Technical Program
Invited and Peer-reviewed Papers

Underwater Research in Asia
Underwater Vehicle &
Control

Ship Control
Hydrodynamics &
Control

Organized by:
Symposium Organizing Committee
Local Organizing Committee

Sponsored by:
International Society of Offshore and Polar Engineers (ISOPE)
with cooperating organizations:
Korea Research Inst of Ships and Ocean Engineering (KRISO)
Korea Committee for Ocean Resources and Engineering (KCORE)

ISOPE PACOMS-2002 secretariat
KRISO, 171 Jang-dong, Yusong-gu, Daejeon 305–600, Korea
Tel: +82-42-868-7520; Fax: +82-42-868-7519
Welcome to ISOPE PACOMS-2002

We greatly appreciate the excellent responses and help we have received from colleagues around the world in the successful organization of the 5th ISOPE Pacific/Asia Offshore Mechanics Symposium (ISOPE PACOMS-2002), Daejeon, November 17-20, 2002. The symposium features 9 sessions of peer-reviewed papers and invited papers from Pacific Rim countries. This year’s focus is on control technologies in ocean engineering.

The purposes of the ISOPE conference are to:
• promote technological progress and activities, international technological transfer and cooperation, and opportunities for engineers to maintain and improve technical competence; and
• provide a timely international forum for technical activities, cooperation, opportunity and fellowship among researchers and engineers,
by developing focused session topics with peer-reviewed papers accepted through rigorous review, establishing high international standards for publication and worldwide distribution and promoting regional cooperation among the Pacific/Asian countries.

The International Society of Offshore and Polar Engineers (ISOPE) has already held 24 successful international meetings:
• The 1st (1990) ISOPE European Offshore Mechanics Symposium (ISOPE EUROMS−90) held in Trondheim.
• The 1st (1990) ISOPE Pacific/Asia Offshore Mechanics Symposium (ISOPE PACOMS−90) held in Seoul.
• The 1st (1995) ISOPE Ocean Mining Symposium (ISOPE OMS−95) held in Tsukuba.
• The 1st (1996) ISOPE International Deep-Ocean Technology Symposium and Workshop (IDOT−96) held in Los Angeles.
• The Annual ISOPE Conference, starting in Edinburgh, 1991 has been held in San Francisco, Singapore, Osaka, The Hague, Los Angeles, Honolulu, Montréal, Brest, Seattle, Stavanger and Kitakyushu. Since 1992, the annual ISOPE Conference has been held with the world’s largest technical program of its kind with refereed papers.

On behalf of PACOMS Executive Committee, Symposium Organizing Committee and Local Organizing Committee, it is our pleasure to welcome participants to the ISOPE PACOMS-2002 Symposium in Daejeon.

Jin S. Chung, PACOMS Executive Committee and Symposium Organizing Committee

and

Seung-Il Yang, Local Organizing Committee
SUNDAY November 17

18:00
ISOPE PACOMS-2002 EC, SOC and LOC Meeting

MONDAY November 18

09:00-13:30
SYMPOSIUM REGISTRATION
Crystal Ballroom Room Lobby
10:30 – 13:00
PACOMS EC MEETING
Topaz

13:30 – 13:50
SYMPOSIUM OPENING
Crystal Ballroom
Opening Address: KORDI President
Welcome Address: Symposium Chair, KCORE President

14:00
1. REVIEW OF UNDERWATER RESEARCH IN ASIA
Crystal Ballroom

16:20
2. UNDERWATER VEHICLE AND CONTROL I: SYSTEM DESIGN
Crystal Ballroom

18:30-20:30
KRISO RECEPTION
Sapphire Ballroom

TUESDAY November 19

09:00
3. HYDRODYNAMICS AND CONTROL
Crystal Ballroom

10:30
4. UNDERWATER VEHICLE AND CONTROL II: POSITIONING & NAVIGATION
Crystal Ballroom

12:30
Group Lunch

13:30
5. SHIP CONTROL I
Crystal Ballroom

15:30
6. UNDERWATER VEHICLE AND CONTROL III: SEA FLOOR VEHICLES
Crystal Ballroom

19:00-21:00
SYMPOSIUM BANQUET
Sapphire Ballroom
09:00
7. SHIP CONTROL II Crystal Ballroom

11:00
8. UNDERWATER VEHICLE AND CONTROL IV: MOTION CONTROL (1) Crystal Ballroom

12:30
Group Lunch

14:00
9. UNDERWATER VEHICLE AND CONTROL V: MOTION CONTROL (2) Crystal Ballroom

15:30-17:00
SYMPOSIUM TOUR: KRISO Facilities

**WEDNESDAY NOVEMBER 20**

*Sponsored by:*
International Society of Offshore and Polar Engineers (ISOPE)
Korea Committee for Ocean Resources and Engineering (KCORE)
Korea Research Inst. of Ships and Ocean Engineering (KRISO), KORDI, Korea

*Cooperated by:*
The Society of Naval Architects of Korea (SNAK)
The Institute of Control Automation and Systems Engineers (ICASE), Korea

*Hosted by:*
Korea Research Inst. of Ships and Ocean Engineering (KRISO), KORDI, Korea

*Secretariat:*
Dr. Seok Won Hong, KRISO, Daejeon, Korea

*Conference Chairman*
Dr. Seung-Il Yang, KRISO, Daejeon, Korea

*Symposium Organizing Committee (SOC)*
Prof. Jin S. Chung (Chair), ISOPE, Cupertino, CA, USA
Prof. A.T. Bekker, Far Eastern State Tech University, Vladivostok, Russia
Dr. Lien-Kwei Chien, National Taiwan Ocean University, Taiwan, China
Dr. Sing Ping Chiew, Nanyang Technological University, Singapore
Prof. P. Grundy, Monash University, Clayton, Australia
Prof. M. Isaacson, University of British Columbia, Vancouver, BC, Canada
Prof. Wataru Koterayama, RIAM, Kyushu University, Kasuga, Japan
Prof. Shigeru Naito, Osaka University, Osaka, Japan
Dr. Mae L. Seto, Defence Research Est. Atlantic, Dartmouth, NS, Canada
Dr. S. Soemantri, Bandung Institute of Technology, Bandung, Indonesia

Local Organizing Committee (LOC)
Dr. Seung-Il Yang (Chair), KRISO, Daejeon, Korea
Dr. Seok Won Hong (Secretariat), KRISO, Daejeon, Korea
Prof. Hang S. Choi, Seoul National University, Korea
Dr. Sup Hong, KRISO, Daejeon, Korea
Prof. S.H. Kwon, Pusan National University, Korea
Prof. Jun-Ho Oh, KAIST, Daejeon
Dr. In-Kyu Park, Hyundai Heavy Industries Ltd., Korea
Prof. Joono Sur, Naval Academy, Chinhae, Korea

ISOPE Board of Directors
Hang S. Choi (Korea), A. Francescutto (Italy), A.M. Gresnigt (The Netherlands), R.H. Knapp (USA), W. Koterayama (Japan), and M. Sayed (Canada)

ISOPE President
Prof. Ivar Langen (2002-2003), Stavanger University College, Norway

PACOMS Executive Committee
Prof. A.T. Bekker, Far Eastern State Technical University, Vladivostok, Russia
Prof. Jin S. Chung (Chair), ISOPE, Cupertino, CA, USA
Dr. Sing Ping Chiew, Nanyang Technological University, Singapore
Prof. P. Grundy, Monash University, Clayton, Australia
Dr. Seok Won Hong, KRISO, Daejeon, Korea
Prof. M. Isaacson, University of British Columbia, Vancouver, BC, Canada
Prof. Wataru Koterayama, RIAM, Kyushu University, Kasuga, Japan
Prof. Yu-Cheng Li, Dalian University of Technology, Dalian, China
Prof. Shigeru Naito, Osaka University, Osaka, Japan
Dr. S. Soemantri, Bandung Institute of Technology, Bandung, Indonesia
TECHNICAL PROGRAM

Opening Address
Monday 13:30 Crystal Ballroom
Dr. Sang-Kyung Byun, President of KORDI
Introduced by Prof. Hang S. Choi, Seoul National University

Welcome Addresses
Monday 13:40 Crystal Ballroom
Dr. Seung-Il Yang, Symposium Chair
Prof. Ro-Shik Park President of KCORE
Introduced by Dr. Seok Won Hong, Secretariat of PACOMS-2002

1. REVIEW OF UNDERWATER RESEARCH IN ASIA
Monday 14:00 Crystal Ballroom
Chair: Jin S. Chung, ISOPE, USA
Co-chair: Seok Won Hong, KRISO, Korea

Recent Research and Development Trend on the Underwater Vehicle in JAMSTEC
Tadahiro Hyakudome, Taro Aoki, Takashi Murashima, Satoshi Tsukioka, Hiroshi Yoshida, Hidehiko Nakajoh, Tadahiko Ida & Shoujiro Ishibashi, Japan Marine Science and Technology Center, Japan

Review of Research and Development of Undersea Technology in Taiwan
Lien-Kwei Chien, National Taiwan Ocean University; Forng-Chen Chiu, National Taiwan University; Jin-Yuan Liu, National Sun Yat-sen University; Sheng-Chung Lo, Industrial Technology Research Institute, Taiwan, China

Underwater Vehicles and Buoy Systems Developed for Ocean Observations in RIAM, Kyushu University
Wataru Koterayama, Masahiko Nakamura and Satoru Yamaguchi, Research Institute for Applied Mechanics, Kyushu University, Japan

Recent Research Activities of Underwater Vehicles in Korea
Seok Won Hong, Seung-Il Yang and Pan-Mook Lee; Korea Research Inst. of Ships and Ocean Engineering, KORDI; Hang S. Choi, Seoul National University, Korea
2. UNDERWATER VEHICLE AND CONTROL I: SYSTEM DESIGN

Monday 16:20 Crystal Ballroom
Chair: Yoshiho Ikeda, Osaka Prefecture University, Japan
Co-chair: Sup Hong, KRISO, Korea

Will ROV-AUV Hybrids Be the Next Generation of Work Vehicles?
James R. McFarlane, International Submarine Engineering Ltd., Canada

Underwater Vehicle "Diving Beetle"
Masahiko Nakamura and Hiroyuki Kajiwara, Kyushu University;
Hiroyuki Oda, Akishima Laboratories, Mitsui Zosen;
Takehiro Yoneyama, Kyushu University, Japan

A Study on Shape Optimization for an Underwater Vehicle Based on Numerical Simulation
Satoru Yamaguchi, Takeo Kawanami and Wataru Koterayama, Research Institute for Applied Mechanics, Kyushu University, Japan

18:30-20:30
SYMPOSIUM RECEPTION Sapphire Ballroom

3. HYDRODYNAMICS AND CONTROL

Tuesday 9:00 Crystal Ballroom
Chair: Shigeru Naito, Osaka University, Japan
Co-chair: S.H. Kwon, Pusan National University, Korea

Computations of Hydrodynamic Forces on a Slender Ship
Edmond Y.M. Lo, Ze Xuan Zhou and Soon Keat Tan, Nanyang Technological University, Singapore

Analysis of Wave Overtopping on a Deck by 2D Mexican Hat Wavelet Transform
S.H. Kwon, H.S. Lee and D.J. Jung, Pusan National University, Korea

A Numerical Analysis of Violent Free Surface Flow by Particle Method
Shigeru Naito and Makoto Sueyoshi, Osaka University, Japan

Autonomous Control System of an Induction Generator for Wave Energy Device
Bong-Hwan Jeon, Seok-Won Hong and Yong-Kon Lim, Korea Research Inst. of Ships and Ocean Engineering, KORDI, Korea
4. UNDERWATER VEHICLE AND CONTROL II: POSITIONING & NAVIGATION

Tuesday 10:30 Crystal Ballroom
Chair: Jun-Ho Oh, KAIST, Korea
Co-chair: Ning Yang Changsha Research Institute of Mining & Metallurgy, China

Visual Inspection of Underwater Structures by Autonomous Underwater Vehicles based on Positioning using Artificial Objects on Them
Son-Cheol Yu and Tamaki Ura, University of Tokyo, Japan

Building a Virtual Reality Navigation System for Remotely Operated Vehicle
Shiahn-wern Shyue and Chia-Huey Hong, National Sun Yat-sen University, Taiwan, China

A Projection-Based Observer for SAUV Navigation
Joono Sur, Korea Naval Academy, Korea

Navigation-piloting Sensor Fault Diagnosis in Autonomous Underwater Vehicles
Anton M. Pisarets and Alexey N. Zhirabok, Far Eastern State Technical University, Russia

5. SHIP CONTROL 1

Tuesday 13:30 Crystal Ballroom
Chair: K.P. Rhee, Seoul National Univ., Korea
Co-chair: Anton M. Pisarets, Far Eastern State Technical Univ., Russia

Dynamic Positioning for Shuttle Tankers
Hang S. Choi, Seoul National University, Korea

Bow-wing Control on Thrust Generation
Shigeru Naito, Yu-Isuke Kita and Ryusuke Takada, Osaka University, Japan

A Study on Longitudinal Control System for Fully-submerged Hydrofoil based on Optimal Preview Servo System
Sang Hyun Kim, Korea Research Inst. of Ships & Ocean Engineering, KORDI, Korea; Hiroyuki Yamato, University of Tokyo, Japan

An Automatic Control System for Ship Maneuvering Motion, with Decoupling
Seiji Iwamoto, Kyushu University, Japan

Experimental Study on Performance Evaluation of Fin-Stabilizer
Su Young Hong and Hyun-Joe Kim, Korea Research Inst. of Ships & Ocean Engineering, KORDI; Young-Kyun Shin and Byeong-Seok Yu, Hanjin Heavy Industries & Construction Co. Ltd, Korea
6. UNDERWATER VEHICLE AND CONTROL III: 
SEA FLOOR VEHICLES
Tuesday 15:30 Crystal Ballroom
Chair: Lien-Kwei Chien, National Taiwan Ocean University, Taiwan, China
Co-chair: Hiroyuki Kajiwara, Kyushu University, Japan

Development of Controlling System of Deep Sea Miner
Dewen Gong, Ning Yang and Mengdi Yu, Changsha Research Institute of Mining & Metallurgy, China

An Adaptive Control for Multiple Unmanned Underwater Crawling Vehicles
Kwang Hwa Lee, Navy Naval Surface Warfare Center, Dahlgren Division, USA

Kinematic Simulation of COMRA’s Self-propelled Vehicle of Deep Ocean Mining System
Li Li and Shaojun Liu, Central South University, China

Automatic Control of Hydraulic Lifting System
Weisheng Zou, Changsha Research Institute of Mining & Metallurgy, China

Transient Dynamic Analysis of Tracked Vehicle on Extremely Soft Cohesive Soil
Sup Hong, Hyung-Woo Kim and Jong-Su Choi, Korea Research Inst. of Ships & Ocean Engineering, KORDI, Korea

19:00-21:00
SYMPOSIUM BANQUET Sapphire Ballroom

7. SHIP CONTROL II
Wednesday 09:00 Crystal Ballroom
Chair: Hang S. Choi, Seoul National University, Korea
Co-chair: Satoshi Uea, JAMSTEC, Japan

Analysis on DP Performance of a Shuttle Tanker with Various Analysis Methods
Hyun-joe Kim and Sa-Young Hong, Korea Research Inst. of Ships & Ocean Engineering, KORDI; Woo-Joon Yoo & Sam-Kwon Hong, Samsung Heavy Industries Co. Ltd, Korea

Operation of the Hybrid Anti-Rolling System on Board the R/V
MIRAI — Consideration of the System Performance
Satoshi Ueda, Satoshi Tsukioka and Hiroyasu Momma, Japan Marine Science and Technology Center, Japan

Disturbance Accommodating Controller for the Roll Motion of a Ship in a Irregular Seaways
Sungkoon Kim and K. P. Rhee, Seoul National University; Sangnnoo Lee, Dongyang University, Korea

Development of Passive and Active Anti-Rolling Tanks
Jae-Moon Lew, Chungnam National University; Hyochul Kim and Bong-Jun Choi, Seoul National University, Korea

8. UNDERWATER VEHICLE AND CONTROL IV: MOTION CONTROL (1)
Wednesday 11:00 Crystal Ballroom
Chair: Kwang Hwa Lee, Naval Surface Warfare Center, Dahlgren Division, USA
Co-chair: Pan M. Lee, KRISO, Korea

Gain-Scheduled Control of Underwater Vehicle Using Quasi-LPV Techniques
Rui Gao, Hiroyuki Kajiwara, Eiji Kondo, Wataru Koterayama and Masahiko Nakamura, Kyushu University, Japan

The Sliding Mode Controller for a Test Bed AUV-SNUUV I
Kihun Kim, Joonyoung Kim, Hang S. Choi, Kyu-Yeul Lee and Woojae Seong, Seoul National University, Korea

Development of Collision Avoidance Algorithm Using Fuzzy Inference
Katsuro Kijima and Yoshitaka Furukawa, Kyushu University, Japan

9. UNDERWATER VEHICLE AND CONTROL V: MOTION CONTROL (2)
Wednesday 14:00 Crystal Ballroom
Chair: Wataru Koterayama, RIAM, Kyushu University, Japan
Co-chair: Joono Sur, Korea Naval Academy, Korea

An Experimental and Numerical Study on a Dynamics of a Flexible Free Hanging Riser
Y. P. Hong, M. Nakamura and Wataru Koterayama, Kyushu University, Japan

Homing and Docking Control of AUV Using Model Predictive Control
Myung-Hwan Oh and Jun-Ho Oh, Korea Advanced Institute of Science and Technology, Korea
Kinematic Singularity Avoidance for Autonomous Manipulation in Underwater

Jinhyun Kim, POSTEC, Korea; Giacomo Marani, Univ. of Hawaii, USA, Korea; Wan Kyun Chung, POSTEC, Korea; Junku Yuh, Univ. of Hawaii, USA

GENERAL INFORMATION

PLACE AND DATE: Daejeon, Korea; November 17-20, 2002

All ISOPE-PACOMS2002 Symposium Events and Registration, except Symposium Tour will take place at:

Lotte Hotel Daejeon
382, Doryong-Dong, Yusung-Gu, Daejeon, Korea
Tel: +82-42-865-7000, Fax: +82-42-862-0059

The KRISO Reception and Symposium Banquet will be held at Sapphire Ballroom of the Venue Hotel.

PARKING: Free parking.

LANGUAGE
The language for the conference is English. No translation service will be arranged.

AIR TRAVEL
Most major airlines fly from all major cities around the world to Incheon (Seoul) International Airport. The participants should plan early and ask their local travel agents to obtain the most favorable flight ticket prices. Early bookings may offer lower fares.

CURRENCY EXCHANGE
Currency can be exchanged either at the airport bank or local bank. Note the exchange rate fluctuation (1,220 Won per US $ as of Sept. 24, 2002).

AIRPORT TO DAEJEON
Airport shuttle from Incheon (“Seoul”) International Airport to Lotte Hotel Daejeon is operated from 06:00 to 21:00. It takes about 3 hours. The one way fare is 13,800 Won per person. You can buy a ticket near #8 Bus Stop of the Incheon airport.

HOTEL ACCOMMODATION (must use the Reservation Form: Only a limited number of rooms for foreign participants are available at the symposium venue hotel: Lotte Hotel Daejeon)
Make early room reservation at Lotte Hotel Daejeon. If you want to stay at another hotel, please contact the secretariat by email: swhong@kriso.re.kr

CITY TRANSPORTATION
You could pick-up a city map at the registration desk. The most convenient transportation in Daejeon is to take a taxi. Also, buses run regularly to all points of the city.

SYMPOSIUM TOUR, November 20 15:30-17:00
Two-hours visit to Korea Research Inst. of Ship and Ocean Engineering (KRISO), KORDI, Daejeon. Interested participants must make reservation in advance by indicating in the advance registration form.
SPOUSE PROGRAM – Yong-In Folk Village: 8:00-17:00
Use the advance registration form to make reservation. On-site at the Registration Desk costs $50 extra charge.

ADVANCE SYMPOSIUM REGISTRATION BY MAIL OR FAX (use the Registration Form)
Remember to send via airmail the Advance Registration (and Invoice) Form in this Program or a copy to reach ISOPE PACOMS-2002 Secretariat, Daejeon, Korea before October 23. In case one charges to a credit card via FAX (+82-42-868-7519), the card number should be typed in bold face or written clearly to be readable in the transmitted fax copy.
Forms received after October 23 will not be processed and will be returned to the senders for on-site registration with a surcharge of $50. Registrants will not be separately invoiced.

ISOPE PACOMS-2002 ADVANCE SYMPOSIUM REGISTRATION FEES (if received before October 23, 2002)
Use the Advance Registration Form in this program or a copy. All persons attending the symposium are required to register, pay the appropriate fee, and get a conference badge. Registration fees are as follows:

<table>
<thead>
<tr>
<th>Category</th>
<th>Advance Registration Fee (US $)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Author, Co-authors</td>
<td>300</td>
</tr>
<tr>
<td>Session or Symposium Chair, Co-Chair</td>
<td>300</td>
</tr>
<tr>
<td>ISOPE, KCOR, SNAK, ICASE Member</td>
<td>300</td>
</tr>
<tr>
<td>ISOPE member with new application</td>
<td>300</td>
</tr>
<tr>
<td>(incl. 2003 membership fee and 1-year</td>
<td></td>
</tr>
<tr>
<td>journal issues)</td>
<td></td>
</tr>
<tr>
<td>Non-Member</td>
<td>350</td>
</tr>
<tr>
<td>Spouses (no proceedings/no luncheon)</td>
<td></td>
</tr>
<tr>
<td>Full-time Student with 2002 ID Card</td>
<td>100</td>
</tr>
<tr>
<td>Press with I.D.</td>
<td>N/C</td>
</tr>
<tr>
<td>Reserve a seat for Spouse Program</td>
<td>50</td>
</tr>
<tr>
<td>Reserve a seat for Symposium Tour</td>
<td>Free</td>
</tr>
</tbody>
</table>

* The Symposium registration fee includes the symposium reception and banquet, tea breaks, and symposium proceedings.

REGISTRATION CANCELLATIONS
Request for cancellation of registration must be received in writing by October 23, 2002 to be granted a refund minus US$50 processing charge.

REGISTRATION BADGE
Registration badges are required for admittance to all the symposium activities, including the reception and banquet.

ON-SITE SYMPOSIUM REGISTRATION
Participants who miss the advance registration may register at the Symposium Registration Desk, but there is US$50 surcharge. The registration desk will be open during the following hours:

Monday, Nov. 18 09:00-16:00  Tuesday, Nov. 19 09:00-12:00

ISOPE PUBLICATION ORDER
A copy of ISOPE PACOMS-2002 Symposium Proceedings (CD-ROM and hard copy, ISBN 1-880653-59-1) is included in the symposium registration fees. The proceedings volumes (280 pp. est.) can be ordered by mail at the rates of:
Mail order at $120 (ISOPE Member $80) plus shipping charge.

ISOPE PUBLICATION can be ordered from ISOPE, P.O. Box 1107, Golden, Colorado 80402-1107, USA. FAX 1-650-254-2038. Advance payment is required. MasterCard or VISA card, international money order or U.S. bank checks in US Dollar payable to ISOPE will be accepted. Shipping and handling charges are included (also see the ISOPE Publication Order Information.)

PRESS - The press is invited to register at: Registration Desk

SYMPOSIUM HEADQUARTERS Pearl Room

KRISO RECEPTION 18:30-20:30 MONDAY Sapphire Ballroom

SYMPOSIUM BANQUET 19:00-2100 TUESDAY Sapphire Ballroom

AUDIO VISUAL PRACTICE and INTERNET Emerald Room
An overhead projector, an 35 mm slide projector, a Power-point projector (Read Author Information form) and screen will be set up from 08:00-17:00 (Monday and Tuesday) in the session rooms.

AUTHORS BRIEFING Emerald Room
Presenting authors and session chairs and co-chairs will be briefed at 10:30 on Monday, and at 08:00 on Tuesday and Wednesday

INTERNATIONAL PARTICIPANTS AND VISA APPLICATION
International authors, participants or attendees who need help (except financial) can contact: Dr. Seok Won Hong, PACOMS-2002 Secretariat, KRISO/KORDI, 171 Jang-dong, POBox 23, Yusong, Daejeon, 305-600 KOREA (Tel: +82-42-868-7520; Fax: +82-42-868-7519).

Entry Visa. Some authors may be required to apply for an entry visa. Please get an application form at the Republic of Korean Consulate in your country or ask application form from the PACOMS-2002 secretariat. If the Consulate requires you to submit an official letter of invitation, please contact PACOMS-2002 Secretariat.

CLIMATE
The weather in Daejeon in late November can be chilly. Temperature is around 10°C – 20°C.
From Incheon Int. Airport (Seoul) to Lotte Hotel Daejeon:
Take a Shuttle Bus at #8 Bus Stop.
Depart at 06:00, 07:00, 08:30, 09:00, 10:00, 11:00, 12:00, 13:00, 14:00, 15:00, 16:00, 17:00, 17:40, 18:20, 19:00, 20:00, 21:30. It takes about 3 hours and costs 13,800 Won.

From Kimhae Airport (Busan) to Lotte Hotel Daejeon:
Take a taxi to Gupo Railroad Station (5,000 Won, 30min.)
Take Express Train “Saemaeul” to Daejeon (19,800 Won at weekend, 2.5 hour)
Take a taxi to Lotte Hotel Daejeon (8,000 Won, 30-40min.)
ISOPE MEMBERSHIP APPLICATION

Please download an ISOPE membership application form www.isope.org or ask by E-mail to info@isope.org:

Name ________________________________  
Organization ___________________________  
Dept. ________________________________  
Address _______________________________  
Postal Code ____________, Country ______________  
Fax No. ________________________________

Send to:

ISOPE Membership Department  
P.O. Box 189, Cupertino, California 95015-0189, USA  
Fax 1-650-254-2038

---

ISOPE-2003  
Honolulu

Honolulu, Hawaii, USA, May 25-30, 2003

Technical Program will be posted on www.isope.org.
HOTEL RESERVATION FORM (must use this form)
Lotte Hotel Daejeon, Daejeon, Korea
November 17-20, 2002

Lotte Hotel Daejeon is the official venue for the PACOMS-2002. For guaranteed reservation, this form must be received via either fax or airmail only and no later than OCTOBER 23.

Group Reservation (PACOMS-2002)
Mr. Hyoung Min Kang
Lotte Hotel Daejeon
382 Doryong-Dong, Yuseong-Gu, Daejeon, 305-340, Korea
Fax: +82-42-862-0059, Tel: +82-42-865-7000
E-mail: fdkang@hanmail.net, website: www.hotellotte.co.kr

First (Fore) Surname: _________________ & Middle: _________________
Circle: Male Female; Title: Mr. Ms. Mrs. Prof. Dr.
Company/Univ.: ______________________________________
Address: ____________________________________________
____________________________________________
City __________________; Country ______________________
Postal (ZIP) Code ___________; Fax No. __________________

Check-in: _____ November; Check-out: _____ November, 2002
*(US$1=1,200Won as of Sept., 2002)

<table>
<thead>
<tr>
<th>Class</th>
<th>DLXDouble</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hotel</td>
<td>Hotel Lotte Daeduk</td>
</tr>
<tr>
<td>Single/Double Occupancy</td>
<td>Double / Twin</td>
</tr>
<tr>
<td>Room Rate/Night*</td>
<td>84,700 Won</td>
</tr>
</tbody>
</table>

* Rooms will be assigned on a first-come-first-served basis.
* The above room rate includes service charge and tax without breakfast.
* Upon receipt of the hotel reservation form with one-night deposit, the confirmation document will be faxed to the participant within 5 working days.

Hotel Deposit Payment
Circle: Visa MasterCard Dinner’s Club American Express
Card No.: ___________________________ Exp. Date: ______
Name on the card: ___________________________
Cardholder’s Signature: ___________________________ Date: _____, 2002.

Cancellation & Refund Policy
* Your credit card will be used for your hotel reservation guarantee only.
* If you wish to cancel the reservation, you must cancel it 48 hours prior to your check-in date. Otherwise, no-show will have one night deposit charged

Photocopy, Complete, and Send this Form
Reservation after OCTOBER 23 is subject to room availability
TECHNICAL PROGRAM

ISOPE PACOMS-2002
Daejeon, Korea
November 17-20, 2002

Find Forms for the Hotel Reservation and Advance Registration inside this program, and

Fax symposium registration form to:
ISOPE PACOMS-2002 secretariat
Tel: +82-42-868-7520; Fax: +82-42-868-7519

Fax hotel reservation form to venue hotel address:
Lotte Hotel Daejeon (PACOMS-2002)
382, Doryong-Dong, Yusung-Gu, Daejeon, Korea
Tel: +82-42-865-7000, Fax: +82-42-862-0059

Other ISOPE Meetings

ISOPE-2003 Honolulu, Hawaii, USA
May 25-30, 2003
Program: E-mail to meetings@isope.org

ISOPE OMS-2003 Tsukuba, Japan
September 15-19, 2003

ISOPE-2004 France
May 23-28, 2004

International Society of
Offshore and Polar Engineers
P.O. Box 189
Cupertino, CA 95015-0189, USA
Fax: 1-650-254-2038
meetings@isope.org; www.isope.org