George Fischer Signet tour

The Orange County Section is also invited to a second event! For over 40 years, George Fischer Signet, Inc. has led the fluid measurement industry with leading edge design and innovative technology in the production of flow, pH/ORP, temperature, pressure, level and conductivity measurement sensors and instruments. Their product line includes ProcessPro® transmitters and controllers, metal and plastic paddlewheel flow sensors, DryLoc™ pH/ORP and conductivity electrodes, and the ultrasonic flow monitoring system. As part of the George Fischer Corporation based in Schaffhausen, Switzerland, Signet also offers a worldwide network of distributors and sales partners to provide immediate access to products, expert application assistance and customer service. For more information, please visit their website at www.gfsignet.com.

Date: Tues, Sept 21 at 5:30 pm; Place: George Fischer Signet, 3401 Aerojet Ave, El Monte. Important... Due to security concerns, RSVP is mandatory. Contact Rachel de Leon at (626) 571-2770 ext 111. Note that those who do not RSVP in advance may not be able to participate in the full tour. Directions: Take the Rosemead south exit off the 10 Fwy. Left on Telesat, left Aerojet.

At left, electrical engineer, Sander Luu (left), and engineering technician, Ruben Rodriguez of George Fischer Signet's Flow Laboratory operate the automated flow loop.
President’s message

We have had two meetings this year already, please take a few minutes out let me know your thoughts about our programming so far and what you’d be interested in for the rest of the year. I can be reached by E-mail at sarah.sheldon@fluor.com or by phone at (949) 349-8750.

The turnout for the last two meetings has been excellent. It was a pleasure meeting all of you who stopped and talked to me after the meeting to introduce yourselves. Thanks for helping kick off another great year with ISA. I look forward to meeting more dedicated O.C. /L.A section members at the next meeting.

Our meeting this month about Adventures in Analytical Instrumentation on September 15th at a larger location, Newport Electronics in Santa Ana. We will have five panelists and already several sponsors, so come out and see where analytical instrumentation is going. Plus, be sure to stop by and say hi to old friends and be prepared to make some new ones. I would like to extend a special thank you to our panel of experts that will be speaking at the meeting.

October’s meeting will be a Joint plant tour with the L.A. section of the SAB-Miller Brewery on Oct 19th and 20th. Be sure to sign up ASAP as numbers are limited.

Don’t forget the joint O.C. /L.A sections annual Christmas party coming up on Friday, December 17th in the Mauretania Room aboard the Queen Mary in Long Beach. This will be one that you do not want to miss. Like previous years, we are looking for sponsors for the Christmas party. Tables of eight are available for sponsorship at $560.00. Many companies sponsor the table along with door prizes. Many Companies or individuals also sponsor just door prizes.

There will be dinner, dancing, raffles, and reduced room rates aboard the ship for those interested. Your participation and support of your local chapter is essential to its liveliness. If you would like to help sponsor the event or have any questions you can contact myself or Joe Bingham, L.A. section President.

I am looking forward to the annual ISA Expo Oct 5-7, 2004 at the Reliant Center in Houston Texas. The Expo is around the corner and you should plan to attend soon, see you there.

Respectfully,
Sarah Sheldon, Your President
ISA Orange County

TREASURER’S REPORT FY 2004-2005
Budget Report 6/17/04

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EXPENSES

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TOTAL INCOME: $8,660.21
TOTAL EXPENSES: $8,660.21
Differential: $0

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 at by (919) 549-8411 or www.isa.org. For editorial submissions and feedback, please contact the newsletter editor. Advertising rates, circulation information and style guide are posted at www.TechPubs.net. Billing and publishing correspondence may be addressed to TechPubs Communications, PO Box 1605, Costa Mesa, California 92628. Submissions are copyright by the authors with all rights reserved.

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President — Sarah Sheldon
Fluor Daniel, (949) 349-8750
sarah.sheldon@fluor.com

President Elect — John Querido
Jontec Systems, (949) 581-5972
jontec@msn.com

Secretary — Joe Bonelli
Festo Corporation, (949) 283-4322
joseph_bonelli@festo.com

Treasurer — Tim Ton
Control Engineering, (714) 535-5590
timton32@yahoo.com

Past President — John Gong
ICP DAS USA, Inc., (310) 517-9888
johng@icpdas-usa.com

Delegate — Christine Dorgan
Disneyland Resort, (714) 781-1999
christine.dorgan@disney.com

Delegate — Bob Harrison
Conex Systems, (714) 988-1369
robert_W_harrison@member.isa.org

Arrangements Chair — Open

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ICP DAS USA, Inc., (310) 517-9888
johng@icpdas-usa.com

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Jontec Systems, 949 581-5972
jontec@msn.com

Honors & Awards Chair —
John Gong
ICP DAS USA, Inc., (310) 517-9888
johng@icpdas-usa.com

Membership Chair —
Bis Mitra
Fluid Daniel
eaglebis@earthlink.net

Membership Co-chair — Don Zee
Don Zee Associates, (949) 499-0917
Don@DonZeeAssociates.com

Program Chair — Carl Hoffman
Hybrid Solutions, Inc. (909) 757-5367
carlh@hybridssolutions.com

Publicity Chair — John Prince
Analyzer Products, (714) 968-5501
jprince@CalCEMS.com

Student Section Liaison —
Bob Harrison
Conex Systems, (714) 968-1369
robert_W_harrison@member.isa.org

Webmaster — Bob Harrison
Conex Systems, (714) 968-1369
robert_W_harrison@member.isa.org

District 11 Vice President —
Raj Adani
Caltrol, (626) 852-3507
raj.adani@member.isa.org

ISA Staff Contact — Dalton Wilson
ISA, (919) 990-9290
dwilson@isa.org

Newsletter Editor — John Prince
Analyzer Products, (714) 968-5501
jprince@CalCEMS.com

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Orange County Section
Officers 2004-2005

http://www.isa.org/~oranc/

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ISA and certification programs

Last month in this column we started discussing various certification programs available through or endorsed by ISA. We discussed CCST program i.e. Certified Control Systems Technicians program. Let me take a crack at outlining the CSE – Control Systems Engineering program.

The National Council of Examiners for Engineering and Surveying (NCEES) conducts the Professional Engineering examination in Control Systems Engineering. This multiple choice exam is offered once a year and it covers topics like –

- Sensing and Measurement principles
- Final Control Elements
- Control Systems Analysis
- Control System Implementation
- Codes, Standards and Regulations

The PE license in CSE is recognized in 44 states and most people holding this license also -Hold 4 year engineering degrees, Have a minimum 4 years experience and should pass FE (Fundamentals of Engineering) exam and PE (Practice of Engineering) exams.

ISA offers study material for those preparing for the CSE exam. ISA also offers 3 day review course typically held few months before the exam. I would encourage all interested parties to visit - www.isa.org/Content/NavigationMenu/Professionals_and_Practitioners/Certification/ for additional information on this program that has laid the foundation for our engineers success.

Next month – CIMM
Raj Adani
ISA District-11 VP

As APG begins our tenth year in business providing continuous process analytical & CalCEMS™ emissions monitoring systems, field service & consulting, and on-site system upgrading, we would like to thank all of our dependable suppliers, our dedicated support staff, and our tireless subcontractors for contributing to our success and for your continuing support and friendship.

And most of all, a sincere thank you to our loyal customers, some of whom are listed below...

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Energy and environment briefs

Duke Energy Morro Bay plant licenses -- Aug. 3 — On a vote of five to zero, the California Energy Commission today approved the Application For Certification for the Morro Bay Power Plant Project contingent upon the water permit to be issued by the regional water quality control board. The existing power plant would be replaced with a 1,200MW modern, efficient, combined-cycle facility with 20% more generating capacity while using 30% less natural gas per watt.


Air quality board considers limiting more emissions — Aug. 8 — The California EPA has released proposed rules to reduce greenhouse gas emissions from mobile sources which they claim would also benefit Californians at the gas pump. Also, the agency is considering requiring catalytic converters on boats with gasoline engines, which the agency claims are more than 150 times more polluting than automobile engines. Sources: Sacramento Bee, Los Angeles Times.

Green building guidelines issued — Aug. 10 — KEMA today announced the completion of the first and most comprehensive multifamily green building guidelines in the State of California. Source: Sacramento Bee.

Shell Bakersfield refinery to remain open through March — Aug. 13 — Shell Oil executives have agreed to keep the company’s Bakersfield refinery open until March 31, 2005, to give them more time to find a buyer for the Rosedale Highway plant, the California Attorney General’s office, as reported by the Bakersfield Californian. The refinery was scheduled to close Oct. 1. The Shell refinery employs about 250 people, uses an additional 150 contractors and supplies about 2 percent of the state’s gasoline and 6 percent of its diesel.

Solar cell energy start-ups get international capital — Aug. 15 — Venture capitalists are signing up the most promising companies in record numbers, many of them in Silicon Valley. Breakthroughs in solar technology, favorable policy proposals by Democratic presidential hopeful Sen. John Kerry, disgust about dependence on foreign sources of oil, and skyrocketing demand for energy worldwide are all playing a role. Source: San Jose Mercy News.

Edison Mohave power plant’s future uncertain... Laughlin, Nevada, Aug. 17, 2004 — A January 1, 2006, environmental consent degree deadline requiring major upgrades at the coal-fired plant may be moot. It is unclear if the plant will have enough coal or water to continue operating when its current supply contracts expire, according to Southern California Edison. Because of those uncertainties, Edison has not yet started work on the upgrades.

continued on next page
Mitsubishi Heavy Industry wins gas power plant order — Aug. 19 — An order for a 495,000-kilowatt gas turbine combined cycle power facility was placed by Mexico’s Electricidad Sol de Tuxpan S. de RL de CV., or EST, in the Tuxpan power complex about 150 miles northeast of Mexico City. The new power generating facilities are scheduled to kick off operations from September 2006.

Oil companies settle drinking-water lawsuit — Aug. 25 — To settle claims that leaks from gasoline storage tanks may taint drinking water, units of Royal/Dutch Shell Group, BP and other companies tentatively agreed to spend $91.7 million to install double-walled tanks and pipelines at California service stations and to treat contamination, according to documents filed in San Francisco Superior Court. Communities for a Better Environment sued the oil firms under California’s Safe Drinking Water and Toxic Enforcement Act, known as Proposition 65. The suit said the oil companies were discharging gasoline containing benzene and toluene into potential drinking-water supply sources. Source: Los Angeles Times.
California’s aging power plants

Sacramento, August 6 — As part of the ongoing process to understand the changing electricity picture and to better make decisions that will secure supplies in the future, the California Energy Commission has released draft staff white papers that examine these three key aspects of the State’s electricity supply and demand.

The report on aging power plants addresses the 66 generating units located at 22 power plant sites in California which are between 26 and 62 years old. According to the CEC, these units use outdated technology that makes them less fuel- and cost-efficient than newer, cleaner plants. Yet, as electricity demand grows, California remains dependent on these older plants for summertime peak power.

A staff white paper just released discusses the effect these aging plants can have on local reliability and on the State’s overall power grid. It examines the factors that can lead power generators to retire the less-efficient plants, and assesses the effects that our continued reliance of older plants can have on system reliability, natural gas use, electricity prices, and the environment.


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People in the news

Occidental announces management changes...
Los Angeles, July 19, 2004 — Dr. Dale R. Laurance, President of Occidental Petroleum Corporation and head of its oil and gas operations has announced his plan to retire December 31, 2004 upon completion of 21 years of service, according to the company website. Dr. Laurance’s decision was based on health related considerations. Dr. Laurance will relinquish his oil and gas duties effective immediately, but will continue to serve as President and remain on Occidental’s Board of Directors through the end of 2004. Dr. Ray R. Irani, Occidental’s Chairman and Chief Executive officer, will assume the additional title of President on January 1, 2005.

Bristol Babcock names sales manager...
Royce Miller, 30 year veteran of the Gas industry has been named Sales Manager for Bristol Babcock, Ontario, California with the goal to reintroduce Bristol Babcock’s high level of service and dependability to the Oil and Gas Industry as well as maintain the Water Wastewater relationship established in the Western Region. After entering the industry in 1975 with United Gas Pipeline as Measurement Communications Corrosion Supervisor, Royce moved on to PGI International where he developed products to correct issues in flow measurement. Among my many accomplishments was creating a Pulsation Detecting Device, which has been instrumental in detecting SRE “Square Root Error”. These devices are used worldwide to locate and quantify lost and unaccounted for gas.
New Kern wells up 300 over last year

Bakersfield, August 6, 2004 — Companies are putting in more wells as high crude prices accelerate activity according to the Bakersfield Californian. Berry Petroleum plans to drill 5-10 percent more new wells this year than originally planned according to Brian Rehkopf, vice president of engineering. A similar story at Stockdale Oil & Gas, says Kurt Sickles, vice president of operations. Sickles said that with the strong crude prices, the company has been able to catch up on facility repairs, the Californian reports. “Our business has, and is, cyclic. It’s not likely going to stop being cyclic,” Rehkopf said, according to the Californian.

Randy Adams of the State of California said workovers — jobs done on existing wells in an attempt to increase oil or gas production — are up by about 25 percent, the Californian reports.

The ChevronTexaco San Joaquin Valley Business Unit, the largest oil producer in the county, is staying the course for the year, according to company spokeswoman Carla Musser. The business unit plans to drill 800 more new wells this year. That’s 300 more than last year. Executives at the business unit have attributed the increase to higher crude oil prices, the Californian reports.

Both Rehkofp and Sickles said their companies have hired more contractors this year than in the past. A new well typically represents 100 jobs, many of them filled by contractors.

Source: Bakersfield Californian, August 6, 2004.

Water news briefs

LA approves upgrades to water recycling plants — Aug. 17 — The Los Angeles Metropolitan Water District intends to finalize an agreement with the Municipal Water District of Orange County and Irvine Ranch Water District that could provide as much as $25 million in incentives over the next 25 years. In addition, economic incentives for recycling and groundwater clean-up efforts amounting to $39.3 million will upgrade the Michelson Water Reclamation Plant in Irvine and Los Alisos Water Reclamation Plant in Lake Forest to increase the plants’ current combined output, eventually providing another 8,500 acre-feet of recycled water for use in the two cities. The upgrades should be complete by 2006, Muir said. The recycled water will be used for lawns, parks, schools and other uses. Sources: Business Wire, Orange County Register.

CCST instrumentation review course offered

by Kevin O’Neill, Education Co-Chair, ISALA

Your local ISA section board is working very hard to bring you our membership courses that meet CCST examination preparation so please stay involved with us and attend the meetings. We will be bringing more speakers on the CCST exam and instrumentation training before the end of this year. And, from time to time, we will be announcing courses like this one, which is a great review for those preparing for the ISA Certified Control Systems Exam.

The Electrical Training Institute in the City of Commerce is offering an eighteen week course in Process Instrumentation starting on Tuesday, September 14 to members of the International Brotherhood of Electrical Workers Local 11. For more information, contact ETI at (323) 221-5881 or through their website at www.LAETT.com

Kevin O’Neill is a member of the International Brotherhood of Electrical Workers Local 11 and can be reached at (661) 618-9902 or kevin.oneill2@comcast.net.

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Orange County  Sept 15
Panel Discussion on Analyzers: End Users vs. Suppliers. The first of two programs this month is a technical panel discussion with both end users of analyzers and suppliers addressing the current state and future outlook of analytical instrumentation as well as some common problems that frequently occur when dealing with analyzer projects. Bring your analyzer tales, questions and pet peeves! This is your chance to get input directly to those who can do something about the current state of analyzers and analyzer projects. A full house is expected. Panelists include Sandra Krauthammer, Analyzer Engineer, Chevron; Dr. Gert Burkhardt, Vice President R&D; George Fischer Signet; Todd Harrison, Mgr Tech Support & R&D, Liston Scientific Corp; Carl Jones, Mgr Applications & Tech Services, Rosemount Analytical; and John Prince, President, Analyzer Products Group. New meeting place hosted by Newport Electronics. Please RSVP to Carl.Hoffman@member.isa.org or (909) 757-5367.

Los Angeles  Sept 21
Tour of George Fischer Signet, Inc. For forty years, Signet has led the fluid measurement industry with leading edge design and innovative technology in the production of flow, pH/ORP, temperature, pressure, level and conductivity measurement sensors and instruments. Important... Due to security concerns, RSVP is mandatory. Contact Rachel de Leon at (626) 571-2770 ext 111. Note that those who do not RSVP in advance may not be able to participate in the full tour.

San Diego  Sept 21
Panel Discussion On Mass Flow: Measured Vs. Inferential. Our panelists are each experts in one or more of the most common measurement techniques. They will debate the several methods of mass flow measurement and explore the applications in which each is most likely to excel (or fail). The discussion promises to be lively and enlightening. Dave Schmitt (our moderator) of SC Controls, John Good of Veris Incorporated, Greg Hallauer of Yokogawa, Tristan Williams of Fluid Components International and Richard Persohn of Micromotion/Emerson. Sponsor of the meeting is Ponton Industries, www.pontonind.com. RSVP to Andrew Postert at 760.839.6272.

Las Vegas  Sept 30
Monthly Meeting. We are starting to plan for next years show and anyone interested may join us and help out. Remember the Las Vegas Section of the ISA works for you only if you are willing to participate. We are also looking into hosting a local ISA training module. If you have any suggestions, make plans to attend the September meeting. We will meet at Skinny Dugan’s on Sept 30 at 6:30 for our monthly meeting. For more info, contact Jeff Blue at (702) 567-2061 or Jeff.Blue@lvvwd.com.

Southern San Joaquin Valley Section  No Information
Please check the section website at www.isa.org/~ssjv.
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 newsletter editor.

Sept 12-16
Conference on Machine Vision Systems
JW Marriott in Summerlin, Nevada
www.dvtglobal.com

Sept 20-24
API Petroleum Measures Fall Meeting
Los Angeles, (202) 682-8149
www.api.org/events

Sept 22-23
Northern Calif Plant Engg & Maint Show
Santa Clara Convention Center
www.proshows.com/shows/?cmd=swpe

Oct 5-7
ISA EXPO 2004, Houston
(919) 549-8411, www.isa.org

Oct 22-23
Inland Empire Facility Engg Show
Ontario Convention Center
www.iefeonline.com

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ISA EXPO 2004 kicks off another year
by Beth Roden, ISA Press Relations

ISA EXPO 2004 is revving up for another year. The trade event for the international automation and control industry will take place at the Reliant Center in Houston, Tex., October 5-7. Organizers expect as many as 500 exhibitors and 14,500 visitors from a variety of industries, including chemicals, petrochemicals, food, pharmaceutical, industrial machinery and systems integration.

We are thrilled with the line up of Keynote Speakers at ISA EXPO 2004. Joining John Sieg and Jim Pinto is Gregory C. Jensen, Chief Technology Officer for SAFLINK Corporation (NASDAQ: SFLK), a well-known authority on biometric technology, he will address ISA EXPO 2004 attendees on Thursday, Oct. 7 at 8:30 a.m. in Room #301 at the Reliant Center in Houston, Texas.

The event will offer two cutting-edge technical conferences focusing on core automation, as well as 25 continuing education and training programs, special forums and keynote speeches. Among this year’s offerings are: an automation IT pavilion that will showcase automation hardware, software and services aimed at connecting manufacturing data with corporate information; an industrial communication pavilion that will feature data communication technologies from wireless data links to fiber optic Ethernet switches; and a sensors pavilion, showcasing the latest sensor software, hardware and peripherals.

With the world’s current events and the creation of the Department of Homeland Security, automation and control professionals are changing the way they think about the security of the systems, their site, etc. This is your opportunity to connect with a leading pioneer in this field during his presentation, “Biometric Technology: Prime Time!”

Also, remember to check out the ISA EXPO exhibitors latest press releases posted in the online press room!

If you have any questions regarding registration or exhibiting at ISA EXPO 2004, please call (919) 549-8411 or visit www.isa.org/isaexpo2004.
Automation West ‘06 is now underway!

by John Querido, P.E.

The Automation West 04 Host Committee had a second wrap up meeting on July 29. These post event meetings were held to evaluate the Automation West held in April and to start the planning process for Automation West 06. This event will held in the spring of 2006 in Long Beach. Present at our meeting were Joe Bingham, Kim Miller Dunn, John Querido and Don Zee. By conference call, ISA Headquarters was represented by Charlotte Clayton and Tracy Berrett.

At the meeting our new Chair, Joe Bingham, took over from the 04 Chair John Querido. Joe was the unanimous choice of the 04 Committee. He is President of the Los Angeles Section and made a great contribution to the success of Automation West 04. He has the smarts and initiative to make Automation West 06 an even more successful event. ISA Staff is working on again booking the Long Beach Convention Center, hopefully for a date in May 2006. We’ll keep you posted on our Host Committee plans as they progress.

Joe will need all the help he can get, so we invite local ISA members to volunteer for his committee. As with any ISA volunteer activity, you will find it interesting and an opportunity to develop your leadership skills. Joe’s email address is jbingham@sempra-res.com. Contact Joe. You’ll be glad you did.

This meeting, as with all our other Automation West meetings, was held in a comfortable conference room at Rosemount Analytical in Irvine. We owe a special thanks to Kim Miller Dunn for making this arrangement and to Ken Biele, President of that Emerson division for giving his permission for use by our committee. It really helped to us to have a facility that made for productive committee meetings.

Hydrogen news

2005 hydrogen design contest

The National Hydrogen Association is announcing a contest with the theme “Hydrogen Power Parks.” The contest is intended to address the need for back-up power, grid load reduction, distributed power generation and/or hydrogen dispensing. The contest is open to all, including industry professionals, government representatives, students and professors.

The contest begins on September 15, 2004, team registration is due October 15, 2004; and the deadline for entries is January 14, 2005. Winners will be announced at the NHA’s Hydrogen Conference March 29 through April 1, 2005.

For rules, entry requirements and more information please visit the contest website, www.H2Ucontest.org, or contact the National Hydrogen Association at (202) 223-5547 or nha@ttcorp.com.

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by John Querido, P.E.

The Automation West 04 Host Committee had a second wrap up meeting on July 29. These post event meetings were held to evaluate the Automation West held in April and to start the planning process for Automation West 06. This event will held in the spring of 2006 in Long Beach. Present at our meeting were Joe Bingham, Kim Miller Dunn, John Querido and Don Zee. By conference call, ISA Headquarters was represented by Charlotte Clayton and Tracy Berrett.

At the meeting our new Chair, Joe Bingham, took over from the 04 Chair John Querido. Joe was the unanimous choice of the 04 Committee. He is President of the Los Angeles Section and made a great contribution to the success of Automation West 04. He has the smarts and initiative to make Automation West 06 an even more successful event. ISA Staff is working on again booking the Long Beach Convention Center, hopefully for a date in May 2006. We’ll keep you posted on our Host Committee plans as they progress.

Joe will need all the help he can get, so we invite local ISA members to volunteer for his committee. As with any ISA volunteer activity, you will find it interesting and an opportunity to develop your leadership skills. Joe’s email address is jbingham@sempra-res.com. Contact Joe. You’ll be glad you did.

This meeting, as with all our other Automation West meetings, was held in a comfortable conference room at Rosemount Analytical in Irvine. We owe a special thanks to Kim Miller Dunn for making this arrangement and to Ken Biele, President of that Emerson division for giving his permission for use by our committee. It really helped to us to have a facility that made for productive committee meetings.

Hydrogen news

2005 hydrogen design contest

The National Hydrogen Association is announcing a contest with the theme “Hydrogen Power Parks.” The contest is intended to address the need for back-up power, grid load reduction, distributed power generation and/or hydrogen dispensing. The contest is open to all, including industry professionals, government representatives, students and professors.

The contest begins on September 15, 2004, team registration is due October 15, 2004; and the deadline for entries is January 14, 2005. Winners will be announced at the NHA’s Hydrogen Conference March 29 through April 1, 2005.

For rules, entry requirements and more information please visit the contest website, www.H2Ucontest.org, or contact the National Hydrogen Association at (202) 223-5547 or nha@ttcorp.com.
So. San Joaquin Section awards three scholarships

by Mohammad Heidari
Scholarship Chair
Southern San Joaquin Valley Section

Thanks to all those who have attended and supporting the training sessions and the yearly Golf Tournament, Cajun Feast & Table Top Show, the Southern San Joaquin Section is able to offer three more scholarships. We recently went through another solicitation for scholarship recipients and selected three students to receive scholarships of a $1000.00 per year.

This year’s students were as follows: Nicholas Alan Rundle, Maria Garcia and Kevin K. Ng. All are majoring in engineering or an engineering-related major.

Nicholas A Rundle of Bakersfield plans to attend California Polytechnic State University to study electrical engineering.

Kevin K Ng of Bakersfield is also planning to attend California Polytechnic State University to study mechanical engineering.

Maria Garcia of Bakersfield is planning to attend University of California Santa Barbara to study computer engineering.

Mohammad Heidari is the Scholarship Chair of the Southern San Joaquin Valley Section and can be reached at (661) 392-2224 or by email at mheidari@chevrontexaco.com.
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Industry update

Moore Industries’ NCS NET Concentrator system now with MODBUS RTU communications

North Hills, CA — Moore Industries’ NET Concentrator® System (NCS) Process Control and Distributed I/O Network is now available with MODBUS RTU (RS-485) communication capabilities. MODBUS RTU is one of the most widely used network protocols in the industrial manufacturing and factory automation environments. It is implemented by dozens of vendors to transfer multiple monitoring and control signals between the field and control room on one economical digital communications link.

With this addition, the NCS is now able to use twisted wire pair, Ethernet, wireless (RF), fiber, and telephone modem data links to send monitoring and control signals over rugged, long-distance, normally impassable, and hazardous environments.

The NCS provides exceptional 20-bit measurement resolution (in contrast to 12-, 14- or 16-bit for comparable I/O systems) and signal conditioning capabilities equivalent to the highest-quality transmitters on the market. Data rates up to 100 megabits per second provide the speed needed for applications requiring precise real-time readings or control.

The NCS’s robust design, including its DIN rail-mount metal enclosure, complete channel-to-channel signal isolation and ability to withstand very high and very low ambient temperature conditions (-40°C to +85°C, -40°F to +185°F), allows reliability in the harshest installation environments.

For more information, contact Moore Industries-International at (818) 894-7111 or through their website at www.miinet.com.
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. Links to these jobs and more at www.techpubs.net/links.html.

ISA Job Web Page. Employers and Job Seekers can post messages. Click on “Search for Jobs” or “Search for Resumes” at www.isajobs.org.

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.

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, possess 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.

Senior Power Plant Technician. City of Glendale Public Service Division. Performs skilled work analyzing the physical and chemical properties of various power plant systems, and maintenance and repair of instrument and automatic controls systems and their related accessory equipment. Knowledge of microprocessor control systems and their configuration, including Allen-Bradley and Wonderware software, and DCS or SCADA systems. For more information and application requirements, please visit www.ci.glendale.ca.us or call the City of Glendale job hotline (818) 548-2127.

Outside Sales Rep. Local manufacturer of Industrial Cleaning Systems needs a Sales Representative for direct product sales in the Southern California territory. Excellent communication skills and industrial sales experience a plus. Send resume to jrushak@hydrtekswystems.com or fax to (909)799-9888.

Field Sales Representative. Local established manufacturers’ representative seeks candidate with 5+ years experience in instrumentation sales. Territorial field sales responsibilities: municipal water/wastewater markets for flow, level, analytical products. Sales experience with local systems integrators, consulting engineers, contractors, municipal W/WW plants a big plus. Engineering degree preferred but not required. Base salary plus incentive, benefits. Submit resume: Jon Crowley, Charles P. Crowley Company, 600-A Terrace Drive, San Dimas, CA 91773, (909) 592-1500, Fax 592-2900, jon.crowley@cppcrowley.com.

Technical Service Representative George Fischer, Inc., - Will be responsible for over the phone product/application related customer questions, trouble shooting and field service. Ideal candidate will have the following: Minimum AS degree and 2 years electronics experience. Background in process instrumentation. Excellent communication skills. Computer literacy/word and excel. Presentation skills, a plus. Please send resume with salary history to: Dixie Healy, George Fischer, Inc. Tustin, CA dixie.healy@us.piping.georgefischer.com E.O.E.

Market Development Manager. Manufacturer seeks a candidate with 10+ years experience in product management and outside sales. Candidate requires an engineering degree or equivalent and background in creating new product design specifications for flow measurement devices with excellent communication 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.

Electrical Engineer - Control/Instrumentation. County Sanitation Districts of Los Angeles County. Our 200+ engineers are busier than ever, with a substantial number of projects involving both new and upgraded facilities which are scheduled and/or planned for the long term. We are a financially strong, non-civil service public agency with 1600+ employees, governed by a board of directors, unlike most government agencies. Our engineering is nationally recognized for innovation and leadership in designing state-of-the art systems for power generation and waste management. With competitive compensation plans, our "promotions-from-within policy" and stable employment environment, our turn-over is very, very low: we have never had a lay-off. Our modern office with an on-site computer tech center, café and secured free parking is conveniently located near the 60/605 freeway interchange, 15 miles away from downtown L.A. Minimum qualifications include a valid California class C driver’s license AND a BSEE. Expected experience required includes a solid background in control/instrumentation design and PLC software development experience. Starting salary range w/4 years of experience is at least $70K with potential raises to over $103K with professional registration. Benefits include vacation, paid family medical and dental plans, paid employee life and disability insurance, generous tuition reimbursement and professional development incentives plus paid retirement in the excellent California Public Employees Retirement System, which allows retirement, including lifetime paid medical, as early as age 50 with five years of service. This also provides an exemption from the usual 6.2% social security deduction. Highly qualified applicants will be invited for an interview. Our selection process includes a review of education and experience, a pre-placement physical exam, and a drug and alcohol screening. To apply, submit your résumé with cover letter and salary history to: County Sanitation Districts, P.O. Box 4998, Whittier, CA 90607, or fax to : (562) 692-3056, or email to: slujan@lacsd.org. View our website at www.lacsd.org. Equal Opportunity Employer M/F/D.


Air Pollution Control and Monitoring Industry career opportunities with links directly to employers can be found at www.icac.com/ career.html.


Series Conclusion

By Paul Bodeau

This is the eleventh and final article in a series of short articles on IEC 61508. IEC 61508 is required whenever a computer-based system is used to carry out a safety function. The purpose of these articles is to give the reader an appreciation for this international standard.

The goals of these articles are: to inform the industry that an international standard for safety product development exists, to decompose the standard into its important parts, to provide trace ability to the standard to challenge industry to investigate this standard further, and to indict industry for the lack of understanding of safety product development principles.

The international standard for safety product development was identified as IEC 61508. It was explained that IEC 61508 has seven parts. See article 1 in this series for the seven parts to IEC 61508. All these articles provide trace ability to the pertinent sections of IEC 61508 for further reading. The indictment is really a challenge to industry to understand the safety development processes introduced in IEC 61508.

These articles are short, since space in the Newsletter is limited. Each of these articles could easily be a chapter of a book. Many details are left out. The specific references to IEC 61508 clauses and subclauses are terse. These references are made, permitting the reader to research any left out details. If there is more interest in IEC 61508 or safety product development, other articles can be written. More specific information can be provided on these topics or other related topics.

The articles in this series are:
1. An Introduction to IEC 61508
2. Why IEC 61508
3. Compliance starting point
4. Overall safety lifecycle requirements
5. E/E/PES compliance
6. E/E/PES safety development processes
7. E/E/PES safety development documentation
8. Software compliance
9. Software safety development processes
10. Software safety development documentation
11. Series conclusion

With the proliferation of programmable electronic systems (PESs), the World is exposed to increasing safety risks. To mitigate these risks, the International Electrotechnical Commission (IEC) has released the international standard IEC 61508. The release of IEC 61508 has generated mounting interest in compliance. Presently, compliance to IEC 61508 is focused around the parts of IEC 61508 that address random hardware failures, leaving systematic failures ignored. These articles are intended to assist the safety practitioner developing PESs, with an understanding of systematic hardware and software failures, leading to compliance to IEC 61508.

Although IEC 61508 separately addresses system safety (PES in IEC 61508-1), hardware safety (subsystem in IEC 61508-2), and software safety (IEC 61508-3), the paramount issue with IEC 61508 is how to develop safe software. Software only fails systematically. An example of software safety is where Government electronic voting machines need to provide objective evidence of each vote that is cast by each voter. If a recount is required, what record exists that a specific vote was cast? Who is it that validates this system or the recount? What software requirements would Joseph Stalin have wanted for his electronic voting machines if he could have them in Soviet Russia?

Many challenges exist for the safety practitioner developing Electrical/Electronic/Programmable Electronic Systems (E/E/PESs). To achieve compliance for the development of an E/E/PES to IEC 61508, a thorough understanding of the entire IEC 61508 standard is required. However the E/E/PES development requirements are specifically defined in IEC 61508-2 and IEC 61508-3, with emphasis on reduction of systematic errors particularly for software. If you are familiar with other development standards, you will find that IEC 61508 parallels RTCA/DO-178B, ISO 9001, IEEE/EIA 12207, MIL-STD-882D, MIL-STD-498, Malcolm Baldrige Award, SEI CMMI, and many others. However, IEC 61508 is different from other development standards. The difference is the defined specific techniques and measures during the development processes to reduce the likelihood of systematic errors manifesting themselves as failures during the operation of the E/E/PES.

Third party certification can be accomplished in accordance with CASS (Conformity Assessment of Safety-related Systems). The CASS Guide provides a methodology for certification to IEC 61508. The CASS approach permits a component manufacturer to self certify products, under a third party certification provided the functional safety management system is assessed by a third party on a scheduled basis. Sira Test & Certification LTD is one company authorized to certify to the CASS scheme.

Paul Bodeau is a member of the Safety Division with over 25 years of diversified engineering experience, mostly in safety firmware development for military and civilian aviation. Mr. Bodeau can be reached at (661) 260-1210 or pbodeau@whynotengineering.com.

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Another tedious strategy planning session and technical discussion at Wildflower Pizza for the San Diego Section. This one was after the July tour of the new cogeneration facility at San Diego State University. If you missed it, you missed one of the best of the year!

Photo courtesy of Chris Freeman