February section meeting

Basics of transient voltage surge suppression

by Carl Hoffman, Project Engineer, Phoenix Contact, Inc.

Today’s modern automation and control systems need professional surge suppression techniques to operate reliably and efficiently. This basic presentation module will provide you with the necessary background and basic knowledge to properly recommend and apply professional surge suppression techniques.

Patrick McCurdy, Product Manager and Technical Specialist for Surge Protection Devices at Phoenix Contact will be the speaker for the February section meeting. He will discuss:

• The need for Transient Voltage Surge Suppression (TVSS)
• Basic terminology for surge suppression
• Types of damage caused by surges; Power quality issues
• How and why surge suppression components operate
• Various applications for applying surge protection
• Standards and specifications for surge protection; Packaging the technology
• Advantage vs. disadvantages of current OEM products

Continued on page 2

Raj Adani receives Don Zee Award

It came as no surprise to most of those in attendance that Raj Adani was awarded the Don Zee Award at the annual Christmas Party this year.

Raj Adani has been an ISA member since 1988. He has held several positions on the Orange County Section board of directors, including Publicity Chair, Treasurer, and Section President, and he is the current Vice President of District 11. Raj has presented papers at the ISA Expo in New Orleans and the Southern California Meter Association.

Originally from Bombay, Raj completed high school and moved to Austin, Texas, where he attended the University of Texas and later the University of Alabama. He has a BS in Chemical Engineering and has taken several courses toward an MS in chemical engineering.

His first job after college was at Teledyne Analytical Instruments in City of Industry. Since 1994, Raj has worked at various divisions of Emerson Process Management; he is with Rosemount Measurement Division. Raj has been married for 14 years and has two sons ages 9 and 6.
February Section Meeting, continued from front page

Transistors are the hearts of all microprocessor-based technologies. These subminiature ON/OFF switches are the center of a nuclear submarine control system as well as the simple greeting cards that play a jingle.

The density of transistor population on integrated circuits has increased at an unimaginable rate. There are many advantages to transistors, such as faster data acquisition, real time control, and fully automated processes.

Unfortunately, a trade-off to the increased performance and efficiency is the susceptibility of these semiconductor devices to voltage and current fluctuations or transients. A best case result can be unreliable equipment readings and operation, with periodic failures. A worst case result can be a completely destroyed plant automation system. Figures published by electronic insurance companies show that the occurrence of damage to sensitive electronic equipment due to surge voltage is doubling every three to four years.

In summary, the information you will learn from this basic overview will give everyone a better understanding of surge suppression techniques and technologies. You will obtain the basic knowledge required to successfully discuss and recommend specific types of solutions to help your company &/or your customers operate their electronic automation and control systems efficiently and reliably.

Treasurer’s Report BY 2004-2005
Orange County Section

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The monthly ISA Section Newsletters and annual Regional Membership Directory and Buyers’ Guide are mailed to all ISA section members in Southern California and Southern Nevada and to ISA student affiliates at Cal Poly Pomona, Cal State Fullerton and Long Beach State. Newsletters include the South San Joaquin Valley Alarm, Los Angeles Annunciator, Orange County Chart, San Diego Signal and Las Vegas Experience. Changes of address can only be processed by ISA by at (919) 549-8411 or www.isa.org. For editorial submisions and feedback, please contact the newsletter editor.

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A message from your DVP

Weekend leadership conference

Under ISA’s District 11, we have following sections – Northern California, Central California (Fresno), Southern San Joaquin Valley (Bakersfield), Los Angeles, Orange County, San Diego, Central Arizona (Phoenix), Las Vegas, Aloha (Hawaii) and student sections at various university campuses

Our total district membership exceeds 2600. With the exception of Central California section all other sections are active and vibrant. The Central California section is one of the smallest with less than 75 members and it covers rather large geography from Fresno to Santa Barbara. Hence, Central California section has difficulties in attaining quorum for periodic section meetings.

We have discussed the merger of this section with SSJV section in Bakersfield. The SSJV section board is open to the idea of absorbing this section meetings. The Central California section in return will get to attend the meetings and functions hosted by the SSJV section and the Central California section members will also have access to the monthly newsletter published by the SSJV section. Within the next month, we will be contacting the Central California section members and seek their vote on the possibility of merging the sections.

Our District 11 leadership conference will be held in Vallejo, CA (Northern California) at the California Maritime Academy. It will be held on April 2-3rd, 2005 (Saturday/Sunday). The primary purpose of the weekend leadership conference is to train the incoming section board on the various aspects of the ISA organization. How to hold meetings, How to maintain membership interest, Speaker arrangement etc. ISA’s staff member, Dalton Wilson will attend the meeting to bring all sections up to date on the inner workings of the ISA.

The Northern California section board has been gracious in making the reservations and identifying the accommodation for the section members visiting from out of town. Most sections will send between 2-3 upcoming board members to this meeting. I would encourage any ISA member who wants to be an active participant in their section board to attend this meeting. I am certain the depth and the breadth of the ISA organization will certainly catch most first timer by surprise. Besides business our Norcal section members are promising an exciting team building fun activity.

Raj Adani
raj.adani@member.isa.org
ISA to recognize technical accomplishments

Through its Honors & Awards program, ISA recognizes outstanding technical contributions by individuals to the instrumentation, systems, and automation profession. In doing so, ISA contributes to one of the greatest satisfactions for its members: the recognition of the outstanding achievements and individual excellence of its peers.

The Society’s Honors & Awards and Admissions Committees are dedicated to recognizing the many individual and group endeavors achieved in the name of advancing the arts and sciences of instrumentation, systems, and automation, and to the Society at large.

Nominations are currently being accepted for the 2005 award selection process. To nominate a deserving individual, review the award categories and criteria for Fellow Membership, Service Awards, Technical Awards, others at http://tinyurl.com/5sxgo. Select the appropriate award category and submit your nomination.

The 2005 award presentations will be made during the Annual ISA Honors & Awards Program, a prestigious black tie dinner, which will be held in conjunction with ISA EXPO 2005 in Chicago, Illinois, USA.

There are two deadlines. The first, March 15, is for nominations for Technical Award, Service Award or Corporate Recognition Award. Nominations should specify the type of award for which your candidate is being nominated and give detailed biographical material for the candidate. Nominations for the Section Performance Award is June 1st.

The ISA Honors & Awards Program is funded by the Society. Support for the program is provided by corporate and individual donations. All contributions support the overall Honors & Awards Program. Opportunities for financial sponsorship of awards are available to companies and individuals. For more information, please contact the section Honors & Awards Chair listed on page 2 of this newsletter or Debbie Eby at deby@isa.org or (919) 549-8411. See the webpage at www.isa.org/honorsandawards.

Recipients will be recognized at the ISA Annual Honors & Award Banquet in Chicago, Illinois in October.

Nominate a deserving individual today!

Honors and Awards Chair Pino Zani with 2004 Honorary Member recipient Lawrence Soule, Consultant, Emerson Process Management.

Photo courtesy of Debbie Eby

HOW DID WE IMPROVE ON THE LOWEST MAINTENANCE pH SENSOR?

The Hach pHDTM Differential pH sensor is the first digital sensor fully encapsulated to eliminate moisture from penetrating the instrument and corroding critical components. This reduces your maintenance costs, extends the sensor’s life and increases measurement accuracy while reducing downtime and the number of calibrations.

It is also rebuildable, which saves you on replacement and installation costs. Simply replace the salt bridge and electrolyte solution. Plus, it comes with a multi-parameter controller, so you can add another pH sensor or any additional parameter without the cost of purchasing and installing a new controller.

For more information, contact Joan Chang at 1-800-227-4224 ext 2068, jchang@hach.com or visit www.hach.com.
President’s Meeting to be held in Portland

by Charlotte Clayton
ISA Meetings Manager
cclayton@isa.org

January 12, 2005 — Join your fellow Society leaders 30 April through 4 May at the Portland Marriott Downtown, Portland, Oregon for this year’s President’s Spring Meeting.

ISA President’s Meetings bring together Society leaders to review and discuss the Society’s direction and adopt guiding policies. In addition to conducting Society business, the meeting provides new ISA leaders with an introduction to Society structure, operations, and activities through numerous leader orientation sessions.

A meeting schedule, registration details, and hotel reservation information is available on our website. Be sure to make your hotel reservation by 8 April 2005 in order to receive ISA’s group rate of $114.00.

For the meeting schedule, registration details, and hotel reservation information, please visit www.isa.org/psm.

We have an exciting Dinner Cruise planned for Sunday night 1 May. An important part of President’s meetings is networking with your colleagues so I hope you will make plans to participate in this group event.

Hope to see you in Portland!

Now we’ve made it even easier to get your readings in one place. Hach’s new multi-parameter controller is pre-programmed to read almost any parameter you’ll ever need to measure, so it’s simple to install. Just plug in any combination of Hach digital sensors and the controller is up and running. The multi-parameter controller supports pH, ORP, conductivity, D.O., total suspended solids, turbidity and nitrate. And you can expand the parameters measured in your plant without the cost of purchasing and installing a new controller.

To learn more about how the sc100 can simplify your life, contact Joan Chang at 1-800-227-4224 ext. 2068, jchang@hach.com, or visit www.hach.com.
**Websites of the month**

**Tsunami monitoring network**

The Pacific Marine Environment- nal Laboratory (PMEL) carries out interdisciplinary scientific investigations in oceanography and atmospheric science. Current PMEL programs focus on open ocean observations in support of long-term monitoring and prediction of the ocean environment on time scales from hours to decades.

PMEL pioneered the development of a deep-ocean real-time tsunami monitoring network and the methodology for producing tsunami inundation maps to assist coastal communities in development and emergency management planning. PMEL leads the National Tsunami Hazard Mitigation Program.

Because of PMEL, tsunami evacuation maps are now available in the five west coast states and the real-time deep ocean detectors are providing more accurate forecasts of warnings to reduce false alarms.

For further information, see their website at www.oar.noaa.gov/organization/backgrounders/pmel.html.

**Digital desert**

This is one of the best Mojave Desert websites you’ll ever see. Take a virtual trip down many highways, aerial photos, local sites, historical info with over 15,000 photos of the Mojave Desert. Easy to spend a few hours there exploring. Website: http://digital-desert.com/

**Mechanical valve corrects genetic birth defect**

January 6, 2005 — Rodney Bodeau, a member of ISA LA, had successful heart surgery on December 30, 2004, at the LAC USC Cardiac Unit according to his brother Paul Bodeau. The surgery replaced a defective aorta valve, and was Rod’s second surgery on that valve.

His first surgery, when he was only five years old, was to correct a genetic birth defect of the aorta valve. The first surgery was experimental and not expected to last a lifetime. Replacement valves were unavailable in those days. The second surgery replaced the defective valve with a lifetime valve. Rod’s mother, Silvia, had a similar surgery in December, 2003, but was reluctant to take credit for Rod’s genetic birth defect.

“Rod would not comment on any remaining genetic birth defects the surgery did not fix. His recovery time will be about two ISA LA general meetings. Maybe only one,” says Paul.

We all wish Rod a speedy recovery.

**Leading an ISA section or division**

Interested in applying or developing your leadership skills? Willing to give something back to your profession? Eager to contribute to future generations of ISA professionals and practitioners?

Start now, by volunteering to be a Section officer in your local ISA Section or a leader in one of ISA’s technical Divisions. Your participation will make a difference!

For Section leadership opportunities contact the Section President or any of your current Section officers.

For technical Division leadership opportunities contact Rodney Jones at (919) 549-8411 or rjones@ISA.org.

**Project awarded**

Aleso Viejo, CA — Fluor has been awarded a contract for installation services for the North Carolina Clean Smokestacks program. Systems to be installed are intended to strip sulfur from emissions at Progress Energy’s NC coal plants. Completion is scheduled for 2013.

Source: Orange County Register.
Human relations

Business corner: why employers get sued

In today’s litigious society every business, large and small, has to take precautions to be sure they follow the state and federal workplace laws. Even one complaint can be enough to throw a small businesses into chaos or worse. If you have watched daytime television lately, you’ll see a non-stop stream of commercials for attorneys appealing to any and every person watching.

According to HR Networks, Inc., of Garden Grove, who assists other companies with HR functions, ensuring law compliance and employer resource organization, the following are some of the most common practices to watch for:

1. Improperly classifying workers as Independent Contractors when they meet the requirements for working as employees.
2. Holding an employee’s final paycheck for any reason.
3. A “Use It or Lose It” vacation time policy.
4. Congratulating your new employee for passing the probationary period and offering “Permanent Employee” benefits.
6. Not providing Labor Law training for yourself and your supervisors.
7. Not providing clear job expectations to employees.
8. Failing to pay overtime as prescribed by State law.
10. Putting all your employees on salary.
11. Allowing employees to work through lunch.
12. Terminating an employee when they return from a worker’s compensation or disability leave.
14. Requiring all employees to sign Non-Compete Agreements.

For more information about dealing with human relations matters, please call Heather Guenara of HR Networks, Inc., 12062 Valley View Street, Suite 215, Garden Grove, CA 92845 at (714) 799-1115 or on the web at www.hr-network.net.

Industry News

Hardy Instr hires Korean representative

San Diego, CA, December 15, 2004 - Hardy Instruments has signed up a new representative, Shin Woo F.A.Co, Ltd., to assist Hardy customers in South Korea. Shin Woo and its president, Dong-Eun Kim, have comprehensive experience with process weighing applications, as well as PLCs and installation.

Hardy Instruments offers all the components needed to create complete process weighing systems: multi-purpose and application-specific weighing controllers, Allen-Bradley(r) compatible weigh scale modules, junction boxes, load cells, and scales. Instruments feature network interface options such as ControlNet(r), Remote I/O(r), Profibus(r), EtherNet IP(r) and DeviceNet(r).

For more information, contact Milka Pejovic or Joel Chait at Hardy Instruments, 3860 Calle Fortunada, San Diego, CA 92123, 858-292-2710, www.hardyinst.com.

You Don’t Have a Choice About Measuring Turbidity.
You Do Have a Clear Choice in Turbidimeters.

Introducing the NEW Clarity II™ Online Turbidimeter

Your choice is clear – Rosemount Analytical technology designed for accuracy, exceptional ease of use, cost-effectiveness and simple installation. Choose:

> EPA or ISO Compliance
> Single or Dual Channel Sensor Input
> Plug and Plumb™ Systems
> Superior Low Level Accuracy

And, of course, you’ll have unmatched product and application support. It’s the clear choice! Call 800.854.8257 to find out more.

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949-757-8500

ROSEMOUNT Analytical

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EMERSON. CONSIDER IT SOLVED.

February 2005 ISA Newsletters, Southern District 11 7
Local section meetings

For more details about any of the section meetings, please contact the section president or read each section’s complete newsletter online at [www.techpubs.net/isanews](http://www.techpubs.net/isanews).

**Orange County**
President - Sarah Sheldon, sarah.sheldon@fluor.com

**Basics of Transient Voltage Surge Suppression** will be the topic presented by Patrick McCurdy, Product Manager and Technical Specialist for Surge Protection Devices at Phoenix Contact. Meeting will be Wednesday, February 9 with a 5:30 social hour and meeting at 6:30. Location is Fluor Enterprises, at the back of cafeteria, Bldg #3, 3 Polaris Way (formerly 1 Fluor Daniel Dr.), Aliso Viejo.

Website: [www.isa.or/~oranc](http://www.isa.or/~oranc).

**Las Vegas**
President - Jeff Blue, Jeff.Blue@lvvwd.com

**Our February Monthly Meeting** is on Thursday, February 24 at 6:30pm at Skinny Dugan’s Pub, 4127 West Charleston Blvd between Valley View and Decatur. Our section is finalizing efforts for ISA/Section cosponsored training on *Overview of Measurement & Control Fundamentals (FG05C)*. Keep a look out for details in upcoming editions of the “Experience.” Dave Good and Tim Ploeger have assembled an excellent plan for this year’s Table Top Show — ata new surprising venue! Come to our monthly meetings!

Website: [www.isa.or/~lasve](http://www.isa.or/~lasve).

**San Diego**
President - Andrew Postert, apostert@ci.escondido.ca.us

We meet every other month. Our next section meeting is March 15th meeting. **Water Projects That Are Complicated & Impressive**, will be presented by Floyd Standing Warrior, President & Founder of Lakota Engineered Systems. The meeting will be at the City of San Diego’s Metropolitan Operations Complex Building II, 9192 Topaz Way, San Diego (Keary Mesa). A social hour will begin at 4:30 and meeting at 5:30. Cost is $8 for members ($10 non-members) if reserved by March 14 or $10 ($12 non-members) at the door. Hors d’oeuvres will be provided. Non-members who submit a membership application get in free! Please RSVP to Andrew Postert at (760) 839-6272 or apostert@ci.escondido.ca.us.

Website: [www.isa.or/community/sandi](http://www.isa.or/community/sandi).

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**King Flowmeters**

Glass, Metal, and Plastic Tubes

Optional transmitters and switches

Metal tube with rates as low as 1 SCFH

**Quick Delivery!**

**Precision Instrumentation Company**

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Pressure regulators, pressure indicators, flowmeters, filters, separators, thermometers, and enclosures

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TEL: (909) 590-0408 FAX: (909)590-4146
[www@precinstr.com](http://www@precinstr.com)

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[www@precinstr.com](http://www@precinstr.com)
Regional events

Dates are subject to change. Always contact the sponsoring party before making your final plans to attend. To include an event or make a correction, please contact the editor.

March 1-3
2nd Annual Power-Gen Renewable Energy Conf & Expo
Las Vegas Hilton
www.power-genegreen.com

March 9
Certification Exams (CA)
CAP, CIMM, CCST Levels I, II, and III; Cal Poly Pomona;
www.isa.org/cap

March 13-17
American Chemical Society
National Meeting
San Diego; www.chemistry.org

April 22
ISALA Golf Tournament & Expo & Training
Kevin O’Neill at (661) 618-9902 or kevin.oneil2@comcast.net; or
Joe Bingham at (619) 471-7925 or
Jbingham@SempraGlobal.com. www.isala.org

April 30 - May 4
ISA Presidents Meeting
Portland, Oregon, www.isa.org
For more info, contact Charlotte Clayton, cclayton@isa.org

May 2005
NorCal Tech 2005
Technical Conference & Exhibit
www.isanorcal.org

May 15-17
Measurement, Control & Automation Association
Las Vegas

May 19-20
Annual Golf Tournament, Cajun Feast, Tabletop Exhibit & Technical Training
Sponsored by the So. San Joaquin Valley Section: to be held at
Veterans Hall and Rio Bravo Country Club, Bakersfield. Contact
John Sheehan at sheehjg@chevrontexaco.com or
Ray Spangler at ray.spangler@centralautomate.com

June 3
Application Deadline for Exams (NV, CA) CAP, CIMM, CCST
Levels I, II, III; www.isa.org/cap

June 6-9
ASME Turbo Expo
Reno Hilton Pavilion
www.asme.org/igtii
(404) 847-0072

June 13-17, 2005
Design Automation Conference
Anaheim Convention Center
www.dac.com

June 28-29
West Coast Energy Management Congress
San Diego Convention Center
www.EnergyEvent.com
(770) 447-5083

July 16
Certification Exams (NV, CA)
CAP, CIMM, CCST; Levels I, II, and III; Electrical JATC of S.
Nevada, Las Vegas; and Cal Poly Pomona; www.isa.org/cap

August 26
Application Deadline for Exams (CA);
CAP, CIMM, CCST Levels I, II, III; www.isa.org/cap

Sept. 19-21
North American Thermal Analysis Society Conference
Universal City, CA
www.natasinfo.org

October 8
Certification Exams (CA)
CAP, CIMM, CCST Levels I, II, III
www.isa.org/cap Cal Poly Pomona

October 25-27
ISA EXPO 2005
Chicago, Illinois
www.isa.org/isaexpo2005

October 28
Application Deadline for Exams (CA)
CAP, CIMM, CCST Levels I, II, III
www.isa.org/cap

November 2005
Mech Engg Expo
Anaheim
www.rdexpo.com/index.html

December 10
Certification Exams (CA)
CAP, CIMM, CCST Levels I, II, III
www.isa.org/cap Cal Poly Pomona

Innovative Technology At Work  George Fischer Signet, Inc. introduces the new 8150 Battery Powered Flow Totalizer to meet your unique requirements for liquid applications. Designed to offer the user a variety of mounting options, the 8150 provides flow rate and flow volume calculation, and remote operation, all in a compact, durable NEMA 4X/IP65 enclosure. The 8150 features three totalizers, one permanent, two resealable - from the front panel or a remote location. For more information, check out our website.

www.gfsignet.com

George Fischer Signet, Inc.
For Sales and Service, visit our website or call (800) 854-4090

Creating Quality by Connecting Technology to Life

Long lasting lithium batteries
Three totalizers
Security Coded, user-selectable
No-flow indication
Display averaging
Scrolling feature
Auto calibration

The 8150 is designed to operate with three Signet paddlewheel sensors, 515, 525 and 2317. Integral version is compatible only with the 515 sensor.
The Los Angeles and Orange County Sections held their annual Christmas Party onboard the Queen Mary this year for the first time. Thanks to all the generous sponsors, nearly everyone won a door prize. Special thanks to Joe Bingham of Sempra Global and Sarah Sheldon of Fluor (bottom row center), section presidents for their tireless work organizing the event! And thanks to Paul Bodeau for arranging the casino games - blackjack, roulette, craps and poker. To see all these photos and others, please see the Los Angeles Section website, www.isala.org.

**How do you measure... Flow, Moisture, Oxygen or Gas Composition?**

If you need accurate, reliable, low-maintenance measurement solutions, then you want GE Panametrics process control instrumentation.

GE Panametrics is now under a new name — GE Infrastructure Sensing

Southern California Sales Engineer
Kurt Kohl  •  kurt.kohl@ps.ge.com  •  (562) 795-6143
Water and wastewater update

Drinking water industry solutions


Producing a source of safe and reliable drinking water and removal of harmful microorganisms are the primary goals of every plant. Accurate on-line process instrumentation such as turbidity, particle-counters, chlorine, ozone, pH and conductivity, plays a critical role in achieving the plant objective and meeting regulatory compliance.

Copies of the brochure can be requested from Emerson Process Management, Rosemount Analytical, Liquid Division, Irvine, California, at (949) 757-8500 or by email from CSC@RAIhome.com. Website: www.RAIHome.com.
Industry news

Caltrol expands, acquires Associated Process Controls

Las Vegas, January 1, 2005 — Caltrol, Inc., based in Las Vegas, Nevada, has acquired San Francisco based Associated Process Controls, merging Emerson Process Management’s two California Local Business Partners into one organization. Adding 32 new employees and one additional office in Pleasanton, California, to its four-state territory; the new organization will expand the level of technical support and service available to customers in California, Nevada, Arizona, and Hawaii.

Mike McCoy, former President of Associated Process Controls, added that the combined organizations will strengthen their ability to provide Emerson’s PlantWeb to our customers and also allow advancement opportunities to their employee owners.

As a forty-year-old brand name in Northern California and Nevada, Associated Process Controls will remain as an operating subsidiary of Caltrol.

In addition to the acquisition of APC, Caltrol has expanded their coverage in Southern California and relocated into two new facilities, one located at the Emerson Process Management office in Irvine and the other at Emerson’s Instrument & Valve Services facility in Paramount. Account Managers, Technology Consultants, Systems Engineers and Sales Management will be located in Irvine and provide sales and technical support for the Los Angeles and Orange County areas.

Account Managers will also be located in Paramount along with the field services shop, Field Service Technicians, Services Specialists, and Automation Specialists. The Paramount location will allow improved outage management activities that involve both control valves and automation products.

Both facilities will provide a more central location to Los Angeles area customers as well as improved interaction with other Emerson divisions.

With the acquisition of Associate Process Controls, Caltrol now has eight (8) sales offices which are located in Las Vegas (Headquarters), Los Angeles (Irvine and Paramount), San Diego, Bakersfield, San Francisco (Pleasanton), Phoenix (Mesa) and Honolulu.

Source: Mike_Rizzo@caltrol.com

Energy update

DOE issues energy outlook for 2005-2006

Washington, Jan 11, 2005 — Global economic growth is expected to settle at more sustainable rates over the next two years, tempered in part by high world oil prices. Initial assessment is that domestic crude oil prices are likely to remain with 3% of the January 1, 2005, price through 2006. The tsunami which struck South Asia on December 26, while devastating and massive in scope, appears to have had minimal impact on oil markets or on energy markets generally, according to the Department of Energy, Energy Information Administration’s January report.

Heating oil and gas. Heating oil expenditures by typical Northeastern households are expected to average 30 percent above last winter’s levels, with residential fuel oil prices averaging $1.82 per gallon for the October-to-March period. For heating oil, prices in 2005 are still anticipated to average about 12 cents per gallon higher than their 2004 average level. Expenditures for propane-heated households are expected

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to increase about 20 percent this winter. Expected increases in expenditures for natural gas-heated households have been raised slightly to 10 percent.

**Gasoline.** US petroleum demand in 2005 is projected to average 20.9 million barrels per day, up 2.0 percent from the 2004 level. An additional 1.9-percent growth is anticipated for 2006. Continued growth in gasoline demand in the U.S. is expected to move average prices to about the mid-$1.90's by spring, about the same as in 2004. The improvement in current and expected gasoline supplies has reduced the likelihood of significant increases in average gasoline prices in 2005 compared to 2004.

**Natural gas.** With the heating season now more than half over and ample storage, natural gas prices are likely to ease over the next several months. Henry Hub prices are expected to average $5.77 per mcf in 2005. In 2006, prices are projected to average $5.95 per mcf as the supply of natural gas is expected to tighten. In response to continued economic growth, natural gas demand is projected to increase by 3.0 percent in 2005. Domestic natural gas production in 2005 is projected to increase by 1.7 percent from 2004 levels, partly due to high gas-directed drilling rates and partly due to continued recovery in the Gulf of Mexico from the effects of Hurricane Ivan.

**Electricity.** Electricity demand is expected to increase by 3.3 percent in 2005 and by an additional 2.1 percent in 2006, following estimated growth of 1.4 percent in 2004

**Coal.** Coal demand in the electric power sector is expected to show a solid gain of 2.9 percent in 2005 and another 2.6 percent in 2006. Power sector demand for coal continues to increase even as oil and gas prices remain high. US coal production is expected to grow by 2.9 percent in 2006.

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### Standards & practices

#### Modbus protocol adopted by Peoples Republic of China

People’s Republic of China, January 11, 2005 - The Standardization Administration of China (www.sac.gov.cn) has formally launched the following three standards for industrial automation in the People’s Republic of China:


Mr. Ouyang Jinsong, Director of Standardization, Department of Instrumentation Technology & Economy Institute, People’s Republic of China and General Secretary of the National Standardization Technical Committee on Industrial Process Measurement and Control confirmed the standards were effective October 26, 2004.

The Chinese standardization authorities have been working closely with Schneider Electric as they develop and propagate the use of standards in their industrial infrastructure. In conjunction with launching the Modbus standard, a conformance test laboratory is anticipated to open in China within the next few months.

Job Shop

There is no charge to insert a “position open” or “seeking position” ad up to 75 words. Circulation is approximately 1,500 ISA members and other industry personnel. To place an ad, please contact the newsletter editor.

Inside Sales: Due to growth of our firm, we need an additional person with computer and phone skills. Long Beach area. Salary commensurate with experience. Growth and advancement opportunities exist. Send resume to info@blairmartin.com or fax Ken Blair at 562-424-5189.

Business Internship positions. SVF Flow Controls, Inc. (Santa Fe Springs, California) seeks talented individuals to submit their resume for consideration in their Business Internship Program. We are looking for as many as three new interns who exhibit a desire to succeed and who are well organized, have excellent writing skills, posses a knowledge of all of the common business tools (everything Windows) and who understand the value of a satisfied customer. Internships are available in all areas of the business including: Manufacturing, Quality Assurance, Customer Service, Technical Support and Administrative Support. Please submit resume via email to Careers@SVF.net or mail to Business Internship, SVF Flow Controls Inc., 13560 Larwin Circle, Santa Fe Springs, CA 90670, Attn: Careers.

Inside Sales. ICP DAS USA, Inc., manufacturer of Data Acquisition, Data Communication and Embedded Control products, is looking for a qualified and self-motivated inside sales with 1+ year sales experience in automation or data acquisition industries. Strong communication, written and verbal skills. Office is located in Torrance, CA. Paid vacation and medical benefits. Send resumes to careers@icpdasusa.com. Visit www.icpdasusa.com.

Chemist/Chemical Engineer. Manufacturer seeks a candidate for development of analytical measurement devices. Successful candidate will have a master’s degree or equivalent and 5+ years experience in electrochemical and/or optical sensing technologies with good project management skills. We offer opportunity for growth and an excellent compensation/benefits package. Send resume and salary history to: George Fischer Signet, Inc., 3401 Aerojet Avenue, El Monte, CA 91731 or e-mail to hr@gfsignet.com.

Integrator/Developer. Designs and writes moderately complex computer programs to handle the integration of plant systems (PLC / SCADA / RTU) with corporate information systems, including application customization and application interfaces. Writes programs that interface data collection and HMI systems (e.g., Fix32, Citect, Wonderware) systems with web Portals and SQL databases. Prepares program specifications and system diagrams relating to the operation of pipeline distribution centers, compressor stations. Occasional travel from San Diego to Mexico is required. Send resume jbingham@sempraglobal.com.


Inside Sales Assistant. Quality valve & instrumentation company seeking qualified order entry/sales assistant with 3+ years experience in order entry and with Excel and computer skills. Paid vacation and medical benefits. Send resume to cbowman@process-instruments.com or Attn: Carol Bowman, Process Instruments & Controls, 1400 Easton Drive, Suite 113, Bakersfield, CA 93309.

CEMS & Process Analyzer Technicians. APG Analyzer Systems is seeking two experienced analyzer technicians to perform routine field service, troubleshooting and minor modifications on analyzer systems throughout Southern California. These are positions for hands-on technicians – not engineering or managerial. Will use schematics and flow diagrams to troubleshoot components. Familiarity with analyzer sample systems required. Part time or contract OK. For more info, contact John Prince at (714) 968-5501 or jprince@CalCEMS.com.

Position Wanted. I/E Engineer w/ PE, 20+ years controls and power experience in; Engine ( recip & turbo), Generator, Boiler, Switchgear, Chemicals, Pharma, Water/Wastewater, Paper/Plastics & Environmental. Know SCADA, PLC, DCS, RTU & VFD. Seek San Diego or Southern Orange County position. Email - edm@engineer-power.com.

Electro-Instrumentation Mechanic to work as a temporary for our San Diego Client, a leader in the production of food and industrial ingredients. Candidates will have completed a Journeyman Electrical Apprenticeship, or have Instrumentation /Control Maintenance experience working on PLC’s Field Instrumentation, Control Loops, Transmitters. Required experience in troubleshooting and repair calibrations, preventative maintenance, equipment reliability activities. ISO,GMP, VPP-CalOsHa, PSM/Facility programs a plus. Contact: Patricia Santos, Sr. Technical Recruiter, Kelly Engineering Resource, email santopl@kellyservices.com or 858-404-9815.

Maintenance Mechanics. We are in need of 3 Maintenance Mechanics to work on a temporary basis for our San Diego Client, a leader in the production of food and industrial ingredients. Candidates will be experienced with process equipment for maintenance and experienced in two or more of the following: Industrial Power Transmission, Rotating Equipment, Compressors/Engines, Chillers, Mills, and Packaging equipment. Experience with predictive and preventative maintenance techniques is beneficial. Experienced with troubleshooting, repair, lubrication and equipment reliability activities. PC skills required. Experience in ISO,GMP, VPP-CALOSHA, PSM Facility/programs a plus. Contact: Patricia Santos, Sr. Technical Recruiter, Kelly Engineering Resource, email santopl@kellyservices.com or 858-404-9815.

Manufacturing Engineer to work as a temporary to hire for our Client, a medical device company located in San Diego, Ca. Seeking a “hands on” Manufacturing Engineer that can provide expertise in managing product design changes, equipment, sustaining manufacturing for the production of world class products. BS degree in Mechanical, Manufacturing, Electrical or Industrial. 2 – 5 years of experience in a pharmaceutical or medical device environment. Experience in Electro-mechanical, process and assembly automation, 2D/3D CAD, hardware design, pneumatics, instrumentation, PLC/ Programming, quality tools, advance problem solving. Contact: Patricia Santos, Sr. Technical Recruiter, Kelly Engineering Resource via email santopl@kellyservices.com or 858-404-9815.


Continued on next page
CCST review class offered

by Kevin O’Neill, CCST Education Co-Chair
Los Angeles Section

A course open to members of the International Brotherhood of Electrical Workers to prepare technicians for taking the CCST exam is being offered at the Electrical Training Institute. The class, “Instrumentation and Process Control” will be offered in a series of sessions, nine weeks each, beginning the first week of February. The class will be taught by Neil Finch, Instrumentation and Lab Supervisor at Glendale Water and Power, assisted by Kevin O’Neill of Burbank Power. The class is open to all and no prerequisites are required. For contributing members of Local 11 the cost is $70. For non-contributing members or for those from other Locals, the cost is $250.

The first 9-week session (Introduction) is a basic introduction explaining how flow, temperature, pressure and level are monitored and used in the world of process control. This session is intended to help those just starting in this field as well as being a review for those planning to take the ISA Certified Control Systems Technician Exam. (Exam dates are listed in Regional Events on page 9.)

For those interested in continuing the series, the next nine-week session (Session “A”) is a continuation of the Introduction, teaching how to apply principles in a hands-on, lab environment. It covers calibration methods and techniques and provides a closer examination of the operation and fundamentals process switches, indicators, transmitters and recorders. This class also is useful by instrumentation installation and loop check personnel.

Session “B” (9 weeks) explains why process control systems and control logic are important pieces to all industries. Applying knowledge learned from the previous session, students will use lab equipment to learn to calibrate, wire, test and construct a process control system, and to insure safe startup procedures and tuning techniques. Studies will enhance troubleshooting capability and instrument maintenance knowledge.

Session “C” (9 weeks) is intended to help students to refine the instrumentation technology and process systems analysis skills and information learned in previous sessions and help in more advanced studies in instrumentation. This session will also cover human-machine interfaces (HMI), computer graphics and how they are used in industry.

Electrical Training Institute is located in the City of Commerce.


For more info or to sign up for the class, contact Kevin O’Neill at (661) 618-9902 or kevin.oneill2@comcast.net. Kevin O’Neill is the Education Chair of the Los Angeles Section.

Neil Finch (left) and Kevin O’Neill to teach “Instrumentation and Process Control” and CCST review classes. Photo courtesy of Kevin O’Neill.

Job Shop, continued from previous page

Technical Advisor. Local manufacturer of industrial pressure washers and industrial cleaning equipment located in Redlands, CA, seeks a customer support position providing technical support to distributors and end users. Will also assist with troubleshooting over the phone and supervise 2 service technicians. Must have some technical/service background; sales experience and mechanical equipment repair experience helpful. Salary plus benefits. Please fax your resume to Hydrotek Systems at (909)799-9888 or email to jybanez@hydroteksystems.com.

ISALA February Tech Night cancelled

ISALA’s Annual Tech Night Tabletop Trade Show and Training, announced last month for February has been cancelled. Instead, the section is planning a new event - a Golf Tournament, Dinner and Show in April at the Rio Hondo Golf Course in Downey. Details were being finalized at press time. Please check the section website at www.isala.org or contact the section president for up-to-date information.

2005-2006 Energy Outlook, continued from page 13

percent in 2005 and by an additional 2.6 percent in 2006.

Hydroelectric. Hydroelectric power availability, which now appears to have fallen slightly in 2004, is expected to rebound in 2005 by as much as 11 percent nationally, provided normal precipitation patterns prevail.


Get your newsletter EARLY!!

If you have not already received this newsletter by email then you are in good company. Over 25% of all section members have an out of date email address listed with ISA. To update it, all you have to do is email a request to info@isa.org. That’s it!