



**Final Program of**  
**The 1st Asia Pacific Conference on**  
**Offshore Wind Technology**  
**(APCOW2024)**



一般社団法人  
日本風力エネルギー学会  
Japan Wind Energy Association

## Time Table

MONDAY - Nov. 25, 2024			TUESDAY - Nov. 26, 2024			WEDNESDAY - Nov. 27, 2024		
Rm. A	Rm. B	Rm. C	Rm. A	Rm. B	Rm. C	Rm. A	Rm. B	Rm. C
			<b>S2-A</b> Industry keynote speeches (I) 9:00-10:40	<b>S2-B</b> FOWT (II) 9:00-10:40	<b>S2-C</b> Demonstration and model test 9:00-10:40	<b>S7-A</b> Social and economic issues 9:00-10:40	<b>S7-B</b> AI application on offshore wind 9:00-10:40	<b>S7-C</b> CFD application (II) 9:00-10:40
			break			break		
Registration 11:00-13:00			<b>S3-A</b> Industry keynote speeches (II) 10:50-12:20	<b>S3-B</b> FOWT (III) 10:50-12:10	<b>S3-C</b> Hybrid energy system 10:50-12:10	<b>S8-A</b> Offshore wind technology 10:50-12:10	<b>S8-B</b> Wake characteristics and yaw steering (II) 10:50-12:10	
			Lunch break 12:20-13:30			Poster session 12:30-14:00		
Opening session 13:00-13:20								
Plenary speeches (I) 13:20-14:50			<b>S4-A</b> Wake characteristics and yaw steering (I) 13:30-15:10	<b>S4-B</b> Control strategy for OWT 13:30-15:10	<b>S4-C</b> Offshore wind turbine design 13:30-15:10			
break			break					
Plenary Speeches (II) 15:00-16:30			<b>S5-A</b> Structure and stress 15:20-16:40	<b>S5-B</b> Mooring system 15:20-16:40	<b>S5-C</b> Wave-structure interaction 15:20-16:40			
break			break					
<b>S1-A</b> FOWT (I) 16:45-18:25	<b>S1-B</b> Offshore wind farm power prediction 16:45-18:25	<b>S1-C</b> Wind resource 16:45-18:25	<b>S6-A</b> CFD application (I) 16:50-18:10	<b>S6-B</b> Bottom-fixed wind turbine foundation 16:50-18:10	<b>S6-C</b> Power cable 16:50-18:10			
			Conference Banquet and Student Paper Award Ceremony (Hilton Fukuoka Sea Hawk) 18:30-21:00					

## PROGRAM

### November 25 (Monday)

11:00 - 17:00	Registration desk open
13:00 - 13:20	<p><b>Opening session</b> (Room A)</p> <p><b>Jun Tanimoto</b> (Executive Vice President of Kyushu University)</p> <p><b>Seitaro Hattori</b> (Governor of Fukuoka prefecture)</p> <p><b>Toru Nagao</b> (President of Japan Wind Energy Association)</p> <p><b>Changhong Hu</b> (Chair of APCOW2024)</p>
13:20 - 14:50	<p><b>Plenary Speeches (I)</b> (Room A) (Chair: Tomoaki Utsunomiya, Kyushu University)</p> <p><b>Improving Blade Element/Momentum Theory for Offshore Wind Turbines</b> David Wood (University of Calgary)</p> <p><b>Insights into Wind Farm Blockage, Gravity Waves, and Wakes</b> Johan Meyers (KU Leuven)</p> <p><b>Design and Analysis of Multi-Rotor Offshore Wind Turbine Systems</b> Peter Dalhoff (Hamburg University of Applied Sciences)</p>
14:50 - 15:00	<b>Break</b>
15:00- 16:30	<p><b>Plenary Speeches (II)</b> (Room A) (Chair: Tomoaki Utsunomiya, Kyushu University)</p> <p><b>A Holistic, Multidisciplinary Approach for the Design and Analysis of Floating Offshore Wind</b> Maurizio Collu (The University of Strathclyde)</p> <p><b>Certification &amp; Inspection for Safe and Stable Operation of Offshore Wind</b> Sadao Akahoshi (ClassNK)</p> <p><b>Introduction of NEDO's Projects on Offshore Wind Energy in Japan</b> Takashi Yoda (NEDO)</p>
16:30 - 16:45	<b>Break</b>

**Parallel Sessions I**

16:45 - 18:25	<p><b>S1-A (Room A)</b></p> <p><b>Floating offshore wind turbine (I)</b></p> <p>Chair: YoungHo LEE (Korea Maritime &amp; Ocean University)</p>	<p><b>S1-B (Room B)</b></p> <p><b>Offshore wind farm power prediction</b></p> <p>Chair: Yves Gagnon (Université de Moncton)</p>	<p><b>S1-C (Room C)</b></p> <p><b>Wind resource</b></p> <p>Chair: Ye Li (Southern University of Science and Technology)</p>
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**S1-A (Room A) 16:45 -18:25**  
**Floating offshore wind turbine (I)** (Chair: YoungHo LEE)

**Research on the Impact of Intermediate Sinkers on the Compactness of Mooring Cable Deployment**

Motohiko Murai\*, Shuto Kondo, Jialin Han

**Static Stability Analysis with Discrete Geometric Method on Floating Offshore Wind Turbine**

Guan-Yu Sung\*, Yu-Chi Sung, I-Ting Chang, and Chin-Kuo Su

**Significance of the Seakeeping Performance of the TaidaFloat Semi-submersible Floating Offshore Wind Platform for Different Incoming Wave Directions**

Jing-Fa Tsai\*, Fu-Cheng Su, Po-Sung Lin

**Effect of Heave Plates on the Wave Motion of a Squared-Barge-Type FOWT**

Hideyuki Suzuki, Yu Fan, Mayuko Takaoka, Edgard B. Malta, Rodolfo T. Gonçalves\*

**Coupled Response Analysis of the Floating Wind Turbine Hoisting State under Typhoon**

Zhirong Hu\*, Jingzhe Jin, Can Yang, Yuchao Jia, Peng Chen, Zhengshun Cheng, Zhen Gao

**S1-B (Room B) 16:45 -18:25**  
**Offshore wind farm power prediction** (Chair: Yves Gagnon)

**Wind Turbine Array Power Prediction via Machine Learning**

Hao-Liang Wen, Ying Wang, Jen-Shin Hong, Shiu-Wu Chau\*

**A Novel Physical-Guided Graph Neural Network for Wind Farm Power Forecasting**

Yi Liu\*, Yingning Qiu, Yanhui Feng, Xue-Lu Xiong, Ye Li

**Enhancing Short-Term Offshore Wind Power Forecasting Models Through Deep Learning-Based Integration of LiDAR and SCADA Data**

Daeyeong Kim\*, Bumsuk Kim

**Preliminary Comparison of Large-Scale Wake Effect of Offshore and Onshore Wind Farms**

Zhizhao Zang\*, Zhiteng Gao, Yanbin Dong, Deshun Li, Ye Li

**Evaluation of Turbine Wakes in a Wind Farm using Dual Scanning Doppler Lidar**

Yuki Fukatani,\* Yasuhiro Kanishima, Keita Saito, Toshio Hirano, Yoshihiro Taniyama, Takato Kurachi, Yutaka Kanda, Masaki Inui, Tadasuke Yoshida, and Takanori Uchida

**S1-C (Room C) 16:45 -18:25**

**Wind resource** (Chair: Ye Li)

**Reassessment of the Offshore Wind Resources for the Bay of Bangkok, Thailand**

Jompob Waewsak\*, Chana Chancham, Somphol Chiwamonkhonkarn, and Yves Gagnon

**Comprehensive Validation of the Dual Doppler Lidar Data in Hampton, VA**

Genta Morimoto\*, Taylor Nunes, Akifumi Yamamoto, Jun-ichi Furumoto, John Anderson, Ruben Delgado, William B. Moore, Michael Hunter, Tony Eckel, Donald H. Berchoff

**Relations between Extreme Wind Speed and 1-Hour Wind Direction Change**

Mostafa A. Rushdi\*, Shigeo Yoshida

**Observation using Unmanned Aerial Vehicles for Investigating Coastal Effects in Japan**

Kazutaka Goto\*, Takanori Uchida, Takeshi Kishida, Daisuke Nohara, Keisuke Nakao, Ayumu Sato

**November 26 (Tuesday)**

09:00 - 17:00	Registration desk open
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**Parallel Sessions II**

09:00 - 10:40	<p><b>S2-A (Room A)</b></p> <p><b>Industry Keynote speeches (I)</b></p> <p>Chair: Shigeo Yoshida (Saga University / Kyushu University)</p>	<p><b>S2-B (Room B)</b></p> <p><b>Floating offshore wind turbine (II)</b></p> <p>Chair: Rodolfo T. Gonçalves (University of Tokyo)</p>	<p><b>S2-C (Room C)</b></p> <p><b>Demonstration and model testing</b></p> <p>Chair: Xinliang Tian (Shanghai Jiao Tong University))</p>
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**S2-A (Room A) 9:00 -10:40**  
**Industry Keynote speeches (I)** (Chair: Shigeo Yoshida)

- Current Status of Offshore Wind Development in China**  
Haiyang Qin (Chinese Wind Energy Association)
- Current Status of Offshore Wind Power in Korea and Key Development Strategies**  
Bumsuk Kim (Jeju National University)
- Development and Outlook of Taiwan Offshore Wind Power for 2050 Net Zero Carbon Emission**  
Mao-Hsiung Chiang (National Taiwan University)

**S2-B (Room B) 9:00 -10:40**  
**Floating offshore wind turbine (II)** (Chair: Rodolfo T. Gonçalves)

- Low-Frequency Hydrodynamic Characteristics of Heave Plate for a Semi-submersible Wind Turbine**  
Haoran Li\*, Yang Chen
- Comparative Analysis of Fully Coupled Floating Offshore Wind Turbine System Simulation Codes**  
Ho-Seong Yang\*, Young-Do Choi, and Young-Ho Lee
- Comparison of Long-term Performance among Three Semi-Submersible Floating Wind Turbine Systems**  
Heng Su, Tsung-Yu Hsiao\*, Shiu-Wu Chau

**Structural Analysis of Floating Offshore Wind Turbines Subjected to Typhoon-induced Wind and Wave Effects**

Wei-Ruei Chen\*, Yu-Ling Shen, Chen-Wei Wu, Nan-You Lu

**Long-Term Power Prediction of a 15MW Semi-Submersible Floating Wind Turbine System in the Hsinchu Offshore Area**

Po-Yen Tsai, Chih-Cheng Hsu\*, Shiu-Wu Chau

**S2-C (Room C) 9:00 -10:40**

**Demonstration and model testing** (Chair: Xinliang Tian)

**Medium-Scale Demonstration of a TLP-type Hybrid Support Structure for Floating offshore WTGs**

Shai Amatya\*, Kenichi Miki, Masato Ito, Fumitaka Katafuchi, Taku Kurimoto

**Experiment on Hydrodynamic Characteristics of a Semi-submersible Floating Platform**

Chen-I Lee\*, Tong-Lin Chen, Tsung-Yueh Lin

**Progress of Model Testing Technology for Floating Wind Turbines in SJTU**

Yuning Gao, Xinliang Tian, Binrong Wen\*, Xin Li, Wenyue Lu, Xiaoxian Guo

**Wind Tunnel Experiments with Two Wind Turbines Placed at Various Distances**

Koichi Watanabe\*, Shota Togoe, Aguru Sakai, Takanori Uchida

**Investigating the Impact of Radial Induced Velocity on the Aerodynamic Characteristics of Wind Turbine Blades with Large Deformations**

Bofeng Xu\*, Tongxu Si, Haojie Kang, Xiaoqing Nie, Zihao Song

10:40 -  
10:50

**Break**

**Parallel Sessions III**

10:50 - 12:20	<p><b>S3-A (Room A)</b> <b>Industry Keynote speeches (II)</b> Chair: Shigeo Yoshida (Saga University / Kyushu University)</p>	<p><b>S3-B (Room B)</b> <b>Floating offshore wind turbine (III)</b> Chair: Kai-Tung Ma (National Taiwan University)</p>	<p><b>S3-C (Room C)</b> <b>Hybrid energy system</b> Chair: Jingzhe Jin (Shanghai Jiao Tong University)</p>
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**S3-A (Room A) 10:50 -12:20 Industry Keynote speeches (II) (Chair: Shigeo Yoshida)**

- Construction of Japan's Largest Offshore Wind Farm**  
Kensuke Eguchi (Kyuden Mirai Energy)
- Establishing local supply chain for offshore wind market in Japan**  
Yuji Shimada (Toshiba Energy Systems & Solutions Corp.)
- Kanadevia’s Initiatives Regarding Offshore Wind Power Business**  
Osamu Azumaya (Kanadevia Corp.)

**S3-B (Room B) 10:50 -12:10 Floating offshore wind turbine (III) (Chair: Kai-Tung Ma)**

- Review of Anchor Solutions for Floating Offshore Wind Turbines**  
Kai-Tung Ma\*, Amir Noorizadegan, Hung-Chun Chang, David Cobb, Yi-Hsiu Liu, and Mao-Hsiung Chiang
- A Comprehensive Analysis of Wind-Wave Misalignment Effects on Floating Offshore Wind Turbine Design**  
Yuan Hu\*, Rennian Li, Zhizhao Zang, Deshun Li, Ye Li
- Load Influence Analysis of External Environmental Conditions to Reduce Analysis Time of Ultimate Load Cases for Offshore Wind Turbine**  
Seongkeon Kim\*, Bumsuk Kim
- Towing Simulation of Semi-Submersible Floating Offshore Wind Turbine Under Head Wave Condition**  
Yen-Hsiang Kuan, Hsuan-Hao Chao\*, Shiu-Wu Chau

**S3-C (Room C) 10:50 -12:10**  
**Hybrid energy system** (Chair: Jingzhe Jin)

**A Numerical Analysis of a Hybrid Semisubmersible and Point Absorber Wind-Wave System Using WEC-Sim and MOST**

Yi-Chieh Huang, Yi-Hsiang Yu, Piinshin Huang\*, Hung-Jie Tang

**Performance Assessment of Spar-type Integrated Floating Wind-Current Energy Systems**

Jie Yu, Yang Yang\*, Yingyi Liu, Chun Li

**Numerical Analysis of a Field Integrated Multi-Energy System: Heaving Point Absorbers Combined with Semi-submersible Floating Offshore Wind Turbine by Flexible Connections**

Hongbo Wang\*, Xinkuan Yan, Chaohe Chen

12:20 -  
13:30

**Lunch break**

12:30 - 14:00	<b>Poster Session Core Time</b>
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**Poster Presentation (Lobby, 1F)**

(1)	<p><b>Measurement of Size Distribution of Hydrometeor at Koriyama</b> Tomoo Ushio, Motofumi Tanaka*</p>
(2)	<p><b>Effects of Scour on the Natural Frequency of Monopile-supported Offshore Wind Turbines and Mitigation through Control of Inner Water Level</b> Dong-ju Kim*, Young-suk You, Min-young Sun</p>
(3)	<p><b>Stability of Tapered Monopile Offshore Wind Turbine with Concrete Filled Double Steel Tubular</b> Chae-won Lee*, Min-Young Sun</p>
(4)	<p><b>Optimization of Turbine Layout in Southwest Sea Offshore Wind Farm</b> Hyun-Su Park*, Min-Young Sun</p>
(5)	<p><b>Behavioral Model of Small Diameter Monopile for Lateral Loads</b> Beom-sik Kim*, Min-Young Sun</p>
(6)	<p><b>Sustainable Development Strategy: How Co-Creative Design Works to Facilitate Social Acceptability of Offshore Wind Power</b> Quentin Ehkirch*, Akane Matsumae</p>
(7)	<p><b>Verification of the Robustness of a Wind Turbine Wake Model Based on Machine Learning Against Seasonal Variations</b> Teppei Iino*, Kunihiko Hidaka, Reo Murakami, Yoshitaka Baba, Rintaro Fujikawa, Susumu Takakuwa, Takanori Uchida</p>

**Corporate Exhibition (Lobby, 1F)**

Poster No.	Corporation	Poster Title	Presenter
(8)	<b>Tokyo Gas Co., Ltd.</b>	Initiatives for Improving the Business Profitability of Wind Power Plants at Tokyo Gas	Kunihiko Hidaka
(9)	<b>Toda Corporation</b>	Initiatives by TODA CORPORATION for Offshore Wind Power	Keifu Nishimura
(10)	<b>National Institute of Advanced Industrial Science and Technology</b>	Establishment of a Hub for Technology and Human Resource Development on Improved Operation and Maintenance of Wind Power Generation	Motofumi Tanaka
(11)	<b>NSK Ltd.</b>	Product and condition monitoring technologies focusing on rolling bearings which support long life and high reliability of wind turbine drive trains.	Yutaka Kanda
(12)	<b>Daido Metal Co., Ltd.</b>	Our Sliding Bearings Bring Innovation to Wind Power	Kaoru Takahashi
(13)	<b>Wind Energy Institute of Tokyo, Inc.</b>	Engineering Consulting Service in Wind Energy	Akihiro Suzuki
(14)	<b>Fukuoka Wind Power Industry Promotion Association</b>	Fukuoka Wind Power Industry Promotion Association	Katsuhiko Furukawa
(15)	<b>Research and Education Center for Offshore Wind</b>	Research and Education Center for Offshore Wind, Kyushu University	Katsuhiko Furukawa
(16)	<b>METALLECO Inc.</b>	Robotic Automation Applications for High-Strength Structural Welding and Ultra-Corrosion Resistance in Offshore Wind Power Equipment	Nick Xiao

## Parallel Sessions IV

13:30 - 15:10	<p><b>S4-A (Room A)</b></p> <p><b>Wake characteristics and yaw steering (I)</b></p> <p>Chair: Takanori Uchida (Kyushu University)</p>	<p><b>S4-B (Room B)</b></p> <p><b>Control strategy for OWT</b></p> <p>Chair: Hongzhong Zhu (Kyushu University)</p>	<p><b>S4-C (Room C)</b></p> <p><b>Offshore wind turbine design</b></p> <p>Chair: Seiya Watanabe (Kyushu University)</p>
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### S4-A (Room A) 13:30 -15:10

#### Wake characteristics and yaw steering (I) (Chair: Takanori Uchida)

**A Modified Porous Disk Model for Two-Dimensional Wind Turbine Wake Evaluation**  
Ji Qi\*, Kenji Ono, Takanori Uchida

**Wind Tunnel Investigation to Clarify the Wake Structure of a 15 MW Class Floating Wind Turbine under Pitching Motion**  
Koichiro Shibuya\*, Yuki Fukatani, Keisuke Umazume, Masaki Inui, Takeshi Hara, Noritaka Moriwaki, Urara Watanabe, Tadasuke Yoshida, Yoshihiro Taniyama, and Takanori Uchida

**Influence of a Floater Pitch on the Wake Characteristics of Floating Offshore Wind Turbines**  
Jay Prakash Goit\*, Takatsugu Kameda

**Influence of Surging and Pitching Motions on the Power Output and Wake Characteristics of a 15-MW Floating Wind Turbine**  
Sai-Kiu Wong, Hoi-Yi Tong, Po-Yun Pai\*, Shiu-Wu Chau

**Influence of Environmental Condition on Coastal Onshore Wind Turbine Wake using SCADA and Lidar Data Analysis**  
Rintaro Fujikawa\*, Susumu Takakuwa, Teppei Iino, Reo Murakami, Takanori Uchida

### S4-B (Room B) 13:30 -15:10

#### Control strategy for OWT (Chair: Hongzhong Zhu)

**A Novel Approach Based on Ultra-low Rotor Speed Control for Floating Offshore Wind Turbine under Extreme Environmental Conditions**  
Lei Xue\*, Nataliia Y. Sergiienko, Boyin Ding, Benjamin Cazzolato, Changhong Hu, Yu Xue

**Motion Reduction of Semi-Submersible Floating Wind Turbine using MTLCD system**  
Shenghui Huang, Donghai Li, Chongwei Zhang\*, Yingyi Liu, Dezhi Ning

**Load Reductions of Offshore Wind Turbine Blades by Cyclic Pitch Control under Wind Shear Conditions**  
Xinbao Wang\*, Chang Cai, Yang Xiao, Jingjing Zhang, Xiaohui Zhong, Kezhong Shi, Qing'an Li

**A Coupled Numerical Framework for Floating Offshore Wind Turbines With Tuned Liquid Column Dampers**

Jingqing Yang\*, Jili Sun, Zezhong Jiang, Shujie Yang, Yulin Si

**Investigating the Influence of Yaw Control on Wind Farm Dynamic Characteristics for Three Conceptual Floating Offshore Wind Turbines using FAST.Farm**

Teng Zhang, Shuaishuai Wang, Yihan Xing, Peng Dou, Renwei Ji, Pei Zhang, Chaoshuai Han, Xiaosen Xu\*

**S4-C (Room C) 13:30 -15:10**

**Offshore wind turbine design** (Chair: Seiya Watanabe)

**On the Economic Design Study for SEMI type FOWTs Operating in the Wind Farm Zone Offshore Taiwan**

Gwo-ang Chang\*, Young-Zher Kehr, Jin-Lin Yang, Ming,Wei Chang

**Preliminary Design of a New Tension Leg Platform Floating Offshore Wind Turbine**

Xiaolei Liu\*

**Design and Cost of Energy for a 20 MW-Multi Rotor Wind Turbine System**

Peter Dalhoff\*, Sven Störtenbecker

**Dimensioning Suction Anchors for 22MW Capacity FOWT using Eulerian-Lagrangian Coupled FEA**

Hojin Yoon\*, Joonmo Choung

**Substructure Dimension Optimization for Semi-submersible Floating Offshore Wind Turbines**

Soo Bin Lee\*, Joonmo Choung

15:10 -  
15:20

**Break**

## Parallel Sessions V

15:20 - 16:40	<b>S5-A (Room A)</b> <b>Structure and stress</b>	<b>S5-B (Room B)</b> <b>Mooring system</b>	<b>S5-C (Room C)</b> <b>Wave-structure interaction</b>
	Chair: Joonmo Choung (Inha University)	Chair: Motohiko Murai (Yokohama National University)	Chair: Yingyi Liu (Kyushu University)

### S5-A (Room A) 15:20 -16:40 Structure and stress (Chair: Joonmo Choung)

**Effect of Working Condition on Collision Strength of Tower Structure under Lateral Impact**

Ruoxuan Li\*, Zhixin Xiong, Jiaye Gong

**Evaluation of Strain and Vibration of Offshore Wind Turbine Blade based on Distributed Fiber Optic Sensing System and Iso-Geometric Analysis**

Ninshu Ma\*, Kenji Takada, Kinzo Kishida, Yoshiaki Yamauchi

**A Development Report of FLOWStress to Obtain Stress History in FOWT Substructures**

Sungjun Park\*, Joonmo Choung

**Preliminary Structural Response Estimation of Wind Turbines Based on Local Meteorological Data**

Yuan-Lung Lo\*, Hsiang-Jung Hsu, Kuo-En Hung

### S5-B (Room B) 15:20 -16:40 Mooring system (Chair: Motohiko Murai)

**Time-Domain Integrated Analysis of Multi-segment Mooring System for Floating Offshore Wind Turbines**

Jihuai Yang\*, Zhiqiang Hu, Changhong Hu

**Feasibility Study of Shared Anchor Concept for 15 MW Floating Offshore Wind Turbines**

Yu-Shiou Su\*, Ya-Jung Chang, Chin-Cheng Huang, Wen-Jeng Lai, Ray-Yeng Yang

**Evaluation of Mooring Tension Reduction Ratio of Load Reduction Device using HydroQus**

Dong Ho Yoon\*, Joonmo Choung

**Global-Local Finite Element Analysis of a Floating Offshore Wind Turbine and its Fairlead Support Structure**

Glib Ivanov\*, Yu-Xiang Zheng, Amir Noorizadegan, Kai-Tung Ma

**S5-C (Room C) 15:20 -16:40**

**Wave-structure interaction** (Chair: Yingyi Liu)

**Deterministic Wave Forecasting through Quadratic Transfer Function Correction**

Tianqi Pei\*, Zhen Gao, Jingzhe Jin

**An Investigation into the Underprediction of Quadratic Transfer Functions of Semisubmersible Floating Offshore Wind Turbines using Cross-Bi-Spectral Analysis**

Edward Land\*, Zhiqiang Hu, Chong Ng

**Extreme Wave Pressures on a Pile under Different Model Scales**

Bing Tai, Yuxiang Ma, Junliang Gao\*, Yingyi Liu

**Simulation and Analysis of Wave Load on Offshore Wind Turbines Based on Numerical Wave Tanks**

Zhen Wang\*, Zhiteng Gao, Wei Zhong, Tongguang Wang, Ye Li, Kai Feng

16:40 -  
16:50

**Break**

## Parallel Sessions VI

16:50 - 18:10	<p><b>S6-A (Room A)</b> <b>CFD application (I)</b></p> <p>Chair: Shiu-Wu Chau (National Taiwan University)</p>	<p><b>S6-B (Room B)</b> <b>Bottom-Fixed wind turbine foundation</b></p> <p>Chair: Yuen-Lien Lee (National Taiwan University)</p>	<p><b>S6-C (Room C)</b> <b>Power cable</b></p> <p>Chair: Ray-Yeng Yang (National Cheng Kung University)</p>
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### S6-A (Room A) 16:50 -18:10 CFD application (I) (Chair: Shiu-Wu Chau)

**A Numerical Model of Multi-Rotor Diffuser Augmented Wind Turbine System using the Actuator Line Method**

Tianyang Liang\*, Seiya Watanabe, Changhong Hu

**Optimization and Design of Vortex Generator on Truncated Airfoil by RANS-based CFD Analysis**

Je-Eun Lee\*, Cheol Yoo, Jae-Ho Jeong

**Development of Stall Delay Built-in Advanced Actuator Line Method for Wind Turbine Rotors**

Koji Matsuoka\*, Hayato Yoshimizu, Shigeo Yoshida

**Numerical Simulation and Performance Analysis of Blocking Effect between Wind Turbines**

Binzhen Zhou, Chaonuan Lin, Zhiwei Yang, Yuming Yuan\*, Mingxin Li, Peng Jin

### S6-B (Room B) 16:50 -18:10 Bottom-Fixed wind turbine foundation (Chair: Yuen-Lien Lee)

**A Numerical Study on the Towing Force of a Jacket Type Offshore Wind Turbine with Suction Buckets**

Lei Tan\*, Changhong Hu, Yingyi Liu

**Experimental and Numerical Studies of Wet Towing of a Multi-Bucket Jacket Wind Turbine**

Hongzhong Zhu\*, Daichi Inoue, Changhong Hu, Makoto Sueyoshi, Rikizo Yamashita, Yoshihiro Matsuoka

**Jacket Substructure Analyses of a 15MW Capacity Fixed Offshore Wind Turbine**

Dong Jae Gwak\*, Joonmo Choung, Sung Kyu Cho, Dong Joon Kim

**Fatigue Analysis of Monopiles in the Southwest Sea of Korea Considering Wake Effects**

Hae-Sung Lim\*, Young-Ju Noh, Min-Young Sun

**S6-C (Room C) 16:50 -18:10**  
**Power cable** (Chair: Ray-Yeng Yang)

**Design of Dynamic Power Cable Configuration of a 15MW Floating Offshore Wind Turbine based on Quasi-Static and Dynamic Load Analyses**  
Doyoung Kwon\*, Joonmo Choung

**Ultimate Strength and Fatigue Analysis of a Dynamic Cable for a Floating Offshore Wind Turbine**  
Ren-Jie Liu\*, Shun-Han Yang, Mao-Hsiung Chiang

**Dynamic Analysis of Power Cable for a 15 MW Semi-Taut Moored Floating Wind Turbine**  
Hung Jie Tang\*, Marek Jan Janocha, Muk Chen Ong

18:30 -  
21:00

**Conference Banquet and Student Paper Award Ceremony**  
**(Hilton Fukuoka Sea Hawk)**

**November 27 (Wednesday)**

09:00 - 12:20	Registration desk open
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**Parallel Sessions VII**

9:00 - 10:40	<p><b>S7-A (Room A)</b> <b>Social and economic issues</b> Chair: Yuriko Hayabuchi (Kyushu University)</p>	<p><b>S7-B (Room B)</b> <b>AI application on offshore wind</b> Chair: Zhiqiang Hu (New Castle University)</p>	<p><b>S7-C (Room C)</b> <b>CFD application (II)</b> Chair: Cheng Liu (Shanghai Jiao Tong University)</p>
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**S7-A (Room A) 9:00 -10:40**  
**Social and economic issues** (Chair: Yuriko Hayabuchi)

**Identification of Criteria for Social Acceptance of Wind Energy**

Kuniko Mishima\*, Nozomu Mishima

**Exploring the Potential Visual Impact of Offshore Wind Farms for a Future Project in Morocco.**

Hanan Korchy\*, Nozomu Mishima

**Local Citizens' Preferences for Offshore Wind Projects: An Empirical Evidence from Four Prospective Prefectures in Japan**

Shinsuke Kyoj, Kengo Iwata, Yoshiaki Ushifusa\*

**A Study on Preferences of Landscapes of Offshore Wind Farms and Interactions with the Surrounding Environment**

Nozomu Mishima\*, Marin Minato, Kuniko Mishima

**TAIWAN's Emerging Offshore Wind Energy Industry and Professions: an Interview Study on the Talent Flow and Capacity Building**

Wen-Ling Hong\*, Tsai-Ying Lu, Jr-Ping Wang, Zi-Long Zhang

**S7-B (Room B) 9:00 -10:40**  
**AI application on offshore wind** (Chair: Zhiqiang Hu)

**Hub Center Load Estimation with Simple Measurement and Machine Learning**

Soichiro Kiyoki\*, Shigeo Yoshida, Mostafa A. Rushdi

**Data-Driven Modelling of Fully Nonlinear Wave Loads on Offshore Wind Turbine Monopiles**

Weikai Tan, Pu Ren, Deping Cao, Hui Liang, and Hao Chen\*

**Intelligent Monitoring Technique Investigation on Dynamic Response of Submarine Cable based on Inverse Finite Element Method**

Li Guo\*, Shuo Peng, Yuchao Yuan, Wenyong Tang, Hao Qin

**Surrogate Model-Assisted Evolutionary Approach for Optimizing Mooring Systems in Floating Wind Turbines**

Ye An\*, Zhisheng Xia, Min Luo, Jian Zhang, Ronghua Zhu

**Several Adaptive Ridge based models for electricity consumption forecast**

Ho KA long Keith\*

**S7-C (Room C) 9:00 -10:40**

**CFD application (II)** (Chair: Cheng Liu)

**Comprehensive Performance Analysis of a 15MW Wind Turbine Blade Icing in Cold Region base on the MCAP Method**

Zhenju Chuang\*, Hui Yi, Lulin Xia

**Influence of Damping Plate Size on Pitch Motion Response of Floating Offshore Wind Turbine Under Operational Conditions**

Xiaolong Yang, Chuansheng Wang, Tian Zhang, Yichen Jiang\*, Jiawen Li

**Fully Resolved Wind Turbine Simulation with OpenFOAM**

Mo Weijie\*, Changhong Hu, Hongzhong Zhu, Seiya Watanabe, Tianyang Liang

**Large-scale Simulations for Offshore Wind Farm Using Lattice Boltzmann Method and Actuator Line Model**

Seiya Watanabe\*, Changhong Hu

**A Numerical Study on Hydrodynamic Friction in Floating Axis Wind Turbines**

Susumu Kono\*

10:40 -  
10:50

**Break**

**Parallel Sessions VIII**

10:50 - 12:10	<p><b>S8-A (Room A)</b></p> <p><b>Offshore wind technology</b></p> <p>Chair: Motofumi Tanaka (Kyushu University)</p>	<p><b>S8-B (Room B)</b></p> <p><b>Wake characteristics and yaw steering (II)</b></p> <p>Chair: Jay Prakash Goit (Kindai University)</p>	
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**S8-A (Room A) 10:50 -12:10**  
**Offshore wind technology** (Chair: Motofumi Tanaka)

**Impact of Non-Gaussian Winds on Blade Crack Damage of Floating Offshore Wind Turbines**

Shu Dai\*, Tao Shi, Shanran Tang, Yue Song, Hao Wang, Jianfeng Wen

**Design of Impressed Current Cathodic Protection Anode Arrangements for Floating Offshore Wind Turbine Platforms**

Guang-Han Lai, Cheng-Hsien Chung, Shang-Sheng Chin, Yu-Wen Chen, Ya-Jung Lee, Yueh-Lien Lee\*

**Fibre-Reinforced Polymer (FRP)-based Novel Supporting Structures for Offshore Wind Turbine**

Tao Yu\*

**Effect of Aggregation States at the Epoxy/Polyamide 6 Interface on Adhesion Properties**

Tamura Shunta\*, Tatsuki Abe, Keiji Tanaka

**S8-B (Room B) 10:50 -12:10**  
**Wake characteristics and yaw steering (II)** (Chair: Jay Prakash Goit)

**Development of a PIV system for Measuring Wake Characteristics of an Offshore Floating Wind Turbine with Pitching Motion**

Kota Motoda\*, Koichiro Shibuya, Takanori Uchida

**Effects of Yaw Steering Method on Wind Turbine Wake Flow in Wind Farms**

Rion Mizoguchi\*, Koichiro Shibuya, Takanori Uchida

**Temporal Variation of Wake Flow and Its Effect on Power Generation in Floating Offshore Wind Turbines**

Hiroyo Mochizuki\*, Koichiro Shibuya, Takanori Uchida

**Effects of Proximity of Two Shrouded Wind Turbines with Brimmed Diffusers on Output Performance and Wake Structure**

Aguru Sakai\*, Shota Togoe, Koichi Watanabe, Takanori Uchida

12:10 - 12:15	<p><b>Closure session (Room A)</b></p>
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