

# ICEnews

August 2007

All that's Cool in Instrumentation and Control Engineering

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*The power of e-learning!*

Welcome to the August 2007 issue of *ICEnews*, the Instrumentation, and Control Engineering news source. A formatted version of this newsletter can be found at <http://www.iceweb.com.au/icenews/icenews8-2007.pdf>. ICEnews is a compendium of useful information which we endeavour to issue quarterly.

We want to make this newsletter a source of information that YOU can use in YOUR job, while also keeping you informed on what is happening in our industry both directly and indirectly. If you have something you would like to contribute, please send it to the editor at Ian Verhappen (<mailto:ian.verhappen@iceweb.com.au>) or Jim Russell (<mailto:jimrussell@iceweb.com.au>). We welcome your Press Releases, information, AND any technical articles you may have that could be appropriate for this newsletter or our web site <http://www.iceweb.com.au>.

ICEweb's primary purpose is to disseminate information about Instrumentation, Control, Electrical and Fire & Gas Engineering to you the practitioners and developers of these arts. In July ICEweb received a record 38,600 page views and a new record is being achieved virtually every month. ICEnews is another mechanism to get this information out to you. Our database is in excess of 1600 quality contacts.

The authors encourage you to support our newsletter sponsors and also appreciate if you tell those companies to which you reply based on this newsletter that the inquiry is based on an article in ICEnews. Thank you.

As an ICEnews member you are on our mailing list so that we can keep you up-to-date technical information.

At ICEweb/ICEnews we take Spam very seriously and aim to make any information that we send out useful and informative.

Whilst we encourage you to remain on the mailing list to benefit from this important information, we would like to provide you with the option of removing yourself from our mailing list.

If you no longer wish to receive information from ICEnews, please reply to this email with "unsubscribe" in the subject line or contact <mailto:jimrussell@iceweb.com.au> and just put "unsubscribe" in the subject line.

If you select either of these options we will remove you from the list. If you wish to continue to receive the information you do not need to take any action.

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The newsletter materials are 'subdivided' into various topics as follows though not all categories may be present in every issue:

**ICEart** — Technical articles related to instrumentation and control.

**NEW - ICEbooks** – Useful books and new releases related to instrumentation and control.

**ICEbus** — Information on any of the 26 different bus systems in use in the area of instrumentation and control. The authors however have a definite bias towards Foundation Fieldbus.

**ICEfolks** — News about promotions and changes people in the Instrumentation Control Engineering world.

**ICEletters** — electronic newsletters of potential interest to our readers.

**ICEmerge** — Mergers and acquisitions in the Instrumentation Control Engineering community

**ICEnet** — Internet related topics and sites that may be of interest to our readers. In addition to ICEWEB that is.

**ICEnew** — Great new technical links posted on <http://www.iceweb.com.au/new.htm>

**ICESponsor** — Newsletter sponsor recognition. Normally at the beginning and end of the newsletter. These people have kindly contributed to the creation and sharing of this information by offsetting the costs associated with its production and distribution.

**ICEtime** — Seminars, Tradeshow, Conferences and Events of interest to our readership.

**ICEtools** — Software and offers that will help with engineering design.

**NEW - ICEwireless** – News and technical links to Industrial Instrumentation Wireless items of interest

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## ICEart

Over the years it has been difficult to source Exd Certified immersion heaters and often this has led to a certification nightmare for those engineers responsible for the associated equipment packages. A technical article outlining a solution can be found at

<http://www.grimwoodheating.com.au/HazardousAreaHeating.htm>

Applied Analytics has released a new sulfur measurement Analyser. This innovative multi-component analyzer has critical advantages over older standards such as the lead acetate tape method, a high-maintenance process with slow measurements, cumbersome adjustments, and toxic consumables. Most significantly, the TSA-100 is engineered for insusceptibility to component cross-interference, meaning that the analyzer can provide accurate total sulfur measurements when interfering compounds like H<sub>2</sub>S, SO<sub>2</sub>, and mercaptans are all present in the sample.

Beamex has received the IECeX certification for the MC5\_IS Multi-Function calibrator and the external pressure models. The certificate can be viewed at the following website:

<http://iecex.iec.ch/iecex/iecexweb.nsf/uid/F03A35E3CDD329F7C12572AE00334AC9?opendocument>

FCI have received IECeX certification for their range of Flow Switches and Mass Flow Meters. The certificate can be viewed at the following website:

<http://iecex.iec.ch/iecex/iecexweb.nsf/uid/379494FFBD544C57C12572E00025E068?opendocument>

Siemens Energy & Automation, Inc. has announced the launch of the Siemens Milltronics brand MBS belt scale which provides dynamic weighing information for process indication. It is a basic, modular, medium-duty belt scale ideally suited for applications involving aggregates, sand, gravel, or crushed stone.

Emerson Process Management has released a new Daniel Senior Model 2000 Orifice fitting. It is stated that this fitting will provide improved safety, maintenance and uptime.

[http://www.emersonprocess.com/home/news/pr/611\\_senior2000.html](http://www.emersonprocess.com/home/news/pr/611_senior2000.html)

Pilz has launched SafetyEYE which is a camera system for three-dimensional zone monitoring. Where today's applications still require a multitude of sensors, SafetyEYE places a customised, three-dimensional protective cocoon around the danger zone. Detection zones can be configured flexibly and quickly on the PC. With SafetyEYE you can protect, control and monitor with just one system. Users in the safety sector benefit from increased flexibility and productivity, while the security sector benefits from uninterrupted object monitoring and access guarding.

<http://www.pilz.de/company/press/messages/sub/products/articles/00951/index.en.jsp>

Fluke is offering a FREE Thermal Imaging Pack which includes applications guidance through a series of articles along with a DVD which demonstrates practical applications thermal imaging cameras and a 4-page leaflet covering training courses at the Operator-level and for Level-1 Certification.

[http://www.fluke.co.uk/comx/press\\_release.aspx?locale=uk&press=B0726FL](http://www.fluke.co.uk/comx/press_release.aspx?locale=uk&press=B0726FL)

Fluke has released a free DVD which contains an introduction to power quality, an overview of common power disturbances, as well as useful troubleshooting techniques. It covers:

- The types of problems caused by poor power quality
- Tips about carrying out inspections, and which tools to use
- Case studies and diagnosis

[http://www.fluke.co.uk/comx/portal\\_pq.aspx?locale=uk](http://www.fluke.co.uk/comx/portal_pq.aspx?locale=uk)

The WBF XML Working Group recently announced the release of B2MML V0400. New features include: Support for ISA-95 Enterprise-Control System Integration Standard Part 5 Transactions; message headers; commands; formats consistent with OAGIS transaction message formats; and support for UN/CEFACT Core Components.

National Instruments recently announced NI LabVIEW 8.5. Labview 8.5 now better supports multicore chips to make optimal use of today's new microprocessors. Video demos of 8.5 at work are available from National Instruments' web site. <http://www.ni.com/labview>

### ICEbooks

Need some technical "know-how"? ICEweb has developed a new page which details a selection of excellent Instrumentation, Automation, Control, Electrical, Electronic and Information Technology books from IDC Technologies. These can be purchased from ICEweb. Also detailed are other links to more useful references. <http://www.iceweb.com.au/Books/books.htm>

"Alarm Management: Seven Effective Methods for Optimum Performance" by Bill R. Hollifield and Eddie Habibi of PAS in Houston, Texas. - This book describes how properly designed and maintained alarm systems dramatically improve plant safety, reliability, and profitability. Using a seven step approach, the authors explain how to improve the performance process control alarm systems, including benchmarking alarm system performance against industry best practices, developing a detailed and comprehensive alarm philosophy document, proven methods for solving common alarm problems, rationalizing alarms, and applying real-time alarm management optimization strategies.

[http://www.isa.org/Template.cfm?Section=Press\\_Releases5&template=/ContentManagement/ContentDisplay.cfm&ContentID=62124](http://www.isa.org/Template.cfm?Section=Press_Releases5&template=/ContentManagement/ContentDisplay.cfm&ContentID=62124)

IDC produces five brilliant comprehensive Engineer's pocket guides which are now available for you to download. Subjects include: Instrumentation/ Communications/Electrical/ Electronics/Conversion & Engineering formulas, you have to register but it is worth the effort!

[http://www.idc-online.com/pocket\\_guides/?country=%23](http://www.idc-online.com/pocket_guides/?country=%23)

Electrical Apparatus and Hazardous Areas by Robin Garside. 5th Edition 2007 - This completely re-written comprehensive and practical reference book covers all aspects of hazardous areas including area classification, gases and vapours, dust hazards, types of protection, non-electrical equipment, inspection and maintenance, installation, earthing and cables.

[http://www.hexagontech.co.uk/technical\\_books.htm#EAHA](http://www.hexagontech.co.uk/technical_books.htm#EAHA)

## ICEbus

The ISA-SP104 committee has completed adoption as an American National Standard of the generic electronic device description language (EDDL) specified by IEC 61804 for device integration. The committee has announced the publication of ANSI/ISA-61804-3 (104.00.01)-2007, Function Blocks (FB) for Process Control - Part 3: Electronic Device Description Language (EDDL).

[http://www.isa.org/Template.cfm?Section=Press\\_Releases5&template=/ContentManagement/ContentDisplay.cfm&ContentID=62300](http://www.isa.org/Template.cfm?Section=Press_Releases5&template=/ContentManagement/ContentDisplay.cfm&ContentID=62300)

The Hart Communication Foundation has announced the completion of draft specifications for WirelessHART™ Communication and their release to HCF member companies for review and approval. WirelessHART is the first open and interoperable wireless communication standard designed to address the critical needs of the process industry for reliable, robust and secure wireless communication in real world industrial plant applications. <http://www.hartcomm2.org/frontpage/wirelesshart.html>

The Fieldbus Foundation has announced that its FOUNDATION for Safety Instrumented Functions (SIF) demonstration project has been expanded to include multiple end user locations around the world. Plans now call for field demonstrations of FOUNDATION for Safety Instrumented Functions at Shell Global Solutions, Amsterdam, The Netherlands; Saudi Aramco, Dhahran, Saudi Arabia; BP, Gelsenkirchen, Germany; and Chevron, Richmond, California, USA.

[http://www.fieldbus.org/index.php?option=com\\_content&task=view&id=343&Itemid=281](http://www.fieldbus.org/index.php?option=com_content&task=view&id=343&Itemid=281)

The Fieldbus Foundation has announced the availability of the FF-569 Version 2.0 Host Interoperability Support Test Profile and Procedures Specification. The new release includes updated FOUNDATION fieldbus host profiles and features defining interoperability requirements and test procedures leading to host registration. Hosts successfully completing registration testing will be authorized to bear the foundation's official product registration symbol. *Editor's note: In approximately 18 months when all host systems comply with this standard the present host/device interoperability problems will be several orders of magnitude reduced.*

[http://www.fieldbus.org/index.php?option=com\\_content&task=view&id=352&Itemid=281](http://www.fieldbus.org/index.php?option=com_content&task=view&id=352&Itemid=281)

The Fieldbus foundation has reported on the latest developments involving Electronic Device Description Language (EDDL) and Field Device Integration (FDI), Safety Instrumented Functions (SIF), HSE Remote I/O, wireless technology, and host testing & registration.

[http://www.fieldbus.org/index.php?option=com\\_content&task=view&id=369&Itemid=281](http://www.fieldbus.org/index.php?option=com_content&task=view&id=369&Itemid=281)

Developments in intelligent device diagnostics and the differences between leading digital network protocols - John D. Rezabek and Fieldbus Facts Online

<http://www.controleng.com/article/CA6451402.html#01>

A new specification for testing H1 fieldbus cable, currently being developed by the Fieldbus Foundation's H1 Physical Layer Test Specification Enhancement Team, began the lab validation and commentary phase June 1. <http://www.controleng.com/article/CA6451402.html#04>

An End User Functional Comparison of HART® and FOUNDATION™ Fieldbus Protocols- from our sponsor Emerson Process Management

<http://www.emersonprocessxperts.com/papers/FFHARTFunctionalComparison.pdf>

Phoenix Contact are now in the Fieldbus network component business with a line of modular fieldbus components that includes a segment protector for use their 25 V and 360 mA fieldbus power supply. The

products are based on a T-bus connection system; the components are hot-swappable and allow easy system expansion. Modules rated EEx nA [nL] and are approved for Class 1, Division 2 hazardous locations start with a trunk in/out version, and expansion modules offer four spur connections.

Pepperl+Fuchs has released version 1.17.1 of their fieldbus Segment Checker tool for FOUNDATION Fieldbus H1 and PROFIBUS PA segments. Version 1.17.1 includes new Pepperl+Fuchs R2 segment protectors, PROFIBUS gateways, and a new user manual.

A couple useful articles from Emerson Process Management, this first is actually a video on the robustness of Foundation Fieldbus technology [http://www.easydeltav.com/video/product/fieldbus\\_robustness.asp](http://www.easydeltav.com/video/product/fieldbus_robustness.asp) and the second is an article by Rich Merritt at <http://www.pandct.com/media/shownews.asp?ID=14925>

### ICEed

Abhisam Software, a young knowledge based company set up to provide training to technical professionals by e-learning has developed several cost effective courses relevant to ICE personnel. Subjects are Gas Monitors, RFID and Hazardous Area Instrumentation. <http://www.abhisam.com/>

The ICEweb Education page has been extensively revised with many new Instrumentation, Control, Fire & Gas links being added - <http://www.iceweb.com.au/Education/Education.htm>

Lee College has recently announced their course offering through to the end of January 2008. The complete list can be found at the Fieldbus Center at 832 556-4446 with any questions or visit us at <http://www.knowthebus.org>.

Another Foundation Fieldbus certified training site, Tri-State University, is in the process of developing their curriculum. If you would like to learn more about their program, please contact Wayne Mortorff, <mailto:mortorffw@tristate.edu>.

### ICEfolks

MTL Inc. has now opened their new office in Western Canada. The Industrial Networks Centre of Excellence will open September 1 at Suite 102, 4249-97 Street, Edmonton, Alberta T6E 5Y7. The new fax number for the facility will be +1 780 485-3122. Ian Verhappen's new phone number at the address will be +1 780 485-3132.

Australian company ProDetec Pty. Ltd NSW office has moved to Unit 17 - 38 Powers Road, Seven Hills, Sydney, NSW 2147 , Ph: +61 (0)2 9620 8700 , Fax: +61 (0)2 9620 8755

Smar has recently engaged in a partnership with ICEweb sponsor HIMA Australia for the Australian and New Zealand Markets. HIMA Australia is a wholly owned subsidiary of the German company HIMA Paul Hildebrandt, who is the pioneer and market leader of electronic safety related systems to SIL 4. <http://www.smar.com/shownews.asp?Id=129>

ABB has relocated its global Process Automation division headquarters from Norwalk, Conn., to Houston. ABB has appointed Enrique Santacana as Region Manager, ABB North America and President & CEO of ABB Inc. USA, effective July 1, 2007. He replaces Dinesh Paliwal, who is leaving ABB at the end of June. Santacana will continue to be based in Norwalk, Connecticut.

A number of recent retirements of note and notable individuals that are now available as consultants including two well-recognized names: Bill Hodson and Tom Phinney of Honeywell. If you would like to contact either of these individuals please do so through the editors who will forward your information to the individual.

Alice Ho has joined MTL as their new Vice President Sales Asia Pacific. Alice will remain based in China and comes to MTL from Invensys and prior to then Emerson Process Management.

**ICEletters**

Subscribe to this newsletter by registering your e-mail address at <http://www.ICEweb.com/au/icenews/register.htm> or sending a note with the subject 'subscribe ICEnews' to <mailto:jimrussell@iceweb.com.au>

**ICEmerge**

MTL Inc. has acquired Brisbane based Wireless company Elpro as well UK based annunciator company RTK. Both companies expand MTL's ability to meet its customer's requirements for complete open process control solutions from DCS I/O terminal to field device terminal.

Honeywell have announced it will acquire Enraf Holding B.V., a division of privately held Delft Instruments based in Delft, Netherlands. The transaction is subject to regulatory approvals.

Rockwell Automation, Inc. has announced it will pay \$217.4 million (£110 million) for UK company Industrial Control Services Group Ltd. (ICS). ICS is known as ICS Triplex, a supplier of control and safety solutions to process industries

International professional services company GHD has strengthened its presence in Western Australia and Queensland by merging with engineering consultancy, PCT Engineers

Fluke have announced the acquisition of DH Instruments, Inc (DHI). DHI is an industry leading manufacturer of high performance pressure and gas flow standards, including calibration process software. DHI also offers A2LA accredited pressure and gas flow calibration services, as well as metrology training courses at their facility in Phoenix, Arizona, USA.

**ICEnet**

On May 30, 2007, a completely revised version of the IT Infrastructure Library (ITIL) was released by IT business edge. ITIL v3 promises to be the most complete and refined set of IT principles and disciplines ever published and covers a wide range of IT management issues. It costs US\$249  
<https://www.itbusinessedge.com/commerce/?c=502>

**ICEnew**

This is a section that highlights those useful technical links that are new to ICEweb.

ICEweb's Ultrasonic Flow Metering page has been updated with new links - <http://www.iceweb.com.au/Flow/ultrasonic.htm> - thanks to our sponsor Zedflo Australia <http://www.zedflo.com.au>

New Hazardous Areas technical papers have been posted on ICEweb's ExWeb. <http://www.iceweb.com.au/Ex-web/HA%20Tech.htm>

The Education page has been extensively reworked and details many extra useful education links from around the world. <http://www.iceweb.com.au/Education/Education.htm>

New ICEweb sponsor and training group Abhisam Software have E-learning courses on the following subjects: <http://www.abhisam.com.htm>

Gas Monitors - <http://www.abhisam.com/GasMon.htm>

RFID - <http://www.abhisam.com/rfidcourse1.html>

Hazardous Area Instrumentation - <http://www.abhisam.com/hazareainst.htm>

Additionally they have an innovative M-learning course on RFID. <http://www.abhisam.com/products.htm>

Equipment Protection Levels (EPLs], which are the IEC equivalent of the ATEX categories, a discussion by MTL

<http://mtlinst.wordpress.com/2006/08/28/equipment-protection-levels-and-all-that/>

Lasers come to Level Measurement - Laser-level technology is expanding options in sensor applications and this article covers the good and bad points of this new measurement technique. From David W. Spitzer and ControlGlobal.com - <http://www.controlglobal.com/articles/2006/018.html>

Boiling water is easy as one, two, three, four according to David W. Spitzer There's more to boiler level control than measuring level and adjusting a feedwater valve. Improved measurements and inverse response are just a few of the influences on operating boilers in a reliable manner. Thanks to ControlGlobal.com <http://www.controlglobal.com/articles/2006/148.html>

Boiler Drum Level Measurement and Control -This paper focuses on the effects of boiler drum level and feedwater control as a means of energy savings by thermal/mass balancing the boiler. It also discusses the effects of steam drum pressure and feedwater temperature on the overall efficiency of the boiler. From David C. Farthing and Federal Corporation - <http://www.federalcorp.com/tech/drum%20level.PDF>

Have a look at ICEweb's new Data Communications page!

<http://www.iceweb.com.au/DataComms/home.htm>

Information on Calibration Gases has been added to ICEweb's Analyser page.

<http://www.iceweb.com.au/Analyzer/AnalyserWeb.htm>

The following technical references have from Raytek been added to ICEweb's Temperature page.

- Principles of Non-Contact Temperature Measurement - This manual focuses on the practical operations of non contact temperature measurement devices and IR thermometry, and answers important questions that may arise.
- Emissivity - This is the measure of an object's ability to emit infrared energy. Emitted energy indicates the temperature of the object. Emissivity can have a value from 0 (shiny mirror) to 1.0 (blackbody), this technical article provides further information on this including emissivity tables for metals and non metals.
- A useful degree C/F/Kelvin conversion tool.  
<http://www.iceweb.com.au/Temperature/TemperatureWeb.htm>

Pressure Measurement Glossary -Find an explanation here for pressure measurement terms listed in alphabetical order- from SensorsOne

<http://www.sensorsone.co.uk/pressure-measurement-glossary.html>

Technology associated with profiler level systems - from Sentech, you can find more information on ICEweb's Level Page.

<http://www.sentech.no/pdf/ProfileMeter.pdf> and <http://www.iceweb.com.au/Level/LevelWeb.htm>

The following technical articles are from the excellent publication Flow Control Network.

- Pressure & Temperature Tap Placement -Deciding Between Upstream and Downstream Location for a Flow Metering Application- From David W Spitzer  
<http://www.flowcontrolnetwork.com/issuearticle.asp?ArticleID=187>
- Flowmeter Piping Requirements How Much Straight Run Is Enough? - Greg Livelli- A very useful technical paper detailing straight run requirements for various types of flowmeters. <http://www.flowcontrolnetwork.com/issuearticle.asp?ArticleID=182>

- A Primer on Primary Elements -Understanding a Key Aspect of DP Flow Measurement - Jesse Yoder, Ph.D. A general description of some flowmeter types  
<http://www.flowcontrolnetwork.com/issuearticle.asp?ArticleID=183>

ICEweb has a new Valve Actuator Page...we are looking for further technical papers and articles for this area; please contact us if you have any. <http://www.iceweb.com.au/Valve/Actuators/Actuators.htm>

Replacing Old Technology - Revitalising level measurement accuracy at Soviet-era plant.  
[http://www.iceweb.com.au/Level/Pulsar%20at%20Soviet-era%20Plant%20\(3\).pdf](http://www.iceweb.com.au/Level/Pulsar%20at%20Soviet-era%20Plant%20(3).pdf)

Some Oil in Water Analyser Application Case Studies can be found on ICEweb's Oil in Water page.  
<http://www.iceweb.com.au/Analyzer/Oil%20in%20Water/Oil%20in%20Water%20home.htm>

Check out ICEweb's new Dynamic Process Simulators and Training Systems page.  
<http://www.iceweb.com.au/Simulators/Simulators.htm>

The Following articles from PSVplus have been added to ICEweb's comprehensive Pressure Relief Valve page.

- Pressure Safety Valves - Four Design Steps - Proper design of a Pressure Relieving devices is a complex and time consuming task involving a significant number of Process considerations which are detailed in this useful article.
- Pressure Safety Valves - Calculation, Design and Specification.  
<http://www.iceweb.com.au/PressRelief/prv.htm>

## ICEtools

**The Optimist Creed** (Source unknown) - Wouldn't it be super if we all worked like this? I have it up on my wall to try and remind me how I would like to behave.

- To be so strong that nothing can disturb your peace of mind.
- To talk health, happiness, and prosperity with every person you meet.
- To make all your friends and colleagues feel that there is something in them.
- To look at the sunny side of everything and to make your optimism come true.
- To think only the best, to work only for the best, and to expect only the best.
- To be as enthusiastic about the success of others as you are of your own.
- To forget the mistakes of the past and to press on to the greater achievements of the future.
- To wear a cheerful countenance at all times and give every living creature you meet a smile.
- To give so much time to the improvement of yourself that you have not time to criticize others.
- To be too large for worry, too noble for anger, too strong for fear, and too happy to permit the presence of trouble.

Pressure Unit Conversion - Look up conversion factors or select a conversion table for a particular pressure unit. <http://www.sensorone.co.uk/pressure-units-conversion.html>

Looking for an electronic or electrical term and its definition? Electropedia is the world's leading online electrical and electronic database containing more than 20 000 terms and definitions in English and French organized by subject area, with equivalent terms in German and Spanish. This is a terrific resource thanks to the IEC. - <http://www.electropedia.org/>

Part of a doctoral research project at Curtin University of Technology (Perth, Western Australia) involves a global survey of attitudes to blended learning (a mix of online and classroom instruction) in the engineering and industrial automation workplace. Stephen MacKay is offering a number of incentives for completing the 6 minute survey form which consists of a series of short questions, most of which will only require a box to be checked.

- A complimentary 180 page “*Best Practice in Industrial Automation*” e-book (worth \$40),
- A copy of the results and a complimentary 90 minute Industrial Automation e-learning course (worth \$99) later in the year.

Please click on: <http://www.surveymshare.com/survey/take/?sid=57703> to undertake the survey.

### ICEwireless

The following wireless links are provided by our sponsor [Abhisam Software](#)  
<http://www.abhisam.com/index.htm>

- RFID Case Study ebook -This excellent 61 page technical reference has details on 25 different RFID applications from around the world. The password to the document is "abhisam". .  
<http://www.iceweb.com.au/Newtech/RFID/RFIDCaseStudyBook.pdf> -
- Technical Paper on “How to Achieve FDA Compliance on the Pedigree Requirement using RFID without having any sleepless nights or spending a fortune but still achieve a payback of less than a year”. The password to the document is "abhisam".  
<http://www.iceweb.com.au/Newtech/RFID/pdma2.pdf>

MicroStrain, Inc. has won a Gold “Best of *Sensors Expo*” award in the sensor category. The award was for an energy harvesting wireless strain node (“ESG-LINK”) which was recently used to measure static and dynamic strains in rotating helicopter components during flight tests. The ESG-LINK will operate indefinitely — without the need for batteries, by converting the component’s cyclic strains into DC power using piezoelectric materials. <http://www.microstrain.com/news/PR-EnergyHarvestingPitchLink.pdf>

MicroStrain Inc has released the latest version of its TC-LINK<sup>®</sup> wireless thermocouple node. The TC-LINK-6CH features six thermocouple channels, an embedded cold junction compensation sensor and includes the option of adding a relative humidity sensor.  
<http://www.microstrain.com/news/PR-TC-LINK-6CH.pdf>

Oil and gas processor goes wireless on the LAN -Proper data protection is a mandatory requirement to ensure PAN communications' security and safety - - From InTech and the ISA  
[http://www.isa.org/InTechTemplate.cfm?Section=Article\\_Index1&template=/ContentManagement/ContentDisplay.cfm&ContentID=60688](http://www.isa.org/InTechTemplate.cfm?Section=Article_Index1&template=/ContentManagement/ContentDisplay.cfm&ContentID=60688)

Guidelines for Securing Radio Frequency Identification (RFID) Systems- A 154 page technical guideline from the national Institute of Standards and Technology.  
[http://csrc.nist.gov/publications/nistpubs/800-98/SP800-98\\_RFID-2007.pdf](http://csrc.nist.gov/publications/nistpubs/800-98/SP800-98_RFID-2007.pdf)

The Wireless Industrial Networking Alliance (WINA) is a coalition of industrial end-user companies, technology suppliers, industry organizations, software developers, system integrators, and others interested in the advancement of wireless solutions for industry. They have a useful series of technical papers covering various Industry Applications.

[http://www.wina.org/Content/NavigationMenu/General\\_Information/Partners\\_and\\_Affiliates/WINA/Industry\\_Information3/Presentations4/Presentations.htm](http://www.wina.org/Content/NavigationMenu/General_Information/Partners_and_Affiliates/WINA/Industry_Information3/Presentations4/Presentations.htm)

The following papers are from MicroStrain.

Power Management for Energy Harvesting Wireless Sensors - The objective of this work was to demonstrate smart wireless sensing nodes capable of operation at extremely low power levels.  
[http://microstrain.com/white/SPIE\\_2005\\_Power\\_Management\\_paper\\_reva.pdf](http://microstrain.com/white/SPIE_2005_Power_Management_paper_reva.pdf)

Frequency Agile Wireless Sensor Networks - A wireless communications system capable of simultaneous, high speed data communications from a variety of sensors.

<http://microstrain.com/white/SPIE%202004%20Frequency%20Agile%20Wireless%20Sensor%20Networks.pdf>

Wireless Strain Sensing Networks - A wireless communications system capable of simultaneous, high speed data communications, particularly adapted for use with conventional foil strain gauges.

[http://microstrain.com/white/ESHM\\_2004\\_frequency\\_agile\\_paper\\_distribution\\_copy.pdf](http://microstrain.com/white/ESHM_2004_frequency_agile_paper_distribution_copy.pdf)

Wireless Strain Measurement Systems - Applications and Solutions - This article summarizes the development of wireless micro-displacement & strain sensing systems for medical, civil structural, automotive, and aerospace structural health monitoring (SHM) applications

[http://microstrain.com/white/Wireless\\_Strain\\_Measurement\\_Systems\\_revb\\_for\\_web.pdf](http://microstrain.com/white/Wireless_Strain_Measurement_Systems_revb_for_web.pdf)

Users fear wireless networks for control - Following is an item-by-item rebuttal of plant engineer's vow: "Critical data will never transmit over a wireless link in my plant." Fear and loathing on the technology trail - An excellent article From Dick Caro and ISA/InTech.

[http://www.isa.org/InTechTemplate.cfm?Section=Article\\_Index1&template=/ContentManagement/ContentDisplay.cfm&ContentID=61388](http://www.isa.org/InTechTemplate.cfm?Section=Article_Index1&template=/ContentManagement/ContentDisplay.cfm&ContentID=61388)

The Bluetooth SIG announced that it would absorb the Wibree consortium, formed last year by Nokia to develop low-power wireless sensor network technology.

A group of seven radio frequency identification (RFID) technology organizations announced their support for the open-source development of EPCglobal-compliant Low-Level Reader Protocol (LLRP) software libraries, which enable EPCglobal UHF Gen 2 communications via the LLRP universal reader-to-network interface. Recognizing the important role that well-defined technology development guidelines and standard interfaces play in widespread RFID adoption, IBM, Impinj, Intermec, OATSystems, Pramari, Reva Systems, and the University of Arkansas have created the LLRP Toolkit, a "one-stop shop" that includes a software library for LLRP programmers. The library is modeled after other successful open-source software developments such as the Berkeley sockets application programming interface (API). The LLRP standard addresses the reader-to-network interface layer, providing a globally available mechanism to fully leverage the Gen 2/ISO 18000-6C standard that has addressed the tag-to-reader air interface layer.

At their 2007 Users' Group (HUG) Americas Symposium Honeywell announced their "OneWireless - universal industrial wireless mesh network solution". OneWireless is a 3-in-1 box multi-radio, multi-port wireless access point that supports multiple industrial protocols and applications simultaneously including mesh networks with HART protocol, WiFi, FHSS radio. Bandwidth control provides increased security and capacity, scalable to 30,000 devices.

<http://hpsweb.honeywell.com/Cultures/en-US/Products/wireless/default.htm>

For those of you who do not yet receive enough technical magazines or trade journals, you might want to browse the catalogue of what is available and maybe even subscribe to their e-news to tell of you could be getting as they become available. The URL to check out is <http://www.tradepub.com> but note that not all publications are available for free in all parts of the world.

## ICEtime

If you would like to have your event listed in ICEtime, please send a note or press release to the editor at <mailto:ian.verhappen@iceweb.com.au>

## 2007

If you want to learn more about Batch, take a look at the web-seminars at the following URL. They are scheduled at about 1/month.

[http://www.wbf.org/Content/NavigationMenu/General\\_Information/Partners\\_and\\_Affiliates/WBF/Upcoming\\_Events/Webcasts1/Webcasts.htm](http://www.wbf.org/Content/NavigationMenu/General_Information/Partners_and_Affiliates/WBF/Upcoming_Events/Webcasts1/Webcasts.htm)

### September

5 – 7 ISA Marketing and Sales Summit, Hyatt Regency O'Hare, Chicago, IL

10 – 14 Emerson Global Users Exchange, Grapevine, Texas

14 Foundation Fieldbus Seminar, Kitakyushu, Japan

18 FDT Seminar, SAIT, Calgary, Alberta

25 Fieldbus Foundation End User Seminar, Marriott Kansas City Overland Park Hotel Overland Park, Kansas

### October

2 – 4 ISA Expo 2007 – Houston Texas- <http://www.isa.org/expotemplate.cfm>

24 – 25 ISA Peru, Lima, Peru

### November

5 FDT Seminar, ChevronTexaco, Houston, Texas

6 – 7 Process Analytical Training & Technology\_Conference, Research Triangle Park, NC

13 – 16 ABB Automation World

20 MTL User Group Meeting, Twickenham, UK

27 – 29 ISA South America, Sao Paulo, Brasil

30 FDT General Assembly, Nuremberg, Germany

### December

4 – 5 Multaqa 2007, The Ritz-Carlton Bahrain Hotel & Spa, Bahrain

## 2008

### February

27 - 29 Fieldbus Foundation General Assembly, Antwerp, Belgium

### March

24 - 27 WBF North American Conference, Philadelphia, Pennsylvania

[http://www.wbf.org/Content/NavigationMenu/General\\_Information/Partners\\_and\\_Affiliates/WBF/Upcoming\\_Events/2008\\_North\\_American\\_Conference/2008\\_North\\_American\\_Conference.htm](http://www.wbf.org/Content/NavigationMenu/General_Information/Partners_and_Affiliates/WBF/Upcoming_Events/2008_North_American_Conference/2008_North_American_Conference.htm)

### April

9 – 10 ISA Alberta Conference and Exhibition, Northlands Park, Edmonton, Alberta

<http://www.isaedmontonshow.ca/>

8 – 10 Automation Technology Egypt 2008 2<sup>nd</sup> Int'l Industrial Control and Automation Technology Exhibition and Conference, Cairo, Egypt

<http://www.smbegypt.com/automation.htm>

23 – 28 6th Annual Canadian School of Hydrocarbon Measurement, Calgary, Alberta

### May

5 – 8 Offshore Technology Show, Houston, Texas

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Abisham Software, Relcom Inc, CIRCOR International Inc, Zellweger and Grimwood Heating sponsor this issue of ICEnews, which is a publication of ICEweb.



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years they have been providing a complete array of fluid-control products and technologies to a highly fragmented industry.

For more information go to <http://www.circle-seal.com>



**Relcom Inc.** specializes in the design and manufacture of wiring components and test equipment for the physical layer of Foundation Fieldbus and Carrier-band industrial local area networks (LAN).

From our headquarters near Portland, Oregon, USA, we have provided taps, repeaters, network monitors, and test equipment to demanding users and leading control system manufacturers since 1985.

For more information go to <http://www.relcominc.com>

**Honeywell Analytics fire and gas detection** The **Honeywell Analytics group** of companies provides gas detection solutions in industries where potentially hazardous chemicals and gases exist. A full range of fixed gas, portable gas and flame detection equipment is available for the measurement of flammable gases, toxic gases and oxygen concentrations. The company provides design, development and manufacture of electrochemical, catalytic and infrared sensors, along with Chemcassette technology, placing the company at the forefront of innovation. The company offers solutions to increasingly difficult gas detection and monitoring applications. They also offer project management for specialized fire and gas systems, a global network of service centers and 24-hour on-line technical support.

For more information go to [http://www.iceweb.com.au/Suppliers/honeywell\\_analytics.html](http://www.iceweb.com.au/Suppliers/honeywell_analytics.html)

The **Grimwood** range of flanged immersion heaters can now be manufactured to provide hazardous area protection for users in the Asia Pacific region. Depending on the location and operating environment, units can be made in either carbon steel or stainless steel. The benefits of using locally designed and manufactured product fully complying with hazardous area requirements are shorter supply chains and lead times and quicker, clearer communication.



<http://www.grimwoodheating.com.au/flangeheaters.php>

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The logo for Abhisam, featuring the word "abhisam" in a lowercase, sans-serif font. The letter "a" is lowercase, while "bhisam" is uppercase. Below the text is a thick, horizontal orange bar.*The power of e-learning!*

Abhisam Software is a young knowledge based company which has been set up to provide training to technical professionals by e-learning. The innovative e-learning courses help professionals to stay on top of the learning curve.

What better way to get training, other than by enrolling in an e-learning course? E-learning frees you from attending classrooms, or cramping your work or leisure schedule in any way. It enables you to learn & get training **anywhere** & at **anytime**.

Get trained anywhere & at anytime by making use of **ON DEMAND LEARNING!**

Learn anytime, anywhere by taking advantage of our e-learning courses. These e-learning courses are available in a variety of ways including as online learning courses, SCORM & AICC compliant courses which can be hosted on your Learning

Management System (LMS) or as stand alone courses on CD ROMs.

Abhisam Software have also started an m-learning course on RFID, which can be downloaded to your mobile phone.

They have e-learning courses on the following subjects:

E-learning course on **Gas Monitors** - <http://www.abhisam.com/GasMon.htm>

E-learning course on **RFID** - <http://www.abhisam.com/rfidcourse1.html>

E-learning course on **Hazardous Area Instrumentation** - <http://www.abhisam.com/hazareainst.htm>

M-learning course on **RFID** - <http://www.abhisam.com/products.htm>

For further details please contact via their website Abhisam <http://www.abhisam.com/>

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