

CELEBRATING 25 YEARS OF OMAE CONFERENCES



 **OMAE** 2006  
HAMBURG, GERMANY

The 25th International Conference on  
**OFFSHORE MECHANICS  
and ARCTIC ENGINEERING**

The CCH - Congress Center Hamburg  
Hamburg, Germany  
4 - 9 June 2006



[www.omae2006.com](http://www.omae2006.com)

## Welcome to Hamburg!

### *Hamburg - the City Between the Seas*

Hamburg, the second largest port in Europe, is the cultural and commercial center of Northern Germany. Its inland setting and excellent rail, water and motorway connections make Hamburg an ideal location for container shipping. The harbour is positioned on the Elbe River - a scant 60 miles from the North Sea. Its hustle and bustle and changing tides provide a fascinating sight from the harbour's landing, Landungsbruecken. For more information on Hamburg visit [www.hamburg.de](http://www.hamburg.de).

OMAE 2006 is organized by:

The German Association for Marine Technology  
Ocean, Offshore and Arctic Engineering Division  
International Petroleum Technology Institute



### *Welcome letter from GMT Chairman of the Board*

It is with great pleasure that, on behalf of the German Association for Marine Technology (GMT), I invite you to attend the 25th Offshore Mechanics and Arctic Engineering Conference in Hamburg, Germany. The conference is sponsored by the ASME Ocean, Offshore and Arctic Engineering Division (OOAE), the International Petroleum Technology Institute, and is being hosted by the German Association for Marine Technology.

*Dr. Ingo Bretthauer  
Chairman of the  
Board, GMT*

OMAE 2006 marks the 25th anniversary of the conference and the first conference ever in Germany. Festivities marking this milestone will occur throughout the conference. Conference Chair, Dr. Walter Kuehnlein, and Technical Program Chair, Dan Valentine, PhD have put together a hard working and well-connected group of industry professionals to organize the conference. With more than 500 technical papers submitted and 12 planned symposia and special workshops, OMAE 2006 is expected to be one of the best OMAE conferences ever.

Thank you to the technical program and conference organizing committees for their hard work and dedication in producing what promises to be an outstanding OMAE 2006.

I am looking forward to seeing you all in Hamburg.

Best regards,

Dr. Ingo Bretthauer  
Chairman of the Board  
German Association for Marine Technology (GMT)



### *Welcome letter from the OMAE 2006 Conference Chair*

On behalf of the OMAE 2006 Organizing Committee, it is a pleasure to invite you to Hamburg, Germany for the 25th Offshore Mechanics and Arctic Engineering Conference (OMAE 2006). This year we celebrate 25 years of OMAE conferences — 25 years of sharing information, research and networking.

*Dr. Walter Kuehnlein  
Conference Chair*

OMAE 2006 will showcase the exciting and challenging developments occurring in offshore and arctic engineering today. The education program is very strong with more than 500 technical paper submissions organized into 12 symposia. Program highlights include Offshore Wind Energy, LNG, a special Douglas Faulkner Symposium on Reliability and Ultimate Strength of Marine Structures, and a very timely workshop on The Pendulous Installation Method for Deployment of Heavy Subsea Hardware in Ultra Deepwater. Together with our usual Symposia topics, I believe the OMAE 2006 program will be one of the best ever.

During your visit I hope you take the time to visit Hamburg's many attractions. With 31 theatres, 6 music halls, 10 cabarets, 50 state and private museums, the State Opera, and music clubs on the Reeperbahn, Hamburg has a lot to see and offer! Our Gala Dinner will be onboard a charter yacht cruising through Hamburg harbour's many channels and basins. And following the conference there's an optional day trip to Berlin, Germany's capital city.

I look forward to welcoming you all to Hamburg and the 25th OMAE Conference. See you in Hamburg; until then, my best personal regards,

Walter Kuehnlein  
OMAE 2006 Conference Chair

## Sponsorship & Exhibit Opportunities

With an outstanding program and Hamburg as the setting, we expect this conference to be one of the best-attended OMAE Conferences. The conference will draw together members of the scientific community, researchers, academia and the ocean engineering industry from several parts of the world. Sponsoring and exhibiting at the conference represent a great opportunity to gain valuable exposure to key decision makers in one place over four days. If you are interested in sponsorship or exhibiting at OMAE 2006 please contact Dr. Walter L. Kuehnlein via email at [exhibit@OMAE2006.com](mailto:exhibit@OMAE2006.com) or by phone at +49-40-69 203-240. To view the sponsorship opportunities package log onto [www.omae2006.com](http://www.omae2006.com) and click on the "Sponsorship & Exhibits" link.

## Conference Secretariat, contact:



Sea to Sky Meeting Management Inc.  
Suite 206, 201 Bewicke Avenue  
North Vancouver, BC V7M 3M7, Canada

Office: +1-604-984-6455  
Fax: +1-604-984-6434  
Email: [register@omae2006.com](mailto:register@omae2006.com)

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## IMPORTANT DATES TO REMEMBER:

- 29 March 2006** Submission of Final Paper due
- 12 April 2006** Early Bird Registration ends
- 12 April 2006** Author/Presenter Pre-Registration ends
- 12 April 2006** Last day for Cancellation Refund (less €200 Administration Fee)
- 13 April 2006** Post Early Bird fees apply
- 13 April 2006** No Cancellation Refunds, however substitutions are permitted
- 1 May 2006** Last day to cancel Berlin Tour (refund will be provided, less €20 administration fee)
- 19 May 2006** On-line registration closes & all bank transfers due

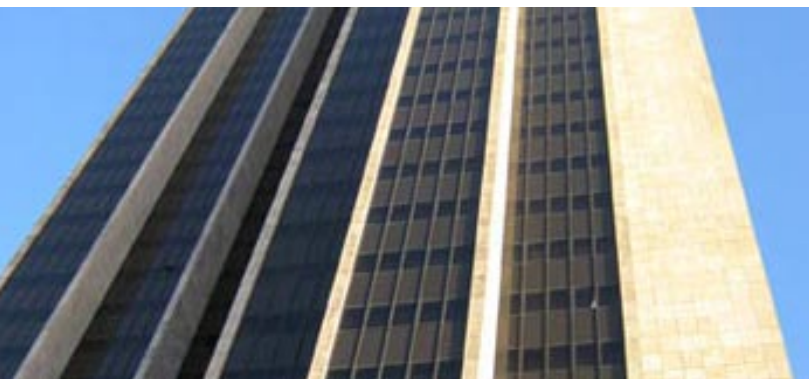


## Conference Venue

The CCH - Congress Center Hamburg is one of Europe's largest and most modern conference centers, and is ranked among the top venues worldwide for international conferences. On average, some 200 conferences and meetings are held at the CCH each year, attended by about 150,000 people. There are also some 200 cultural and social events each year, attended by about 400,000 people. For more information on the CCH visit [www.hamburg-messe.de](http://www.hamburg-messe.de). The CCH is located at Am Dammtor / Marseiller Straße.

## Hotel Information

The conference organizers have arranged a wide range of hotel choices to suit everyone's accommodation needs and budget. Most hotels are within a 10 minute walk of CCH, the conference venue. Please visit the conference web site ([www.OMAE2006.com](http://www.OMAE2006.com)) and click on the "Accommodation" link for more information and to make a reservation.



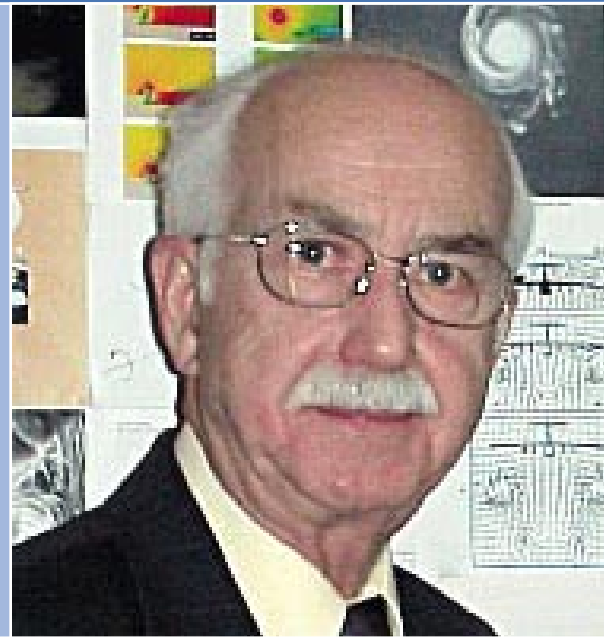


## The 25th International Conference on **OFFSHORE MECHANICS and ARCTIC ENGINEERING** program-at-a-glance

	Sunday 4 June	Monday 5 June	Tuesday 6 June	Wednesday 7 June	Thursday 8 June	Friday 9 June
		Exhibit Hall Open	Exhibit Hall Open	Exhibit Hall Open	Exhibit Hall Open	Optional Berlin Day Tour
		Refreshment Break in Exhibit Hall	Refreshment Break in Exhibit Hall Keynote General Session	Refreshment Break in Exhibit Hall	Refreshment Break in Exhibit Hall	
9:00-10:30		Keynote General Session	Concurrent Sessions	Concurrent Sessions	Concurrent Sessions	
10:30-11:00		Refreshment Break in Exhibit Hall	Refreshment Break in Exhibit Hall	Refreshment Break in Exhibit Hall	Refreshment Break in Exhibit Hall	
11:00-12:30		Keynote General Session continued	Concurrent Sessions	Concurrent Sessions	Concurrent Sessions	
12:30-14:00			<b>Awards Lunch</b>	<b>Lunch</b> (Technical Session Organizers)		
14:00-15:30		Concurrent Sessions	Concurrent Sessions	Concurrent Sessions	Concurrent Sessions	
15:30-16:00		Refreshment Break in Exhibit Hall	Refreshment Break in Exhibit Hall	Refreshment Break in Exhibit Hall	Refreshment Break in Exhibit Hall	
16:00-17:30		Concurrent Sessions	Concurrent Sessions	Concurrent Sessions	Concurrent Sessions	
Evening	<b>Welcome Reception</b>			<b>Final Banquet</b>		

## Professor Turgut 'Sarp' Sarpkaya

*Hydrodynamic Damping: Theoretical, Numerical, and Experimental Facts*



### Hydrodynamic Damping: Theoretical, Numerical and Experimental Facts

By T. Sarpkaya  
Naval Postgraduate School, Monterey, CA 9394

The hydrodynamic loading and damping have long been of special interest to offshore engineers. In fact, the forces exerted on bodies subjected to vortex excited oscillations and to the springing and ringing response of compliant systems require a clear understanding of the flow in the range of Keulegan-Carpenter numbers from about  $K = 10^{-3}$  to 10 and frequency parameters  $\beta (= fD^2/\nu)$  from about 1 to  $10^8$ . There are, at present no known predictions of the drag and inertia forces exerted on slender structures undergoing excitation, save for those at  $K$  values smaller than about 2 and  $\beta$  values smaller than about 1,000 where the classical solution of Stokes (1851) for *unseparated laminar flow* holds true. Furthermore, the  $(K-\beta)$  plane contains many surprises: *acoustic streaming*, Honji instability, dipole tubes, quasi-coherent structures, transition to turbulence, and multiple separations within the separation 'bubble' as shown in figure. In other words, every possible combination of  $K$  and  $\beta$  is of practical as well as theoretical importance and touches all aspects of time-dependent flows. However, the difficulties encountered in separating very small drag forces from the large inertial forces, the extreme difficulties encountered in physical experiments, numerical simulations (with RANS, LES, and DNS), and a physics-based explanation of the doubling of shear (contrary to theoretical predictions) remain as challenging as ever. These facts provided the impetus for a detailed theoretical, numerical, and experimental investigation of the underlying reasons. The limitations of the analyses of Stokes, Schlichting, Lighthill, Stuart, and others, of unseparated 2-D laminar flow and the results of the most recent studies with separated flow about cylinders are critically examined in the light of the existing data.

Professor Turgut 'Sarp' Sarpkaya of the Naval Postgraduate School will deliver the Opening Keynote address on the topic of "Hydrodynamic Damping: Theoretical, Numerical, and Experimental Facts".

### Biography

Professor Sarpkaya is an award winning author, editor, and Distinguished Professor of Mechanical Engineering at the Naval Postgraduate School. Dr. Sarpkaya joined the Naval Postgraduate School in 1967 as Professor and Chairman of Mechanical Engineering and was named Distinguished Professor in 1975. Over the past 45 years Professor Sarpkaya's research has included hydrodynamics involving stability of flows, vortex-shedding in time-dependent flows, vortex breakdown, wave forces on offshore structures, numerical fluid dynamics, discrete vortex methods, trailing vortices of aircraft and submerged bodies, hydroelastic response of flexible structures, vorticity/free-surface interaction, sprays, flow about parachutes, and aircraft-wake vortices. He has conceived and designed some of the most unique research facilities in the world including the first, and largest, oscillating flow tunnel.

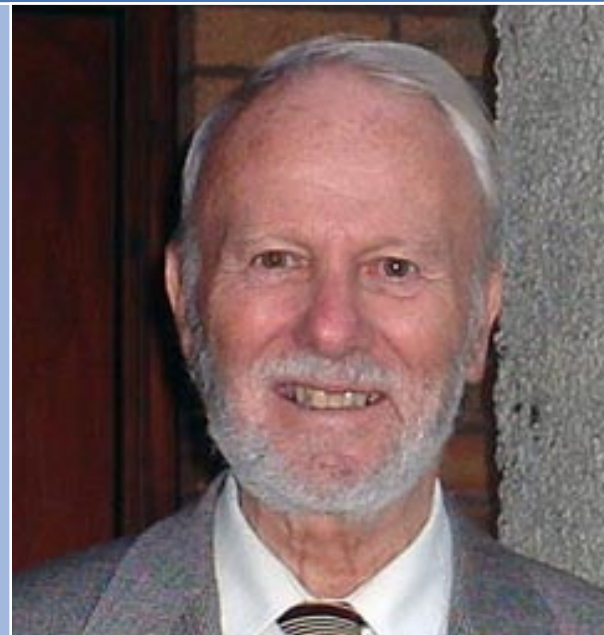
Professor Sarpkaya's most recent research activities deal with vortex/free-surface interactions, time dependent flow about parachutes, motion of submerged bodies in wave environment, internal waves in density stratified medium, the numerical analysis of separated flow about bluff bodies and airfoils through the use of vortex methods, hydrodynamic damping and vortex-induced vibrations.

Over the past 45 years Dr. Sarpkaya has published a book and more than 250 papers and edited several books. He has directed 28 Ph.D.'s and more than 150 MS and Engineer degree theses.



## Professor Douglas Faulkner

*Special Douglas Faulkner Symposium: Reliability and Ultimate Strength of Marine Structures Symposium*



### Special Workshop on the Pendulous Installation Method (PIM) for Deployment of Heavy Subsea Hardware in Ultra Deepwater.

This workshop will review the development towards the feasibility of the PIM (the Pendulous Installation Method) including aspects such as conceptual design, model testing design and realization, numerical modelling, risk analysis, full scale dummy deployment, installation simulation and the construction aspects of a large deepwater manifold installation.



### LNG Speciality Symposium (Tuesday, 6 June)

Offshore LNG still faces many challenges. Many of the concept, transportation, environmental, transfer and other technology challenges will be explored in work-shop style specialty symposium:

- What are the key drivers in the industry from a contracting and operator perspective?
- Which terminal concepts are likely to survive & thrive?
- Will the industry successfully adapt to transportation challenges in harsh, arctic environments as well as the demands for a huge jump in the size of modern LNG carriers?
- How will developments co-exist in environmentally sensitive offshore & coastal regions?
- When will the promise of more robust transfer technology make an impact?

A special symposium will be held in recognition of Douglas Faulkner's work on Reliability and Ultimate Strength of Marine Structures. Mr. Faulkner's distinguished career has taken him from the British Navy to MIT and the University of Glasgow and includes major awards from SNAME, RINA, and degrees Honoris Causa from the Technical Universities of Gdansk and of Lisboa.

Professor Faulkner's academic career began with the British Navy as a naval constructor and designer. His initial activities as an engineer provided him with a good background of structural design of ships and in particular submarines, having been the structural designer of the first nuclear British submarine Dreadnought.

His early contribution to research is characterized by a landmark paper in 1975 on the compressive strength of plated elements, which has been widely used and incorporated in design codes. He also used this as the basis of a design approach for stiffened plates and, later, generalized it for application to the compressive strength of stiffened cylindrical shells. Professor Faulkner also made significant contributions to ship structural reliability assessment in the 1970's, which marks some of the earliest applications of reliability theory to ship structures.

After obtaining a defence fellowship leading to his PhD degree at MIT, he moved to the University of Glasgow in the early 1970's. As Head of the Department of Naval Architecture and Ocean Engineering, he promoted and developed offshore research which, until then, had been mainly concerned with ship structures. This led to major assignments with Conoco and the American Bureau of Shipping pursuing design formulations and reliability based design of stiffened shells using the results of experimental work, theoretical assessments and probabilistic determinations.

Towards the end of his career he was involved in the re-examination of the sinking of the bulk carrier mv Derbyshire. This led to a particular interest in abnormal waves and their consequences, an activity that generated a wider concern and thus further investigations into such events.

During his career, Douglas Faulkner influenced many students and colleagues in the use of methods to which he has contributed and which have been important in various industrial sectors.

# 25 years of OMAE Conferences



OMAE YEAR	LOCATION	CHAIR
1st 1982	 New Orleans, U.S.A.	Jin Chung
2nd 1983	 Houston, U.S.A.	Jin Chung
3rd 1984	 New Orleans, U.S.A.	Jin Chung/Virgil Lunardini
4th 1985	 Dallas, U.S.A.	Jin Chung/Virgil Lunardini
5th 1986	 Tokyo, Japan	Jin Chung/Hisaaki Maeda
6th 1987	 Houston, U.S.A.	Jin Chung
7th 1988	 Houston, U.S.A.	Jin Chung
8th 1989	 The Hague, Netherlands	Jin Chung
9th 1990	 Houston, U.S.A.	Mamdouh Salama
10th 1991	 Stavanger, Norway	Mamdouh Salama/Bjorn Lian
11th 1992	 Calgary, Canada	Mo Mohitpour/Denby Morrison
12th 1993	 Glasgow, U.K.	Goeff Booth, TWI
13th 1994	 Houston, U.S.A.	Jim Brekke
14th 1995	 Copenhagen, Denmark	Christian Aage
15th 1996	 Florence, Italy	Daniela Mercati
16th 1997	 Yokohama, Japan	Hisaaki Maeda/Koichiro Yoshida/Wilfred Nixon
17th 1998	 Lisbon, Portugal	Carlos Guedes Soares
18th 1999	 St. John's, Canada	Stephen Jones
19th 2000	 New Orleans, U.S.A.	Terry Jones
20th 2001	 Rio de Janeiro, Brazil	Segen Estefen/Antonio Fernandes
21st 2002	 Oslo, Norway	Arvid Naess
22nd 2003	 Cancun, Mexico	Oscar Valle Molina
23rd 2004	 Vancouver, Canada	Jon Mikkelsen/Sander Calisal
24th 2005	 Halkidiki, Greece	Mike Bernitsas/Spyros Mavrakos
25th 2006	 Hamburg, Germany	Walter Kuenhlein
26th 2007	 San Diego, U.S.A.	John Halkyard
27th 2008	 Estoril, Portugal	Carlos Guedes Soares
28th 2009	 Honolulu, U.S.A.	Cengiz Ertekin/Ron Riggs
29th 2010	 Shanghai, China	

The Technical Committee of OMAE 2006 has worked diligently to develop an informative program.

Through Keynote addresses, special symposia, plenary sessions and concurrent sessions you will be able to meet and discuss new and advanced technology developments and their applications.

The conference organizers are confident that this flow of information will promote international cooperation,

development and an exchange of information regarding marine and offshore engineering, deep-water platforms and drilling, offshore and Arctic pipelines, safety applications and other related emerging technologies.

OMAE 2006 is the place for managers, researchers, engineers, and technicians to create the future in this growing and diverse industry.



## Symposium 1: Offshore Technology

- Floating Systems
- FPSO Systems
- FPSO and Tanker
- Riser Dynamics
- Spar and TLP Platforms
- Mooring Structures and Systems
- Offshore Developments
- Fixed Offshore Platforms
- Offshore Structure Mechanics
- Offshore LNG Terminals
- Hydrodynamics
- Environmental Loading & Response

## Symposium 2: Safety and Reliability

- Spectral and Probabilistic Models of Waves
- Probabilistic Models of Motions and Loads
- Reliability of Offshore Structures
- Fatigue and Corrosion Inspection Planning
- Risk Analysis

## Symposium 3: Materials Technology

- Material Performance & Application
- Fabrication
- Integrity Assessment
- Design
- Corrosion Control

## Symposium 4: Terry Jones Pipeline Technology

- Design and Analysis
- Mechanical Behavior of Pipelines
- Inspection
- On-Bottom Behavior
- Installation
- Flexible Pipes

## Symposium 5: Ocean Space Utilization

- CO2 Ocean Sequestration
- Very Large Floating Structure
- Coastal Management

## Symposium 6: Ocean Engineering

- Wave Mechanics and Wave Effects
- Marine Vehicles and Structures
- Renewable Energy
- Towed and Undersea Cables and Pipes, Mooring, and Buoy Technology
- Underwater Technology

## Symposium 6: Ocean Engineering *Continued*

- Geotechnology, Foundation Engineering, and Marine Mining
- Coastal Engineering
- Aquacultural Engineering
- Instrumentation, Measurement and Satellite Observations
- Model Tests
- Marine Environmental Engineering
- Computational Mechanics and Design Applications

## Symposium 7: Polar and Arctic Sciences and Technology

- Ice Loads on Structures
- Vessels and Propellers in Ice
- Antarctic Station Neumayer
- Ice Protection - Ice Induced Vibrations - Flexural Gravity Waves
- Model Tests and Determination of Sea Ice Parameters
- Pipelines and Oils spill Recovery in Ice Covered Waters

## Symposium 8: CFD and VIV Symposium

- Numerical Methods
- Vessel Motions & Loads
- Waves & Free Surface Flows
- Cylinder Flows
- Risers
- Applications

## Symposium 9: Offshore Wind Energy

- Design Issues Associated with Offshore Wind Energy

## Symposium 10: Ocean Research Technology

- Ocean Observing
- New Technologies
- Autonomous Systems

## Symposium 11: Douglas Faulkner Symposium on Reliability and Ultimate Strength of Marine Structures

- Structural Reliability
- Ultimate Strength
- Design for Abnormal Waves

## Symposium 12: Workshop on The Pendulous Installation Method (PIM) for Deployment of Heavy Subsea Hardware in Ultra Deepwater

- See page 6 for Symposium description

## Symposium 13: LNG Specialty Symposium

- See page 6 for Symposium description

## Accompanying Persons Program

There is so much to see and do at OMAE 2006. Included in the Accompanying Persons registration is admission to the Welcome Reception, two lunches and the incredible Final Banquet, a dinner cruise exploring the sights and sounds of Hamburg Harbour! Start the conference off by joining the other accompanying persons for a Hamburg City Tour. What a great way to discover Hamburg and the tour is included in your registration fee! The fee for each Accompanying Person is €180 (before April 13) and €240 (after April 12). To register please visit the OMAE web site ([www.omae2006.com](http://www.omae2006.com)) and click on the "Registration" link.

## Welcome Reception

Welcome to OMAE 2006. Join your colleagues for a drink and a chance to see old and new friends at the Welcome Reception. A great way to start off the conference!



## Final Banquet

Climb aboard our charter yacht for a unique Hamburg dining experience! You'll have unparalleled views of the city skyline as we explore the harbour of Hamburg. We'll sail past the different harbour basins to give you a close-up view of the massive container ships and discover the many channels, canals and shipyards in the harbour. As we cruise through the harbour a delicious dinner will be served on board. Treat yourself to one of Hamburg's favourite dining experiences; it's like dining in all of Hamburg's finest waterfront restaurants in one evening!

## Awards Luncheon

Celebrate 25 years of OMAE conferences as we recognize some of our colleagues from the past and present that have been instrumental in establishing a tradition of great conferences. And what a fitting occasion at which to do so; as we also present this year's awards during the lunch.

## 2006 World Cup Soccer

Germany will be hosting the 2006 World Cup (9 June - 9 July), which will be the largest ever with 36 teams instead of the traditional 32. The 36 teams will represent more than one-sixth of the world's teams (over 200 are affiliated with FIFA). Hamburg will be one of the host cities for the World Cup. The first game in Hamburg will be held at June 10th. Unfortunately, the conference organizers are unable to source tickets to the World Cup. For information on World Cup tickets please visit the FIFA website at <http://fifaworldcup.yahoo.com/>. Packages and tickets to the World Cup can be purchased through Roadtrips ([www.roadtrips.com](http://www.roadtrips.com)).



# Optional Berlin Day Tour



## Berlin - The Rejuvenated German Capital

East and West, Prussian splendour, the grand boulevards and the cosy Barn District – Berlin is the most fascinating melting pot in Western Europe. Today you'll visit the Reichstag with its famous glass dome, the Museum Island, the new Holocaust Memorial and the rejuvenated Potsdamer Platz. See the famous Brandenburg Gate and the boulevard Unter den Linden, Berlin's magnificent boulevard and the centrepiece of the Old Berlin. Your fee includes lunch at a restaurant in the Barn district, coach transportation around Berlin, and transfers to and from Hamburg to Berlin by coach. The fee for the Berlin City Tour is €89 To register for the Berlin Day Tour please visit the OMAE web site ([www.oma2006.com](http://www.oma2006.com)) and click on the "Registration" link.

### BERLIN DAY TOUR ITINERARY

#### 1. Depart Hamburg and Arrive in Berlin by Coach

- Bus departs from Dammtor Station (Hamburg) at 07:30 AM and arrives at Reichstag (Berlin) at 10:30 AM

#### 2. Visit the Brandenburg Gate and Pariser Platz – The Heart of Berlin.

On the very spot where the wall used to be, a thriving and exciting neighbourhood is developing with a unique mixture of official buildings (including the French and British embassies), hotels and the famous Holocaust Memorial.

#### 3. Visit the Holocaust Memorial

Designed by U.S. architect Peter Eisenman, the memorial consists of 2,711 gray gravestone-like slabs of varying height that form a tight grid pattern through which visitors can wander. It sits on a vast plot of land between the Brandenburg Gate and the buried remains of Adolf Hitler's bunker.

#### 4. Walk to the Reichstag

The Reichstag, now the seat of Germany's Parliament, has become a symbol of the unified Germany. From the glass dome, you can enjoy spectacular views over the centre of Berlin; a mixture of modern buildings, Neo-Gothic church towers, domes, and the famous East German TV Tower.

#### 5. Coach transfer to the Potsdamer Platz and the Cultural Forum

In the 1920s and 30s the Potsdamer platz was the busiest and one of the liveliest squares in Europe. Left to ruins by Allied bombing it became a no-man's land, completely flattened with the construction of the wall in 1961. Redevelopment has brought new life to the Potsdamer Platz and the area is set to gradually regain its former status as one of the liveliest squares in Europe. The Cultural Forum is home to a number of prestigious cultural institutions such as the New National Gallery and the Philharmonic Orchestra.

#### 6. A short walk through the Sony Centre

The modern architecture of Helmut Jahn's Sony European headquarters has become a landmark in Berlin with its huge fibre-glass elliptical roof.

#### 7. Coach Tour of the boulevard Unter den Linden - The Aristocratic district of Berlin

We will start at the Brandenburg Gate and end at the Castle Bridge in front of the Museum Island. "Unter den Linden" looks like a royal avenue lined with palaces, embassies, museums, hotels, Opera houses, cafés and restaurants, and the famous Humboldt University.

#### 8. Lunch in the Barn District - one of the hippest areas of Berlin

#### 9. Walk through the Barn District - the Revived Old Heart of Berlin.

The Barn District has become a trendy part of Berlin with galleries, eclectic restaurants, hip cafés and specialized shops. We will explore hidden court yards and discover some fascinating buildings which date back to the 17th and 18th centuries. The buildings have been masterly renovated after being badly damaged during World War II and neglected during communist times.

#### 10. Coach transfer to Gendarmenmarkt

A unique Architectural Monument – in the historic district of Berlin

#### 11. Free Time in Berlin as of approximately 4:00 PM

#### 12. Depart Berlin and return to Hamburg by coach

- Bus departs from Gendarmenmarkt (Berlin) at 09:00 PM and arrives at Dammtor Station (Hamburg) at 11:50 PM

# Registration Information

## Registration Information

All participants, including speakers, sponsors, exhibitors and committee members, must register for the OMAE 2006 Conference. Register on line at [www.omae2006.com](http://www.omae2006.com). If you prefer not to use the on line registration system, please print out a registration form from the website and fax it to +1-604-984-6434 or mail to Sea to Sky Meeting Management Inc. Suite 206, 201 Bewicke Avenue. North Vancouver, BC V7M 3M7, Canada. Alternatively, phone +1-604-984-6448 or email [register@OMAE2006.com](mailto:register@OMAE2006.com) to request a form.

## Author/Presenter Registration Requirements

In order to have your paper published in the proceedings; authors must register and pay by 12 April. One author is allowed to present up to two papers at the conference.

## Registration Contact Information

The conference registration form, payment and all enquiries must be sent to the conference secretariat: Sea to Sky Meeting Management Inc. See above for contact details.

## Registration Fees

Registration fees are quoted in Euros. Fees quoted in other currencies are a guide only.

## Methods of Payment:

### Credit Card Visa and MasterCard

If paying by credit card please note the name "Sea to Sky Meeting Management Inc." will appear as the vendor on your credit card statement. Registrations submitted online will be accepted and processed only with a valid credit card number.

### Cheque or Money Order

All cheques and money orders are payable in Euros, drawn from a Euro bank account. All cheques, money orders or bank transfers are payable to: Sea to Sky Meeting Management Inc.

### Bank Transfers

Bank Transfers must be received prior to 19 May 2006.

**Bank Name:**  
Raiffeisenbank Roth-Schwabach e.G.

**Bank Address:**  
Kugelbuehlstr 19-21, 91154 Roth,  
Germany

**Account Number:** 1808338

**Account Name:**  
Sea to Sky Meeting Management Inc.

**BLZ (Bank Number):** 76460015

**IBAN:**  
DE74 7646 0015 0001 8083 38

**BIC:** GEN0DEF1SWR

	European Funds		Guide Only*					
			US Funds		Japanese Funds		Canadian Funds	
	Early Bird (12 April)	Post Bird (13 April)	Early Bird (12 April)	Post Bird (13 April)	Early Bird (12 April)	Post Bird (13 April)	Early Bird (12 April)	Post Bird (13 April)
<b>Member</b>	€900	€1,025	\$1,098	\$1,250	¥128,571	¥146,429	\$1,268	\$1,444
<b>Non-Member</b>	€1,100	€1,225	\$1,342	\$1,494	¥157,143	¥175,000	\$1,549	\$1,725
<b>Early Bird Junior</b> <small>(less than 3 years as an engineer)</small>	€600	€600	\$732	\$732	¥85,714	¥85,714	\$845	\$845
<b>One Day</b>	€350	€425	\$427	\$518	¥50,000	¥60,714	\$493	\$599
<b>Two Days</b>	€600	€675	\$732	\$823	¥85,714	¥96,429	\$845	\$951
<b>Accompanying Person</b>	€180	€240	\$220	\$293	¥25,714	¥34,286	\$254	\$338
<b>Student Full</b>	€250	€280	\$305	\$342	¥35,714	¥40,000	\$352	\$394
<b>Student Partial</b>	€60	€80	\$73	\$98	¥8,571	¥11,429	\$85	\$113
<b>Additional Welcome Reception Tables</b>	€20	€20	\$25	\$25	¥2,860	¥2,860	\$28	\$28
<b>Additional Tuesday or Wednesday Lunch Ticket</b>	€35	€35	\$43	\$43	¥5,000	¥5,000	\$50	\$50
<b>Additional Final Banquet Tickets</b>	€80	€80	\$98	\$98	¥11,500	¥11,500	\$113	\$113

Foreign currency rates fluctuate regularly. The conversion rates used above (1 US Dollar = .82 Euros; 1 Japanese Yen = .007 Euros; 1 Canadian Dollar = .71 Euros) serve as a guide only.

\* The registration fee for Junior engineers is the same during the early bird and post early bird registration.

\* The Early Bird registration fees are valid only if registration form and full payment are received by 12 April 2006. Pre-registrants who pay their registration fee after this date will be charged the Post Early Bird rate.

## What is Included:

### Member/Non-member/Student Full Rate includes:

- Admission to all conference sessions
- Admission to the exhibition
- Final program and CD of proceedings
- Daily refreshment breaks
- Two lunches, welcome reception and final banquet

### Student Partial Rate includes:

- Admission to all conference sessions
- Admission to the exhibition
- CD of proceedings
- Daily refreshment breaks

**Member Rate** is applicable to a member of ASME or any of the OMAE conference co-sponsoring organizations. A list of co-sponsoring organizations can be found at the back of this brochure.

### One and Two Day Rates include:

- Admittance to conference sessions and exhibition on the specified date(s)
- Conference bag with final program and CD of proceedings
- Food and beverage served by the conference on the specified date(s), excluding the final banquet.

### Junior Rate

- Junior Rate is applicable to engineers who graduated in the last 3 years and who is a member of ASME or any of the OMAE conference co-sponsoring organizations. Documentation of graduation date (on education institution's letterhead) is required.
- Junior Rate includes all benefits listed under Member/Non-member/Student Full Rate EXCEPT for admission to the Final banquet, which can be purchased as an additional ticket.
- Please note that junior engineers are allowed to register at the junior rate only once. Delegates who register at the junior rate this year are not eligible to register for the junior rate in future OMAE conferences.

**Student Rates** are applicable to a registered student in the field of Offshore, Ocean and Arctic Engineering who is a member of ASME or any of the OMAE conference co-sponsoring organizations. Student identification and membership number are required to qualify for the rate. Authors or presenters do not qualify for the student rate.

### Accompanying Person's Rate includes:

- Two lunches, welcome reception and final banquet
  - Hamburg City tour
- Accompanying Person's Rate is applicable to person(s) accompanying a registered conference attendee and who is not working in the field of Offshore Mining and Arctic Engineering.



## International Conference Committee

Walter L. Kuehnlein, HSVA  
Daniel Valentine, Clarkson University  
John Halykard, Technip USA, Inc.  
Denby Morrison, OOA Representative  
Lisa Elliott, IPTI  
Sarah Lewis, Sea to Sky Meeting Management Inc.

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## OMAE 2006 Co-sponsoring Organizations

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Canadian Association of Petroleum Producers (CAPP)  
Canadian Society of Mechanical Engineers (CSME)  
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