

Strategic Workshop

Visions and Strategies to enhance the concept of Floating Energy Islands

Beckmannshof (Botanical garden)
Ruhr University Bochum, Germany
September 2-3, 2024



PROGRAM

COST CA 20109 – Strategic Workshop BOCHUM

Visions and Strategies to enhance the concept of Floating Energy Islands

Program Overview

DATE:	2 nd and 3 rd September, 2024
Time	Day 1: 09h00 – 19h00 (CEST) Day 2: 09h00 – 13h00 (CEST)
Place	Bochum, Germany
Venue	Beckmannshof (Botanical garden), Ruhr University Bochum
Host	Prof. Dr.-Ing. Rüdiger Höffer (Ruediger.Hoeffer@ruhr-uni-bochum.de)
Webpage	https://modenerlands.eu/activities/events/strategic-workshop-bochum-2024/



TIMETABLE

2nd Sept (Monday)			Location
9:00 - 9:30	Registration		
9:30 - 9:45	Welcome by the Vice Rector of RUB	Günther Meschke	
9:45 - 10:00	Opening of the Workshop	Rüdiger Höffer	
10:00 - 10:15	Overview of COST Action and SW	Carlos Rebelo	Beckmannshof
10:15 - 10:45	Invited Lecture IL1	Michal Kociniak	
10:45 - 11:15	Invited Lecture IL2	Erick Ulloa Jimenez	
11:15 - 11:45	Coffee-break		
11:45 - 12:15	Invited Lecture IL3	Susanne Leidescher	
12:15 - 13:45	Lunch break		Mensa
13:45 - 14:00	Overview of WG1 developments	Anina Glumac	Beckmannshof
14:00 - 15:30	Presentations by WG1 members		
15:30 - 15:45	Coffee-break		
15:45 - 16:00	Overview of WG2 developments	Abdollah Malekjafarian	Beckmannshof
16:00 - 17:30	Presentations by WG2 members		
17:30 - 19:00	Visit wind tunnel & test facilities		
19:30 - 22:00	Dinner		Campus "Q-West"
3rd Sept (Tuesday)			
9:00 - 9:30	Invited Lecture IL4	José Pascual-Fernández	Beckmannshof
9:30 - 10:00	Invited Lecture IL5	Suat Uçar	
10:00 - 10:45	Poster Session		
10:45 - 11:00	Coffee-break		
11:00 - 11:15	Overview of WG3 developments	Luana Tesch	Beckmannshof
11:15 - 12:45	Presentations by WG3 members		
12:45 - 13:00	Closure of workshop	Lambis Baniotopoulos & Rüdiger Höffer	
13:00 - 14:30	Lunch		Mensa
14:30 - 15:30	Visit to Chinese Garden		

Scientific and Technical Program

2nd Sept (Monday)		
Invited Lectures		
10:15 - 10:45	Michal Kociniak	Reinforced concrete structures in modern green power generation
10:45 - 11:15	Erick Ulloa Jimenez	Research and application of probabilistic design: Addressing icing as a natural hazard for overhead lines
11:45 - 12:15	Susanne Leidescher	Sustainability considerations for Floating Wind – status and trends
Session by WG1 members		
13:45 - 14:00	Anina Glumac	Overview of WG1 developments
14:00 - 14:15	Teresa Simões	Review of maritime spatial plans for the iberian peninsula with focus on offshore energy development
14:15 - 14:30	Felix Nieto	Aowinde: an eu interreg project for supporting the offshore wind industry of galicia and north of portugal
14:30 - 14:45	Jonas Thor Snaebjornsson	Accuracy assessment of wind velocities over the sea based on geospatial data
14:45 - 15:00	M. Pinar Menguc	Radiative Cooling: Fundamentals and Potential Applications
15:00 – 15:15	Danka Kostadinovic	Energy assessment of potential location for Energy Island in the Adriatic Sea
15:15 - 15:30	Mohadeseh Ashkarkalaei	An unsupervised damage detection method for an operating wind turbine blade under environmental and operational conditions
Sesssion by WG2 members		
15:45 - 16:00	Abdollah Malekjafarian	Overview of WG2 developments
16:00 - 16:15	Jannette Frandsen	Shapes of artificial energy islands with optimized von Karman vortex streets
16:15 - 16:30	Junlin Heng	Fatigue mitigation of floating offshore wind turbine structures by adaptive controlling strategies
16:30 - 16:45	Jafar Mohammady Tekantappeh	Effects of inter-module connection properties on dynamic characteristics of self-erecting modular tower
16:45 - 17:00	Ramin Ghiasisangani	Corrosion detection around mooring cables of spar-type floating offshore wind turbine using dynamic response of the structure
17:00 - 17:15	Georgios Stavroulakis	Data, models and in-between for physics informed neural networks and digital twins

17:15 - 17:30 Salvatore Capasso

Towards resilient FMEI: an SPH-based framework for extreme hydroelastic events

3rd Sept (Tuesday)

Invited Lectures

09:00 - 09:30 José Pascual-Fernández Interactions (impacts and potential synergies) with small-scale fisheries and coastal tourism

09:30 - 10:00 Suat Uçar Fundamentals of Green Hydrogen: Production, Policy, Challenges, Research & Innovation and Best Practices

Session by WG3 members

11:00 - 11:15 Luana Tesch Overview of WG3 developments

11:15 - 11:30 Alper Nabi Akpolat Utilization of modular energy islands with high green hydrogen production: a p2x example

11:30 - 11:45 Bahri Prebreza Potential of sustainable energy resources for energy islands in Kosovo

11:45 - 12:00 Dora Pontinha Concrete-based battery

12:00 - 12:15 Erhan Kayabasi Feasibility of synthetic fuel production from waste heat of integrated iron and steel factories with the help of a floating energy island in Black Sea

12:15 - 12:30 Maria Tsami Key Principles for Sustainable and Resilient Modular Energy Islands

12:30 - 12:45 Mosa Rossi Optimal management of micro-grids to increase flexibility and resilience and act as energy islands: An Italian case study