



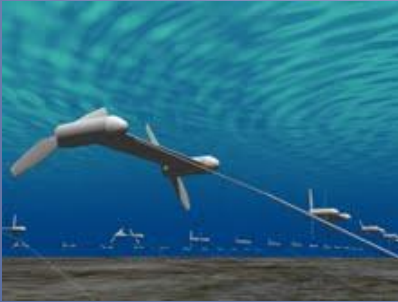
World NAOE Forum 2013 & International Symposium on Marine and Offshore Renewable Energy



Organized by JASNAOE & RINA

28-30 October 2013

The SASAKAWA Hall, Tokyo Japan



Courtesy of NEDO



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We invite you to the joint conference of World NAOE Forum 2013 and International Symposium organized by JASNAOE and RINA. The conference consists of 1-day forum and 2-day symposium for the new advances in marine and offshore renewable energy.

Topics of interest are:

- Recent large projects in Japan, East-Asia, and EU countries
- Device, system and technology for marine renewable energy
- Vessels for installation, operation support, and removal
- Mooring equipment for floating systems

Place: The SASAKAWA Hall

3-12-12 Mita, Minato-ku, Tokyo, Japan

Language: English

Registration: Please visit the Japan Society of Naval Architects and Ocean Engineers (JASNAOE) webpage

<http://www.jasnaoe.or.jp/en/index.html>

Supporting Organizations:

ClassNK

Ministry of Land, Infrastructure, Transport and Tourism, Japan
ABS, Bureau Veritas, Det Norske Veritas,
Germanischer Lloyd, Lloyd's Register



Courtesy of Fukushima Forward Project Consortium

PROGRAM

28 October (Monday) World NAOE Forum 2013 "Marine and Offshore Renewable Energy"	
9:00 - 9:30	Registration and welcome
9:30 - 9:35	Opening address (Prof. Hiroshi Kagamoto, University of Tokyo, Japan)
9:35 - 12:10	Update of Marine and Offshore Renewable Energy Utilization Projects <ul style="list-style-type: none"> ● Projects in Japan in the recent years (Prof. T. Kinoshita, Nihon University, Japan) ● Offshore wind project in Nagasaki, Japan (Prof. T. Utsunomiya, Kyoto University, Japan) ● Fukushima offshore floating wind farm project (Mr. T. Fukuda, Marubeni Corporation, Japan) ● Marine energy progress so far - A Scottish perspective (Mr. N. Kermode, European Marine Energy Centre, UK) ● Project in France in recent years (Prof. B. Alessandrini, Ecole Centrale Nantes, France) ● Discussion (Moderator: Prof. C. Arakawa, University of Tokyo, Japan)
Lunch	
13:20 - 15:50	Achievements and Future Prospects of Marine and Offshore Renewable Energy Utilization Technology <ul style="list-style-type: none"> ● Offshore wind turbine – Keynote from marine engineer’s viewpoint (Mr. M. Komatsu, Mitsubishi Heavy Industries, Japan) ● Offshore wind turbine - Floating facilities (Mr. Y. Awashima, Japan Marine United Corporation, Japan) ● Development of the tidal energy generator (Mr. H. Kiyose, Kawasaki Heavy Industries, Japan) ● Demonstration test of offshore wave power generator in Kouzu Island (Mr. T. Maemura, Mitsui Engineering & Shipbuilding, Japan) ● New stage of ocean thermal energy conversion in Japan and in the world (Prof. Y. Ikegami, Saga University, Japan) ● Discussion (Moderator: Prof. K. Takagi, University of Tokyo, Japan)
16:00 - 17:50	Prospects of Technical Challenges on Offshore Renewable Energy Utilization <ul style="list-style-type: none"> ● The Iwate/Sanriku implementation of a recovery based on ocean energy resources (Mr. T. Tasso, Governor, Iwate Prefecture, Japan) ● Steady stream of European offshore grid - Power systems sail out to sea (Prof. Y. Yasuda, Kansai University, Japan) ● International standardization for offshore renewable energy utilization (Mr. H. Takano, ClassNK, Japan) ● Discussion (Moderator: Prof. T. Kinoshita, Nihon University, Japan)
17:50 - 17:55	Closing address (President Mr. P. French, RINA, UK)
18:00 - 20:00	ClassNK banquet

29 October (Tuesday) International Symposium on Marine and Offshore Renewable Energy (MORE2013)	
9:00 - 10:20	Plenary 1: Vessel for Installation, Support Operation and Removal Stage <ul style="list-style-type: none"> ● Offshore wind multi-purpose installation vessels (Mr. Y. Tajima, Marubeni Corporation, Japan) ● Evolution of vessel usage in offshore marine energy sector (Mr. S. Wallace, Scottish Development International, UK) ● Discussion (Moderator: Prof. H. Suzuki, University of Tokyo, Japan)
10:30-11:45	Plenary 2: Outlook on Activities by Classification Societies <ul style="list-style-type: none"> ● Floating offshore wind turbines - Development of the criteria (Dr. Qing Yu, ABS, USA) ● Windfarm certification at the grid connection point (Mr. K. V. Oeveren, DNV KEMA Energy & Sustainability) ● DNV GL - A Global Leader in Maritime Services and Renewable Energy Sectors (Mr. Y. Uchida, GL Garrad Hassan, Japan)
Lunch	
13:00 - 15:00	Ordinary Session 1: Offshore wind energy (1)
15:20 - 17:20	Ordinary Session 2: Offshore wind energy (2)

30 October (Wednesday) International Symposium on Marine and Offshore Renewable Energy (MORE2013)		
	Room 1	Room 2
9:00 -10:40	Ordinary Session 3: Eco-vessel and Others	Ordinary Session 6: Wave, current energy and OTEC
11:00 - 12:20	Ordinary Session 4: Offshore wind energy (3)	Ordinary Session 7: Offshore wave energy (1)
Lunch		
13:30 - 15:30	Ordinary Session 5: Offshore wind energy (4)	Ordinary Session 8: Offshore wave energy (2)

29 October 2013 (Tuesday)

International Symposium on Marine and Offshore Renewable Energy (More2013)

13:00 – 15:00 Ordinary Session 1 (Offshore Wind Energy(1)) Chair: *Shigesuke Ishida*

- 1-1 Development of Floating Offshore Substation and Wind Turbine for Fukushima FORWARD
Haruki Yoshimoto, Yuji Awashima, Yuka Kitakoji, Hideyuki Suzuki
- 1-2 Managing Risk in Offshore Wind Farm Development
Kazunori Masabayashi, Florus Korbijn, Per Øystein Alvær
- 1-3 Demonstration Experiment of Offshore Wind Power Generation by a Floating Platform in Hakata Bay
Y. Kyojuka, M. Sueyoshi, C. Hu and Y. Ohya
- 1-4 Numerical Analysis of Response and Load for a Floating Offshore Wind Turbine under Severe Marine Conditions
Kimiko Ishii, Hideyuki Suzuki, Yoshitaka Totsuka, Hiroki Kikuchi, Hiroshi Imamura, Shinichiro Hirabayashi
- 1-5 Coupled Nonlinear Analysis Method for a Floating Offshore Wind Turbine with Single-Point Mooring
Chong Ma, Kazuhiro Iijima, Masahiko Fujikubo
- 1-6 Numerical Simulation of Vortex-Induced Motion of Floating Body by Lattice Boltzmann Method
Shinichiro Hirabayashi, Akitaka Miyamura, Hideyuki Suzuki

15:00 – 15:20 Coffee Break

15:20 – 17:20 Ordinary Session 2 (Offshore Wind Energy(2)) Chair *Hideyuki Suzuki*

- 2-1 Survey on the Underwater Noise from the Bottom Fixed Offshore Wind Turbine during Construction
Megumi Shiokari, Motonobu Imasato, Osamu Miyata, Masafumi Okano
- 2-2 Effects of Earthquake and Tsunami on Floating Offshore Wind Turbine
Kentaro Kokubun, Tomoki Taniguchi, Shunji Inoue
- 2-3 Experimental Study for Floating Offshore Wind Turbine with Blade Pitch Control
Toshiki Chujo, Ken Haneda, Shigesuke Ishida, Tadashi Nimura
- 2-4 Applicability of Fatigue Solutions to Floating Wind Turbine Structures
Y. Kayamori, T. Inoue, T. Okawa, S. Nishimura, T. Ishihara
- 2-5 Development of a V-Shaped Semi-Submersible Floating Structure for 7MW Offshore Wind Turbine.
Makoto Ohta, Masao Komatsu, Hiroto Ito, Hitoshi Kumamoto
- 2-6 Offshore Wind Energy Policies and Projects in Taiwan
Yu-Ti Jhan , Ya-Jung Lee , Chien-Hua Huang

30 October 2013 (Wednesday)

International Symposium on Marine and Offshore Renewable Energy (More2013)

9:00 – 10:40 Ordinary Session 3 (Eco-Vessel and Others) Room 1 *Chair Toshiyuki Kano*

- 3-1 “Wind Challenger” The Next Generation Wind Powered Vessel with Rigid Sails
Kazuyuki Ouchi, Kiyoshi Uzawa, Yoshihiro Kanai, Masanobu Katori
- 3-2 Use of Hydro Generator on Ships: An Alternative Green Solution
Wilfredo Erenio Yutuc
- 3-3 Research on Land Power-Supply Systems Using Ships' Electric Generators in Times of Disaster at Shimizu Port -Estimation of Amount of Electric Power Generated by Coastal Cargo Ships-
Hitoshi Kaneko, Masanori Tsugane, Hidenori Aoki, Kenya Sakamoto
- 3-4 Possibility of Using of PEO-coatings for Carbon Steel for Marine and Offshore Renewable Structure
Alexander N. Minaev, Sergey V. Gnedenkov, Sergey L. Sinebryukhov, Dmitry V. Mashtalar, Vladimir Egorkin , Andrgey S. Gnedenkov
- 3-5 The Conspectus of CCHP Technology on Marine Application Prospect
Lu Yidong, Zhang Yan,

10:40 – 11:00 Coffee Break

11:00 – 12:20 Ordinary Session 4 (Offshore Wind Energy(3)) Room 1 *Chair Chang-Kyu Rheem*

- 4-1 Basic Study of an Installing Method of a Finished Spar Type Floating Offshore Wind Turbine
Hisayoshi Suefuku, Kazunobu Hoshino, Osamu Miyata, Mitsuya Ooyama, Tadashi Nimura
- 4-2 Research about Motion Characteristics of SPAR Type Offshore Wind Turbines in Wind and Wave Coexisting Condition
Yasunori Nihei, Tomoki Ikoma, Minoru Kozen, Motohiko Murai, Kazuhiro Iijima
- 4-3 An Experimental Study on Stability of a Semi-Submersible Hull Type Floating Offshore Wind Turbine
Tomoki Taniguchi, Kentaroh Kokubun
- 4-4 Experimental Study on a Hydrodynamic Behavior of a Semi-Submersible Type FOWT
Motohiko Murai, Miki Takei, Hotsuma Saeki, Yasunori Nihei, Kazuhiro Iijima, Tomoki Ikoma

12:20 – 13:30 Lunch Break

13:30 – 15:30 Ordinary Session 5 (Offshore Wind Energy(4)) Room 1 *Chair Toshiki Chujo*

- 5-1 Concept Design of a Floating Straight Wing Vertical Axis Wind Turbine
Hiroshi Kagemoto, Kunihisa Sao, Akisato Mizuno
- 5-2 Study of Motion of Floating Offshore Wind Turbine with Several Types of Floater
Ken Haneda, Toshiki Chujo, Yoshimasa Minami
- 5-3 Comparisons of Hydrodynamic Behavior of Vertical Axis and Horizontal Axis FOWT
Motohiko Murai, Atsushi Nagamine
- 5-4 A Research about Motion Characteristics of TLP Type Offshore Wind Turbines in Wind and Waves
Yasunori Nihei, Midori Matsuura, Motohiko Murai, Kazuhiro Iijima, Tomoki Ikoma
- 5-5 Experimental Investigations into the Motion Characteristics of a Single-Point-Moored FOWT
Kazuhiro Iijima, Misako Kawai, Srinivasamurthy Sharath, Chong Ma, Yasunori Nihei, Motohiko Murai, Tomoki Ikoma

9:00 – 10:20 Ordinary Session 6 (Wave, Current Energy and Otec) Room 2 Chair Shuichi Nagata

- 6-1 Energetics of Marine Turbine Arrays - Extraction, Dissipation and Diminution
Takafumi Nishino, Richard H. J. Willden
- 6-2 Tidal Current Energy Assessment around Goto Islands, Japan
Huihui Sun, Soichi Yamaguchi, Yusaku Kyojuka
- 6-3 Development of a Vertical Axis Marine Turbine with Variable Pitch Blades for Wide Range Current Speed
Tomoki Ikoma, Koichi Masuda, Yasunori Nakamura, Chang-Kyu Rheem, Hisaaki Maeda, Naseru Nakazawa
- 6-4 “Ekmene in the Sea” The Offshore Complex Float Using Deep Ocean Water as Infrastructure of Isolated Island
Kazuyuki Ouchi, Sadayuki Jitsuhara, Takayuki Watanabe

10:20 – 11:00 Coffee Break

11:00 – 12:20 Ordinary Session 7 (Offshore Wave Energy(1)) Room 2 Chair Yasutaka Imai

- 7-1 Motion Characteristics in Waves of a Floating Platform of Complex Geometry for Renewable Energy Utilization
M. Kashiwagi, Y. Ishigami, K. Ishigami, H. Iwashita, Y. Higo, H. Ikeda
- 7-2 Wave-Energy Absorption by an Asymmetric Floating Body Equipped with Rotating Pendulum-Type Electric-Power Generator
Katsuhiro Sakai, Masashi Kashiwagi
- 7-3 Analytical Analysis of Dynamics of Spherical Wave Energy Converts Oscillating in both Horizontal and Vertical Modes in Regular Waves
Zhang Xian-Tao, Yang Jian-Min, Xiao Long-Fei
- 7-4 Motion Analysis of an Oscillation Controlled Small Ship with Wave Energy Converters
Jialin Han, Teruo Maeda, Takeshi Kinoshita, Daisuke Kitazawa

12:20 – 13:30 Lunch Break

13:30 – 15:10 Ordinary Session 8 (Offshore Wave Energy(2)) Room 2 Chair Kazuyuki Ouchi

- 8-1 Development of a Floating Wave Energy Station with Multiple OWC Columns
Yukitaka Yasuzawa, Yoshitaka Okumura, Keisuke Nakao
- 8-2 OWC Type WECs Equipped VLFS for an Offshore Base
Tomoki Ikoma, Koichi Masuda, Yuka Watanabe, Chang-Kyu Rheem, Hisaaki Maeda
- 8-3 Effects of the Projecting Wall and the End Wall to OWC Type WEC in Shallow Water
Tomoki Ikoma, Koichi Masuda, Hikaru Omori, Hiroyuki Taguchi, Hiroyuki Osawa, Tsuyoshi Miyazaki
- 8-4 A Fundamental Study on Electrical Generation Characteristics of a Floating Type Wave Energy Converter Dielectric Elastomer
Koichi Masuda, Tomoki Ikoma, Seiki Chiba, Mikio Waki, Kazuki Murata
- 8-5 Conversion Efficiency of Floating Pendulum Wave Energy Converter in 2D Regular Waves
Yasutaka Imai, Shuichi Nagata, Kazutaka Toyota, Tengen Murakami, Toshiaki Setoguchi