

# The South Texan

2003 Marx Isaacs Award for Outstanding Large Section Newsletter



## Meeting At-A-Glance

- Location: Westchase Hilton, Westheimer/BW8
- 2 Workshops @ 5:30 PM
- Networking 6-7 PM
- Dinner at 7 PM
- Speaker at 8 PM

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The January meeting is graciously sponsored by Jacobs.

See page 3 for reduced pricing info!

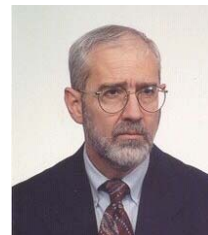
**JACOBS**

Monthly Meeting January 8, 2009

Location: Westchase Hilton

## Petrochemicals and the Price of Oil 2009

**Speaker:** John H. Jenkins, Director, Jacobs Consultancy



**Abstract:** Petrochemical companies focus on the price of oil for one obvious reason – the price of feedstock changes. However, I would propose to demonstrate that high oil prices are not necessarily detrimental to the petrochemical industry and low oil prices are not necessarily supportive. Subjects to be discussed include:

- \* Short term impact of rising prices – pushing through cost increases.
- \* Do higher prices increase substitution of natural products (paper or plastic?)
- \* Historical relationships between crude and petrochemical prices.
- \* The cost of raw materials in the petrochemical chains
- \* High oil prices and world economics

**Bio:** John H. Jenkins is a Director at Jacobs Consultancy, where he manages a wide variety of single client and industry studies dealing with market, business, financial and technology issues in the refining and petrochemical industries. He has also completed numerous projects involving the design, revamp, and evaluation of refinery and primary petrochemical units. In his work with the investment community, Mr. Jenkins has served as Independent Consulting Engineer on more than twenty projects worldwide.

Mr. Jenkins began his technical career at UOP. He also served as a technical consultant with Wright Killen & Company. He holds a Bachelor's degree in Chemical Engineering from the University of Tulsa, and received his M.B.A. degree from the University of Houston.

## Workshop Details: Workshops begin at 5:30 PM

### Process Safety Management (PSM): LOPA Misapplied: Common Errors Can Lead To Incorrect Conclusions

**Speaker:** John Champion, The Rohm and Haas Company

**Abstract:** Layer of Protection Analysis (LOPA) is a powerful tool for quantitative risk assessments. If applied correctly, it can provide quick and efficient guidance on what additional safeguards are needed, if any, to protect against a given scenario. If misapplied, an overly conservative calculation of risk may result in over-instrumentation, additional life-cycle costs and spurious trips. Even worse, a non-conservative calculation of risk could result in an under-protected system and unacceptable risk of an undesired consequence occurring.

This paper describes several categories of common errors, some overly conservative and some non-conservative. Case studies of actual plant scenarios are used to illustrate. This paper was co-authored with Karen Study from the Rohm and Haas Company.

**Bio:** John W. Champion is a Senior Risk Analyst with the Rohm and Haas Company supporting Process Safety initiatives in the company, primarily in the Houston area. He has over 16 years of experience in the petrochemical industry, four of them in the risk analysis area. John has a B.S. in Chemical Engineering from the University of Texas.

### CAST: Using the API Technical Data Book to Quantify Environmental Impacts

**Speaker:** Rakesh Verma, Parijat Controlware, Inc.

**Abstract:** In modern control systems, Microsoft Windows is heavily used for the graphical front-end user interfaces. Unfortunately most of the traditional control systems front-ends are not working on Vista today. This is a problem since new PC hardware natively comes with Vista. Users are missing the use of the new cool & very useful features available in Vista. This presentation shall show & introduce these features to the audience. The 64-bit power of Vista shall also be discussed via a real life application.

Generally, in a traditional control system, hardware consists of multiple vendors' products. Traditional software running on Microsoft Windows consists of running multiple software applications from multiple software vendors. These multiple applications from multiple vendors are not designed to work with each other – resulting in a poorly-integrated system. It also creates dependencies on multiple vendors for support, integrity of overall system and is not a good situation to be in. Unnecessary layers of hardware & software have to be traversed by the data from the sensor to the top-end. This also freezes the hardware/software from getting any future Microsoft's upgrades installed. The presentation shall show how to eliminate this problem from the root cause. A real life application shall be used to show how to avoid this predicament.

**Bio:** Rakesh Verma works at Parijat Controlware, Inc., 9603 Neuens, Houston TX 77080-7209. He may be reached via phone at 713-935-0900 or via email at [rverma@parijat.com](mailto:rverma@parijat.com). You may view the company's website at <http://www.parijat.com>.

## Volunteers Needed—'09 OTC

The 2009 Offshore Technology Conference will be held **4-7 May** at Reliant Park. It is undetermined at this time what role the South Texas Section will be. In the event that the STS has no role as an OTC Conduct Committee Sponsor, an attempt will be made to provide volunteers for either the Arrangements or Registration Conduct Committees. For information contact: Thomas E. Menn, P. O. Box 458 Pearland, Texas 77588-0458. Tom's phone number is 281-485-3719 and his e-mail address is [thomasmenn@SBCglobal.net](mailto:thomasmenn@SBCglobal.net).

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## Meeting Registration Information

Pre-register for the monthly meeting at: <http://www.sts-aiche.org/register.php>.

Reservations are accepted until 4 pm the Tuesday of meeting week.

You may also **cancel a reservation** using this link. Please cancel your reservation if you have made one and find that you are unable to attend.

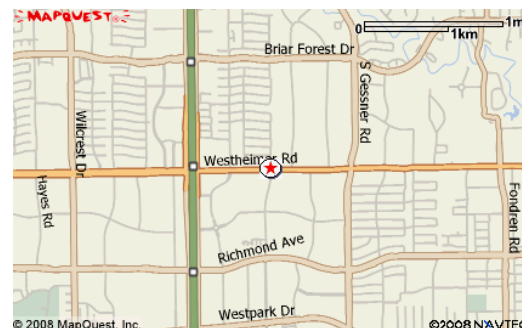
Special pricing is in effect this month thanks to the sponsorship of Jacobs!

	<u>Pre-registered</u>	<u>At the door</u>
Regular/Retired	\$15	\$25
Student/Unemployed	\$10	\$20

*Attendees of the meeting will earn 1 PDH for the Texas Professional Engineer Continuing Education Programs. Remember to track your hours!*

## Meeting Location - Hilton Houston Westchase

This month's meeting will be held at the Westchase Hilton, located at Westheimer and Beltway 8. To use your own mapping program for directions, the address is 9999 Westheimer Road, Houston, 77042. Click on the map to the right to open the map site.





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## Calendar of Events—Upcoming Meetings

Meeting Date	Sponsor	Location	Meeting Notes	Workshops
February 5, 2009	TBD	TBD	(Student Awards Night)	4
March 5, 2009	TBD	TBD	(Regional AIChE Trade show)	4
April 2, 2009	Epcon, Int'l	Brady's Landing	(Energy Forum)	Energy Forum
May 7, 2009	TBD	TBD	(STS Awards Night)	4

## Meeting Sponsors—We thank you!

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## YP News

Dear Young Professionals,

I am very pleased to serve as Chair for the AIChE South Texas Section Young Professionals in 2009. This past year was a wonderful year for us, filled with events that offered a variety of networking and educational opportunities specifically geared towards young chemical engineering professionals in the greater Houston area. From shooting ranges to oil rigs, we had a lot of fun. Young Professionals was particularly pleased to host the December General Meeting for AIChE STS, a job done so well that they have asked us to do it again for 2009! Young Professionals membership doubled in 2008, and participation in events has grown exponentially. I am extremely proud of what the group has accomplished this past year.

I look forward to 2009, where we will be looking for more individuals to help us build an even stronger community of young engineers. We will continue to hold technical sessions with issues specific to young chemical engineers. We will be increasing the quantity and range of social activities that we offer, as well as increasing the number of volunteer opportunities and university outreach visits. Our goal is to bridge the gap between learning and leading in the Chemical Engineering industry. We strive to constantly achieve this goal.

If you would like to get more involved, please join us at the **Stag's Head** on **Saturday, January 10th from 2-4pm** for our annual planning meeting. More information can be found at our website, <http://www.yp.sts-aiche.org>. We look forward to seeing you there.

Sincerely,

Carol Schmidt

2009 AIChE STS-YP Chair

[yp@sts-aiche.org](mailto:yp@sts-aiche.org)

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## December Meeting Summary

We would like to thank all of those who came out to the December meeting. It had a Dickens theme and ~120 people attended a fine dinner and enjoyed good entertainment. Charles Dickens' "A Christmas Carol," was recited between four delicious courses.

The STS Young Professionals had a great time keeping the people on the buses entertained with games and prizes. A special thanks to those who donated non-perishables; Young Professionals took 192 lbs of food to the Houston Food Bank on Tuesday, December 9th.



## 2007 STS Special Service Award Recipient

### Frank Kleinschrodt Receives 2007 STS Special Service Award

Frank Kleinschrodt (right) is receiving the STS Special Service Award from Sloan Schoyer, Director of Marine Operations at Hovensa, LLC in St. Croix, US Virgin Islands. In the background are a number of Hovensa docks and the beautiful blue Caribbean sea which Sloan works hard to protect.

Frank moved to St. Croix to take the position of Manager of Planning and Blending for the refinery reporting to the Director of Economics and Planning. Frank manages the planning and scheduling side of the refinery logistics and manufacturing supply chain including crude purchases and movements, refinery unit targets, product blending and product movements.



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# Introduction to PETROLEUM REFINING ECONOMICS

APRIL 9-10, 2009 AND OCTOBER 1-2, 2009



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*This course presents an introduction to petroleum refining economics. The focus is on transportation fuels refineries, however petrochemical production is also presented. The first part of the program includes an overview of crude oil and petroleum products. This is followed with a description of refinery process technology. Key refining technologies are described such as crude oil distillation, heavy oil conversion options, hydrotreating, and catalytic reforming.*

*Profitable refinery operations involve many economic decisions. These include crude oil selection, production planning and product blending. The refinery planning organization typically performs these calculations, and therefore, the second part of the program presents a discussion of key refinery planning applications. This includes an introduction to linear programming, which is widely used for economic decision-making. A case study for a new refinery project is presented, and includes capital costs, operating costs and project economics. The course will conclude with a discussion of how refiners increase profitability through strategic initiatives and operation excellence.*

## Class Outline

**Crude Oil** — Crude oil reserves, production trends & key crude oil qualities

**Petroleum Products** — Product consumption trends and key specifications

**Refinery Process Technology** — Overview of process technology, with a focus on crude oil distillation and heavy oil conversion options. Other refinery processes are also covered

**Refinery Types, Complexity and Margins** — The major categories of refinery complexity are described along with their impact on refinery product slate and profitability

**Refinery Economics Modeling** — Overview of linear programming and refinery modeling

**Economic Decision Making for Operating Refineries** — Crude oil evaluation, production planning, product blending

**Refinery Project Economics** — Typical steps in new refinery projects are discussed. This includes a case study including capital cost, operating costs, & project economics

**Key Economic Factors** — How refiners gain competitive advantage via strategic positioning and operational excellence. This includes integration with petrochemical production such as aromatics and olefins. Biofuels are also discussed

## For Whom Intended

Business, sales, technical, and scientific personnel with limited or no refinery experience. Technical sales personnel, involved in selling equipment or supplies to the refining industry, will benefit from this course, as well as entry-level engineering and operating personnel.

## Course Director

Dave Geddes is an economics and planning consultant for the refining and petrochemical industry. His experience includes 20 years at Bechtel Corporation. He has worked on feasibility studies and economic evaluations of oil refineries and petrochemical plants in the U.S., Asia, the Middle East, and South America. While at Bechtel he also managed the group that developed, marketed, and supported the PIMS linear programming system that is now widely used for refinery and petrochemical economic studies and other planning applications. Mr. Geddes received a B.S. in Petroleum Refining from the Colorado School of Mines, & an M.S. in Chemical Engineering from the University of Colorado.

## Fees & Registration

The registration fee is \$995 (US), which includes tuition, breaks, and text materials. It does not include meals or lodging. CSM will award 1.3 CEU's for course participation.



## It's Awards Time!

It is once again time to nominate an STS member for our annual awards:

- Outstanding Young Professional Award
- Distinguished Service Award
- Best Fundamental Paper
- Best Applied Paper Award

For requirements of each award, visit the web page: [http://www.sts-aiiche.org/list\\_of\\_awards.htm](http://www.sts-aiiche.org/list_of_awards.htm). The page provides a summary of the awards, and contains links to more detailed descriptions of each award.

To nominate a member for an award, complete the online form at the web page [http://www.sts-aiiche.org/nominate\\_awards.htm](http://www.sts-aiiche.org/nominate_awards.htm).

If you do not have web access or prefer the printed form, request the form in an email to [newsletter@sts-aiiche.org](mailto:newsletter@sts-aiiche.org).

Nominations must be received by **April 18, 2009** to be considered. Thank you!

## Did you know.... More STS Awards

The STS has many other awards, also! There are 8 awards that may be presented at any time. We have an Academic Achievement Award, Chemical Engineering Practice Award, Leadership Award, and Friend of STS Award to name a few. Nominations may be accepted at any time for any of these awards. The Executive Committee votes on recipients, and they are presented at the following dinner meeting.

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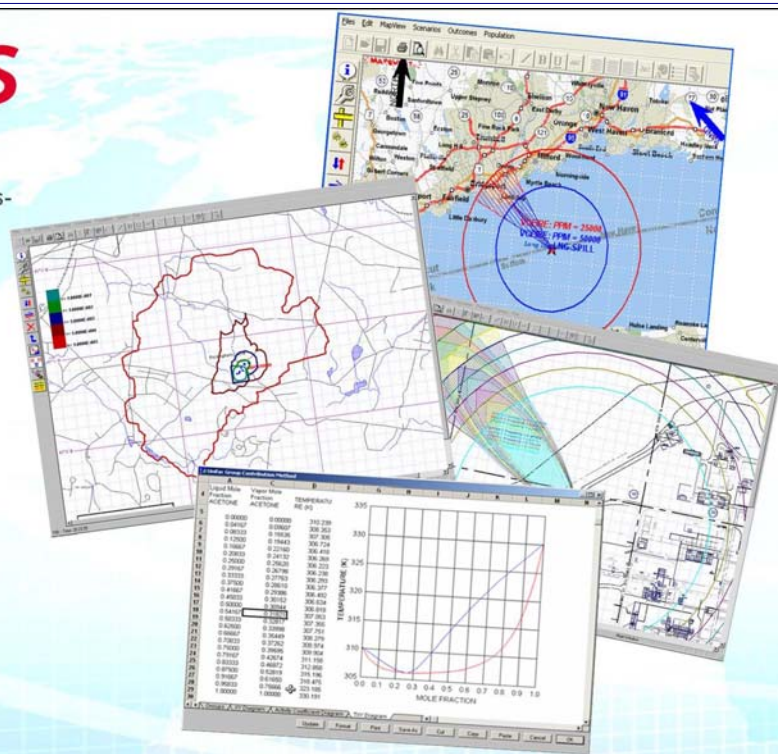
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## Design Squad WonderWeekend Volunteers Needed

The **Children's Museum of Houston** is in need of volunteers for their Design Squad WonderWeekend event that will be held **February 21 and 22, 2009**. The programming that weekend will focus on all things engineering including kinetic sculptures, rubber band cars and a giant dome challenge.

The CMH is in need of volunteers to assist with activities for this fun-filled weekend. Groups can work for a four hour shift Saturday morning or afternoon (six hours on Sunday, as the Museum is open from Noon-6 pm) or can sign up for a particular activity for the day.

Below is a schedule for programming especially in need of engineering volunteers.

### Design Squad WonderWeekend At the Children's Museum of Houston February 21-22, 2009

#### Design Squad Kinetic Sculpture Workshop

Make a sculpture that is at least 6 inches tall and has at least 2 parts that move in the wind. Located in Inventor's Workshop

Volunteers needed: 4 Engineers

Times: Saturday 10 am-1 pm; Sunday Noon-2:30 pm

#### Design Squad Rubberband Car Workshop

Build a fast car with a rubberband and two wheels! Located in Inventor's Workshop

Volunteers needed: 4 Engineers

Times: Saturday 2-6 pm; Sunday 3:30-6 pm

#### Giant Dome Challenge

Build a giant dome out of newspaper!

Volunteers needed: 5-6 Engineers

Times: Saturday 10 am-noon & 4-6 pm; Sunday noon-2 pm & 3-5 pm

#### Science Station Activities

Make a coffee table out of newspaper, design a penny-hauling boat, make a paddle boat and zip a ping pong ball down a line!

Volunteers needed: 2-3 Engineers

Times: Saturday 10 am-6 pm; Sunday Noon-6 pm

Please contact Matt Kolodney if you are interested in volunteering for this fun and worthwhile event. You may reach him at [mkolodny@hal-pc.org](mailto:mkolodny@hal-pc.org).



#### Vital Links

South Texas Section website: <http://sts-aiche.org>

South Texas Section Young Professionals Group: <http://yp.sts-aiche.org>

National AIChE website: <http://www.aiche.org/> (Needs Flash Plug-in)

Earn CEP credits at AIChE functions: [http://www.sts-aiche.org/Texas\\_PE\\_CEP\\_Rule.html](http://www.sts-aiche.org/Texas_PE_CEP_Rule.html)

Download the CEP log form: [http://www.sts-aiche.org/STS-AIChE\\_CEP\\_Log.xls](http://www.sts-aiche.org/STS-AIChE_CEP_Log.xls)

Previous Newsletters (PDF format): <http://sts-aiche.org/newsletterArchives.htm>

Link to THIS newsletter: <http://sts-aiche.org/newsletter/news2008/news0109.pdf>



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## South Texas Section AIChE

South Texas Section  
P. O. Box 1741  
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### *2009 Officers and Contact Information*

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**Chair** Todd Willman, Epcon International  
chair@sts-aiche.org

**Chair Elect** Alan Rossiter, Rossiter & Assoc.  
Chair-elect@sts-aiche.org

**Past Chair** David Silarski  
Past-chair@sts-aiche.org

**Secretary** Jasmine Lee, Siemens  
secretary@sts-aiche.org

**Treasurer** Hiren Patani, Mustang Eng.  
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#### Executive Committee

**Position 1: Education**  
Lou Diamond  
position1@sts-aiche.org

**Position 2: Outreach**  
Ken Cox  
position2@sts-aiche.org

**Position 3: Communications**  
Daniel Shiosaki  
position3@sts-aiche.org

**Position 4: Human Resources**  
Pete Belmonte, ENSR | AECOM  
position4@sts-aiche.org

#### Volunteers

**Arrangements** Richard Newman, Criterion Catalysts

**Membership** Jerry Gresham, Gresham & Gresham

**Young Professionals** Carol Schmidt

**Awards** Tom Menn

#### SOUTH TEXAS SECTION MISSION STATEMENT

As a section of AIChE, we serve chemical engineering professionals in the South Texas region through education, professional development, and networking.

#### Vision 2008

We will become an organization with a strong and active membership. We will accomplish this through:

1. Increasing awareness of the South Texas Section of the AIChE
2. Improving relevancy of our programs
3. Improving our governance
4. Hospitality/Welcoming/Social

*The South Texan* is issued monthly, except June, July and August, by the American Institute of Chemical Engineers, South Texas Section. Opinions expressed are those of the authors and not of AIChE. The newsletter is published electronically.

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#### —— MAINTAIN YOUR CONTACT INFORMATION WITH STS ——

Maintain your contact information with the South Texas Section using the online community:

<https://www.memberconnections.com/olc/pub/CHM/>

To update your information, log in, then select [Member Directory](#).

Select the link to [View/Update Your Online Directory Listing](#).

Contact the New York office for PERMANENT ADDRESS CORRECTIONS:



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## *The South Texan Newsletter Crew*

WHAT DO YOU THINK OF THE NEWSLETTER? We want to know!

Contact us at [newsletter@sts-aiche.org](mailto:newsletter@sts-aiche.org) with comments, questions, suggestions, and ideas for next month.

Newsletter Editor

Susan Cannon  
KBR  
601 Jefferson Avenue  
Houston, TX 77002  
(713) 753-8626  
[SusanCannon119@aol.com](mailto:SusanCannon119@aol.com)

Submit an article! Contact:

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TCEQ  
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