

Read-out



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Ireland's journal of instrumentation, control, and automation

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Honour for Irishman

Elected to lead ISA



Brian Curtis has been elected to the three year term of presidential leadership of the International Society of Automation (ISA) for the next Three years. He will be President of the organisation for the calendar year 2018.

The Ireland Section of the ISA has consistently punched above its weight in the world-wide organisation since its foundation in the late seventies. Many section members have occupied vice-presidential and other international leadership roles since the early eighties.

Brian has much experience and now will become only the third President of the society from outside of North America.

<http://bit.ly/BrianCurtis>

Automation Lab for Limerick

The Mitsubishi Electric Automation Laboratory, based in **University of Limerick**, was officially opened last month by Minister **Denis Naughten T.D.** of the Department for Communications, Climate Action & Environment. Accompanying the Minister in the opening was **Professor Don Barry**, University of Limerick (UL) President and **Ciarán Moody**, **Mitsubishi Electric Ireland** General Manager. The laboratory is a custom designed workspace aimed to expose Technology & Engineering students to the needs of modern automation and manufacturing, from robotic control and controller programming to vision systems.

During his speech the Minister, who is a scientist by profession, commended the good relationship that has developed between UL and Mitsubishi Electric, and highlighted the importance of Industry and

education working closely together, *"It is important for students to get hands on practical experience which will stand to them. I think all involved in University of Limerick and Mitsubishi Electric should be complimented for this initiative."*

The addition of the Mitsubishi Electric Automation Laboratory allows UL students to receive invaluable experience in the automation world before stepping foot into industry. Speaking at the opening of the Laboratory, President Professor Don Barry, also emphasized the need for closer Industry and educational relationships, *"this event illustrates the importance of academia and industry working together and most importantly, it welcomes those who are at the beginning of their careers in manufacturing engineering research."*

Dr. Alan Ryan, Automation Lecturer in the UL School of Engineering, was also present on

L to R: Ciaran Moody (Mitsubishi Electric Ireland General Manager), Minister Denis Naughten T.D., Rachel O'Brien (Marketing, Mitsubishi), Prof Noel O'Dowd (Director Materials and Surface Sciences Institute UL), Professor Don Barry (President UL) & Dr. Alan Kelly (Automation Lecturer UL School of Engineering).



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TODAY'S NEWS TODAY!

Read-out Instrumentation Signpost

ON A COMPUTER NEAR YOU

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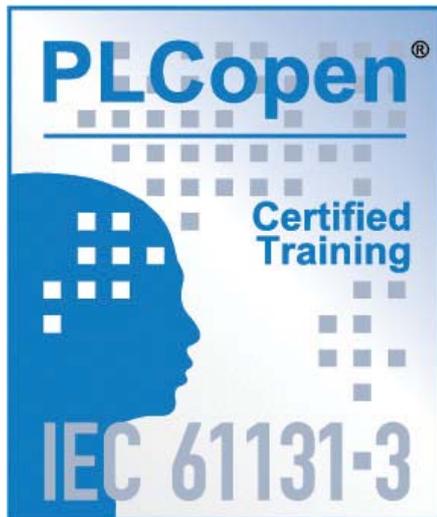


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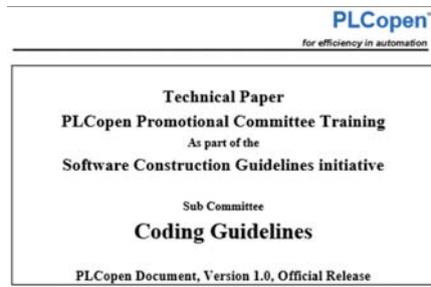
Standards for PLCs

The independent association PLCopen has recently released a set of coding guidelines for Programmable Logic Controllers (PLCs). This is the first time a standard for PLCs has officially been published in the automation industry and it will allow managers to test any and all PLC programs for quality and consistency reasons.

Industrial automation has changed drastically over the past century. From the Charlie Chaplin style factories, where companies were reliant on people to manage the factory floor, to today, where factories are highly automated with only a few people present on the production lines. As a result of this ever greater reliance on machines, software is becoming increasingly responsible, complex, and demanding. This does not come without its challenges. Due to the greater complexity, programs are more difficult to maintain, more time consuming, and potentially therefore more expensive. This is why quality is taking such an important role these days.



Unlike in other industries, such as that of embedded software and computer science, there has not previously been a dedicated standard for Programmable Logic Controller (PLC) programs. This has meant that programs were not measured against anything and were often of a poor quality. But that's where the independent association PLCopen has come in and set the standard with the release of their coding guidelines. These guidelines are a set of good practice programming rules for PLCs, which will help to control and enhance programming



methods within industrial automation. PLCopen, whose mission is to provide industrial control programming solutions, collaborated with members from a number of companies in different industries to create these coding guidelines. These companies include PLC vendors such as Phoenix Systems, Siemens, and Omron, to software vendors such as Itris Automation and CoDeSys, and educational institutions such as RWTH Aachen. These guidelines were inspired by some pre-existing standards from other domains such as IEC 61131-3, JSF++ coding standard and MISRA-C, and they are the product of three years of work by the working group. PLCopen's reference standard can be used for testing the quality of all PLC codes, independent of brand and industry.

PLCopen's coding guidelines are made up of 64 rules, which cover the naming, comments and structure of the code. By following these guidelines, the quality of the code will be improved and there will be greater consistency amongst developers. This will result in greater efficiency, as better readability means a faster debug time, and a program that is easier to maintain. This then results in lower costs as less time is required in order to maintain the program, and the maintenance should be easy enough for both an internal or external programmer as the code will be more straightforward. If the original developer fails to follow certain guidelines when creating a program, this could obstruct other developers and maintenance teams when working with the code during the product

lifecycle, thus creating delays and additional costs.

In safety-critical industries, there is the standard IEC 61508 which in 2011 was also extended to PLCS. However, as quality is becoming an ever more important factor across the board, as programs become bigger and more complex, it is generally good practice to follow a set of rules or a standard in all industries. PLCopen's coding guidelines suggest a standard that can be used across all industries to greatly improve the quality of the code and, as a result, to help companies save time and money. The introduction of such a standard will allow PLC programs to be verified not only from the simple functionality perspective but also from a coding perspective by confirming that good practice programming rules have been followed in their creation. Consistency across PLC programs can only be achieved through the respect of a global corporate or industrial standard, with PLCopen now being the de facto standard in the automation industry.

With quality playing a greater role in industry and with companies always looking for cost saving methods, the answer is to use some sort of standard or set of rules in order to meet these goals. PLCopen have created this standard to improve quality and consistency across PLC programs and so that individual industries and companies don't have to go to the effort of creating a set of rules themselves. In addition to the internal benefits, this standard will also allow companies to enforce their quality requirements on suppliers, software contractors and system integrators. The only issue for now is that the process for verifying these rules is done manually by most users as they are unaware that some tools are available to do this automatically. But overall, following a standard such as the one proposed by PLCopen, will greatly improve the quality of the program and will save time and money throughout the whole duration of the product lifecycle.

The PLCopen coding guidelines v1.0 are available to download for free from the PLCopen website.

www.plcopen.org/



Hygienic certification



SKS Automaatio Oy has acquired a hygienic design certification for certain acid proof SKS Sensors® sensor types. This opens new sales opportunities for their sensors in Food industry, Pharmaceutical, Beverage manufacturing, Laboratory use etc.

The hygienic design EHEDG certification is for SKS Sensors® sensor types W-E-x-HST-CLAMP/51-30/1000-4-A-yy-HD. This opens new sales opportunities for their sensors in Food industry, Pharmaceutical, Beverage manufacturing, Laboratory use etc. So mostly to applications where very high hygienic level is a must.

They have manufactured similar sensors for a long time, and during recent years they have noticed increasing interest for sensors with certification. Being able to respond to this increasing need they started certification process and qualified for this certificate for their most common hygiene applications sensor type.

A wide range of installation accessories is also available from us for these sensors which are available in Ireland through **P J Bonner & Co.**

www.pjbonner.com

Analytical Transmitter

The Liquorice CM44P multichannel analyser transmitter from **Endress+Hauser** accepts up to 16 parameters from analytical sensors and transmits them via 4-20mA HART, Profibus, Modbus or EtherNet/IP. The CM44P accepts inputs from up to two process photometers and four analytical sensors simultaneously. Sensor types include

pH, ORP, conductivity, dissolved oxygen, nitrate, turbidity, free chlorine and ion selective sensors. Mathematical functions allow the CM44P to calculate measured values on the basis of multiple input values.

The CM44P also performs diagnostics on all connected sensors and analysers, and transmits error messages. Some diagnostic functions include: monitoring impedance of pH glass; measuring

signals for stagnation; monitoring the condition of electrodes and the degree of electrode aging; checking for overcurrent conditions; and comparing measured values of conductivity and temperature against tables defined in USP and EP specifications for pharmaceutical water.

All resulting diagnostic messages are reported according to NE107 categories. An optional web server allows operators to remotely access

the trans-mitter. Using any web browser, measurement values or diagnostic messages can be viewed or the device configuration can be changed. Processes such as chromatography, fermentation, filtration and phase separation require monitoring of multiple parameters. In chromatography, for example, the combination of a UV process photometer and pH, temperature and conductivity sensor inputs ensures accurate

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02 Consultant <input type="checkbox"/>		
03 Contractor <input type="checkbox"/>	APPLICATIONS (Please Tick)	
04 Education/Training <input type="checkbox"/>	01 Process Control <input type="checkbox"/>	
05 Electronics & Electrical <input type="checkbox"/>	02 T&M <input type="checkbox"/>	
06 Engineering <input type="checkbox"/>	03 Laboratory <input type="checkbox"/>	
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08 Foreign Inst Manf <input type="checkbox"/>	05 Safety <input type="checkbox"/>	
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10 Instrument Manufacturer <input type="checkbox"/>	99 Other Please give details: <input type="checkbox"/>	
11 Instrument Sales <input type="checkbox"/>		
12 Power <input type="checkbox"/>		
13 Process Industry <input type="checkbox"/>	EMPLOYEE NOS (Please Tick)	
14 R&D <input type="checkbox"/>	1+ <input type="checkbox"/> 25+ <input type="checkbox"/> 100+ <input type="checkbox"/> 500+ <input type="checkbox"/>	
15 Water & Waste <input type="checkbox"/>		
16 Recruitment <input type="checkbox"/>	Member ISA <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
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18 Publisher - Books <input type="checkbox"/>		
19 Exhibition Organiser <input type="checkbox"/>	Do you read other <u>Instrument</u> Journals?	
20 Public Relations & Journalists <input type="checkbox"/>	<i>Intech</i> <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
21 Software Development <input type="checkbox"/>	<i>Control Engineering</i> <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
99 Other Please give details: <input type="checkbox"/>	<i>Instrumentation</i> <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
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02 Specifier/Consultant <input type="checkbox"/>	Have you access to InterNet? <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
03 Supplier <input type="checkbox"/>		
04 Manager/Director <input type="checkbox"/>	My name may be used for mailings other than	
05 Inst Technician <input type="checkbox"/>	Readout or Readout related mailings	
06 Inst Fitter <input type="checkbox"/>	<input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
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the day. Mr. Ryan played a key role in the Laboratory partnership and was a prominent figure in the laboratory design and build concept. Dr Ryan has worked at the University for a number of years and was proud to be involved in the initiative. *“Here in UL we pride ourselves in producing graduates with skills required by industry, the opening of the Mitsubishi Electric Automation Laboratory ensures that our manufacturing and technology undergraduate students will experience the latest emerging technologies in a real hands on practical manner. This improves the student experience here in University but also ensure that our graduates have the knowledge, technical and collaborative skills which are vital in the industrial environment.”*

Mitsubishi Electric have worked closely with UL for a number of years. The Mitsubishi Electric Automation Laboratory is just one element of a number of collaborative projects in existence between the University and the market leading technology company. *“The key goal of this Automation Laboratory is to ensure that these students receive training in the most up to date equipment available. Mitsubishi Electric and UL are committed to safeguarding the future supply of qualified engineers in the automation industry. We believe this relationship will flourish over the coming years”* said **Ciaran Moody**, General Manager for Mitsubishi Electric Ireland on the opening of the Automation Laboratory.

mitsubishielectric.ie/

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THE CONTROL CENTRE

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Telford (GB) 2-3 November, and registration is now open on line.

This will be the seventh WWEM in a series that began in 2005, with each event larger and more popular than its predecessor. "2016 will be no exception," says organiser **Marcus Pattison**, "there is even more going on at this year's event, so we are expecting an enormous volume of attendees."

"Pre-registered visitors will have free access to the Exhibition, Poster Presentations, scores of Workshops, an Instrument Demonstration area, and a Flow Forum. Parking, lunch and refreshments are also free for those that pre-register in time."

www.wwem.org.uk

Conference Announced

The Advisory Board of the 4th ISA EMEA Conference, dedicated to all aspects of process automation, control & instrumentation technologies, is now accepting abstracts for the 2017 conference to be held in Bergamo (I) on 24-25 May 2017. Picture above shows

organising committee at a recent meeting.

Back L-R: Jean-Pierre Hauet (France), Tim Feldman (ISA), Marcel Jutte (Netherlands), Enzo Pignatiello (Spain), David O'Brien (Ireland)

Front L-R: Amir Or (Israel), Manuela Tonolini (FCE Group), Piergiuseppe (Pino) Zani (Italy), Russel Baker (England), Mohamed Mahrous (Egypt),

Fabio Casiraghi (FCE Group), Claudio Montessoro (Italy), Vladimir Fetisov (St. Petersburg)

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Expansion in US



DPS Group, the Irish engineering and project management group which has trebled its turnover and employment in the past five years, has expanded its US operations with a major investment in TRIA, a Boston-based architectural firm with a

focus on the science and technology sectors.

Commenting on this latest investment in the US, DPS Chief Executive **Frank Keogh** (left) said: *“This is an exciting development for DPS and our investment in TRIA, and its partners **Sherwood Butler and Jeannie Pierce Thacker** complements perfectly our existing engineering and project management business in New England and North Carolina. They both have extensive experience working with the type of life*

science clients that have been the backbone of our expansion in the US over the past five years.”

Keogh said that TRIA operates in the life science sub-section of the R&D sector and that this specialisation complements DPS, whose primary business is in the process manufacturing sector. *“I have no doubt that the combination of DPS and TRIA will be of great benefit to both new and future clients,”* He added that there has been huge investment in life science facilities in the New England area, partly through investment in facilities educational institutions such as MIT, Harvard and Boston College but also through major investment in facilities by major global pharmaceutical groups such as Novartis, Pfizer, Genzyme, Sanofi and Shire. *“Our aim is to significantly increase the biotech and science-related business we are doing in New England, both through our existing operations and our investment in TRIA,”* he said. *Keogh also revealed that DPS has increased its turnover globally to over €100 million and employment to 1,100. “Five years ago when we made our first acquisition in the US, our turnover was €35 million and we had about 400 people. The target we set ourselves back then was to increase turnover to €50 million within five years. Instead we have more than trebled our turnover and employment.”*

www.dpsgroupglobal.com/

SCADA Standards

ISA's Standards & Practices (S&P) Board has approved a new committee to be designated ISA112, SCADA Systems. This approval follows widespread support for the idea from a survey conducted via ISA's *InTech* magazine and online media. ISA112 will develop standards and technical reports intended

to improve the overall reliability of supervisory control and data acquisition (SCADA) system design, installation, integration and operation of the infrastructure for pipelines, water and wastewater, power, oil and gas, and other industries. The standards and technical reports will provide guidance for implementing effective and reliable SCADA systems by documenting best practices in a range of industries.

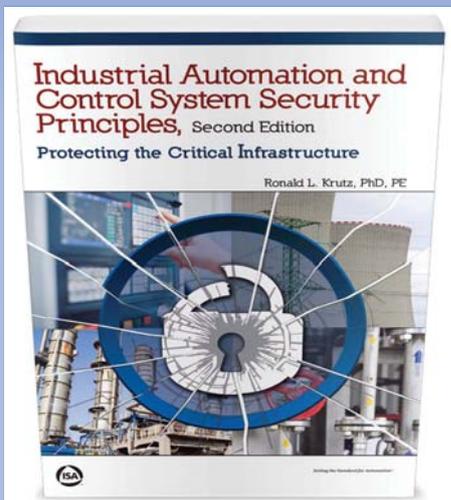
S&P Board member **Greg Lehmann** will serve as ISA112 managing director, overseeing the startup of the new committee by drawing on his experience as founding co-chair of ISA101, Human-Machine Interface. Lehmann is Process Automation Technical Manager, Engineering and O&M, Oil & Gas, at AECOM.

“Documenting best practices in a range of industries will likely end up being the lion's share of the work in ISA112,” points out Lehmann. *“However, the first order will be to focus on the basics and the multi-industry and inter-industry aspects of SCADA systems—that is, definitions, terminology, normative informative references and common hardware.”*

S&P Board Member **Ian Verhappen**, Senior Project Manager of Automation at CIMA, led the survey and analysis for the S&P Board. *“With the increased connectivity of the wide range of devices used to monitor and control our environment, SCADA systems are becoming a more important part of today's control infrastructure,”* Verhappen notes. *“For this reason, ISA has identified a requirement for a series of standards to capture best practices on how to build a system from the many individual parts.”*

www.isa.org

Security principles



The International Society of Automation (ISA) has published the second edition release of *Industrial Automation and Control System Security Principles*, a highly acclaimed book on industrial cybersecurity that became ISA's best-selling publication during 2013—the year of its initial printing.

The title of the second edition—*Industrial Automation and Control System Security Principles: Protecting the Critical Infrastructure*—was expanded and updated to reflect the latest advances in industrial automation and control system (IACS) security. IACS serve as the operational underpinnings of critical infrastructure, such as power generation, water treatment, petroleum and chemical processing, and other vital operations.

“The updated edition covers the latest thinking and approaches to IACS security,” says the book's author, Ronald L. Krutz, Ph.D., P. E., CISSP, ISSEP, Chief Scientist at Security Risk Solutions, Inc. *“I wanted to highlight the latest developments—from industrial, governmental and commercial sources—in industrial cybersecurity and critical infrastructure protection, and show how they can be practically applied to protect IACS.”*

www.isa.org/books

From page 3 detection of the target product. It also verifies buffer quality in the column is correct, leading to optimum product yield. In addition, the CM44P detects the transition from product to cleaning phase, allowing optimisation of cleaning and flushing cycles in the column.



The CM44P interfaces to all Memosens sensors from Endress+Hauser and other vendors. Memosens is an international standard, with all sensor-related data stored directly in the sensor head. The CM44P can access this data for analysis, mathe-

matical calculations and diagnostic purposes, and transmit it via various interfaces. It can also store it in a tamper-proof database or SD card, export it to a CSV file for Microsoft Excel, and perform a data logger function with up to 150,000 entries in up to eight logbooks. All settings, logbooks, etc. are stored in a non-volatile memory to ensure the data is retained in the event of a power failure. Memosens lab-calibrated sensors and hot plug-and-play allow for fast commissioning. With the CM44P, plant personnel can obtain all of the quality and process information needed from a single transmitter, leading to reduced installation time, lower equipment costs, no need to acquire and manipulate data from multiple instruments, and simplified maintenance.

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Products from page 7

Differential pressure



Yokogawa has released the EJXC40A digital remote sensor, a newly developed DPharp EJX® series differential pressure transmitter. Equipped with two pressure sensors that are connected with an electric cable, the EJXC40A offers superior performance in the measurement of liquid levels in large tanks and large differential pressure with high-pressure fluids. This new addition to the DPharp EJX series will meet a wide range of customer needs.

It is designed for the measurement of liquid levels in large tanks and the differential pressure of high-pressure fluids, and is expected to be widely used in the oil, petrochemical, and chemical industries, and in applications such as oil and gas wells.

The EJXC40A is ideal for the following applications

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blue-white.com/

Energy harvesting



Evolving the world's largest industrial wireless portfolio, **Emerson** has adopted advanced thermal energy harvesting as a power source for its wireless products. Power Puck® thermoelectric energy harvesters convert ambient heat commonly released in industrial processes into power for Rosemount wireless transmitters.

Perpetua's Power Puck energy harvesting solution is especially advantageous to wireless devices in power intensive applications, where a conventional power module may require replacements more frequently. Their Power Puck thermoelectric energy harvester provides continuous, reliable power for the life of the transmitter and includes an intrinsically safe power

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ISO 17025 Accreditation



LotusWorks Management has recently extended the scope of the ISO 17025 accreditation in the laboratory and on-site at our customer facilities in order to further improve service to customers.

The scope extension included increasing Temperature Calibration from -100°C to 660°C, Scales Calibration up to 320Kg and adding Temperature mapping of controlled environments from -90 to 140°C.

LotusWorks achieved this by investing in extra test equipment and spending more time bringing procedures, training and capabilities up to the ISO 17025 standard. The Irish National Accreditation Board (INAB) reviewed the scope extension during the recent surveillance audit and the team was delighted when it approved all of the exertions and additions to the 17025 scope.

The extensions came as a result of a management review by LotusWorks, which was carried out in early 2015. They deliver a more comprehensive accredited service to customers and are proof of LotusWorks' culture to continuously seek ways to improve services offered to customers.

Well done to all laboratory staff who played a significant part in getting the scope extended.

For further details on the Complete Calibration Services offered by LotusWorks, contact Calibrations Manager, **Noel Molloy** on 087 9538400 or email: nmolloy@lotusworks.com



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In today's flexible production environments, robots and human operators increasingly work side-by-side. Mitsubishi Electric's integrated safety solution, MELFA SafePlus, limits the speed, range of movement or torque of the robot when safety sensors are activated, allowing operators to work in close proximity to a moving robot. This integrated safety solution helps manufacturers boost productivity and lift human-machine collaboration to a new level by allowing the robot to continue operation within tight constraints, while operators access its work cell.



ie3a.mitsubishielectric.com



Products from page 10
 module for back-up power. "Perpetua's Power Puck is a convenient, sustainable energy harvesting solution which can be incorporated into a variety of applications, enabling users to decrease maintenance costs," said **Bob Karschnia**, Emerson's vice president and general manager for wireless. A heat source is all that is required to fully power wireless transmitters at their fastest update rate using Perpetua's Power Puck. Configurations allow connections to most heat sources, including flat and curved surfaces with temperatures up to 840°F/449°C. Power Puck solutions are intrinsically safe and classified for use in hazardous areas. Power Puck certifications include ATEX, IECEx, USA, and Canada.

www.EmersonProcess.com/Smart-Power

Meeting CIP Spec.



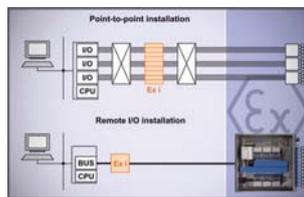
The latest firmware for the Red Lion's N-Tron® series of NT24k® and 700/7000 managed industrial Ethernet switches has been certified by ODVA to meet the requirements of the Common Industrial Protocol (CIP) specification. With embedded support for CIP, this broad industrial Ethernet switch portfolio provides ease of communication for industrial markets that include manufacturing, automotive, electronics and food and beverage. Industrial factory automation customers, in these markets and others, require a vendor agnostic method for configuring and communicating with diverse devices in their industrial network. CIP was designed for use in process control and industrial automation applications. CIP provides consistent device

access, allowing a single configuration tool to monitor and configure CIP devices without the need for vendor specific software. Red Lion's rugged NT24k and 700/7000 managed switches deliver information and configuration access directly to Human Machine Interfaces (HMIs) and Programmable Logic Controllers (PLCs) through standard CIP messaging.

With reliable plug-and-play operation, IGMP auto-configuration and fast boot time, the rugged NT24k and 700/7000 managed industrial switches include standard EtherNet/IP and are designed to provide optimal performance and maximum uptime in the harshest conditions. Red Lion's wide array of CIP-enabled managed switches, available in rackmount and DIN-rail mountable models, support a variety of port configurations and media types. Customers can now select from over 100 flexible configuration options that include 10/100/1000 Copper, Fast Ethernet, Gigabit Fibre and Power over Ethernet (PoE). Red Lion products are marketed through **Instrument Technology**.

www.itl.ie

TCO in hazardous areas



For greenfield projects and plant retrofits, the market-leading IS1+ Remote I/O system from explosion protection specialist R. Stahl (represented in Ireland by **Douglas Controls & Automation**), is a future-proof and most cost-effective solution for data transmission in hazardous areas (zone 1 and 2). Compared to conventional point-to-point wiring, the

system greatly reduces the wiring effort. Even for a limited number of signals and a control system installed only a short distance away, installations become quicker and cheaper. However, the system offers the most significant savings potential in the engineering and commissioning stages – depending on plant size, typically 40 % cost savings compared to conventional installations can be achieved. The integrated predictive maintenance and diagnostics features of IS1+ according to NAMUR NE 107 also ensure maximum process availability and low operating expenses. The fully intrinsically safe structure with an intrinsically safe fieldbus based on PROFIBUS DP or industrial Ethernet Modbus TCP, EtherNet/IP or PROFINET facilitates a simple and easy expansion or modification of the system in hazardous areas: modules can be hot-worked or hot-swapped at any time.

IS1+ includes a range of multifunctional modules, such as an eight-channel module for analogue inputs and outputs with HART, a 16-channel module for digital inputs and outputs, or an eight-channel temperature module for 26 different temperature sensors. The signals can be configured individually for each channel. In addition, for almost all intrinsically safe and non-intrinsically safe solenoids, R. STAHL supplies digital output modules which offer eight integrated pilot valves. Thanks to the innovative low-power technology, IS1-system modules feature a long service life of up to 15 years. They are suitable for use in an expanded temperature range between -40 °C and +75 °C even in extreme ambient conditions. For installations in zone 2, the series also includes cost-optimised input and output

modules that are functionally identical.

douglas-esl.ie

Oil & Gas Flow



Krohne, distributed in Ireland through **DWN**, has extended the available options for the H250 M40 flowmeter in order to match the requirements of the oil and gas industry. Here, variable area flowmeters are widely used for flow measurement on injection skids for corrosion-, scale- and hydrate-inhibitors like Methanol or Monoethylene Glycol.

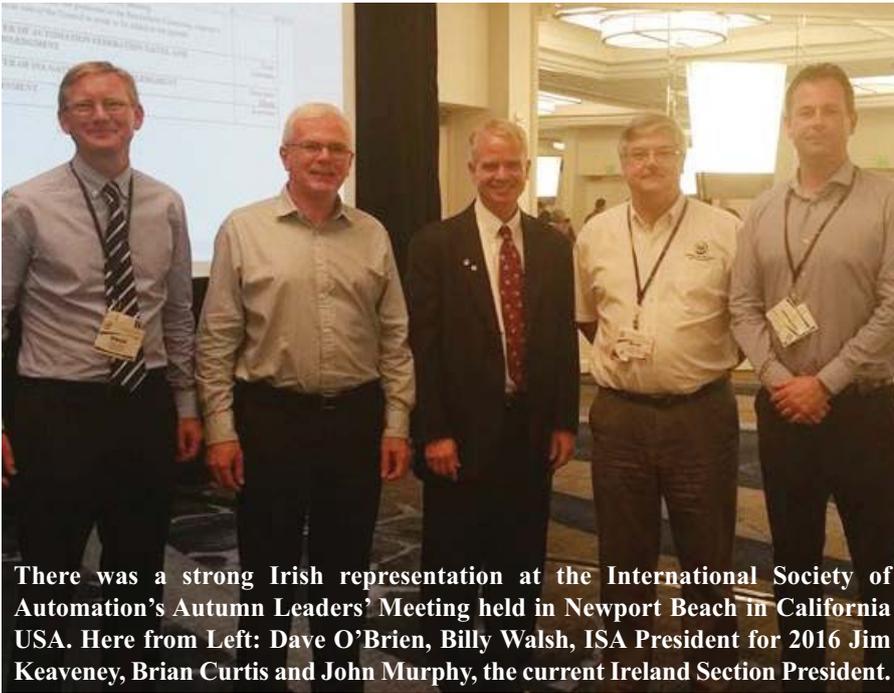
Common areas of application are also measuring agents and solvents in gas treatment processes like sweetening and dehydration of natural gas as well as reliably monitoring small amounts of Nitrogen and Fuel gas.

Standard materials for the range of DN15...150/½...6" flanged process meters include NACE MR0175/MR0103 compliant 316L or materials and welding following the NORSOK standard. Hastelloy, Monel, 6Mo, Titanium and now also Inconel are available as optional materials to provide high corrosion resistance to any kind of fluid. Stainless steel indicator housings and offshore protective coatings can be applied on request.

Flange connections reach up to ASME B16.5 Class 2500 flanges. Even higher pressure ratings can be realised when applying API flanges. For hazardous gas and dust areas, H250 M40 has achieved more than 30 approvals worldwide. For quality assurance, comprehensive tests and certifications are in place.

www.dwn.ie

APPOINTMENTS



There was a strong Irish representation at the International Society of Automation's Autumn Leaders' Meeting held in Newport Beach in California USA. Here from Left: Dave O'Brien, Billy Walsh, ISA President for 2016 Jim Keaveney, Brian Curtis and John Murphy, the current Ireland Section President.



Martin Hurley has recently joined Douglas Control & Automation as Business Development Manager, he brings extensive industrial experience from the Gilroy Group where he worked for 15 Years.



Dublin Institute of Technology has appointed of **Francis (Fran) Behan** as Adjunct Innovation Research Fellow at DIT Hothouse.



SolutionsPT, has responded to business growth with the appointment of a Managed Platform Product Manager, **David Wilkinson**, and a new Marketing Manager, **Shannon Fisk**, for its Wonderware UK & Ireland arm.



Evelyn O'Toole of CLS/Saotharlann Chonamara is the WMB Businesswoman Award 2016 winner.



Zenith Technologies has appointed **Carlos Machado** as serialization director to lead the company's sales, operations, implementation and post project support services in the US.



Zenith have also appointed **James O'Brien** to lead its manufacturing execution system (MES) business to its next phase of growth.



Ion Science has announced the appointment of **James Graham** and **Natalie Wright** as Gas Detection Product Managers.





Reliable flow measurement.



Proline 300/500

Flow measuring technology for the future

Proline 300 and Proline 500 offer added value throughout the entire life cycle of your plant. This new flowmeter generation is based on decades of experience in safety-related applications and entirely developed according to SIL (IEC 61508). Due to unique features – such as webserver, WLAN, WirelessHART, Industrial Ethernet, or Heartbeat Technology with comprehensive diagnostic and verification functions –, Proline maximizes your plant safety and availability.

- Multifunctional transmitters – combinable with all tried-and-tested Promass and Promag sensors
- Seamless system integration via HART, PROFIBUS PA/DP, FOUNDATION Fieldbus, Modbus RS485, EtherNet/IP and PROFINET