



13th Annual Meeting

The meeting place for the Asian refining and petrochemical industry



09–10
MARCH
2010

FULLERTON HOTEL
SINGAPORE

KEY HIGHLIGHTS

- Macro level perspective of the refining and petrochemical sectors
- Opportunities in refining and petrochemical integration
- Meeting the clean fuels challenge – hear views from China and the transportation industry
- Update from the upstream sector and impact on your crude supply and quality
- Latest technologies in FCC and hydrocracking to maximise production
- How carbon capture and storage can impact your refining margins
- New developments in resid cracking catalysts
- Future use of naphtha as a petrochemical feedstock besides steam cracking
- 3 new streams focused on Refining, Environmental Issues and Energy Efficiency and Petrochemicals

INCLUDING PRESENTATIONS FROM:

Axens, KBC, Nexant, Petronas, Purvin & Gertz, Shaw Energy & Chemicals Group, Sinopec, Thai Oil

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Exclusive discounts
available for delegates

REGISTER ONLINE AT www.gtforum.com/artc-annual-meeting

This year promises to be an exciting one for refineries in Asia. We are already seeing signs of recovery due to the ease of excess supply and rebound in demand relative to the rest of the world. Now is the time to position yourself ahead of your competition and take advantage of the latest technologies and market trends.

At the **Asian Refining Technology Conference – ARTC**, we have brought together leading experts in the industry to share best practices and exchange ideas on how technological breakthroughs can improve your operating margins.

With the who's who in the industry attending, you will have the chance to network and foster fruitful business relationships.

Key issues to be addressed include:

- **In a mature and cost competitive industry can you afford to take new technology risks?**
- **How has product demand changed as dictated by the end-users and clean fuels initiatives?**
- **Have you considered new catalysts and feedstocks?**
- **Is it time to look at the benefits of catalyst regeneration?**
- **What are the benefits and obstacles to refining and petrochemical integration?**



The **2010 board of advisors** are your guarantee that each paper delivers fresh thinking on innovation and new technologies that will drive your industry:

Bhawana Suphailai, THAI OIL; Christopher Dean, SAUDI ARAMCO; Kuah Huat Hin, SRC; Michael Glenny, BP; Shahidah Mohd Shariff, PETRONAS; Surachate Chalothorn, RAYONG OLEFINS; Yusri Yusof, PETRONAS.

Top 10 reasons to attend

- Hear what industry leaders are doing to improve margins
- High-level market insights will help you anticipate demand trends
- More case studies on how new technologies can be successfully applied to your operations
- Learn how to make your refineries more flexible in switching production to meet current demand
- Find out what's new in catalyst developments
- Understand how your plants can be more energy efficient
- Gain insight on how clean fuels specifications are driving some of the major markets including China
- Get the latest updates on process modeling applications for petrochemical and refining integration
- Hear perspectives from the upstream, downstream and end-users of the refined products
- Network with your peers from across sectors in Asia

Top rate speakers include:



Pramod Kumar Karunakaran
GTS Research & Technology Division,
PETRONAS



Xiangchen Fang
President, Fushun Research Institute of Petroleum and
Petrochemicals, SINOPEC



N. Ravivenkatesh
Senior Consultant,
PURVIN & GERTZ



Hamid Reza Seyed Jafari
Head of Implementation & Development of Management
Systems, SHIRAZ OIL REFINING



Clarence Woo
Executive Director,
ASIAN CLEAN FUELS ASSOCIATION



Anders Roj
Manager Fuels and Lubricants,
VOLVO

New for 2010 – Training courses (separately bookable)

We are pleased to present two new training courses to take place following the **ARTC Annual Meeting**, for you and your team. Visit the websites below for full details

11 March – Refinery desalting www.gtforum.com/desalting
This course will provide an overview of the value of a sound desalting process and will give you the tools you need to troubleshoot operational challenges that can occur.

11 - 12 March – Introduction to water treatment
www.gtforum.com/watertreatmentasia
This course will provide you with an understanding of water conservation in boilers, and cooling water treatment for sustainable use of water resources.



DAY 1 9th MARCH 2010		
08.00	Registration	
08.50	Welcome remarks	
09.00	Keynote address	
09.30	Refining and petrochemical feedstock outlook <ul style="list-style-type: none"> • Sensitivity on product demand • Refining capacity additions/rationalisation • When will margins turn? • Naphtha market outlook N.Ravivenkatesh, Senior Consultant, PURVIN & GERTZ	
10.00	A new decade, familiar challenges – review of current industry trends <ul style="list-style-type: none"> • Latest developments and tackling the challenges economic recovery • Demand and capacity additions Clive Gibson, Principal, NEXANT	
10.30	Coffee break and opportunity to visit the exhibition	
11.00	Improving operating performance through technology Pramod Kumar Karunakaran, GTS Research & Technology Division, PETRONAS	
11.30	Economically and technically optimising the refineries operation to the future Green House Gases Emission regulations <ul style="list-style-type: none"> • Efficient, clean and friendly oil industry programme • How to spread a technical economical mentality and improve the refinery operation profitability Alberto Ferrucci, President, PROMETHEUS	
12.00	Special address Accessing the inaccessible – how technology is effectively increasing reserves <ul style="list-style-type: none"> • Newly discovered 'giant' reservoirs are increasingly rare • Production from existing reservoirs is declining • New reserves are becoming harder to develop • Technology is making these new reserves accessible and economic Richard Russell, HALLIBURTON	UPSTREAM
12.30	Hydrous ethanol for gasoline blending – cost and energy savings Hans Keuken, Managing Director, HE BLENDS B.V.	
13.00	Lunch break and opportunity to visit the exhibition	
14.00	How the Excellence in Management of Opportunities and Threats Tool (EMOTT) can provide refineries a way out of the financial crisis Hamid Reza Seyed Jafari, Head of Implementation & Development of Management Systems, SHIRAZ OIL REFINING	
14.30	Carbon Capture Storage (CCS), refineries and the need for a consistent global response <ul style="list-style-type: none"> • Impact of carbon on refinery margins • Legislative, environmental and social issues driving the global CCS investment programme • Potential development of CCS in South East Asia • Potential derived if CCS is included in the Clean Development Mechanism (CDM) Jim Wright, Director, KBC	
15.00	Technological developments in solving China's transportation fuel quality Xiangchen Fang, President, Fushun Research Institute of Petroleum and Petrochemicals, SINOPEC	CHINA
15.30	Coffee break and opportunity to visit the exhibition	
16.00	Meeting the environmental challenge for Asian refineries <ul style="list-style-type: none"> • Development of alternative fuels in Asia and their impact on refining capacity • Impact of emissions standard regulations Clarence Woo, Executive Director, ASIAN CLEAN FUELS ASSOCIATION	
16.30	Challenges for the automotive industry and impact on fuel requirements <ul style="list-style-type: none"> • CO2/emissions challenges for the automotive industry • Foreseen gasoline/diesel/biofuels-mix required in the future (particularly for refining industry: the gasoline/diesel balance) • Biofuels: CO2 reduction potential and quality issues Anders Roj, Manager Fuels and Lubricants, VOLVO	AUTOMOTIVE
17.00	End of day one	



DAY 2 10th MARCH 2010 (morning)																					
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DAY 2 10th MARCH 2010 (afternoon)		
	Stream 1 Refining	Stream 2 Petrochemical
13.00	<p>Liquid phase Claus process – new generation H2S removal technology</p> <ul style="list-style-type: none"> Liquid phase Claus system to remove and convert the H2S into sulfur in a single absorption/reaction vessel, and precipitate the sulfur by cooling out of solution Advantages of this process: safety, non-fouling, lower cost, non-corrosive, and improved operability <p>GTC TECHNOLOGY</p>	<p>Latest FCC technologies</p> <ul style="list-style-type: none"> Bullet points to be confirmed. Please visit website for updates: www.gtforum.com/artc-annual-meeting <p>SHAW ENERGY & CHEMICALS GROUP</p>
13.30	<p>First advanced catalytic olefins (ACOTM) demonstration unit to begin operations</p> <ul style="list-style-type: none"> FCC-type process which cracks straight run feeds such as naphtha to large quantities of propylene and ethylene Produces significantly more propylene (typical P/E production ratio is approx. 1:1) and at lower energy consumption and CO2 footprint Economic comparison to steam cracking when processing a typical naphtha feed Case study of the ACOTM Demonstration Unit in Ulsan, Korea <p>SK ENERGY</p>	<p>Breakthrough process for styrene production</p> <ul style="list-style-type: none"> Exelus is developing ExSyM, a styrene monomer production technology that achieves dramatic savings in energy and feedstock costs Using completely different chemistry: the alkylation of the side-chain of toluene with methanol to yield styrene directly Technological breakthroughs in reaction yields permits resulting in commercial viability Lower capital costs than conventional plants by eliminating the need to generate large amounts of 900°C steam used to provide the heat of reaction <p>EXELUS</p>
14.00	<p>Maximise operation profit with closed loop real time optimisation technology</p> <ul style="list-style-type: none"> Crude distillate unit and vacuum distillate unit optimisation application Key business challenges for CDU/HVU Reflecting the plant movements accurately Optimum operating conditions Thai Oil case study using ROMeo, a state-of-the-art optimisation technology of Invensys <p>THAI OIL</p>	<p>Creating next generation performance process and utility optimisation of a petrochemical complex</p> <ul style="list-style-type: none"> Optimising profitability across the total operations, sharing the benefits equitably between each of the operating units and delivering improved profitability for all Base case development and opportunity evaluation Implementation of opportunities Sustainment, implementation and ongoing improvement <p>KBC</p>
14.30	Coffee break and opportunity to visit the exhibition	
15.00	<p>Staged partial conversion hydrocracking – new technology for clean fuels production</p> <ul style="list-style-type: none"> Pre-treatment of the FCC feed to reduce sulfur, nitrogen and aromatics content Generating high yields of quality middle distillate fuels while substantially upgrading FCC feed stocks Achieving unique performance compared to conventional hydroprocessing approaches Cost savings on investment capital and operating costs including hydrogen consumption Improving profitability and refinery flexibility <p>HALDOR TOPSOE</p>	<p>Primary fractionator fouling control</p> <ul style="list-style-type: none"> Stabilising heavy components of the quench oil and improving its viscosity, thus improving energy consumption and total cost of operation under challenging market conditions Review of primary fractionator fouling mechanisms Results of the benchmarking study of quench oil samples from various facilities Results of field trials conducted in past years <p>NALCO</p>
15.30	<p>Advances in process technology through catalytic distillation</p> <ul style="list-style-type: none"> Combining heterogeneous catalytic reaction and distillation in a single unit operation Simultaneous reaction and separation Major improvements in conversion and selectivity, especially for equilibrium limited reactions Capital cost savings and extended catalyst life <p>CD TECH</p>	<p>Advances in resid cracking catalysts</p> <ul style="list-style-type: none"> Processing heavy feeds, while maintaining flexibility to produce a varying mix of transportation fuels and petrochemical precursors Superior coke selectivity and bottoms cracking activity Case study: successful commercial applications of new resid cracking catalysts (Midas-300, Pinnacle, AP-PMC) <p>GRACE</p>
16.00	<p>Unconventional methods for increasing propylene yield in residue operations</p> <ul style="list-style-type: none"> Achieving an acceptable balance between maximum zeolite stability for minimum catalyst additions and minimum hydrogen transfer rates for maximum propylene Cat-Aid technology to reduce rare earth on zeolite for maximum propylene yield, while maintaining unit conversion at constant catalyst addition rates Case studies: commercial experiences <p>INTERCAT</p>	<p>Innovations in selective hydrogenation</p> <ul style="list-style-type: none"> Assets optimisation and operating cost minimisation New generation of catalysts for Pygas hydrogenation and high efficiency internals Longer cycle length of low cost palladium catalysts LD 465 and LD 485, while maintaining stability and regenerability New generation nickel catalysts for contaminated feedstocks Taking advantage of new catalysts with the latest generation of Equiflow high efficiency distribution trays <p>AXENS</p>
16.30	<p>Residue upgrading and the need for hydrogen</p> <ul style="list-style-type: none"> Methodology for establishing the best route for increasing hydrogen production/recovery Possible revamp options for existing hydrogen plants Options for new hydrogen production units including a comparison between steam reforming and gasification Benefits that Foster Wheeler's hydrogen plant design using Terrace-Wall™ reformers can bring <p>FOSTER WHEELER</p>	<p>Ex-situ catalyst regeneration using Porocel's moving belt regeneration process</p> <ul style="list-style-type: none"> Bullet points to be confirmed. Please visit website for updates: www.gtforum.com/artc-annual-meeting <p>POROCEL</p>
17.00	Close of the ARTC 2010 conference	

Reservation Form

Promo code: DM2



ARTC 13th Annual Meeting

4501/10

9 – 10 March 2010, The Fullerton Hotel Singapore, 1 Fullerton Square, Singapore 049178

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