SOCIETY OF PIPING ENGINEERS AND DESIGNERS

SPECIAL POINTS OF INTEREST:

- **SPAR 2009 March 30-April1, Hyatt Regency Denver, Denver, CO**
- **FIATECH, April 6-8, Green Valley Ranch, Las Vegas, NV**

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SPED Update March 2009

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Light at the End of the Tunnel for the Process Piping Industry?

We must admit that there is a wave of "Doom and Gloom" out there in the market. The Dow Jones seems to tank each time President Barrack Obama or one of his delegates holds a press conference. In spite of this trend the price of light sweet crude rebounded from its dip into the $30's in early February to a strong hold in the mid $40's. Are investors holding their cash in "Black Gold" or speculating amidst pipeline destruction in Russia and Nigeria?

We are all asking ourselves what this means for the Process Piping Industry.

Let's examine the facts.

- It has been estimated that the average age of the Process Engineer is 51 years old. (Society of Petroleum Engineers)
- The average age of the Process Plant is 30 years old. (*Process Plants: A Handbook for Inherently Safer Design*, Treavor A. Kletz, p.1)
- OPEC wants the oil to sell at $50-80 per barrel for stability in production and consumption. (http://trendlines.ca/monthlyreport.htm#barrel)
- Most EPC Projects are estimated on the price of crude at $35-55 per barrel.
- The global market depends on oil for production of goods and services.

We cannot dismiss that fact that it appears that most companies are waiting to see some sign of an upward trend in the market before more projects are released. However, in the meantime some Pipers are being let go not from lack of work or need but instead from a credit crunch in the banking market. Most companies seem to be holding on to their employees as long as possible to be ready for the inevitable turnaround. Also, companies who are receiving contracts are hiring.

It is true that there is a surplus of oil reserves, however, we cannot conclude that the market turmoil has permanently destroyed consumption rates of light sweet crude or that of other petro-chemical products. The global recession has slowed overall consumption but business is still manufacturing products, while at a slower rate, and cars and trucks are still roaming the highways.

Some companies are hunkering down but not Exxon Mobil Corporation according to Matt Daily of DownstreamToday.com.

> Exxon Mobil Corp plans to hike its spending by nearly 12 percent even as most oil and gas producers rein in spending amid the steep drop in oil and natural gas prices.
>
> Exxon, the world's largest publicly traded company, said it would spend about $29 billion in 2009, the upper end of its five-year annual spending target of $25 billion to $30 billion per year, as part of its effort to meet long-term growth in world demand.
>
> "Exxon Mobil's business is strong, and so is our commitment to investing through the business cycle," Tillerson said.
>
> Exxon set a company and U.S. record for annual profits in 2008 at $45.2 billion as oil prices skyrocketed to their record highs, and said its spending would help bring on line nine projects in 2009 that will ultimately add 485,000 barrels of oil equivalent (BOE) production per day.

Exxon Mobil Corp does not represent every oil company but we should not discount the profits of $140 barrel of oil before its crash. Several oil companies held healthy balance sheets which could enable projects to move forward at a slow pace.

We must ask ourselves is there a silver lining to this lowered price of oil that seems to be steadily strengthening? The answer of course is yes. Consumers who reduced their consumption when the price became traumatic will start driving thus reversing lowered consumption. Others, who budgeted on higher priced oil, may feel more freedom to spend buying products and services. While this will not create a dramatic shift, it will slightly increase consumption of crude and products for the positive long term.

Andrea Macejak, SPED Manager of Operations

6th Annual SPAR 2009 Conference

3D Imaging Conference to Feature New Educational Offerings, 3D Laser Scanning Boot Camp, Case Studies on Recession-resistant and Emerging Markets, and Extending Point Cloud Processing Capabilities

SPAR 2009 will be held at the Hyatt Regency Denver, Denver, Colorado, March 30-April 1. The 6th annual event is being held in Denver for the first time to accommodate the growing demand of attendees and will provide quality content and networking opportunities for both novices and professionals of 3D imaging and scanning technologies.

The three-day technical conference brings the research and real-world interests of 3D imaging professionals together to learn about advances in 3D imaging design, construction and manufacturing operations; to share best practices; and to discuss future opportunities for the technology.

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The **SPAR Industrial Plant track** will include sessions that take a detailed look at how 3D imaging and laser scanning technologies are reducing project costs, limiting construction growth and mitigating risk. Discussions include how assets are managed with 3D tools and present best practices for contracting and service provider selection. Challenges addressed include creating 3D engineering CAD representations using point cloud and CMM line data sets in an economically efficient and accurate manner.

The **New Imaging Technologies and Business Opportunities track** will feature sessions on new 3D data processing solutions, including new tools to automate the extraction of useful deliverables from point cloud information; digital holographic displays to provide a portable medium for multi-viewer display; integration solutions to enable point cloud use inside leading CAD solutions; and data warehousing solutions to enable integration of 3D data with other business processes such as asset maintenance.

Attendees will enhance their service provider networking opportunities with the new **SPAR 2009 Service Provider Pecha Kucha**. In this session, leading service providers will give six-minute presentations identifying the aspects of their business and practice that differentiates them from their competitors. Format will include the 3D imaging services and expertise they provide, geographic reach, industry specialties, experience with past projects and more. Attendees will receive a hard copy directory of service provider specifics for comparison.

Technical seminars will also be presented by Autodesk, ESRI, FARO, Intelisum, Leica, Optech, Riegl, TechSoft, Topcon, Trimble and Z&F. SPAR 2009 is sponsored by more than **45 suppliers, associations and media organizations** that will participate and demonstrate their offerings at our **Technical Exhibition**.

Keynote and featured speakers and topics include:

- Hans Hess, president and founder, Hanesco AG (and former Leica Geosystems CEO): "Geomatics on the Move."
- Daniel Livecchi of the U.S. Secret Service, and president, IAFSM: "Urban Modeling for National Special Security Events," including planning for the 2008 Democratic National Convention.
- John Copple, CEO, Sanborn Map Company, Inc.: "Applications of 3D Imaging," including the momentum and real-world use of mobile scanning for civil infrastructure.
- Charles Matta, director of Federal Buildings and Modernization, General Services Administration (GSA): "Why 3D Scanning?" that describes the GSA's Building Information Modeling (BIM) program.
- Jignesh Pattani, senior information analyst, Qatar Petroleum: "Best Practices and Applications of 3D Imaging Technologies in Large-scale Capital Assets."
- Tino Lanza, CEO, and Dave Reinhart, Chief Technologist, INOVx Solutions: "Optimal Workflow for Creating Intelligent 3D Models from Laser Scans."
- Matthew Craig, Project Engineer, Jacobs Engineering Group, Inc.: "Best Practices for Contracting and Service Provider Selection."
- Brian Schuster, Metrology and Survey Solutions Department Manager, SAIC: "Reverse Engineering and Modeling of Military Hardware."

For more details on SPAR 2009 and to register for the conference, visit http://www.sparllc.com/spar2009.php.

Rick Heidinger "Basic Engineering Design Principles Of FiberGlass Reinforced Plastic (FRP) Piping Systems"

SPED hosted Richard Heidinger, Vice President of Domestic Chemical Sales, NOV Fiber Glass Systems, for our February Hot Topics Series, Houston, TX at the HESS Club. NOV FiberGlass Systems distributed free its ***Success by Design*** Software to all attendees.

Mr. Heidinger's presentation focused on FRP piping systems basic design principals; its materials, methods of manufacturing and physical properties. An emphasis was placed on the advantages of fiber glass pipe i.e. lowered surface friction increasing flow requiring smaller sized pumps for design implementation and project cost reduction. Mr. Heidinger also discussed the four principles of handling thermal expansion and contraction, support spacing and basic support design. A demonstration of NOV FRP design software, ***Success by Design***, highlighted the versatility of FiberGlass Pipe and its potential to reduce cost through fewer pipe supports and other physical properties in many design projects.

For more information contact:

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832-978-1602 direct
832-615-3002 fax
www.fgspipe.com

Richard Heidinger – VP of Domestic Chemical Sales, Fiber Glass Systems

Mr. Heidinger has 32 years experience in the Fiberglass Reinforced Plastics (FRP) industry. He a graduate of the University of Kansas and has been involved in adhesive and FRP pipe R&D; FRP pipe, fittings and adhesive manufacturing; field installation, engineering and project management; and sales and marketing. He has published several papers on FRP Piping Systems for NACE and is currently serving as Vice President – Project Management and Application Engineering.

NOV Fiber Glass Systems offers its proprietary engineering software, Success by Design free of charge. Success By Design quickly calculates flow properties such as GPM, friction losses and HP: support and guide spans for fiberglass piping systems. The program also features thermal analysis calculations on fiberglass piping systems as well as gas flow, water hammer and buoyancy calculations. Optimization of pipe sizing is quickly solved using *Success by Design*.

Collaboration Lands Lee College $2.3 Million Grant

Lee College landed a $2.3 million dollar U.S. Department of Labor grant to expand training and education for students wishing to work in the energy industry, and to assist incumbent workers in upgrading their skills. There were 274 proposals submitted to the Department of Labor, and only 68 awarded. Lee was one of three colleges in Texas to receive a grant award. The grant proposal, written by Mary Ann Amelang and Debi Jordan, was a collaborative effort among four colleges—Lee, College of the Mainland, Brazosport College and San Jacinto College. The four colleges formed the Gulf Coast Petrochemical Information Network (GC-PIN) with petrochemical industry partners and their contractors, economic development agencies, and trade associations over three years ago. This consortium was crucial to the success of the grant proposal.

Lee faculty and staff who contributed to the proposal include Jimmy Lockett, Charles Thomas, Richard Tunstall, John Purdin, Jim Richardson, DeDe Griffith, Roberta Wright, and Claire Fleming. Funds will help the college develop new programs in Petrochemical Process Piping Design, Instrument Design and Wiring Installation, and expand programs at the Liberty County Workforce Academy. The grant will also enable Lee College to purchase and integrate simulation software into its Process Technology and Instrumentation programs. Curriculum and programs developed by partner colleges will be shared among all members of the consortium. For more information call Mary Ann Amelang at 281-425-6256.

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Marketing and Public Relations Department
Lee Community College
281-425-6256 or mamelang@lee.edu

Piping Jobs: Tips to Keep Yours and How to Find One in a Tight Market

If you have a job you might be a little nervous right now. Times are tough, but if you have a job don't be too nervous that you might lose it. Managers are trending to reduce hours instead of release workers. Yes, it may be a pay cut and uncomfortable but just remember that your manager may be taking a harder hit than you to help keep you on. Most managers are taking as much as a 25% pay reduction to keep their employees. Also, remember it costs them to lose you. Each new hire can cost a company from $5,000 to $10,000 in advertising, vetting and hiring costs. So before they consider reducing staff they always consider the cost of rehiring.

If you sense that layoffs are inevitable take initiative and negotiate. Consider offering to lower your hours or temporarily reduce your hourly rate. This can help you in two ways. First, you have taken initiative. Managers appreciate personnel who provide them options and they will not forget that you took action. Second, the longer you stay the more time you have to wait out the inevitable turnaround and know you have done everything in your power to do so.

Be Cross Marketable. If you hold a certificate in one software, enroll in another.

Now this news will not be helpful if you have been released from your company. We gave a quick list of tips in the February SPED Update but here are more.

We told you to network. Here's a better tip, go to a conference. Spend a little to make and learn a lot. Acquire a free pass if you know a vendor or have a good contact. Some conferences provide a one day pass. They understand attendees are spending wisely, so pick the best day to attend and be certain to include new technology. SPED is now working with conferences for discounts for members. SPAR in Denver, CO, March 30-April 1, will offer $100 discounts to current SPED Members. Conferences are a perfect chance to meet and network with new people globally. Companies send employees from overseas to see new products. You could develop contacts with overseas partners who are looking for your skill set. Attending a conference may even give you insight for hidden jobs that needs your skills.

We told you to take classes. Get PPD Certified! Do not forget to take a class that ends in PPD Certification. Companies all over the world are certifying their employees. In December, SPED granted reduced prices to their Corporate Members for testing and application fees. When our Corporate Members hire, they will want to send you for testing to qualify you for employment. Beat them to it by taking a SPED Course that ends in certification.

Be Cross Marketable. If you hold a certificate in one software, enroll in another. If you know 2-D AutoCAD learn 3-D. If you know AutoPlant learn PDMS. If you know all of the AutoCAD based programs learn MicroStation and then take PDS. Don't forget to specialize. COADE has CADWorxs which could help you learn their stress analysis product, Caesar. If funding is your concern due to unemployment, check with the local WorkSource office in your city or state. They have several courses that have been approved at local community colleges for full paid tuition. Some colleges, such as Houston Community College, have received approval for their Process Piping Design Certificates.

Bentley has unveiled two brilliant programs to help the unemployed. Their "Be Employable" program announced at daratechPLANT 09 allows unemployed users to practice or train on Bentley's software for free. This keeps users fresh and ready for employment. Their second program is a resume posting site where employers can view available Bentley software users for placement. For more information go to www.bentley.com.

Research the Industry. You realize that your new job is to find another and discovering the edge on who is hiring. Employers do not want to be deluged with resumes so they may only be using recruiters. Use Google and make your top ten. Let recruiters become a resource. Also, act like a New Yorker looking for a rent controlled apartment, research in the press. Follow the news in magazines and online. Keep abreast of who is signing contracts. Do not undervalue the power of knowing your industry.

Andrea Macejak, SPED Manager of Operations

FIATECH 2009 Technology Conference & Showcase: "Don't Gamble with Construction Technology"

FIATECH's 2009 Technology Conference & Showcase, Where the Best Get Better, is open to the public and will be held ***April 6-8, 2009*** *at the Green Valley Ranch just outside Las Vegas, NV. The conference will be chaired by Jerry Gipson, Director, Engineering Solutions Technology Center, The Dow Chemical Company. During those three days, attendees will explore which technologies you should be gambling on and those you should not.*

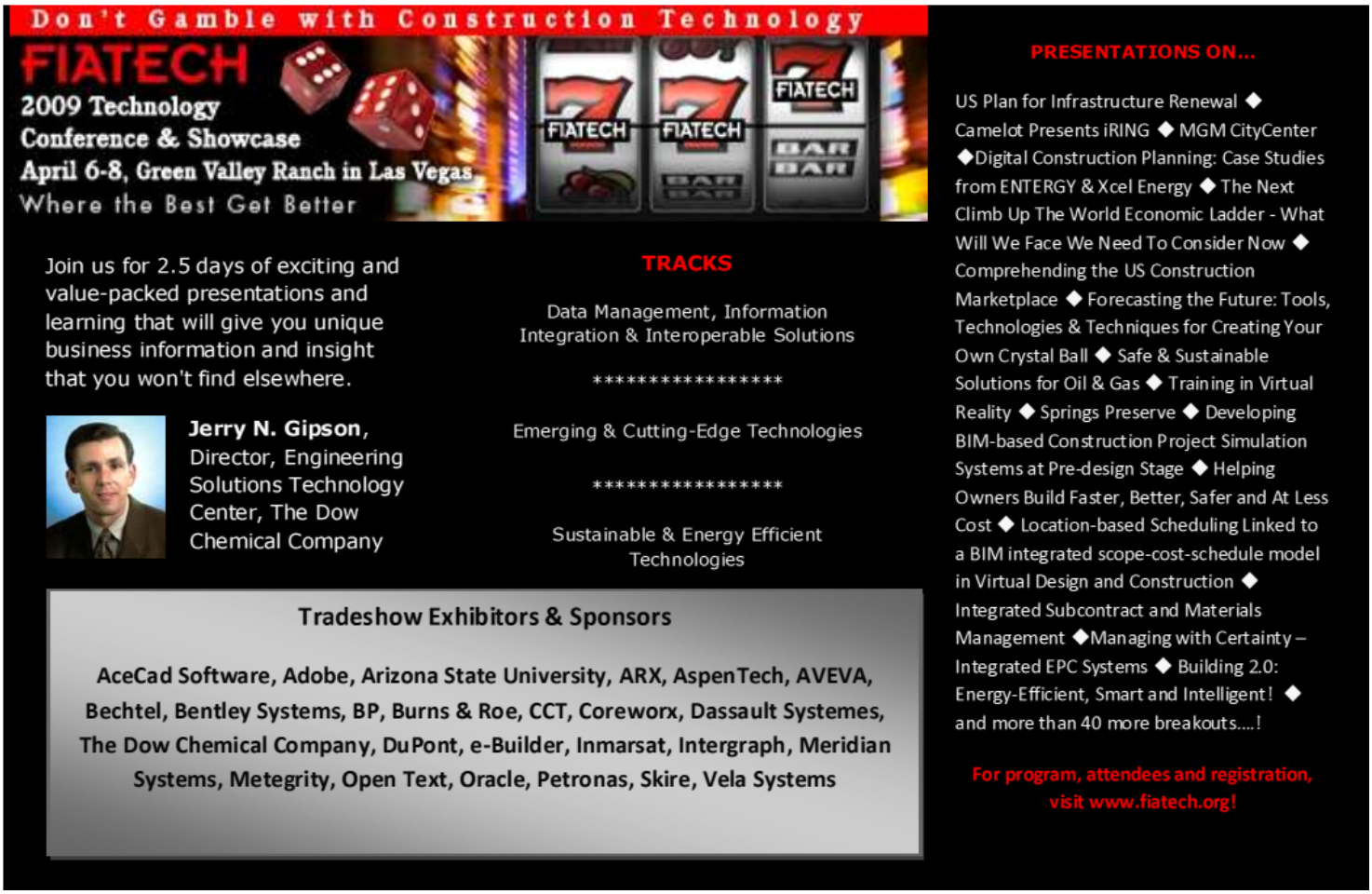
The program will include three educational tracks. The first will focus on market-ready interoperable solutions that can help your company manage data and integrate information. The second will highlight emerging technologies such as RFID, wireless sensor networks, robotics, gaming and simulation design applications and mobile tools and technologies. The third will look at innovative approaches to deploying safe, sustainable and energy efficient capital projects.

FIATECH will also feature and share success stories that have come out of Las Vegas' major construction projects and include some optional tours. 2008 has presented some major economic challenges and part of the 2009 conference program will provide you with an analysis and forecast for the future to help navigate through these turbulent times.

In addition to all this, FIATECH will have a Technology Showcase where attendees can view demonstrations and talk to the solution providers with ample time allotted to test the technology. FIATECH will also be honoring the CETI Award recipients on Tuesday evening during the CETI Gala which will be hosted by this year's CETI Award Chair, Steve Makredes, Director of Construction, Target Corporation

A 2008 FIATECH Conference attendee remarked, "I am impressed with the FIATECH members and came away thinking, as a contractor, I might want to join as a member. We need to provide the feedback of what the industry is looking for in software and hardware development to make our industry better. Thank you for the effort and for the vision."

Registration, programs and sponsor opportunities for both events as well as call for presentations and exhibitor information for the conference is available on FIATECH's web site at www.fiatech.org.



Industry News Snapshots

'Peace Pipeline' The proposed $7.5 billion, 1,500-mile pipeline would transport natural gas from Iran's Pars field through Pakistan to India.

Aker Solutions signs partnership agreement with ACEC of Saudi Arabia March 12, 2009 - Aker Solutions has signed a partnership agreement with the Arabian Consulting Engineering Centre (ACEC) to support its plans to grow in the engineering services market in the Kingdom of Saudi Arabia. Aker Solutions will provide the managerial and technical support to expand ACEC's engineering services business. ACEC is a well-established general engineering services contractor approved and licensed by Saudi Aramco. It currently employs 160 staff.

COADE announces April release for new PV Fabricator for automated deliverables for Pressure Vessel and Heat Exchanger Design HOUSTON, Texas – March 9, 2009 – COADE announced today the April release of COADE PV Fabricator, a new software product for the automated production of design and fabrication deliverables for pressure vessels and heat exchangers. The package leverages the existing bi-directional links between COADE PV Elite, for pressure vessel and heat exchanger design and analysis, and COADE CADWorx Equipment, for parametric equipment modeling. www.coade.com

J. Ray Awarded Karan Project in Saudi Arabia March 10, 2009—McDermott International, Inc's subsidiary, J. Ray McDermott, S.A., awarded Karan Offshore Platforms and Subsea Pipelines project by Saudi Aramco. Project involves work inside Saudi Arabia and outside the Kingdom. Once complete, the facility will have a production capacity of 1,800 million cubic feet per day of raw sour Khuff gas.

Gazprom and MFB Sign Cooperation Agreement Within South Stream Project March 10, 2009- Chairman of the Gazprom Management Committee Alexey Miller and President of MFB (Hungarian Development Bank) Dr. Janos Eros sign in the presence of Russian Prime Minister Vladimir Putin and Hungarian Prime Minister Ferenc Gyurcsany a Basic Cooperation Agreement for construction of a gas pipeline and transit of natural gas across Hungary within the South Stream project.

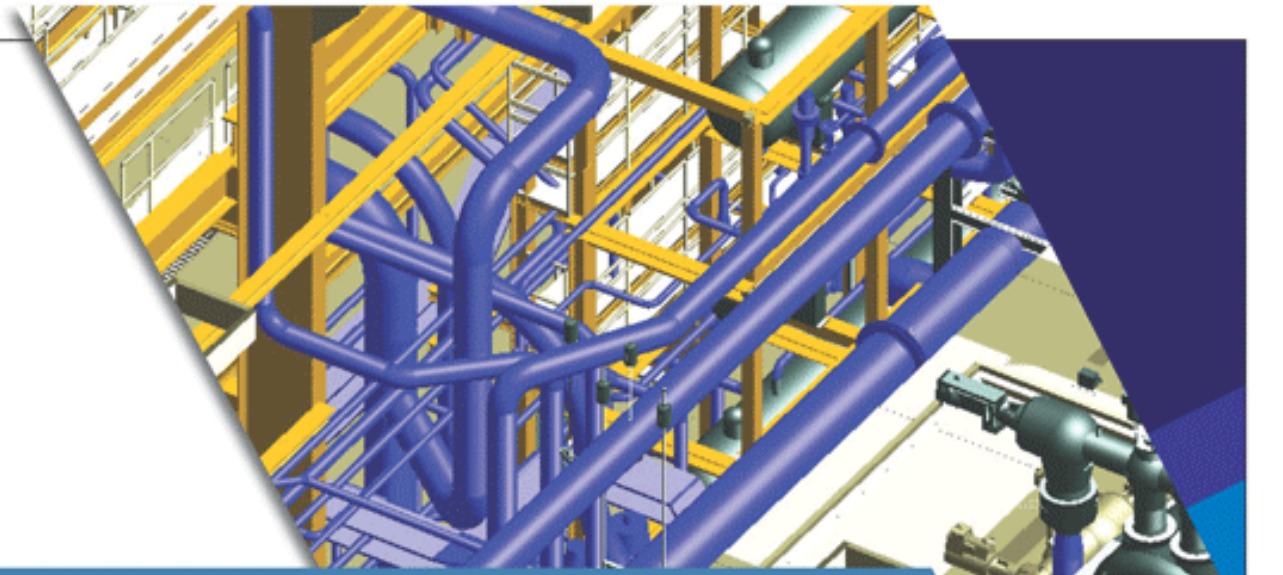
Foster Wheeler Awarded Framework Contract by Sasol in South Africa—March 3, 2009—Foster Wheeler South Africa awarded framework contract by Sasol Technology. Framework contract covers all sectors in which Sasol is active, including upstream oil and gas, chemicals, gas-to-liquids, coal-to-liquids and coal-to-chemicals.

Samsung Heavy Industries signs USD3m agreement with AVEVA—February 26, 2009—AVEVA (LSE:AVV) announced that Samsung Heavy Industries, Korea has signed a contract valued at over USD3m to extend their subscription to AVEVA Engineering, Design and Lifecycle Management solutions. These solutions will be implemented in Samsung's Marine Engineering Offshore Operations.

Today AVEVA solutions are used by 43 of the top 50 shipyards worldwide for all their operations; covering commercial and naval shipbuilding as well as offshore facilities, conversions and new-builds.

Pakistan President Backs 'Peace Pipeline' - March 11, 2009 Pakistani President Asif Ali Zardari says a proposed gas pipeline from Iran to India would generate much-needed new jobs and economic development. Speaking Wednesday at the 10th Summit of the Economic Cooperation Organization in Tehran, Zardari called for the speedy implementation of the so-called Peace Pipeline, the state-run Iranian news agency IRNA reported.

The proposed $7.5 billion, 1,500-mile pipeline would transport natural gas from Iran's Pars field through Pakistan to India. It is opposed by the United States, which says it would bind its key South Asian allies too closely to Iran, analysts say.



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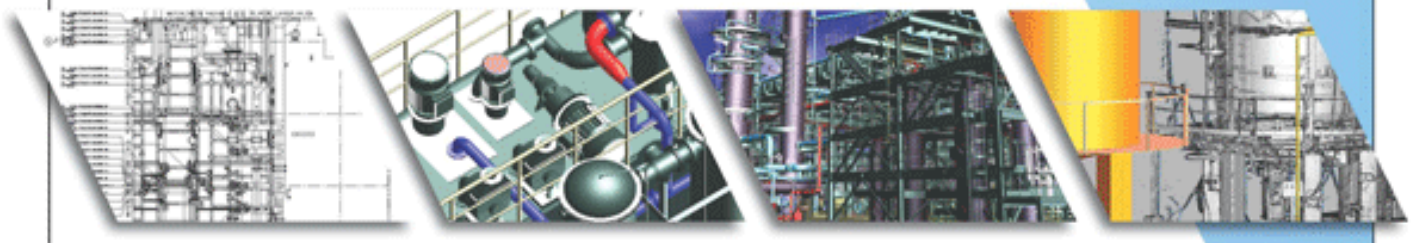

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Richmond upon Thames College Leads in UK Piping Design Training

The course is focused on the petro chemical and process plant industries. Practical work and lectures occupy approximately 32 weeks in the college workshops and laboratories, followed by a 6 week design and build project.

Richmond upon Thames College is a leading training resource in the United Kingdom for Piping Designers training. The course of training is overseen by the Engineering Construction Industry Training Board.

In the UK, the most traditional route for students wishing to go to university is to stay on at school or attend college for a two-year A Level course. This will allow the student to apply for any degree course at any university, providing they meet the entry requirements.

UK Vocational Courses offer students an opportunity to enter the university system slowly. Business and Technology Education Council (BTEC), General Vocational Qualifications (GNVQ), General Scottish Vocational Qualifications (GSVQ) offer recognized courses in a range of disciplines. Most students opt to take 1-2 years of, for example, BTEC courses before being transferred to a degree programme. BTEC national certificates/diplomas are usually accepted as an alternative to A-Levels.

Students cannot join the course unless they have at least one of the following:

*A BTEC First Certificate or Diploma (with a Merit in mathematics) in a related subject

*An Intermediate GNVQ (with a Merit in mathematics) in a related subject

At least four GCSEs at grade A-C including mathematics

The training program is a special 38 week course meeting Monday, Tuesday, Thursday & Friday. This is a full time course, offered by ECITB and integrated with a BTEC programme in Process Plant Engineering.

The course is focused on the petro chemical and process plant industries. Practical work and lectures occupy approximately 32 weeks in the college workshops and laboratories, followed by a 6 week design and build project.

Course topics include:

*Health and Safety
*Key Skills of IT and Communications
*Plant Layout and Design
*Fabrication and Welding
*Bench fitting/machine shop practice/mechanical assembly
*Pipework
*Material Technology
*Process Engineering Equipment
*Instrumentation and Control
*Electrical Site Services and Equipment
*Electrical and Electronic Circuits and Components
*Process Chemical Engineering
*Computers and Applications of Information Technology
*Project Estimating, Cost management and Planning
*Design and Build Project

Tom Coffey(Richmond), Norm Harris (SPED), Bill Beazley (SPED), Gordon Lovett (Richmond), Peter Charalambous (Richmond)

Practical work and lectures occupy approximately 32 weeks and will be carried out in the college workshops and laboratories, followed by a 6 week design and build project. Students have a series of assessments in each module and an end of course test followed by an interview with the ECITB external verifier. A series of industrial visits reinforce the coursework.

The typical student is an apprentice or trainee employed in the petro chemical / process plant industries.

The course costs £7,900

For more information, contact the ECITB Basic Technician Training course organizer:

Gordon Lovett
glovett@rutc.ac.uk
Richmond upon Thames College
Egerton Road, Twickenham, Middlesex TW2 7SJ
Tel: +44 (0)20 8607 8141
Email: glovett@rutc.ac.uk

University of Zaragoza, Spain, offers PPD Certification Testing to Spanish Piping Engineers

Spanish speaking Piping Engineers can study Process Plant Layout and take the PPD Level III Certification Test. The instruction and testing is part of a special Piping Engineering Program at the University of Zaragoza, Spain (Universidad de Zaragoza). The course and test are part of a larger 300 contact hour program in Piping Engineering

The program caters to Spanish language engineers all over the world. "We have students from Mexico, Brazil and, of course, Spain," says, Dr. Javier Blasco Alberto, Head of the UNIZAR Piping Program. We have a waiting list of students."

The program combines the theoretical piping background with a large amount of exercises (40% of the program) where actual industrial piping situations are analyzed. Program instructors are both from the faculty side (professors) and the industrial side (piping engineers, mechanical engineers, technicians, designers, etc), some of them with more than 30 years of experience in piping. The last part of the program consists in the development of a comprehensive piping project, from the very beginning (process documentation, material/energy balances, drawings, etc), including piping calculation, material selection, equipment sizing, to the very little detail.

During the program, and thanks to agreements signed with several software companies, the students make extensive use of several piping-related software: Pipe Flo (hydraulic calculations), Caepipe (stress calculations), Dyagats (Waterhammer), Licad (supports) and PDMS (3D design).

Society of Piping Engineers and Designers (SPED) worked closely with UNIZAR to set up the Process Piping Layout course with ends with the PPD Level III test. UNIZAR is an Academic Institution Member and an authorized SPED Certification Test Site.

The program also collaborates with SIEMENS and with leading oil and petrochemical Spanish companies, such as Repsol YPF, CLH and Nurel. Spain has an active petrochemical industry as well as nuclear and hydrocarbon power plants. Spanish engineering firms provide services all over the world.

More information is available at: http://piping.unizar.es/

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Dr. Javier Blasco Alberto (UNIZAR) explains the programs details to Bill Beazley (SPED).

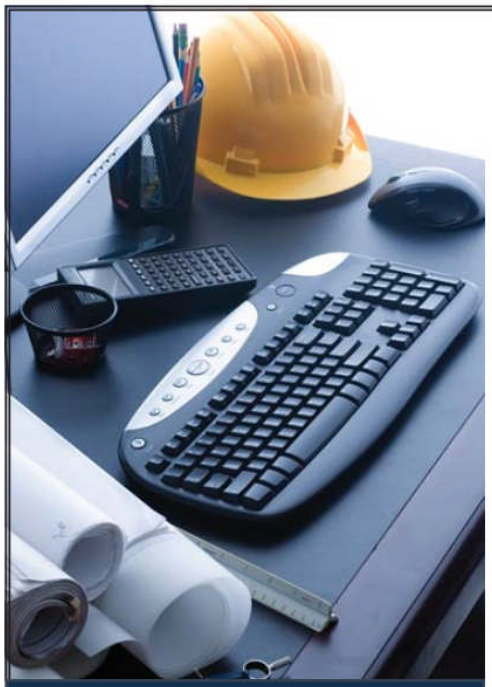
SPED Announces Launch of New Website

SPED announces the launch of our redesigned website. After many months of work and feedback from the SPED Board and select members, the transition to our new website is complete. The new site should be familiar to our members with a fresh technical look. Members now can log in on each page to the "Member's Only" portion for easy member access. Future plans for development include a Piper's Blog, online courses, SPED Professional Piping Designer Certification PDU mini courses for certification maintenance, and online SPED PPD Annual Renewal.

New features include automated online membership renewal reminders to adapt to the new technical needs of members. "Our new look is the next evolution in SPED's development. Our members will feel the comfort of the familiar pages as we development new features to meet their needs. We are very excited about its flexibility," stated Andrea Macejak, SPED Manager of Operations. The new site now allows for paid advertising with special discounts for SPED Corporate Members. For more information on advertising contact Sarah Evans, SPED Creative Services Manager, at spedsrvs@spedweb.com or 713-718-8212,

SPED Calendar of Events-March—May 2009

Date	Day(s)	Time	Location	Cost	Membership
PDS I **Dates: Spring 2009 TBA**			TBA	$1095	Members Only
PPD Piper BootCamp **Dates: Spring 2009 TBA**			TBA	$1450	Members Only
SPAR 2009 March 30-April1 **http://sparllc.com/spar2009.php**	T,W		Hyatt Regency Denver Denver, CO		**SPED Discount** Call SPED Office
FIATECH 2009 Technology Conference and Showcase, April 6-8 **www.fiatech.org**	M-W		Green Valley Ranch Henderson, NV		
PlantSuccess 2009 Gulf Coast, April 16th **http://www.plantsuccess.com/**	TH		Hilton Houston NASA Clear Lake		
2009 Offshore Technology Conference, May 4-7 **http://www.otcnet.org/2009/**	M-TH		Reliant Park Houston, TX		
2009 SPED Annual General Business Meeting and Corporate Member Showcase **November 2009**			TBA		



New project?
Staffing issues?

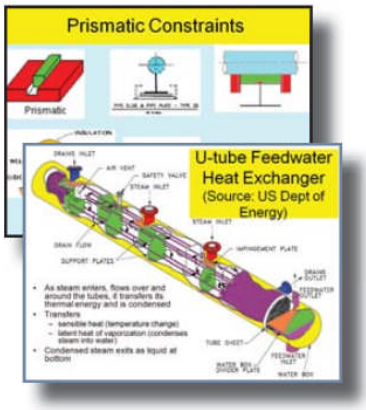
THE SPED PIPER VIDEO SERIES IS YOUR ANSWER.

"It's the Piper's resource for Information and Just-in-Time Training."

PIPER BOOTCAMP covers equipment and fittings necessary for routing pipeline from nozzle to rack to nozzle.

PROCESS PLANT LAYOUT covers knowledge and skills required for plant equipment and layout. Targets pipers already familiar with in-line pipe routing.

Version I contains original video recordings of live presentations by industry leaders.
Version II contains newly recorded videos with additional topics, and extended notes.



Designed for the new Piper and as a useful resource for experienced Pipers, the SPED Piper Video Series is considered the Industry Standard for piping training.

SOCIETY OF PIPING ENGINEERS AND DESIGNERS
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Executive Director's Notes

Dr. William Beazley

Mumbai or Michigan: The Next Outsourcing Location May be Closer than You Think

Outsourcing in search of lower labor costs is and will continue to be a fact of life. It was driven by a combination of low cost labor, foreign project location, local content restrictions and demographics. Demographics is, perhaps the stronger issue. Consider the following "Hard Figures and Facts" on the Engineering Shortage:

Compared to the 1970s, the number of U.S. based colleges and universities offering degrees in petroleum engineering has decreased 50 percent.

By 2010, a labor shortfall of 10 to 15 percent in engineers is projected globally, according to Cambridge Energy Research Associates (CERA), based on the analysis of 400 projects expected to begin worldwide over the next five years.

The average age for engineers is now 51. More than 50 percent are expected to retire by 2015 (an attrition rate of roughly six percent a year) (CERA).

Two-thirds of the membership of the Society of Petroleum Engineers (SPE) is over age 40.

To help alleviate this severe shortage, the Federal Government and President Bush recently signed (August 14, 2008) H.R. 4137 – Loan Forgiveness for Service in Areas of National Need – that provides up to $10,000 in loan forgiveness to graduating engineers ($2,000 per year for five years).

Source: http://www.onlykaty.com/business/to-fill-oil-industry-demand-houston-community-college-expands-training-in-aveva-pdms/

However the current Financial Tsunami ends, these demographics facts will not change. That is why current layoffs, thought painful, are moderate by historical standards.

The next competitive threat to your job, however, may not be from Mumbai but from Michigan. It is a little appreciated fact that the center of the automotive engineering world is Detroit, Michigan. What is also little appreciated is that much of this engineering talent has been laid off, with little hope of working again in the Auto industry. One expert estimated the there are three to five thousand unemployed engineers and designers in the Detroit area. These folks are hungry, eager to change careers and are accustomed to lower wages.

And they can be trained. The State of Michigan has begun funding their retraining for other industries, including piping design. Yours truly is just finishing a pilot class of 17 industrial designers as piping designers. All will test for PPD Level I. Make no mistake about their level of ability: This group of designers represented the most interesting combination of experience, maturity and capability I have seen yet.

They easily mastered the typical training applications of fabrication planning, spool takeoff, control valve station layout, and pump suction/discharge piping. Their questions, however, showed an application focus and a disciplined methodology often seen in highly experienced designers. They were hungry to learn, came early and stayed late. They show the intensity typical of someone escaping from a dead end to a promising future.

What's more, they bring developed skills from automotive design that clearly apply in piping design. They have been working in confined spaces routing tubing and cables, placing components and checking for interference. They have designed jigs and tooling that increases fabrication and assembly efficiency. Some have planned parts flow, staging and movement into place just as pipers have to plan logistics and construction. The frequently have to practice modular design and coordinate their interfaces with others. They understand documentation and paperwork. They are used to tight schedules (18 month programs) and know how to meet deadlines.

Michigan has also funded their PDS training provided directly by Intergraph. They can explain and defend all of their drawings and designs.

These are serious folks who want to work. Today they might work in Houston, California or South Carolina. Tomorrow, when there are hundreds or thousands trained, they might attract EPC companies to Michigan. As one piping manager said about his company, "they like to locate offices where there are lots of low cost resources." Why go overseas when there are better prepared folks right here at reasonable rates?

Bill Beazley