

2024 International Ocean Energy Symposium & 21st Joint Young Researcher Forum

Organised by

The organizing committee of 2024 International Ocean Energy Symposium &
21st Joint Young Researcher Forum

Date December 16-17, 2024

Venue TKP Hakata Station Chikushi Exit Business Center
Yuuko Building 8F Room801
4-8 Hakataekichuogai, Hakata-ku, Fukuoka-shi, Fukuoka 812-0012, Japan

Participation Korea Maritime & Ocean University (KMOU, Korea)
Mokpo National Maritime University (MMU, Korea)
Saga University (SAGA-U, Japan)
National Fisheries University (NFU, Japan)



Program

December 16 (Mon.)

Time	Event	Remark
13:30 – 14:00	Registration	Participant
14:00 – 14:20	Greetings	
14:20 – 15:20	Oral presentation (1)	Presenters: 3
15:20 – 15:40	Short Break	
15:40 – 17:00	Oral presentation (2)	Presenters: 4
18:00 – 20:30	Discussion forum	

December 17 (Tue.)

Time	Event	Remark
09:00 – 09:10	Opening	
09:10 – 10:10	Oral presentation (3)	Presenters: 3
10:10 – 10:30	Short Break	
10:30 – 11:30	Poster session	Presenters: 9
11:30 – 11:40	Closing	

December 16 (Mon.)

Oral Presentation (1)		14:20 – 15:20	Chairman: Wakana TSURU (SAGA-U)		
1	Optimization method for Ocean Thermal Energy Conversion system deep ocean water application	Takayuki HARAGUCHI	SAGA-U	1	
2	Oceanographic Survey for Installation of OTEC Plant in Okinotorishima	Mamoru TAMEHIRA	NFU	3	
3	Experimental Study on Flashback Control Techniques in Hydrogen-Methane Premixed Flames	Sung-Hwan YOUN	KMOU	5	
Oral Presentation (2)		15:40 – 17:00	Chairman: Srinivasamurthy SHARATH (SAGA-U)		
4	Comparison of Cycle Characteristics for Single and Double-Stage Reverse Rankine	Daisuke MUKAI	NFU	7	
5	Dynamics Simulation of a Multi-pass Wind Turbine Drivetrain	Geordie Goodall Martin Grayson	SAGA-U	9	
6	Predictive Modeling and Experimental Analysis of Thermal Runaway in Lithium-Ion Batteries Under Thermal Abuse Condition	Ju-Won PARK	KMOU	11	
7	Optimization and Analysis of Ammonia-Fueled SOFC Hybrid Systems for Ships	Jun-Seong KIM	KMOU	13	

December 17 (Tue.)

Oral Presentation (3)		9:10 – 10:10	Chairman: Hirofumi ARIMA (SAGA-U)		
8	Study of Cooling system at Data Center Utilizing Deep Seawater	Kouta MIHARA	NFU	15	
9	Hybrid Hot Spring Thermal Energy Conversion using Low GWP Working Fluid	Atsuyoshi ETSUKAWA	SAGA-U	17	
10	Analysis of Nitrous Oxide Decomposition and Nitrogen Oxide Formation under Varying Reaction Conditions	Su-Hyeon KIM	KMOU	19	

Poster Presentation		10:30 – 11:30		
11	Study of Power Generation System Utilizing Waste Heat from Seafood Processing Plant	Yu YAMAGUCHI	NFU	21
12	Research on hull shape that maximizes efficiency of spar-type wave energy converters	Shuya KAYASHIMA	SAGA-U	23
13	Research on number of fabric blades for turbines used in wave energy converters	Makoto EGASHIRA	SAGA-U	24
14	Research on shape of fabric blades for turbines used in wave energy converters	Koki KUDO	SAGA-U	25
15	Development of optimization method for offshore wind turbine jacket foundations	Takahiro NAGATSU	SAGA-U	26
16	Effects of blade coning/pre-bending on rotor performance	Yuu MURAOKA	SAGA-U	28
17	Research on evaluation of combined use of deep sea water with Ocean Thermal Energy Conversion at its core	Mei KOKUBO	SAGA-U	30
18	Study on flow conditions inside a PHE heat exchanger with gas-liquid two-phase flow	Shodai NAGATA	SAGA-U	32
19	Research on a Combined Model with Ocean Thermal Energy Conversion for Submarine Rare Earth Development	Tetsuya HONDA	SAGA-U	34