

September 12-16, 2004
Vladivostok, Russia

**The Sixth (2004) ISOPE
Pacific/Asia
Offshore Mechanics
Symposium**

**and
Construction and Materials
Symposium**

**ISOPE
PACOMS-2004**

**Hyundai Hotel, Vladivostok, Russia
September 12-16, 2004**

Technical Program

Invited and Peer-reviewed Papers

**Sakhalin Offshore Engineering
Materials, Underwater Vehicle
Ocean Energy & Environment**

**Ice Engineering
Hydrodynamics**

Organized by:

International Organizing Committee and Local Organizing Committee

Sponsored by:

International Society of Offshore and Polar Engineers (ISOPE) *with
cooperating organizations:*

Far Eastern State Technical University (FESTU)

Hosted by:

Far Eastern State Technical University

ISOPE PACOMS-2004 secretariat

10, Pushkinskaya St., Vladivostok, Russia

Tel: 7 (4232) 450890; Fax: 7 (4232) 451618

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ISOPE-2005 Seoul

Call For Papers

The 15th (2005) International
Offshore and Polar Engineering Conference
Seoul, Korea, June 19-24, 2005

Call For Papers

Abstract Deadline: **October 1, 2004**

Download from www.isopec.org or ask meetings@isopec.org.
Online Abstract Submission (now) and **Technical Program**
(in January) on www.isopec.org

Welcome to ISOPE PACOMS-2004

We greatly appreciate the excellent responses and help we have received from colleagues around the world in the successful organization of the 6th ISOPE Pacific/Asia Offshore Mechanics Symposium (ISOPE PACOMS-2004), Vladivostok, Russia, September 12–16, 2004. The symposium features 12 **sessions of peer-reviewed papers** and **invited papers** from Pacific Rim countries. This year's focus is on *Sakhalin Development and Offshore and Ice Engineering*. Concurrently, *Construction and Materials Symposium will be held in parallel*.

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 26 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, Kitakyushu, Honolulu and Toulon. 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, International Organizing Committee and Local Organizing Committee, we would like to express our appreciation to the financial sponsors and welcome participants to the ISOPE PACOMS-2004 Symposium in Vladivostok.

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

Alexander T. Bekker, Local Organizing Committee and International Organizing Committee

SUNDAY September 12

16:00
PACOMS Executive Committees Diamond

09:00-16:00
REGISTRATION, Proceedings/Badge Pickup Lobby Floor

18:30-20:30
FESTU RECEPTION Diamond

For Tour Information Visit Registration Desk

MONDAY September 13

0800
On-site Registration and Badge and Proceedings Pickup Lobby Floor

08:00 Chair/Co-chair Briefing Diamond

09:00
Symposium Opening Addresses Diamond
ISOPE PACOMS-2004 Chair
Welcome Addresses Diamond
Governor of Primorsky Territory
President, Far Eastern State Technical University

09:15
1. SAKHALIN OFFSHORE I *Diamond*

10:30
2. SAKHALIN OFFSHORE II *Diamond*

13:30
3. SAKHALIN OFFSHORE III *Diamond*

15:30
4. ENERGY AND ENVIRONMENT *Diamond*

TUESDAY September 14

08:00 Chair/Co-chair Briefing *Diamond*

08:30
5. OFFSHORE SYSTEMS *Diamond*

10:30
6. ICE ENGINEERING I *Diamond*

Lunch Hour
POSTER PRESENTATIONS *Diamond*

14:00
7. ICE ENGINEERING II *Diamond*

16:00
8. ICE ENGINEERING III: Ice-Structure 1 *Diamond*

19:00-21:00
Group Dinner (Details to be announced) *Zaimka*

WEDNESDAY September 15

08:00 Chair/Co-chair Briefing	<i>Diamond</i>
08:30	
9. ICE ENGINEERING IV: Ice-Structure 2	<i>Diamond</i>
11:00	
10. UNDERWATER VEHICLES AND CONTROL	<i>Diamond</i>
Lunch Hour	
POSTER PRESENTATION	<i>Diamond</i>
14:00	
11. HYDRODYNAMICS & COASTAL ENG I	<i>Diamond</i>
16:00	
12. HYDRODYNAMICS & COASTAL ENG II	<i>Diamond</i>

Construction and Materials Symposium

11:00	
Construction and Materials I	<i>Emerald</i>
14:00	
Construction and Materials II	<i>Emerald</i>

PACOMS Symposium Banquet

19:00 Wednesday	<i>Diamond</i>
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THURSDAY September 15

08:00-20:00
SYMPOSIUM TOUR: One-day excursion to the Sakhalin II CGBS construction site in Vostochny Port.
Make your reservation in advance by indicating in the advance registration form.
Bus departure at 08:00, and return to Hotel at 20:00



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Indonesia



TECHNICAL PROGRAM

The Sixth (2004) ISOPE Pacific/Asia Offshore Mechanics Symposium Vladivostok, Russia, September 12–16, 2004

All events will take place at Hyundai Hotel. The changes on titles or authors the ISOPE PACOMS-2004 International Organizing Committee (IOC) received in writing before July 5, 2004 are reflected in this program. Final corrections will be updated in the Conference Proceedings. Proceedings CD-ROM of peer-reviewed papers (350 pp. est.) in 12 sessions will be available from ISOPE during and after the Symposium.

Further updates will be posted on www.isopec.org.

SUNDAY 18:30

18:30-20:30
FESTU Reception

Hyundai Hotel
Diamond

MONDAY 08:00

0800
On-Site Registration and Badge and Proceedings Pickup
08:00 Chair/Co-chair Briefing Hotel Hyundai–Diamond

09:00
SYMPOSIUM OPENING ADDRESS Diamond
Chung, Jin S, ISOPE PACOMS-2004 Chair,
Cupertino, California, USA

WELCOME ADDRESSES Diamond
Vladimir V. Rozenberg, Vice-Governor of
Primorsky Territory
Gennadi P. Turmov, President, FESTU

1. SAKHALIN OFFSHORE I

Monday September 13 09:15 Diamond

Chair: Bekker, A T, Far-Eastern State Technical Univ,
Vladivostok, Russia
Co-Chair: Naito, S, Osaka Univ, Osaka, Japan

Sakhalin Offshore Development: Sakhalin 2 Project Prospects [Oral Presentation]

Kholodin, Anatoly, Truskov, Pavel, Manager, Sakhalin Energy
Investment Company, Yuzhno-Sakhalinsk, Russia

Far East Russia Oil and Gas Supplier Development [Oral Presentation]

Gulbrandsen, E, Aker Kvaerner, Oslo, Norway

Integrated Deep-ocean Ship-to-Seafloor System: Mining and Drilling

Chung, Jin S, ISOPE, Cupertino, California, USA

2. SAKHALIN OFFSHORE II

Monday September 13 10:30 *Diamond*

Chair: Bellendir, Y N, VNIIG by B.E.Vedeneev Co., Ltd. St.
Petersburg, Russia
Co-Chair: Kioka, S, Civil Engineering Inst of Hokkaido,
Sapporo, Japan

Comparative Analysis of Supervisions on Location of a Geochemical Composition of the Ground Sediments at Five Platforms of the Project "Sakhalin-2"

Petukhov, V I, Lisitskaya, I G, Vagenik, I A, Romanchenko, A
V, Far-Eastern State Technical Univ, Vladivostok, Russia

Basic Issues of the Design of Support Elements of Gravity Platforms on Sakhalin Shelf

Bellendir, Y N, Glagovsky, V B, Finagenov, O M, VNIIG by
B.E.Vedeneev Co., Ltd. St-Petersburg, Russia

Peculiarities of Up-Dating "Orlan" Drilling Rig for "Sakhalin Shelf"

Taranukha, N A, Novikov, B A, Chizhiumov, S D, Zhurbin, O V,
Burmenskiy, A D, Komsomolsk-on-Amur State Technical Univ,
Komsomolsk-on-Amur, Russia

Thermodynamic Method of the Estimation of Fatigue Durability of Steels [Oral Presentation Only]

Lavrushin, G A, Lavrushina, E G, Far-Eastern State Technical
Univ, Vladivostok, Russia

3. SAKHALIN OFFSHORE III

Monday September 13 13:30 *Diamond*

Chair: Filaretov, V F, Inst of Automation and Control Processes,
Vladivostok, Russia
Co-Chair: Lyubimov, V S, Hydrotex Co., Ltd., Vladivostok, Russia

Seismic Design of Sakhalin Offshore Installations

Gunturi, R, Efthymiou, M, Shell E&P Projects, Rijswijk, The Netherlands; M, Hall, C, van Beek, T, Sakhalin Energy Investment Co., Rijswijk, The Netherlands

Specificity of Soil Cover and Recultivation of Soils for Sakhalin Projects

Kostenkov, N M, Oznobikhin, V I, Inst of Biology & Soil Science, Vladivostok, Russia

On Characteristics of Remediation the Oil Polluted Ground under the Sakhalin Project Realization

Golodyaev, G P, Oznobikhin, V I, Inst of Biology & Soil Science, Vladivostok, Russia

Opportunity of Application of AUVs in Russia Designed by the IMTP for Underwater Communications Inspection and Aquatic Environment Monitoring [Oral Presentation]

Ageev, M D, Gornak, V E, Inzartsev, A V, Lvov, O Y, Rylov, N I, Scherbatyuk, A Ph, Inst of Marine Technology Problems, Vladivostok, Russia

4. ENERGY AND ENVIRONMENT

Monday September 12 15:30 *Diamond*

Chair: Kang, K-J, Korea Research Inst of Ships and Ocean Engineering, Daejeon, Korea

Co-Chair: Cheboxarov, Victor V, Far Eastern State Technical Univ, Vladivostok, Russia

A Study on NOx Emission Status and Reduction Technologies of Domestic Marine Engines

Kang, K-J, Kim, S-H, Kim, E-C, Korea Research Inst of Ships and Ocean Engineering, Daejeon, Korea

Field Experiment on Oil Recovery in Icy Water with Oil Recovery Bucket [Oral Presentation]

Takahashi, S, Nishima-gumi, Hokkaido; Otsuka, N, North Japan Port Consultants Co., Sapporo; Usami, N, Hokuden-Sogo-Sekkei Co., Sapporo; Saeki, H, Hokkaido Univ, Sapporo, Japan

Optoelectronic Method of Absolute Inclination Remote Monitoring

Kulchin, Y N, Inst for Automation and Problems of Control, Vladivostok; Vitrik, O B, Bekker, A T, Obukh, V F, Starinets, V N, Anokhin, P V, Titov, P L, Ryazanov, A V, Far-Eastern State Technical Univ, Vladivostok; Borisov, Y S, Inst for Automation and Problems of Control, Vladivostok, Russia.

Study of Oscillatory Pneumatic Damping in the Air Duct for an OWC Type Wave Energy Device

Choi, H S, Hong, S W, Kim, J H, Hong, S Y, Korea Research Inst of Ships and Ocean Engineering, Daejeon; Hong, D C; Lew, J M, Chungnam National Univ, Daejeon, Korea

Calculation of Wind Loading on Large-Scale Floating Wind Turbine

Cheboxarov, Victor V, Cheboxarov, Valery V, Far Eastern State Technical Univ, Vladivostok, Russia

TUESDAY 08:30

5. OFFSHORE SYSTEMS

Tuesday September 14 08:30 *Diamond*

Chair: Efthymiou, M, Shell E&P Projects, Rijswijk, The Netherlands

Co-Chair: Kim, L V, Hydrotex Co., Ltd., Vladivostok, Russia

Definition of Design Storm Profile for the Area of Piltun-Astokhskiye and Lunskiye Deposits

Belyajev, B V, Mironov, MYe, VNIIG by B.E.Vedenev Co., Ltd., St-Petersburg, Russia

Production Platforms for Russian Offshore

Karlinskiy, S L, Zhukov, G V, Kotov, V V, SOE «Central Design Bureau For Marine Engineering «Rubin» (SOE «CDB ME «Rubin»), Saint Petersburg, Russia

Expert System for Marine Transport Structures

Kim, L V, Far-Eastern State Technical Univ, Vladivostok, Russia

Specificity of Offshore Structures Design [Oral Presentation]

Lenskiy, V F, Potapov, L I, Ishchenko, L I, Blagovidov, L B, Berkhin, I M, Vorobiev, N V, Central Design Bureau CORALL, Sevastopol, Crimea, Ukraine

6. ICE ENGINEERING I

Tuesday September 14 10:00 *Diamond*

Chair: Zubakin, G, Arctic & Antarctic Research Inst, St. Petersburg, Russia

Co-Chair: Seliverstov, V I, Hydrotex Co., Ltd, Vladivostok, Russia

Uniaxial Compressive Strength of Sea Ice along the Coast of Hokkaido and Sakhalin

Kondo, H, Hokkaido Univ, Sapporo; Otsuka, N, North Japan Port Consultants Co., Sapporo; Masaki, T, Hokkaido Regional Development Bureau, Hokkaido; Kioka, S, Civil Engineering Research Inst Hokkaido, Sapporo; Saeki, H, Hokkaido Univ, Sapporo, Japan

Peculiarities of the Structure and Properties of Ice Ridges in the Eastern Barents Sea Based on the 2003 Expedition Data

Zubakin, G K, Gudoshnikov, Y P, Naumov, A K, Stepanov, I V, Kubyshev, N V, Arctic & Antarctic Research Inst, St. Petersburg, Russia

Behavior of Ice Floe Runup Caused by Tsunami

Otsuka, N, North Japan Port Consultants Co., Sapporo; Takahashi, Y, Hokuriku Regional Development Bureau, Niigata; Kondo, H, Hokkaido Univ, Sapporo; Takeuchi, T, Hachinohe Inst of Technology, Aomori; Saeki, H, Hokkaido Univ, Sapporo, Japan

Run-up of Ice Floes on Sloping Beach due to Waves

Wakabayashi, T, Alfa Hydraulic Engineering Consultants Co., Sapporo; Imaizumi, A, Nishimura-gumi Co., Hokkaido; Ishikawa, R, Hokkaido Univ, Sapporo; Takeuchi, T, Hachinobe Inst of Tech, Hachinobe; Saeki, H, Hokkaido Univ, Sapporo, Japan

Movement of Ice Floes at the Edge of Ice Sheet in Saroma Lagoon

Terashima, T, Kumashiro System Frontier Co., Sapporo; Kawai, T, Pacific Consultants Co., Sapporo; Otsuka, N, North Japan Port Consultants, Sapporo; Takeuchi, T, Hachinobe Inst of Tech, Hachinobe; Saeki, H, Hokkaido Univ, Sapporo, Japan

Study on the Utilization and Reinforcement of Bearing Capacity of Floating Ice

Otsuka, N, North Japan Port Consultants, Sapporo; Terashima, T, Kumashiro System Frontier Co., Sapporo; Wakabayashi, T, Alfa Hydraulic Engineering Consultants Co., Sapporo; Okamoto, S, Toa Corp, Tokyo; Saeki, H, Hokkaido Univ, Sapporo, Japan

Lunch Hour

POSTER PRESENTATIONS

Diamond

7. ICE ENGINEERING II

Tuesday

September 14 14:30

Diamond

Chair: Bekker, A T, Far-Eastern State Technical Univ, Vladivostok, Russia

Co-Chair: Terashima, T, Kumashiro System Frontier Co., Sapporo, Japan

Meteorological Observation in Fishing Port of Hokkaido During Winter Season and Numerical Calculation Model of Ice Growth and Melting

Kioka, S, Honma, T, Yamamoto, Y, Civil Engineering Inst of Hokkaido, Sapporo; Michihiro, N, Tokachi Port and Harbor Construction Office, Hiroo-gun; Terashima, T, Kumashiro Systems Frontier Co, Sapporo, Japan

Ice Concentration of the Far-Eastern Seas of Russia

Yakunin, L P, Far-Eastern State Univ, Vladivostok, Russia

Experimental Studies of Ice Cover Inhomogeneity

Bekker, A T, Gomolskiy, S G, Farafonov, A E, Far-Eastern State Technical Univ, Vladivostok, Russia

Hydraulic Conductivity of Bottom Ice

Zemlyanoy, V V, Far Eastern State Technical Univ, Vladivostok, Russia

Simulation Method of Ice Bottom Topography

Kioka, S, Honma, T, Yamamoto, Y, Civil Engineering Inst of Hokkaido, Sapporo; Sakikawa, M, Hokkaido Regional Development Bureau, Sapporo; Sakai, S, Iwate Univ, Iwate, Japan

About A Possibility for a Probabilistic Interpretation of Ice Thickness Growth Up to 20-25 cm Dates Forecast in Arctic Seas

Dmitriev, V G, Arctic and Antarctic Research Inst, St-Petersburg, Russia

8. ICE ENGINEERING III: Ice-Structure 1

Tuesday September 14 16:30 *Diamond*

Chair: Otsuka, N, North Japan Port Consultants, Sapporo, Japan
Co-Chair: Kozin, V M, Inst of Machine Science and Metallurgy, Komsomolsk-on-Amur, Russia

Mathematical Modelling of Shock Loading of a Solid Ice Cover

Kozin, V M, Pogorelova, A V, Inst of Machine Science and Metallurgy, Komsomolsk-on-Amur, Russia

The Simulation Model of Hummocks Impact on the Sea Bottom and Subsea Pipelines

Bekker, A T, Sabodash, O A, Vavilin, R V, Far-Eastern State Technical Univ, Vladivostok, Russia

Analysis of Types and Design Solutions of Offshore Ice-Resistant Platforms for Seismic Regions of Continental Shelf

Makarov, M V, Kotov, V V, SOE «Central design bureau for marine engineering «Rubin» (SOE «CDB ME «Rubin»), St. Petersburg, Russia

Numerical Simulation of the Process of Mechanical Interaction between Ice Fields and Structure Support

Bekker, A T, Uvarova, T E, Kim, S D, Far-Eastern State Technical Univ, Vladivostok, Russia

Prospects of Development of Seaports Existing along the Arctic Shipping Route [Oral Presentation]

Garibin, P A, Kolosov, M A., Narbut, R M, SPbGUVK, Silin, A V, “Podvodtruboprovodstroy,” St-Petersburg, Russia

WEDNESDAY 08:30

9. ICE ENGINEERING IV: Ice-Structure 2

Wednesday September 15 8:30 *Diamond*

Chair: Gundersen, B, Aker Kvaerner, Oslo, Norway
Co-Chair: Sabodash, O A, FESTU, Vladivostok, Russia

Innovation in High-Strength Concrete Technology – Ice Abrasion Concrete Cover Research Program [Oral Presentation Only]

Fosso, K T, Norwegian Univ of Science and Technology, Trondheim, Norway; Bekker, A T, Far-Eastern State technical Univ, Vladivostok, Russia

Experimental and Theoretical Investigations of Concrete Fracture Strength on the Basis of Energy Criteria

Guzev, M A, Inst for Automation and Management Processes, Vladivostok, Russia, Makarova, N V, Far-Eastern State Technical Univ, Vladivostok, Russia

Sakhalin II CGBS — the State-of-the-Art Concrete Technology Performance for Offshore Arctic Environment
[Oral Presentation Only]
Walum, R, Haldorsen, K, Aker Kvaerner, Oslo, Norway

Level of Allowable Stresses under Cyclic Variable-Polarity Thermal Fields Impact to Concretes
Kolomiets, V I, Far-Eastern Research Inst on Construction, Vladivostok; Bekker, A T, Far-Eastern State Technical Univ, Vladivostok, Russia

A Four-parameter Multi-axial Strength Criterion for Lightweight Aggregate (LWA) Concrete
Song, Y, Wang, L, Liu, H, Dalian Univ of Technology, Dalian, China

Quality Management of Marine Transport Structures [Oral Presentation]
Lyubimov, V S, Hydrotex Co. Ltd., Vladivostok, Russia

Is the Lunscoe and Piltun CGDS's the Gateway for Future Concrete Structures Offshore Sakhalin Island? [Oral Presentation Only]
Gundersen, B, Aker-Kvaerner, Oslo, Norway

10. UNDERWATER VEHICLES AND CONTROL

Wednesday September 15 11:00 *Diamond*

Chair: Hong, S W, Korea Research Inst of Ships and Ocean Engineering, Daejeon;
Co-Chair: Zhirabok, A N, Far Eastern State Technical Univ, Vladivostok, Russia,

The Synthesis of Multi-Dimensional Adaptive Variable Structure System for Autonomous Underwater Vehicle
Lebedev, A V, Filaretov, V F, Inst of Automation and Control Processes, Vladivostok, Russia

Power Consumption of Tethered Underwater Vehicle
Mokeyeva, I G, Inst for Problems of Off-Shore Engineering, Vladivostok; Mokeyev, G A, Far Eastern State Technical Univ, Vladivostok, Russia

Effective Bow Wing Control for Ship Propulsion
Okumura, N, and Naito, S, Osaka Univ, Osaka, Japan

On Diagnosis for Thrusters of Underwater Vehicle
Zhirabok, AN, Far Eastern State Technical Univ, Vladivostok, Russia, Inzartsev, AV, Inst of Marine Technology Problems, Vladivostok; Pisarets, A M, Far Eastern State Technical Univ, Vladivostok, Russia

Lunch Hour

POSTER PRESENTATIONS

Diamond

11. HYDRODYNAMICS & COASTAL ENGINEERING I

Wednesday September 15 14:00 *Diamond*

Chair: Li, Y-C, Dalian Univ of Technology, Dalian, China
Co-Chair: Kee, S T, Seoul National Univ of Technology, Seoul, Korea

Wave Climate Study of the Northeast Taiwan

Huang, W P, Sinotech Engineering Consultants, Taipei; Yim, J, National Taiwan Ocean Univ, Keelung, TAIWAN, China

A Study of Possible Effects of Missing Values in a Wave Record

Yim, J Z, Chou, C-R, National Taiwan Ocean Univ, Keelung; Huang, W-P, Sinotech, TAIWAN, China

Nonlinear Properties of Long Edge Waves above a Cylindrical Shelf

Dubinina, V A., Kurkin, A A, Poloukhina, O E, Nizhniy Novgorod State Technical Univ, Nizhniy Novgorod, Russia

Importance of Evanescent Modes in Predicting Transformation of Water Waves by Linear Wave Theory

Lee, C, Sejong Univ, Seoul; Cho, Y-S, Cho, D-H, Hanyang Univ, Seoul, Korea

Mechanism of Dynamic Instabilities for High-Speed Planing Crafts

Katayama, T, Osaka Prefecture Univ, Osaka, Japan

12. HYDRODYNAMICS & COASTAL ENGINEERING II

Wednesday September 15 16:00 *Diamond*

Chair: Naito, S, Osaka Univ, Osaka, Japan

Co-Chair: Yim, J Z, National Taiwan Ocean Univ, TAIWAN, China

Submerged Dual Buoy/Porous-membrane Breakwater

Kee, S T, Park, W S, Seoul National Univ of Technology, Seoul, Korea; Kim, M H, Texas A&M Univ, Texas, USA

Wave Interaction with Combined Cylinders with a Solid Interior Column and a Porous Exterior Column

Li, Y-C, Sun, L, Teng, B, Dalian Univ of Technology, Dalian, China

Numerical Modeling of Ship Motion in Heavy Sea Conditions

Chizhiumov, S D, Komsomolsk-on-Amur State Technical Univ, Komsomolsk-on-Amur, Russia

Design of Offshore Structures for Ice Conditions [Oral Presentation Only]

Orlov, O P, Simonov, Y A, Minin, V V, Krylov Shipbuilding Research Inst, St. Petersburg, Russia

PACOMS Symposium Banquet

19:00 WEDNESDAY

Diamond

THURSDAY 08:00

Technical Tour: One-day excursion to the **Sakhalin II CGBS** Project construction site in Vostochny Port where two concrete platforms are under construction for Sakhalin Energy Investment Company. The platforms are to be installed at the Piltun-Astokhskoe and Lunscoe oil and gas fields offshore the Sakhalin Island.

Make your reservation in advance by indicating in the advance **registration form**.

Bus departure at 8:00; Return at Hotel at 20:00.

Construction and Materials Symposium

Construction and Materials I

Wednesday September 15 11:00 *Emerald*

Chair: Ilyichev, V A, Russian Academy of Sciences, Moscow, Russia

Co-Chair: Abramov, V E, Far-Eastern Research Inst on Construction, Vladivostok, Russia

Weather Specificity in the Far East of Russia Concerning Construction Industry

Abbasov, P A, Far-Eastern Research Inst on Construction, Vladivostok, Russia

Problems of Seismic Protection of Buildings and Structures

Ilyichev, V A, Russian Academy of Sciences, Moscow, Russia

Calculation Methods of Building/Structure Safety

Karpenko, N I, Russian Academy of Sciences, Moscow, Russia

Results of Scientific Research carried out by Far-Eastern Research Inst on Construction in Order to Provide Reliability and Safety of Construction Objects under Specific Weather Conditions of the Far East

Abramov, V E, Far-Eastern Research Inst on Construction, Vladivostok, Russia

Analysis of Seismic Impacts on Offshore Marine Hydraulic Structures

Glagovsky, V B, Finagenov, O M, VNIIG after B.E.Vedeneev Co., Ltd., St. Petersburg, Russia

Construction and Materials II

Wednesday September 15 14:00 *Emerald*

Chair: Abbasov, P A, Far-Eastern Research Inst on Construction, Vladivostok, Russia

Co-Chair: Borisov, E K, Far-Eastern Research Inst on Construction, Vladivostok, Russia

Problem of Self-Vibrations of Underground Structures for Development of Methods of Dynamic Calculations of their Systems

Bakirov, R O, Moscow Inst of Municipal Service and Construction, Moscow, Russia, Tarasov, D A, Moscow State Tech Univ by Bauman, Moscow, Russia

Statistic Analysis of Transport Vibrations

Borisov, E K, Alimov, S G, Far-Eastern Research Inst on Construction, Vladivostok, Russia

Bearing Capacity of System "Structure-Soil" During Life Cycle

Kim, L V, Lubimov, V S, Afanasyev, V A, Hydrotex Co., Ltd, Vladivostok, Russia

On Expediency of Using Concretes with Additives of Garbage Incineration for Building Artificial Islands in Offshore Zone

Falaleeva, N A, Far-Eastern Research Inst on Construction, Vladivostok, Russia

ISOPE PACOMS-2004

Poster Session

TUESDAY – WEDNESDAY

Re-initial Stage of Cement Stone Structure Formation

Kolomiets, V I, Far-Eastern Research Inst on Construction, Vladivostok, Russia

Extraction of Thick Coal Seams and Seams with Rear-earth Elements on the Shelf Applying Bore-Hole Economic and Ecologically Effective Hydraulic Mining

Niskovskiy, Yu N, Nikolaichuk, N A, Niskovskaya, E V, Far-Eastern State Technical University, Vladivostok, Russia

About Interrelation of Categories "Reliability", "Risk", "Safety" in Construction

Protsenko, V V, Far-Eastern State Technical Univ, Vladivostok, Russia

Inverse Task Modeling of Complex Signals Back-Scattering from Quasiperiodic Surface

Lobatch, V T, Potipak, M V, Taganrog State Univ of Radio Engineering, Taganrog, Russia

Quality Increase of Hydrotechnical Concrete during Magnetic Water Processing

Gulkova, S G, Gulyaev, V T, Kapachinskaya, A A, Gorbunova, N A, Far-Eastern State Technical Univ, Vladivostok, Russia

Application of Imitating Modelling for the Prediction of Water Quality in Marine Water Areas

Zemlyanaya, N V, Lyahov, V N, Far Eastern State Technical Univ, Vladivostok, Russia

An Engineering Calculation Method of the Fatigue Resistance of Weld Tubular Structures of Marine Oil Extraction Platforms Taking into Account Brittle Failure

Pogodaev, V P, Matokhin, G V, Pogodaev, M V, Far Eastern State Technical Univ, Vladivostok, Russia

Epopée of «Cheluskin» – Achievement or Adventure?

Antonenko, V S, Antonenko, S V, Far Eastern State Technical Univ, Vladivostok, Russia

The Complex Solution of Problems of Ecological Safety of Autonomous Hydraulic Engineering Facilities

Statsenko, V N, Sumenkov, V M, Far-Eastern Technical Univ, Vladivostok, Russia

Areas Vulnerable by Weather Factors on Construction Objects Able to Cause Man-Made Calamities within Primorsky Territory

Smirnova, G N, Odintsova, E Y, Far-Eastern Research Inst on Construction, Vladivostok, Russia

EC “Construction Survey” Protecting Quality of Building Products

Mikhailova, N N, Korableva, G A, Far-Eastern Research Inst on Construction, Vladivostok, Russia

Considering Impact Effect when Calculating Buildings and Structures

Grigoryev, P Y, Mukha, P V, DVGUPS, Khabarovsk, Russia

Investigation of Angular Support Wall Interaction with Ground during Loss of Stability

Tsimbelman, N Y, FESTU, Vladivostok, Russia

Deviation Effect on Stability of Support Walls

Slavgorodskaya, A V, Dalrybvtuz, Vladivostok, Russia

Location of Buildings on Various Steep Slopes

Kugno, V S, Far-Eastern Research Inst on Construction, Vladivostok, Russia, Petrashen, A S, FESTU, Vladivostok, Russia

Estimation of Tolerance during Evaluation of Technical Condition of Building or Structures

Lubimov, V S, Hydrotex Co., Ltd, Vladivostok, Russia, Kim, L V, FESTU, Vladivostok, Russia

Improvement of Methods of Data Analysis on Investigated Structures

Afanasiev, V A, Lubimov, V S, Far-Eastern Research Inst on Construction, Vladivostok; Kim, L V, Kovalenko, R G, FESTU, Vladivostok, Russia

Deviation of Mooring Construction Superior Normative

Kornushin, P S, FESTU, Vladivostok, Russia

Prospects of Titanium Alloy Application during Construction of Deep-Sea/Arctic Hydrocarbon Fields within the Shelf

Taran, N M, Simonov, Y A, Federal State Unitary Enterprise by academician A. N. Krylov, St. Petersburg, Russia

Reasons of Flooding Basements of Residential Buildings in Vladivostok

Kugno, V S, Far-Eastern Research Inst on Construction, Vladivostok, Russia

Modern Methods of Water-Proofing Construction Systems by Cement-based Materials

Vavrenyuk, S V, Far-Eastern Research Inst on Construction, Vladivostok, Russia

Main Principles and Specificity of Creation of Underground Water Reservoirs

Golovanov, B E, Far-Eastern Research Inst on Construction, Vladivostok, Russia

Ecologically Safe Underground Water Reservoirs with Active Drainage Adjustment

Golovin, V L, DVNIIGM, Vladivostok; Golovanov, B E, Far-Eastern Research Inst on Construction, Vladivostok, Russia

Comparative Analysis on Ground Testing by Stamps under Russian/Finnish Procedures

Kugno, V S, Golovanov, B E, Far-Eastern Research Inst on Construction, Vladivostok, Russia

Artificial Foundations under Reservoirs on Thin Sea Silts with Peat Layers

Belous, V V, Far-Eastern Research Inst on Construction, Vladivostok, Russia

Opportunities of Tomography in Construction Survey

Shkabarnya, N G, FESTU, Vladivostok; Shkabarnya, G N, Far-Eastern Research Inst on Construction, Vladivostok, Russia

Investigation of Joints in Steel Structures

Sobovoy, S A, FESTU, Vladivostok, Russia

Study of Steel Profiled Deck with Flat Corrugations in Monolith Reinforced Concrete Flooring

Salnikov, D A, FESTU, Vladivostok, Russia

Foundations on Short Sand Piles

Popov, E V, FESTU, Vladivostok, Russia

Mini Power Station in Local Energy Systems

Solonitsin, A G, Hydrotex Co., Ltd., Vladivostok, Russia

Setting of a Problem of Calculation of Growing Element of Hydrobiotechnic Structures

Zhukov, K A, FESTU, Vladivostok, Russia



GENERAL INFORMATION

PLACE AND DATE: Vladivostok, Russia, September 12-16, 2004

All ISOPE-PACOMS-2004 Symposium Events and Registration, except Symposium Tour will take place at:

Hyundai Hotel

29 Semenovskaya st., 690000, Vladivostok, Russia
Tel (4232) 40-75-07, fax (4232) 40-70-06

FESTU Reception (12.09.2004 at 19:00) and **PACOMS Symposium Banquet** (15.09.2004 at 18:00) will be held at Hall Diamond of **Hyundai Hotel**.

PARKING: Free parking.

LANGUAGE

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

AIR TRAVEL

Major airlines fly from Moscow, St. Petersburg, Khabarovsk, Yuzhno-Sakhalinsk, Seoul, Dalian, Mudanzang, Niigata, Osaka, Busan, Tokyo, Toyama, Tidjing, Kharbin to Vladivostok Airport. Participants should plan early and ask their local travel agents to obtain the *most favorable flight routes*. Early bookings may offer most convenient routes.

CURRENCY EXCHANGE

Currency can be exchanged either at the airport bank or local bank. Note the exchange rate fluctuation (29.0388 Roubles per US\$1.00 as of July 1st, 2004).

AIRPORT TO VLADIVOSTOK

Hotel Hyundai bus and special PACOMS bus from Vladivostok Airport to hotels will be arranged especially to meet PACOMS-2004 participants. It takes about 1-hour ride to Hotels.

HOTEL ACCOMMODATION (must use the Reservation Form: Only a limited number of rooms for foreign participants are available at the symposium venue hotel: Hyundai Hotel)

Make early room reservation at **PACOMS-2004 Secretariat**. If you want to stay at another hotel, please contact the secretariat by email: PACOMS2004@vladivostok.ru

CITY TRANSPORTATION

You could pick-up a city map during registration in Hyundai. The most convenient transportation in Vladivostok is to take a taxi. Also, buses run regularly to all points of the city.

SYMPOSIUM TOUR, September 16th: All Day

One-day excursion to the construction site of **Sakhalin II Concrete Gravity Base Structure (CGBS) Project in Vostochny Port** where two concrete platforms are under construction for Sakhalin Energy Investment Company. The platforms are to be installed at the Piltun-Astokhscoe and Lunscoe oil and gas fields offshore the Sakhalin Island.

Make your reservation in advance by indicating in the advance registration form or Email to PACOMS2004@vladivostok.ru.

SPOUSE PROGRAM

Rich choice of various tours and voyages through Tourist Companies will be advised at registration in Hotel Hyundai. Among such tours the following are possible:

- Sea Coast SHAMORA and All-Russian Children's Center
- Voyage over the Golden Horn Bay
- Visit to the Fortress of Vladivostok
- Visit to Oceanarium and Arseniev's Museum of Regional History

ADVANCE SYMPOSIUM REGISTRATION BY MAIL OR FAX (use the Advance Registration Form)

Russian participants register through PACOMS-2004 Secretariat. Remember to send via airmail the Advance Registration (*and Invoice*) Form in this Program or a copy to reach **ISOPE PACOMS-2004 Secretariat, Vladivostok, Russia before August 1st**. Forms received **after August 1st** will be processed at additional surcharge of Rbbls 500. Registrants will not be separately invoiced.

Non-Russian participants. Register through ISOPE: meetings@isope.org

NON-RUSSIANS. ISOPE PACOMS-2004 ADVANCE SYMPOSIUM REGISTRATION FEES (if received before August 12, 2004)

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: **After the deadline, add US\$50 surcharge.**

Presenting author should register by July 15.

Category	Advance Registration Fee (US \$)*	
	Received before August 12	
<input type="checkbox"/> Author, Co-authors	350	_____
<input type="checkbox"/> Session or Symposium Chair, Co-Chair	350	_____
<input type="checkbox"/> ISOPE Member	350	_____
<input type="checkbox"/> ISOPE member with new application (incl. 2003 membership fee and 1-year journal issues)	440	_____
<input type="checkbox"/> Non-Member	420	_____
<input type="checkbox"/> Spouses (no proceedings)		
<input type="checkbox"/> Reserve a seat for Spouse Program, Tuesday	20	_____
<input type="checkbox"/> Full-time Student with 2004 ID Card	250	_____
<input type="checkbox"/> Reserve a seat for Symposium Tour	Free	_____

* **The fee in this table is for non-Russians.** The Symposium registration fee **includes** FESTU Reception, PACOMS Banquet, tea breaks, and symposium proceedings.

REGISTRATION CANCELLATIONS

Request for cancellation of registration must be received in writing by **August 18, 2004** 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:

Sunday, Sept. 12 09:00-16:00 Wednesday, Sept. 15 09:00-12:00

ISOPE PUBLICATION ORDER

A copy of **ISOPE PACOMS-2004 Symposium Proceedings** (CD-ROM and hard copy, **ISBN 1-880653-63-X**) is included in the symposium registration fees. A single-volume proceedings in CD-ROM (400 pp. est.) can be ordered by E-, Fax or postal mail at the rates of:

Mail order at \$100 (ISOPE Member \$80) plus airmail 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.)

SYMPOSIUM HEADQUARTERS *Emerald*

FESTU RECEPTION
18:30-20:30 Sunday *Diamond*

PACOMS SYMPOSIUM BANQUET
19:00-21:00 Wednesday *Diamond*

AUDIO VISUAL PRACTICE *Emerald*
An **overhead** projector, a 35-mm **slide** projector, a **power-point** projector connected to PC (**Read** Author Information form) and screen will be set up during 08:00-17:00 (Monday and Tuesday) in the session rooms. **INTERNET is provided by Business Center on the 2nd floor.**

CHAIR AND CO-CHAIR BRIEFING *Diamond*
Session chairs and co-chairs will be briefed at 10:30 on Monday, and at 08:00 on Tuesday and Wednesday. Only session chairs and co-chairs will be briefed, as the presenters need time to upload **USB drive or CD-ROM.**

INTERNATIONAL PARTICIPANTS AND VISA APPLICATION

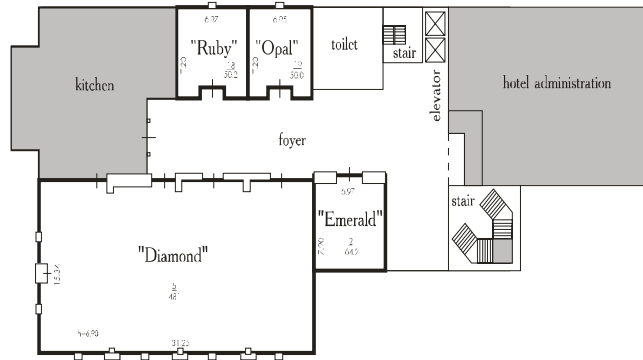
International authors, participants or attendees who need help (except financial) can contact: Prof. A. Bekker, PACOMS-2004 Secretariat, 10, Pushkinskaya St., Vladivostok 690950, Russia, phone: 7 (4232) 450890, fax: 7 (4232) 451618, email: PACOMS2004@vladivostok.ru.

Entry Visa. Some participants may be required to apply for an entry visa. Please get an application form at the Russian Consulate in your country. PACOMS-2004 Secretariat may assist, if filled visa-forms received by Secretariat by July 10th.

CLIMATE

The weather in Vladivostok in September is very nice and pleasant, as usual. Temperature is around 15°C~20°C.

Function rooms. Floor 3.



Hyundai Hotel, Vladivostok: Meeting Rooms

ISOPE OMS-2005 Changsha

The 6th ISOPE Ocean Mining Symposium

Changsha, Hunan, China, October 10–13, 2005

Call For Papers

Abstract Deadline **January 15, 2005**

Download from www.isopec.org
or E-mail to meetings@isopec.org.

HOTEL RESERVATION FORM

(Must Use This Form)

Hyundai Hotel, Vladivostok, Russia

September 12–16, 2004

Hyundai Hotel, Vladivostok is the official venue for the PACOMS-2004. For **guaranteed reservation**, this form must be received **via either e-mail or fax** no later than August 15:

E-mail this form to Prof. Bekker with the address below. PACOMS2004 Secretariat will notify you of the reservation confirmation.

Prof. Alexander T. Bekker, PACOMS-2004 Secretariat
c/o Far Eastern State Tech Univ.

Div. of Hydroengineering

10 Pushkinskaya Str.

Vladivostok 690600, Russia

PACOMS2004@vladivostok.ru; Fax: +7 (4232) 451618

First (Fore)

Surname: _____ & Middle: _____

Circle: Male Female; Title: Mr. Ms. Mrs. Prof. Dr.

Company/Univ.: _____

Address: _____

City _____; Country _____

Postal (ZIP) Code _____; Fax No. _____

Arrival September ____, 2004: Departure September ____, 2004

*(29.0388 Roubles = US\$1.00 as of July 1, 2004)

Hotel	Room Rates (US\$)
Hyundai Hotel (Symposium Venue)	<input type="checkbox"/> 1-person room – 140 <input type="checkbox"/> 2-person room – 180
Versal Hotel (800 m from Hyundai Hotel); Tel. +7-4232-26-42-10: +7-4232-26-42-74	<input type="checkbox"/> 1-person room – 140 <input type="checkbox"/> 2-person room – 175 <input type="checkbox"/> Lux – 274

Note : Room rates include tax, but do not include meals.

LOC has already reserved for all the participants and guests a necessary number of rooms at Hyundai and Versal hotels. If you are going to stay there, just submit a filled form with your arrival date at Vladivostok.

DEADLINE: August 15, 2004

CANCELLATION: Email or fax the room cancellation to PACOMS2004 Secretariat, **15 days or earlier** before your arrival date in the reservation.

Photocopy, Complete, and Send this Form.

Reservation after August 15 is subject to room availability

TECHNICAL PROGRAM

ISOPE PACOMS-2004

Vladivostok

September 12-16, 2004

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

Fax symposium registration form to:

(Non-Russian Participants); ISOPE Fax: +1-650-254-2038 ; meetings@isope.org

(Russian Participants); ISOPE PACOM-2004 Secretariat PACOMS2004@vladivostok.ru; Fax: +7 (4232) 451618

Hotel reservation form and visa invitation form: Get from: PACOMS2004@vladivostok.ru

Future ISOPE Meetings

ISOPE-2005 Seoul, Korea

June 19–24, 2005

Call For Papers and Program on www.isope.org

ISOPE OMS-2005 Changsha, Hunan, China

October 10–13, 2005

Call For Papers on www.isope.org

ISOPE-2006 San Francisco

May 28–June 2, 2006

Call For Papers on www.isope.org

International Society of



Offshore and Polar Engineers

P.O. Box 189

Cupertino, CA 95015-0189, USA

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