subsea Control & Distribution Engineer

Mr. Kithsiri J. Kaluarachchige
Ardent Co
Instrument Technician

Mr. Kody Lopaschuk
NAIT

Mr. Krishna Kumar Rajamanickam
Honeywell India Software Operations
Software Engr Fellow

Mr. Kultar Kooner
AMEC
Sr I&C Engineer

Mr. Kumar Narayanan
J Ray McDermott Engineering LLC
A&I Supervisor

Mr. Kyle Matthew Barry
Emerson Flow
Sales

Mr. Lalit Grover
Yusuf Bin Ahmed Kando Co Ltd
Business Unit Manager

Mr. Larry E. Chadwick
Williams
Senior Engineer

Mr. Larry Miller
Encana Oil and Gas USA
Measurement and Automation Specialist

Mr. Lawrence Oladele Agboola
National Engineering & Tech Co Ltd- NETCO
Senior Instrumentation & Control Systems Engineer

Mr. Leandro Cuenca Massaro, Sr.
Chemtech

Mr. Leonardo De Mattos Rolim
Universidade Federal do Rio Grande do Sul
Control and Automation Engineering

Mr. Lewis J. Briggs
BHP Engrg & Construction Co
Project Environmental Engineer

Mr. Lianwei Zhong
Air Products LP
Sr. Control Engineer

Mr. Lionel Jagnanan
Jacobs Engineering Group
Senior Project Engineer

Mr. Lucas de Jesus Teixeira
Umicore Brasil Ltda
Tecnico Instrumentista

Mr. Lucas Lago Monteiro
Bayer S/a
Engenheiro Tecp Jr

Mr. Luis A. Polastri
Universidad Nacional del Callao

Mr. Luis Américo Dege Maia
ETEC
Desenhista De Instrumentação

Mr. Luis Miguel Raposo
REPSOL Polimeros Lda
Instrumentation Reliability

Mr. Luiz Augusto Arruda Costa
Controla Automation
Automation Engineer

Mr. Luiz Gonzaga Petriaggi Filho
Dia Entregue Transporte De Encomendas Urgentes Ltda Me
Gerente Comercial

Mr. Lyle N. Denning, CCST
Port of Portland
T-6 Journeyman Electrician

Mr. M. P. Swathanthira Kumar

Mr. Majid Amiriani
Senior Systems and Process Control Engineer

Mr. Malcolm C. Jolley
Self-employed

Mr. Mangesh Suresh Pate
Lamar University

Mr. Manjunath P V R Atchutanna
Flow Control Engineering
Senior Software Engineer

Mr. Manuel Hernandez, III
Fluor Corp
Principal Design Engineer

Mr. Marcelo De Arruda
Invensys Systems Brasil Ltda
Gerente

Mr. Marcelo Laureano de Freitas
Dades Servicos Tecnicos Electromecanicos
Socio Gerente

Mr. Marcelo Moreira Xavier
CNPEM
Estudante

Mr. Marcos Felipe Pinheiro
Unipampa

Mr. Marcos Peverati
Monsanto
E&I Engineer

Mr. Marcos Túlio Campos De Oliveira
Tropical Bioenergia S A
Coordenador Automação

Mr. Matthew Allen Dolphin
Northwest Iowa Technical College

Mr. Matthew Brock Hampton
Enogex
Associate Design Engineer

Mr. Matthew V. Hnydyk
NAIT

Mr. Mauricio Santos
MDS Automacao
Engenier

Mr. Maxmiliano Ludewig
Tricomex Ltda
Diretor

Mr. Michael Downey
Pensalab
Gerente De Projectos E

Mr. Michael J. Busch, CCST
Flint Hills Resources LP
Instrument Technican

Mr. Michael J. Leopold, CCST
Flint Hills Resources LP
Instrumentation Technician

Mr. Michael J. Scelzo
Michell Instruments Inc
President and General Manager

Mr. Michael P. Gloystein
Curtiss Wright Flow Control/TAS
Product Manager - Safety Solutions

Mr. Michael Webb, P.Eng.
Integrity Logic Corp
Process Automation Specialist

Mr. Michel D. Belzile

Mr. Miguel Nelson Costa E Silva
Mc Representatacoes
Diretor

Mr. Mike L. Arcady, CCST
BP Chemical
On-Line Analyzer Specialist

Mr. Mike Stanley Kaz Bandura
Pembina Controls Inc
Business Development

Mr. Mobolaji Akinola
Total (TEPNG)
Head of Electrical & Instrumentation

Mr. Mohammed Rafi
System Engineer

Mr. Mohan V. Punganur
Dow Chemical Co
Process Engineer

Mr. Mohssine Rhazi
Saudi Aramco
Project Engineer

Mr. Muhammad Hussain Al-Khalifah, Sr.
Saudi Aramco
Instrumentmentation Design Engineer

Mr. Muthu Ganesh Shunmugam
Tata Consulting Engineers Ltd
Assistant Manager - I&C

Mr. Nagappan Muthiah, P.E.
Contech Control Services
Control Systems Engineer

Mr. Nasir Moizuddin Hyder
TJ Cross
Control Systems Engineer

Mr. Neil R. Keown
Shaw
Controls Technologist

Mr. Nicholas Alexander Moses
M S Benbow and Associates
Instrumentation Control Engineer

Mr. Nicholas James Sonnier, ret. USMC
Sowela

Mr. Nicholas Wilson
Advanced Instruments Inc
Industrial Sales Engineer

Mr. Nick Frank
Marathon Oil
I & E Tech

Mr. Nico H. Roos

Mr. Nigel John Pronovost
Spartan Controls
Product Support Services - Power Ignition and Controls

Mr. Niloberto Freitas Silva
Interaut

M**r. Nilotpal Chakraborty**
Chevron
Automation Engineer

Mr. Noel Marco A. Mendoza
Cal Poly Pomona Univ
Instrument Technologist

M**r. NOWAF Faried ALSOWAYEH**
Saudi Aramco
Control System Engineer

Mr. Nuttapong Paungkaw
Koennen Co Ltd
Manager

Mr. Olawale Israel Akande
GIL Automations & Control Services Ltd
Training Coordinator SNR Systems Engineer

Mr. Olufemi Ayodele Osinowo
Process Automation Control and Optimization Engineer

Mr. Olutayo Oluseye Olukinni
Pan Ocean Oil Corporation Nigeria Ltd
Gas Projects Coordinator

Mr. P. N. Elliott

Mr. P. P. Schulp
Transmation Inc

Mr. Pandiri Samuel Gulson
DUSUP
Sr. Control Systems Engineer

Mr. Patrick Payne
Spartan Controls Ltd
Account Manager

Mr. Paul A. Chandler
Valero Refining
Instrument Engineer

Mr. Paul D. Griem, Jr.

Mr. Paul John Berwanger
Maverick Technologies

Mr. Paul Pritchard
Spartan Controls Ltd
Instrument Technican

Mr. Paul Tyllick
Technip USA
Principal Designer

Mr. Paul Youngblood
Total Petrochemicals
Engineer

Mr. Paulo Calado
Yokogawa Iberia SA
Area Manager

Mr. Paulo Henrique Souza Lima Júnior
Fibracel
Eletricista De Manutenção

Mr. Paulo Roberto Vidal
Raizen
Lider De Instrumentacao

Mr. Pedram Farhi, ISA84 SIS Expert
Braskem

Mr. Peretz Roth
Ludan Engineering Co Ltd
Senior Project Manager

Mr. Perfecto Ygnacio Ordiales, Jr.
Modec International Llc
Lead Instrument Engineer

Mr. Pete Thomas
Equipment & Controls
Account Manager

Mr. Peter A. Nick
Worley Parsons Ltd
Senior Consultant

Mr. Peter David Sanderson
Grimley Smith Associates Limited
Manager Electrical Control & Instrumentation

Mr. Peter J. Farrow
ALLESCO/PPM
Engineer

Mr. Peter Rutherford
Segment Engineering Technical Authority - Control and Automation

Mr. Peter Traynor

Mr. Peter W. Kosewicz
Hydrocarbon Measurement Consultants Inc
President

Mr. Peyton Dale Palmer, CCST
Valero Ardmore Refinery
Instrument Technician

Mr. Philip Browning
Kaneka Nutrients
DCS Administrator

Mr. Philip R. Magaletta
Distinguished Engineering Associate

Mr. Philip RJ Carpentier
ARC Resources Ltd
Instrumentation Technologist

Mr. Pierre Michaud
Avensys

Mr. Quah Kim Teck
Control & Appl Asia Pte Ltd
General Manager

Mr. R. C. Gardner
Antel Corp
Sr Sales Engr

Mr. R. Douglas Reeder
DuPont
Control Systems Engineer

Mr. Radha Krishna Vangala
E I Dupont India DKC Hyderabad
I&CS Group Leader,

Mr. Rafael E. Gil
Procesos y Diseños Energeticos
Instrumentation Engineer

Mr. Rafael Francis Leite
Sanepar Cia De Saneamento Do Parana
Tecnico Eletrotecnica

Mr. Rafael Pamplona Guedes
Uniao Engenharia
Electrical Engineer

Mr. Rahul Siddharth Bhojani, CAP
Bayer Material Science LLC
Process Control Technology Engineer

Mr. Rajappan CA
Technip-France Abu Dhabi
Sr Instrumentation Engr

Mr. Rajeev S. Limaye
Praxair Inc
Control Systems Engineering Lead

Mr. Rajesh Kumar Jalan
Saudi Aramco
Instrument Engineer

Mr. Rajkumar Rajendran
Shell
Control And Automation Systems Engineer-Instrumentation & Automation Discipline

Mr. Ramesh Kadavath
Kochi Refinery
Manager Maintenance

Mr. Ramin Madani
I&C Engineer

Mr. Ramon Schmitt
Eaton Eletrical
Controls Technician

Mr. Rance L. Cleary
Instrument Lead

Mr. Randall E. Sirois
Chesapeake Energy
Measurement & Controls Tech.

Mr. Randall K. Lotz
Fives North American Combustion Inc
Process Controls Engineer

Mr. Randy E. Fisher
JMI Instrument Co
Sales Engineer

Mr. Randy Kirkendoll
Rockwell Automation Denver Operations
Engineering Manager

Mr. Ranjithkumar Mohanasundaram
Indian Oil Corporation - R & D Centre
Research Officer - Instrumentation

Mr. Raphael D. Gab-Momoh
Swinburne University of Tech

Mr. Raul Bertoncello Neto
Universidade Tecnologica Federal Do Parana

Mr. Raymond Lee Schlosser
Illinois Instruments
National Manager

Mr. Renato A. Cusihuaman Pari, Sr.
TECSUP
Instruments Technician

Mr. Reza Banaei Khosroushahi
Univ of Alberta
Research Assistant

Mr. Reza Mirheydari
Jacobs Canada Inc
Design Engineer

Mr. Ricardo Castaneda
General Electric Oil & Gas Dresser
Digital Product Specialist

Mr. Richard Arnoldo Rios Ortiz
ISI Solutions Inc

Mr. Richard Arthur Baltz
Solutia Inc
Senior Engineering Specialist

Mr. Richard Briceno Alvarez
Rockwell Automation
Electrical Engineer

Mr. Richard D. Orr, Jr.
Ambitech Engineering Corp
Assistant Manager Instrumentation And Controls Department

Mr. Richard Guliuzza
Weiss Instrument LLC
Western Regional Business Development Manager

Mr. Richard K. Powell
CTI Field Services
Principal Engineer

Mr. Richard McCormick
Mick Automation Inc
Process Control Engineer

Mr. Richard P. Wubs
Sarnia FST
Field Engineering Manager

Mr. Richard Schmotzer, Dr.
Nexus Engineering Group
Sr. Consultant

Mr. Riyadh Mohsen Alweni
Gs Engineering & Construction
Instrument & Control Engineer

Mr. Rizwan Mistry
Pem-Tech Inc
President

Mr. Robert C. Miknus
Olin Chlor Alkali Products
Sr Project Engineer

Mr. Robert Earl Fredrich
Burns & McDonnell
Controls Engineer Process & Industrial

Mr. Robert J. Huhn
Myers & Co Inc
President

Mr. Robert J. Talley, Jr., CCST
Valero Energy Corp
Instrumentation Technician

Mr. Robert L. Irwin, Jr.
Alpha Process Sales
Sales

Mr. Robert Lester, CCST
Flint Hills Resources
Instrumentation Technician

Mr. Robert Matius
Xcel Energy
Sr. Project Engineer

Mr. Robert Mejia, PE
Talson Inc
Sr Engineer

Mr. Robert P. De Groot
De Groot Instruments
President

Mr. Robert Ray Pearson
INVISTA
Automation Engineer

Mr. Robert Samuel Wingard, Jr.
Huntsman
Process Control Engineer

Mr. Robert W. Trainer
Avago Technologies
Engineer

Mr. Robert Williams
Dixie Pipeline
Operations Supervisor

Mr. Roberto A. Cueva
Universidad Nacional del Callao

Mr. Roberto Kendi Okuda
Monsanto
Sr E&I Engineer

Mr. Roberto Ruiperez Vara
CH-IV International
LNG Consultant

Mr. Rodrigo Domingos Dos Reis
Digitrol Service Instrumentacao Ltda
Tecnico De Instrumentacao

Mr. Rodrigo Ramalho Souza
SAT
Projetista

Mr. Rogerio Henrique Pessoa
Atma Automação
Técnico Em Instrumentação

Mr. Ron Arias
Linde Group
Process Controls Engineer

Mr. Ronald A. Brandt
VECO
Sr I & C Engineer

Mr. Ronald C. Sorensen
Sorenson Control Engineering
Consulting Engineer

Mr. Ronaldo Luiz Provenzano Papa, Sr.
LBR ENGENHARIA
Fiscalização

Mr. Rosinei Aparecido Bento
Companhia Brasileira de Aluminio
Tecnico Ferramenteiro

Mr. Ruben I. Barrera
Universidad Nacional del Callao

Mr. Russell T. Rivers
J M Perry Technical Inst

Mr. Ryan A. Anderson
NAIT

Mr. Ryan A. Miller
Maloney Industries
Instrument Engineering Technologist

Mr. Ryan D. Ross, PE
Richard Design Services Inc
Instrument Engineer

Mr. Ryan Duane Housley
Ironworker

Mr. Ryan Floro
Wilson Mohr
Account Manager

Mr. S M. Vigneshwarr
Panimalar Engineering College

Mr. Saad M. Al-Abbud
Saudi Aramco

Mr. Samir Manharlal Mehta
Foster Wheeler
Sr Control Systems Engineer

Mr. Samuel P. Dougherty, CCST
BASF
Automation Specialist

Mr. Sanjay V. Thumar
Reliance industries Ltd
Instrument&Control Engineer

Mr. Saulo Oliveira Dornellas Luiz
DEE CEEI UFCG
Professor Assistente Padrao I Mestre

Mr. Scott Hall
Marathon Oil Co
Instrument Foreman

Mr. Scott Rister
Novate Solutions Inc
Sr Automation Engineer

Mr. Scott Ruppert
ConocoPhilips

Mr. Sean Daniel Carron
Combustion Solutions Inc
Chief Engineer

Mr. Shaun Hoffman
NAIT

Mr. Shawn Richard Cooper
Amergate Inc
President

Mr. Shrihari Alur
Yokogawa
DCS Safety Engineer

Mr. Sigfredo S. Isla
Husky Energy

Mr. Silvio Jose Pereira
Usina Santa Adelia
Supervisor De Manuntenção

Mr. Srinivas Doddipatla, II
Sigma Automation & Instruments
Propritor

Mr. Stan Bovetz
Frost Engineering Services Co NW
President

Mr. Stephen D. Oram
Emerson Process Management

Mr. Stephen D. Underwood
Ameren
Manager Gas Storage

Mr. Stephen Hutto
Augusta Service Co
Equip Specialist

Mr. Stephen K. Reaves, PE
Southern Co Services
Engineering Supervisor

Mr. Steve S. Smith, CCST
Hexion Specialty Chemical INC
Regional Process Controls Specialist

Mr. Steven A. Larson, CCST
Valero Energy Corp
Instrument Technician

Mr. Steven T. Spradley
Chevron Global Upstream & Gas
I&E Supervisor

Mr. Stewart James Errington
Human Centered Solutions LLP
Senior Partner

Mr. Sudip Chandravadan Vidyarthi
SSM Infotech Solutions Pvt Ltd
Managing Director

Mr. Sumeet V. Chimalkar
Sr I&C Engineer

Mr. Sundaram Narayanan
Abudhabi Gas Industries Limited
Instrument Control Supervisor

Mr. Sundaram Shivaraman Shivaraman
Worley Parsons
Lead Engineer Instrumentation & Control

Mr. Sunilkumar Bharatkumar Vora
Uhde India Pvt Ltd
Executive Engineer

Mr. Syed Mohammed Nisar
Saudi Aramco
Instrumentation Engineer

Mr. Tan-Trung Nguyen
Shell Canada
Engineer

Mr. Tariq Abdul Jabbar
Foster Wheeler - Chennai
Engineer - Control & Instrumentation

Mr. Tariq Fouad Saleh
Saudi Aramco

Mr. Tausif Jaffer Khan
Kanoo
Assistant Sales Manager

Mr. Ted E. Porter
EPCO Inc
Staff Control Engineer

Mr. Ted Zavitz
Intertec Instrumentation
Project Manager

Mr. Tejas D. Bhatt
ConocoPhillips Canada
Capital Project Instrument & Control Support-Oil Sands

Mr. Temitope Victor Omoniyi
GIL Automations & Control Services Ltd
Systems Manager

Mr. Terry Dean Rings
LyondellBasell Inc
DCS Engineer

Mr. Terry G. Mason
AmbiTech
Engineering Supervisor

Mr. Terry Kim Gaddy, CCST
Valero Corp
Instrumentation Technician

Mr. Terry W. Stanley
Alpha Process Sales
Account Manager

Mr. Terry W. Steinbring
Summit Valve and Controls Inc
Industrial Account Manager

Mr. Thiago Antonio Melo Euzebio
ATECEL
Engeneer

Mr. Thiago Arruda
Schneider Electric Do Brasil
Consultor Tecnico Automacao

Mr. Thiago Eloi Teixeira
Ulbra Canoas

Mr. Thomas Auston
Stantec Consulting Ltd
Process Engineer

Mr. Thomas Chee Peng On
Instrument-Head of Department

Mr. Thomas Comstock Seitz, III
Marathon Petroleum
Refining Engineer I

Mr. Thomas J. Kottenstette
Solvay Chemicals Inc
I & E Technician

Mr. Thomas Wyatt O'Dell
Braskem America
Control Systems Specialist

Mr. Tiago Linequer Santos
HES
Estagiário Em Mecatrônica

Mr. Tim Scott
PE SYSTEMS BREA
Owner

Mr. Timothy G. Hudson
Rotork Controls Canada Ltd
Sales Rep

Mr. Timothy P. Liston
Cameron Measurement Systems
Field Sales Engineer

Mr. Timothy V. Andrews
Rentech Energy Midwest Corp
Sr Control Systems Engineer

Mr. Toby Leigh Hall
Electrician/ Instrument Fitter

Mr. Todd Chamney
Westburne Electric
Automation Specialist

Mr. Todd D. Erwin
Linde Gas
Instrument Tech

Mr. Todd Todd McKinney
Westlake Chemical Corp
Instrumentation Engineer

Mr. Tom A. Grusendorf

Mr. Troy Burleson
ITI Technical College
Instrumentation Tech

Mr. Tsega Mesfin
Oklahoma State Univ - IT
Student

Mr. Tushar Chaudhry
Chevron
Facilities Engineer

Mr. Vagner Da Silva Batista
In- Haus
Tecnico De Manuntenção

Mr. Vakheed Zokhrabov
LUKOIL Uzbekistan
Automation Section Head

Mr. Valentin R. Rodriguez
Brunei Shell Petroleum Co
Learning Adviser Control and Automation

Mr. Vinod Mathew
Saudi Aramco
Instrumentation Engineer

Mr. Vladimir Garner

Mr. Walter H. Clingo
Mustang Engineering
Engineering Supervisor

Mr. Warren J H Hebert
Northern Alberta Institute of Technology
Student

Mr. Wayne D. Mockel
Online Analytics LLC
Research Technolgist

Mr. Wayne Staggs
CH2MHILL
Senior Design Specialist

Mr. Wendell Geonzon Castro
Saudi Aramco
Sr Quality Inspector - Electrical Instrumentation

Mr. Wilder E. Merino
Universidad Nacional del Callao

Mr. William H. Osborne

Mr. William H. Wagner
Home
Consulting

Mr. William J. Cotter
3M Co
Sr Instrument Specialist

Mr. William Johnston
Saudi Aramco
Project Engineer

Mr. William L. Thomas, CAP
3M
Senior Systems Engineer

Mr. William Martinez
Universidad Nacional del Callao

Mr. William Tim Sipple
Marathon Petroleum
E&I Construction Coordinator

Mr. Willian Fidelis Maciel
UNILIS

Mr. Wilson Paiva Campos
Vixway Informatica Ltda
Consultor Engenharia

Mr. Xinguang Tim Shao
Syncrude Canada Ltd

Mr. Xiongtan Yang
University of Alberta

Mr. Yoav Barshad
Applied Analytics Inc
R & D Mgr

Mr. Zahid Malik

Mr. Ziad AbdulFattah Ahmed
Projects Manager

Mrs. Ashley A. Whittington
Hunt Refining
Process Control Engineer

Mrs. Justin Travis Clay
ITI College
Electrician

Mrs. Kimberly Aragon
Merrick & Co
Electrical Engineer

Mrs. Maria Cristina Cunanan
Premock
Lee Coll

Mrs. Monica Levy Hochleitner
Exida
Safety Engineer CFSE

Mrs. Nicole Jensen
Samson Controls Inc
Sales Representative

Mrs. Patricia Myers
Sunoco Inc
Group Leader-Control System Engineer

Mrs. Rhonda Pelton
Dow Chemical
Senior Process Automation Specialist

Mrs. Tracy Yvonne Arp
Feedforward Inc
Project Engineer

Mrs. Yahilet Oliva
NAIT
Automation Engineer

Ms. Ala Elamy
University of Alberta

Ms. Anushka Vaibhav
DR Mgr Engineering College

Ms. Austin Jade Blackwell
Sowela

Ms. Bruna Winter Freiberger
Unipampa

Ms. Carolyn G. Snyder
Consultant

Ms. Debbie Brown
Jacobs Engineering Group
Control Systems Engineer

Ms. Erin Emerick
Burns & McDonnell
Instrumentation and Controls Engineer

Ms. Eunice Pereira Silva
Unip
Vendas

Ms. Grace Osita Amadi
Pan Ocean Oil Corp
HSE Manager

Ms. Idhaya Mennakshisundaram
Vetrimani
Sri Sairam Engineering College

Ms. Jananee Kosalai
Sri Sairam Engineering College

Ms. Janani G
Panimalar Engineering College

Ms. Janie None Lewis
Lee College

Ms. Karen Kay Williams
Petrojam Ltd
Control Systems Coordinator

Ms. Kristina Davidson
Hinz A Rockwell Automation Co
Project Engineer

Ms. Kumkum Datta
Valdel E and C
Deputy Manager

Ms. Laura Ranincheski Alves
TriSolutions Solucoes Em Engenharia
Comercial

Ms. Lei Sun
University of Alberta

Ms. Mogana Priya Sivakumar
Sri Sairam Engineering College

Ms. Nancy Ann Lopez
Lee College

Ms. Noraida Del Valle Palacio
Conspeccime
Ing De Procesos

Ms. Rosana Camargo Martinez
Unipampa

Ms. S Muthulakshmi
Panimalar Engineering College

Ms. Tahiana Vieira Fonseca
JPNOR
Instrument Engineer

Ms. Teresa S. Lantz
UAF Community and Technical College
Assistant Professor

Ms. Upasana Manimegalai Sridhar
Oklahoma State University

Ms. Valeria Deryabkina
ExxonMobil
Instrumentation&Control Engineer

Ms. Valeria Farias Alves
ThyssenKrupp CSA
Especialista De Ti

Nalini Annalisa Seerattan
BG Group
Electrical and Instrumentation Engineer

Nassar A. Hasan, Sr., CAP
ZFP Consultants
Automation & Control Engineer

Nathaniel L. Marchant
Univeristy of Alaska Fairbanks

Nishant Shah
System Engineer (I&C)

Olusegun Michael Abidoye
Archer Daniels Midland Peoria Il
Automation Manager

Patrick Wayne Puckett, CCST
GGS Tegron
Electrical Designer

Paul B. Shaver
Cannon
Sr. Automation Technician

Paulo Rogerio Dos Santos
ThyssenKrupp CSA
Tecnico Em Instrumentacao

Pedro Lucas Da Silva Rodrigues
FGV

Pedro Ricardo Guimaraes Veras
BASF

Pedro Vieira
Propilco SA
Ing Polimerizacion

Percy G. Maguina
Universidad Nacional del Callao

PRAJWAL KULKARNI
Deepak Fertilisers
Dy. Manager - Instrumentation

R. C. Case

Rafael Angel Barreto
Petroamazonas EP
Automation Engineer

Rafael Lima
Altus
Projetista De Produtos

Raymond Johnson
Sjra
IT Manager

Regy V. Thomas
Fluor
Design Engineer 1

Renato Cornetti
Metrovale
Engenheiro Quimico

Renato Vianas
Franak Tecnologia Aplicada
Supervisor De Instrumetacao

Rey Elmer Dano Marikit
Bishop State Comm Coll

Rich Kamphaus
Woodward
Steam Turbine Controls Market Manager

Rich L. Baker
Solutia Inc
Senior Engineering Specialist

Riley F. Syrota
SK Institute of Science & Tech

Roberto Enrique Lara Elias
Plastiglas de El Salvador
Supervisor

Roberto Michael Yañez Juarez
IPN Esime Zacatenco

Roberto Santos
Rhodia Poliamida
Assistente Tecnico

Robson Razera Da Silva
EPUSP

Rocio M. Calderon
Universidad Nacional del Callao

Ross Moffett
Weatherford International
Electronic Technician

Rui Mauro Fernandes Nóbrega, Rui Nóbrega
Siemens Ltda Brasil
Engenheiro

Salvador Torres
Maverick Engineering
Instrument/Electrical Engineer

Samuel T. Thompson
Bishop State Comm Coll

Scott Carlson
Swagelok St Louis
Territory Manager

Scott McLaughlin
VECA Electric & Technologies
Instrumentation Division Operations Manager

Scott McWaters
Process Control Engineer

Sérgio Cordeiro
SNC-Lavalin Minerconsult
Engenheiro

Shadi Taleb
Polaris Engineering Ltd
Project Engineer

Sharon Brewer
AE Solutions
Senior Specialist

Shuning Li
University of Alberta
Master of Science

Shuonan Yang
Univ of Alberta
PhD Student

Srividhya Kidambi
Air Liquide
Sr. Research Scientist

Steven D. Gamble
SAIT

Steven L. Wooley
Bishop State Comm Coll

Sudeep C. Reddy
Panimalar Engineering College

T Karthikeyan
Panimalar Engineering College

Tavella Alessandro
Krohne Italia Srl

Thiago de Paula Figueiredo
Planema Engenharia Ambiental Ltda
Engenheiro Eleticista

Thiago Rodrigues Marcal
ThyssenKrupp CSA
Tecnico De Automacao

Tianbo Liu
University of Alberta
Master of Science

Tim Osborn
CBA Automation Inc
President

Tom Garry, Jr.
Emerson Process Management
Sr Account Rep

Trevor Alexander
Westech Industrial Ltd
Project Manager

Uillian Viana Santos
Engendrar Engenheiros Associados
ASSISTENTE DE ENGENHARIA

Usman Chughtai
Electrical Engineer

Victor Torres
Honeywell
Principal Project Engineer

Viviene Kosch
Lyondell Basell
E&I Engineer

Vlademir Corredor
Instrumentos Y Controles SA
Ing De Automatizacion

Wes Pounds
Linde Gas
Instrument Technician

Wesley Baldassi
Komeco
Promotor De Vendas

Wilbert Paige
Bishop State Comm Coll

William Wilkus
Instrument Engineer

Yadira Roman

Yanyu Duan
Ametek
Application Engineering Specialist

Yin Wang
Case Western Reserve Univ

Yoel R. Bernuy
Universidad Nacional del Callao

Yossy L. Ramirez
Universidad Nacional del Callao

Yukihiro Makinae
Nohken Inc
General Manager