INSTRUMENTATION, PROCESS CONTROL AND AUTOMATION CONFERENCE
FOR MINING, INDUSTRY AND UTILITIES

24th, 25th & 26th July 2012
The Mercure BRISBANE

BENEFITS OF ATTENDING:
• Increase your knowledge on the latest technology in process control and automation
• Learn about the design, integration and implementation of control systems
• Hear about current industrial automation case studies from around the globe
• Learn about the emerging “Cloud” technology and how it could revolutionise industrial automation
• Learn key strategies for process optimisation
• Take advantage of valuable networking opportunities - discuss issues with experts in the field
• Debate the latest technical and business strategies for successful automation systems
• Gain practical advice to maximise the value of your process and automation systems
• Hear from local and international professionals

WHO SHOULD ATTEND:
• SCADA and Control Engineers and Technicians
• Chemical Engineers and Process Control Specialists
• Instrumentation Engineers
• Process Plant Engineers
• Electrical Engineers and Technicians
• Automation Engineers
And all other professionals involved with instrumentation, process control and automation.

For more Information
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SPECIAL DISCOUNTS are available for
IICA MEMBERS
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Book before 25th JUNE 2012
GROUP BOOKINGS
Register 3 delegates and only pay for 2
HAZARDOUS AREAS CONFERENCE ATTENDEES
See Registration Form for details

Featuring Keynote Speakers:

DICK MORLEY (USA)
“Father of the Programmable Logic Controller (PLC)”, Inventor, Author, Consultant and Engineer in his LAST VISIT TO AUSTRALIA

RICK CALDWELL (USA) Entrepreneur, Founder and President of SCADAware

Plus Special Guest
BRETT SIMPSON President of the IICA and SCADA Engineer, Caltex

PRE-CONGRESS WORKSHOPS:
24th July 2012
1. Fireside Chat - SCADA & Control
Presented by Keynote Speaker DICK MORLEY
2. Building a SCADA System Software
Presented by Keynote Speaker RICK CALDWELL

See back page for more details
INTRODUCTION TO THE INSTRUMENTATION, PROCESS CONTROL & AUTOMATION CONFERENCE

Engineering professionals are under increasing pressure to improve productivity at a lower cost. Harnessing industrial automation systems is the way forward to achieving the desired outcome.

This conference will showcase PRACTICAL APPLICATIONS from a diverse range of fields such as industrial automation, process and analytical instrumentation, PLCs, DCSs and process control.

Many useful and interesting developments are occurring in the areas of industrial control technology (ICT) and systems. On the projects side there have been some significant changes in commissioning and completion. From an education standpoint new approaches to education and skills training in industrial automation are vital to the ‘people’ side.

Another emerging opportunity for optimising allocation of resources is by operating remote sites from city centres. In addition, rigorous offsite software testing and minimizing site commissioning resources can also be considered. An increasing challenge is that many of the large projects in Australia are constrained by power and water supplies as well as a shortage of skilled people.

At this conference you will find out strategies that are being applied in a range of companies from extending the life of legacy systems, remote control and monitoring, minimizing downtime and protection of assets from cyber-attack.

All conference papers are reviewed and selected for their high quality and technical value by our panel of specialists experienced in the theory and practice of instrumentation, process control and automation.

Conference Day 1 - 25th July 2012

8.00am Registration
8.15am Opening Address
8.30am The Future of the Digital Enterprise and Industrial Automation
   Session 1 Dick Morley
   "Father of the PLC", Inventor, Author, Consultant and Engineer
   This keynote session will kick off the conference on a high note. Dick will briefly cover automation history from 1964 to 2020, from the PLC to fusion energy. You will learn about the PLC design, its needs in the market through to the problems of its use. It will also cover “tele-everything”, robots, and 3D. We, the engineers, must learn from the past and build for the future. Large systems take years to build and operate for decades. We are the heroes of society - we build everything. We must please the stakeholders of our profession, our company, and our culture. This keynote will open the doors to your professional future.

9.30am Where is Basic Regulatory Control At? – A Perspective from a Practitioner
   Session 2 Andrew Taylor
   Principal Consultant, Apex Optimisation
   If not done correctly, basic regulatory control can contribute to a lot of labour pains, loss of process capacity and ongoing engineering troubleshooting. With an increasing trend of companies choosing the best priced solution over the most suitable, we are seeing a decline of sustained quality and performance for basic control. Understanding what is happening in the market is your best means for defence. In this presentation you will get insight into the author’s observations of designing good control into your new or modified plant; maintaining performance with limited personnel capacity; identifying and progressing control performance improvement opportunities. You will gain a useful tool-box of ideas to apply immediately to your work.

10.15am Morning Tea
10.45am PLC and SCADA Practical Software Commissioning at a Concrete Recycling Plant
   Session 3 Bela Farbas
   Principal Engineer, Profisol Pty Ltd
   CASE STUDY
   In today’s industrial environment the percentage of labour costs in total automation project expenditure is getting higher every year. The software labour cost that is hardest to predict at the tender is cost of commissioning; this often results in significant cost blowouts. Based on the commissioning of Alex Fraser Group’s new concrete recycling plant in Laverton, this presentation will introduce a practical methodology of software development, testing and verification. You will learn how using PLC-based process simulation can dramatically reduce the time needed for commissioning and can significantly improve the serviceability of the automation software after commissioning.

11.30am Optimising Operator Involvement in Graphics Display Design
   Session 4 Bob Weiss
   Principal Consultant, Honeywell Process Solutions
   It is well known that it is essential to involve operators in the design of DCS and SCADA graphics displays. However, it is not obvious how best to do this. Approaches range from having the operators review designs done by engineers through to having them design the displays themselves. Neither of these approaches is ideal. This paper discusses an approach to operator display design that gains both their input and acceptance and results in significantly better display designs. Experience gained over a variety of different projects will be presented, together with tips to ensure success.

12.15pm Lunch

1.15pm Alarm Analysis Methodology – Shell Brunei Case Study
   Session 5 Ron Shuard
   Operations Improvement Manager, LogiCamms
   Tracking conditions affecting plant throughput, quality and safety has never been easy. Often operations use text based systems to monitor alarms and process events only and therefore lose important information. With thousands of process events taking place each day it’s unlikely that anyone is going to catch emerging problems or spot shifts in operating equipment buried in the noise. In this presentation you will learn about alarm engineering techniques and a new technology that dynamically identifies and tracks equipment faults, control problems, operator actions and other events on-line. Using the Shell Brunei operation as a case study, the presentation will explain the methodology used and illustrate production improvements and resulting cost savings that were achieved.

2.00pm Conductivity Density Control of Sugar Syrup
   Session 6 John Pietila
   Retired FIICA Member
   CASE STUDY
   The milling/crystallising process in sugar production is not always steady, due to influences such as the weather for harvesting, breakdowns and shutdowns for maintenance. When this occurs, the syrup evaporation process is disturbed, resulting in an imbalance in the steam demand. Many mills have a condensing power cogeneration plant, and this adversely affects the maximum export power generation and hence the maximum financial benefit to the mill. You will learn how improvements in the stability and efficiency of a syrup evaporation cycle was achieved, including several ‘new at that time’ direct sensing (though inferred) of density, departure from ‘time honoured way’ of control configuration and adaptation of appropriate interfacing for the need in hand.

2.45pm Afternoon Tea

3.15pm System Information Modelling (SIM) and its Implementation into the Fortescue Metals Solomon Mine Project
   Session 7 Rob Gillenpie
   Engineering Business Development Manager, I&E Systems
   CASE STUDY
   SIM is the process of designing systems collaboratively using one coherent set of information instead of a collection of separate drawings, lists and files. The SIM concept is readily applicable to control systems, instrumentation, telecommunication and other connected systems. In this presentation you will see how the implementation of SIM into the Fortescue Metals, Solomon Mine Project resulted in greater accuracy in estimation and the avoidance of errors, alterations and rework. You will learn how adopting SIM involves far more than just changing software and that to achieve the benefits, industries will have to learn to work in fundamentally new ways.

4.00pm Optimisation through Solids Measurement – Incl. Case Studies
   Session 8 Timo Rippa
   Customer Support Engineer - Metso Measurements
   CASE STUDY
   In order to meet environmental and budget constraints in the wastewater industry, process optimisation must be utilised. Optimisation through solids measurement can deliver significant process improvements and cost savings. This presentation, will look at a number of municipal waste water plants in Europe, USA and Asia and will demonstrate the collected benefits of measuring solid amounts in the different process points of the plants. You will receive practical advice on how to implement simple optimisation strategies to utilise solids measurement technology. These strategies can offer automation and real-life cost reduction capabilities.

4.45pm Close

Networking Session - 5.00pm to 6.00pm
An hour dedicated for all attendees to meet and socialise with experts and industry peers at the Instrumentation, Process Control & Automation Conference Networking Session
11.00am

“The Day We Failed” Success Story

Session 11

Chris Hoey
Managing Director, Bürkert Fluid Control Systems

This presentation will take you on a journey. You will learn how one idea turned years of production monitoring experience into a revolutionary software development that enhanced production efficiencies. Rick will share his diverse experience and the evolution of how a customer request turned into a successful product. The key to this story is that: what was originally deemed a “failure”, was the ability to adapt, listen and provide what the customer actually wanted, turning it into a success.

9.00am

Industrial Process Control Improved by Cutting-Edge Internet-Based Technologies

Session 10

Chris Hoey
Managing Director, Bürkert Fluid Control Systems

Remote operation and demand for efficiencies, have gained momentum through the use of cutting-edge internet-based technologies. Integrating industrial process control with cloud-based systems is key to competitiveness in the new economy. This paper introduces the “Device Cloud”, integrating software, platform, infrastructure and devices as a service. The technology will be explained by discussing a solution for the treatment of effluent at a Australian beverage manufacturing plant. Analysis of the costs and benefits will be made and details of how secure asset intelligence can be is easily accessed and graphically presented will be demonstrated.

9.45am

Morning Tea

10.15am

ICSS: Integrated Control and Safety Systems, Where do They go Wrong?

Session 11

Jacek Narozny
Process Improvement Manager, Clough AMEC

Regardless of which vendors system is installed, there is always one common denominator: people. As an industry we have developed our approaches to Integrated Control and Safety Systems (ICSS) to the point where we are reasonably confident our probability of failure on demand is low. What we tend to overlook is that operators can increase the demand. The greater the number of demands the greater the number of failures. To reduce the number of demands we need to concentrate on the human elements, particularly the attitude towards risk. In this paper you will learn how to align behaviour with the intent of effective ICSS in your operation.

11.00am

How ‘Cloud’ Technology is Revolutionising Industrial Automation

Session 12

Darian Cabot, Project Engineer, Insight Control

The Cloud is the new hype word in technology. Of course there is a lot of marketing and financial interest driving this hype, but we will look past that to explain how this technology is set to revolutionise industrial automation. It will cover areas such as the standards platform and how different data communication protocol standards can co-exists on a Cloud based platform. It will look at improvements that can be made in plant analytics and reports. You will also learn about the advancements available in visualisation including 3D and real-time representation of all your plant equipment and how you can apply this successfully to your next project.

11.45am

Conception of the Centralised Monitoring and Support Centre (MSC) for Remote Operation and Monitoring of Origin Energy’s Power Stations

Session 13

I & C Lead Generation, Origin Energy

This presentation will detail the challenges and benefits of setting up centralised monitoring and support centre for a fleet of power stations in Australia. It will cover the obstacles encountered with interfacing diversified DCS/SCADA systems and will discuss the pilot project to establish remote operations. It will explain how system architecture for multi site access and standardisation was achieved and will highlight strategies used to manage increased cyber security threats. The presentation will conclude with a summary of the benefits associated with a centralised monitoring and support centre.

Sponsorship Opportunities

Representing your business at the 2012 Instrumentation, Process Control and Automation Conference will provide you the opportunity to reach key decision makers from a multitude of industries.

For more information on sponsorship and exhibition opportunities please contact Anna Holmes via email conferences@dc-online.com

Conference Day 2 - 26th July 2012

3.30pm

Design and Implementation of a Process Plant Control using ASI and CANopen Networks

Session 16

Gangadharan Nagendra
Workplace Assessor, ELECTROTECHNOLOGY

This paper discusses a case study on implementation of an Actuator Sensor Interface (ASI) and CANopen networks in a large process plant. The two-wire ASI network is used for all the emergency stops with safety monitors configured to Cat 3 of the safety standards. The CANopen network connects all the motor speed controllers. Both these networks are connected to programmable logic controllers (PLC). Human machine interfaces are linked to PLCs via Ethernet network to provide an integrated solution. You will learn that from the control room, the whole plant can be monitored and controlled to maintain an optimum process throughput, thus eliminating wastage of produce and manpower.

4.15pm

Control System Network Integration - Optimising Plant Control

Session 17

Andrew Sia
Process Solutions Manager, Rockwell Automation

Explore how DCS control systems are expanding to bring plant optimisation into reality. With open networks and the latest in smart software developments, manufacturing plants and mines can now harness technology to improve efficiency, cost and variability of the their processes. Using key technologies such as open device protocols, Profibus, Foundation Fieldbus, HART, Ethernet communication networks and smart advanced control software, you will see how operations can now start to utilise the benefits and gain much more visibility into their manufacturing plant.

5.00pm

Close

For further information:

Phone: 1300 138 522