



Program

June 7 – 9, 2006
Amsterdam

Welcome to Amsterdam



Dear guest,

It is with great pleasure that we welcome you to the PCIC Europe 2006 Conference in Amsterdam.

Amsterdam is often referred to as one of the most colourful cities in the world. And rightly so! Where else do you find so many places of interest, famous museums, cosy pubs, fun shops and (flower) markets?

At present as well as in its history Amsterdam has always been a centre of culture and business. Colourful, dynamic and always offering freedom and a warm welcome to many visitors from all countries and cultures in the world.

In the 17th century, the voyages of the famous Dutch East India Company (VOC) to the Spice Routes helped make Amsterdam one of the wealthiest and most influential cities in the world, thanks to a trade that brought with it new opportunities for a myriad of commercial possibilities. By 1687, the Amsterdam Wisselbank was one of the biggest commercial banks in existence; its notes of exchange were recognised as valid tender everywhere. This Golden Age left a magnificent cultural heritage, including paintings by the likes of Rembrandt and ornate Classicists and Louis-style buildings. The city became a printing centre thanks to prolific poets and playwrights such as Bredero, Vondel and P.C. Hooft and the respected philosophers Spinoza and Descartes. It was during this Golden Age that the city's famous concentric crescent of canals took form, becoming what to this day remains an intricate web of circa 90 islands, 100 kilometres of canals and 400 stone bridges. By 1806, Amsterdam had finally earned its title as the Dutch capital and was booming by the end of the century.

Fugitives from other countries and mostly with other religions were welcomed and were offered freedom and opportunities in Amsterdam.

The skills in many different occupations that these new inhabitants brought with them enriched our Dutch culture and strengthened the Dutch economy.

In 2006 Amsterdam celebrates the 400th anniversary of the world-famous 17th century painter Rembrandt van Rijn (1606-1669). This is why the greatest Dutch painter of the Golden Age is put into the spotlight throughout the coming year. Never before did you see such an extensive collection of well-known and less known works of Rembrandt. Etchings, paintings and drawings, you can admire them in various museums in Amsterdam, among which Het Rembrandthuis and the Rijksmuseum.

Nowadays, Amsterdam is a dynamic modern city with a sophisticated business environment and one of Europe's most popular destinations. Together with Rotterdam it is the backbone of the Dutch economy in the field of heavy and chemical industry. Large chemical and petrochemical companies have their head offices, development and manufacturing locations in Holland.

Besides being among Europe's top 10 tourist destinations, Amsterdam is one of Europe's top

five convention cities, a sector which generates income of about 4 billion per year and at least 38,000 jobs.

The Amsterdam Area offers myriad options for tailor-made conference and events solutions and the added incentive of the compact historic centre with its diversity of culture and nightlife for relaxation, or open nature and the coast within easy reach. And accessibility is second to none. The region's most important conference and trade fair venue is the Amsterdam RAI Exhibition and Congress Centre. In this centre the 23rd World Gas Conference will be held from 5-9 June 2006.

We hope you will enjoy your stay.

Jolanda van der Pluijm
The Local Committee

The PCIC-Europe Conference 2006



The Petroleum and Chemical Industry Committee Europe (PCIC-Europe) invites you to attend the third conference in Amsterdam (The Netherlands), on June 7 – 9, 2006.

More than 170 participants have attended each of the previous conferences held in 2005 and 2004 in Basle Switzerland and we expect even more for this year's conference.

The roadmap for the coming years of the PCIC-Europe conference has been made and will lead the Conference to France (2007), Germany (2008), Spain (2009) and UK (2010). This will put a heavy burden on the shoulders of the members of the PCIC-Europe Executive and Technical Committee, but the commitment is strong as clearly mentioned in our vision and a mission statement.

The vision of PCIC Europe is:

The PCIC Europe Conference wants to be the premier European forum for the exchange of experience of practical applications of electrical and instrumentation technology in the Petroleum, Chemical and Pharmaceutical Industry (PCI).

The mission of PCIC Europe is:

- To hold the European Conference on Electrical and Instrumentation applications in the Petroleum, Chemical and Pharmaceutical Industry (PCI)
- To support the exchange of experience and information among experts from suppliers, application, science and authorities
- To promote technology trends relating to electrical and instrumentation technology in the Petroleum, Chemical and Pharmaceutical Industry (PCI)

- To sponsor appropriate European guidelines
- To provide opportunities for professional development
- To stimulate the technological and the economical progress.

The Call for Paper for 2006 has been extremely successful. Due to the short time span available, we still received 65 papers. The Technical Committee had the difficult task to select 28 papers for the conference, but succeeded.

Their selection clearly reflects the quality and the diversity of the Conference.

You are kindly invited to register for the PCIC-Europe Conference but also to include into your calendar the next PCIC-Europe Conference, which will take place in Paris (France), June 13 – 15, 2007.

I look forward meeting you in Amsterdam,

René Ouëndag
Chair PCIC-Europe

The 2006 technical program



The main purpose of the PCIC Europe conference is the presentation of high-quality technical papers pertaining to the Oil & Gas Exploration, Production, Refining, Chemical and Pharmaceutical Industries. It is through these papers and the discussions afterwards that progress can be made on subjects of concern to all end-users, engineering companies, manufacturers and regulatory bodies. Many of the subjects involve several disciplines and PCIC Europe is an international forum where they all can meet.

The PCIC Europe Association has signed a technical co-sponsorship with the Industrial Applications Society of IEEE. This offers the possibility of PCIC Europe authors to have their papers published in IEEE journals which are digitally archived and made available to readers throughout the world via the IEEE website. Thus engineers in any part of the globe can benefit from the experience of those who present their papers at the PCIC Europe Conference.

The main topics of the PCIC Europe conference are:

1. Safety in the Workplace
2. Experiences from Users with Regulations and Standards
3. Electrical and Instrumentation (E&I) Engineering Practices
4. Equipment, Systems and Components

www.pcic-europe.eu

5. Operation, Maintenance, Repair, Asset Management and Qualification of Personnel

Participation in the PCIC Europe conference is one of the best ways of getting the information needed to be able to adapt quickly in our ever-changing industry.

I am looking forward to meeting you in Amsterdam.

Terence Hazel

Executive and Technical Programme Committee

René Ouëndag, Shell Global Solutions (NL), Chair
Terence Hazel, Schneider Electric (F), Secretary
Thorsten Arnhold, R. Stahl (D)
Reinhold H. Bietzker, Endress+Hauser (D)
Hasso Drathen, NAMUR (D)
Jürgen George, Pepperl+Fuchs (D)
Klaus de Haas, dH-Consult (D)
Colin Henderson, Ex-PERTS (UK)
Clife Hermanowski, Cooper Crouse Hinds (D)
Ben Johnson, IEEE-PCIC (USA)
Uwe Klausmeyer, PTB (D)
Patrick Leroux, TOTAL (F)
Heribert Oberhem, Bayer Industry Services (D)
Volker Pandel, R&M Industrieservices Höchst (D)
Gerhard Schwarz, Cooper Crouse Hinds (D)
Peter Thurnherr, thuba Ltd (CH)
Dieter Westerkamp, VDI/VDE-GMA (D)
Markus Winzenick, ZVEI (D)

Organisation Committee

René Ouëndag, Shell Global Solutions (NL)
Terence Hazel, Schneider Electric (F)
Patrick Leroux, TOTAL (F)
Peter Thurnherr, thuba Ltd (CH)

Local Committee

Martin Cornelése, CCH (CEAG) (NL)
Jolanda van der Pluijm, CCH (CEAG) (NL)

Contact

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Terence Hazel, Schneider Electric, (F)
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peter.thurnherr@thuba.com

Program

Wednesday, 7. June 2006

19.00	Welcome Reception Opening Ceremony: René Ouëndag, Chair PCIC-Europe Mark Halpin, President Elect. IEEE IAS
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20.30	Hospitality Suites (open for all participants)
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Thursday, 8. June 2006

09.00	Opening
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09.15	Plenary AM-46 and AM-15
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10.45	Coffee Break
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11.15	Plenary AM-39 and AM-43
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12.45	Lunch
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14.15	Engineering AM-49 / AM-12 Equipment AM-53 / AM-22
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15.45	Coffee Break
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16.16	Safety AM-19 / AM-03 Management AM-35 / AM-21
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18.00	Hospitality Suites (open for all participants)
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Program

Friday, 9. June 2006

09.00	Engineering AM-10 / AM-45	Safety AM-38 / AM-31
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10.30	Coffee Break	
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11.00	Equipment AM-09 / AM-37	Management AM-26 / AM-01
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12.30	Lunch	
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13.30	Engineering AM-11 / AM-60	Management AM-18 / AM-58
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15.00	Coffee Break	
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15.30	Equipment AM-04 / AM-08	Safety AM-48 / AM-16
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17.00	Closing of conference	
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Ref.	Title	Lead Author	Ref.	Title	Lead Author
AM-01	Effective Condition Assessment of MV Switchgear Appropriate use of condition assessment and diagnostic techniques allows maintenance to be effectively targeted and ensure more efficient deployment of resources.	Neil Davies	AM-15	Arc-Free LV MCC, Better to Prevent Than to Cure The "Arc free MCC" is achieved through the application of fault-free zones, areas where measures are taken to avoid the occurrence of an arc.	Bas Bouman
AM-03	Objective Methods to Interpret Partial Discharge Data on Rotating Machines PD signals are often difficult to interpret due to noise. There are however methods to reduce the risk of false indications.	G.C. Stone	AM-16	"Whiskers" The Root Cause of Spontaneous Short Circuits Elimination of faults due to silver whiskers depends on the identification of the root cause of the whiskers' growth.	Niek Van De Ven
AM-04	Innovative Escape Route Lighting Based on LED Clusters Small, low maintenance LEDs can be used in zone 2 hazardous areas for escape-route lighting.	Dr. T. Arnhold	AM-18	Acoustic Online Diagnosis for Predictive Maintenance of Process Pumps Online diagnostic systems for reciprocating positive displacement pumps allows detection of incipient damages.	Alf Püttmer
AM-08	New Fiber Optic System Solutions for Highly Available Communication Infrastructures Redundant fibre optic networks provide an excellent medium for industrial plant communication systems.	J. A. Vibora-Münch	AM-19	Designing for Safety - Protection Against the Causes & Consequences of Internal Arc Faults The various protective measures adopted to detect arcs & pressure increases within switchgear will be compared to measures to minimize and contain faults.	M. A. Hilton
AM-09	Use of Wireless Technology in Industrial, Process-Technological Environment In many applications, wireless technology presents itself as an alternative to traditional transmission media.	Frank Hakemeyer	AM-21	Feedback from an ATEX Manufacturer on the Implementation of the New Approach Directives Examples illustrate how the implementation of the numerous ATEX obligations can be far more complex than anticipated.	Jean-Pierre Murez
AM-10	Voltage Control in Large Industrial Sites Having Distributed Generation The flow of reactive power in industrial sites is controlled by both generator and transformers AVR's, devices having very different operational characteristics.	Nick Hiscock	AM-22	Technical Recommendations for VSDS Implementation Within Petrochemical and Oil & Gas Plants The experience of end users and lessons learned provide much of the information needed to develop best practices for implementing VSDS.	Jacques Tastet
AM-11	Experience with Microprocessor Based Relays for Application in Low Tension Switchboards Problems & failures of digital relays, modifications performed and unresolved issues are based on an end-users experience.	K. B. Sahai	AM-26	Efficient Outage Maintenance Practices Reliability-centered maintenance guidelines allow implementation of cost-effective planned maintenance.	Gabe Paoletti
AM-12	Fieldbus or Remote I/O? ... Fieldbus & Remote I/O is the Future Fieldbus and Remote I/O combined will provide the best & most effective solution for the end user	André Fritsch	AM-31	Functional Safety, the Product of Quantity & Quality In order for process control devices to reduce overall risk, the reliability of both the field instruments and the control & measuring systems must be guaranteed.	Gerhard Jung

Ref.	Title	Lead Author
AM-35	IECEX A Global Solution for the Ex Industry A key part of the IECEX scheme is the Certified Service Facilities Programme covering Ex repair and overhaul workshops.	Chris Agius
AM-37	Selection of Explosion Proof Electrical Equipment for Hazardous Areas Misunderstandings & contradictions in the application of the New Approach shows the need for clarification in many areas including marking.	Karel Neleman
AM-38	Extending the Test Intervals of Protection/Safety Equipment with Improved Diagnostic The use of sophisticated diagnostics to detect failures in the field can allow the extension of the test intervals.	Volker Hirsch
AM-39	The Relationships in Product Standardization, Third Party Product Testing and IECEX Certification When manufacturers follow the procedures to obtain IECEX Certification they sometimes face potential conflicts and issues.	Ben Johnson
AM-43	Electrical Trace Heating Installations in Hazardous Areas The second edition of IEC 62086-1 and IEC 62086-2 appearing in 2006 will specify the methods for applying temperature sensors. Description and explanations of relevant configurations showing advantages and disadvantages.	Peter Thurnherr
AM-45	Recent Major Advancements in Hazardous Location Fixture Design In the past few years, major advancements in hazardous location fixture design have been made allowing facilities to take advantage of lighting systems that are more cost effective while enhancing safety.	Marty Cole
AM-46	Maintenance of Electrical Installations According to ATEX Directive 137 The inspection, maintenance, repair and revision of Ex-certified motors is very important at petrochemical plants.	René Ouëndag

Ref.	Title	Lead Author
AM-48	Methods for Planning, Installation, Commissioning, and Diagnosis of Fieldbus Installations The experiences of the first fully operational major production plants in the chemical & pharmaceutical industry show that rethinking of plant wiring concepts can increase the benefits of fieldbus technology	Andreas Hennecke
AM-49	Selection of Low Voltage Motors for Hazardous Areas when Supplied by Frequency Converters The risks & obligations associated with electrical motors operating in hazardous areas and supplied through frequency convertors are not clear.	Jean-Ch. Guilhem
AM-53	Electric Submersible Pump Control Utilizing Adjustable Speed Drives A recent installation in Yemen of electric submersible pump control using adjustable frequency drives demonstrates improved process regulation & data collection.	Harry Groten
AM-58	Which Bus Should We Take? There is a choice between Profibus Remote I/O interfacing sensors & actuators in the field with the DCS & the "real" fieldbus using Profibus PA or Foundation Fieldbus devices	Rainer Hillebrand
AM-60	Evolution of Wiring Systems There is an evolution of wiring systems in the Canadian petrochemical industry from conduit to armoured cables to tray cables & beyond.	Marty Cole



Registration Form

Please submit one form for each participant. For registration use the online form on www.pcic-europe.eu or fax a printed version to +41 61 270 60 05. After registration you will receive an invoice. The registration fee has to be paid upon receipt of invoice. For transaction use the bank data at the bottom of this page.

Fields marked with * are compulsory information

Particulars:

First Name*: _____
Surname*: _____
Acad. Title: _____
Company/Institute: _____
Department: _____
Country: _____
Post Code, City: _____
P.O. Box or Street: _____
Phone: _____
Fax: _____
E-Mail*: _____

Badge Information:

Surname*: _____
First Name*: _____
Acad. Title: _____
Company/Institute: _____

Documentation will be supplied as electronic medium (CD).
If you insist to receive a paperback version please mark box with a cross

Registration fee: € 490.- (before April 30, 2006)
€ 540.- (after April 30, 2006)

After receipt of invoice please pay your registration fee to our account at
UBS AG, CH-4123 Allschwil
Account 0233-736508.60E
IBAN CH17.0023.3233.7365.0860 E
BIC UBSWCHZH80A

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Call for Papers PCIC Europe 2007

4th Petroleum and Chemical Industry Conference Europe – Electrical and instrument Applications

June 13 – 15, 2007 Paris, France

The 4th PCIC-Europe Conference will be organised in Paris, June 13 – 15, 2007. The conference program will include plenary presentations as well as presentations on specific topics in the field of electrical and instrumentation technology. Experts from:

- End users
- Engineering companies and manufacturers
- Regulators and insurance institutions
- The European Commission

are invited to present contributions with the intention to inform about their experience and recent progress. Especially senior engineers can provide helpful information for younger engineers to stimulate the knowledge transfer from generation to generation. New solutions to achieve benefit concerning costs and safety are welcome to be presented.

Call for Papers

Experts in the field of Electrical and Instrumentation Applications in the Petroleum and Chemical Industry are invited to submit their contributions to the 4th Conference PCIC Europe.

Please submit you abstract to the Secretary of the PCIC Europe Committee: terence.hazel@fr.schneider-electric.com before September 22, 2006.

Your abstract should indicate the main ideas of your presentation and should not exceed 1 page (A4 size)

Deadlines

Abstract submission	September 22, 2006
Draft papers	December 15, 2006
Final papers	March 15, 2007
Conference	June 13 – 15, 2007

Contact

Terence Hazel, Schneider Electric, (F)

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Conference Site

Dorint Sofitel Amsterdam Airport
Stationsplein ZW 951
1117 CE Schiphol East

Tel. +31 (0)20-5400777
Fax +31 (0)20-5400700
e-mail H5332@accor.com

Rooms at € 155.-/night (separate registration)

From direction The Hague

- highway A4 direction Amsterdam
- junction Badhoevedorp, A9 direction Amstelveen / Utrecht
- exit Aalsmeer (nr. 6)
- traffic lights turn left (= N232 Schipholweg)
- at the roundabout, traffic lights turn right to direction Schiphol Oost (you will see the 'Amsterdam Forrest' and the Ringvaart canal on the left) first traffic lights turn right (you will see the new Dorint Sofitel Amsterdam Airport on the left hand side)
- you can park your car in the underground parking garage

From direction Utrecht

- highway A2 direction Amsterdam
- junction Holendrecht, A9 direction Amstelveen / Schiphol / Haarlem
- exit Aalsmeer (nr. 6)
- at roundabout take first exit, direction Schiphol Oost (under viaduct)
- at traffic lights / roundabout straight ahead to direction Schiphol Oost (you will see the 'Amsterdam Forrest' and the Ringvaart canal on the left)
- first traffic lights turn right (you will see the new Dorint Sofitel Amsterdam Airport on the left hand side)
- you can park your car in the underground parking garage

From direction Amsterdam

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TELEFAX

BOOKINGS FORM (PCIC070606) PCIC Europe 2006 Conference 7 – 9 June 2006

Twin superior room : € 155.00 per room per night (Single use)
Twin superior room : € 170.00 per room per night (Double use)
Twin Deluxe (Executive Room) : € 180.00 per room per night (Single use)
Twin Deluxe (Executive Room) : € 195.00 per room per night (Double use)

Number of persons per room : 1 person
: 2 persons

Service and V.A.T. : inclusive
City tax 6% : exclusive
Breakfast : inclusive

Name :

First name :

Mr./Mrs. :

Arrival date :

Departure date :

Smoking/non-smoking :

Credit card number :

Expiry date :

Telephone number :

Fax number :

- **NOTE:** Confirmation will be sent to you at the above-listed address.
- **IMPORTANT:** We have only blocked a limited number of rooms.
- Please make your reservation as soon as possible. The deadline for reservations is 25th April 2006
- Written cancellations are accepted until 24 hrs. prior to arrival without any costs.
- Check-in time 15.00 hrs. Check-out time 12.00 hrs.
- The "Uniform Conditions for the Hotel and Catering Industry" apply to all our reservations.

ALL CHANGES AND CANCELLATIONS MUST BE MADE DIRECTLY WITH THE HOTEL VIA
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