Summer School

ROOT

Rostock
Ocean Technology

Programme 2026

Challenges and Chances of Offshore Wind Energy

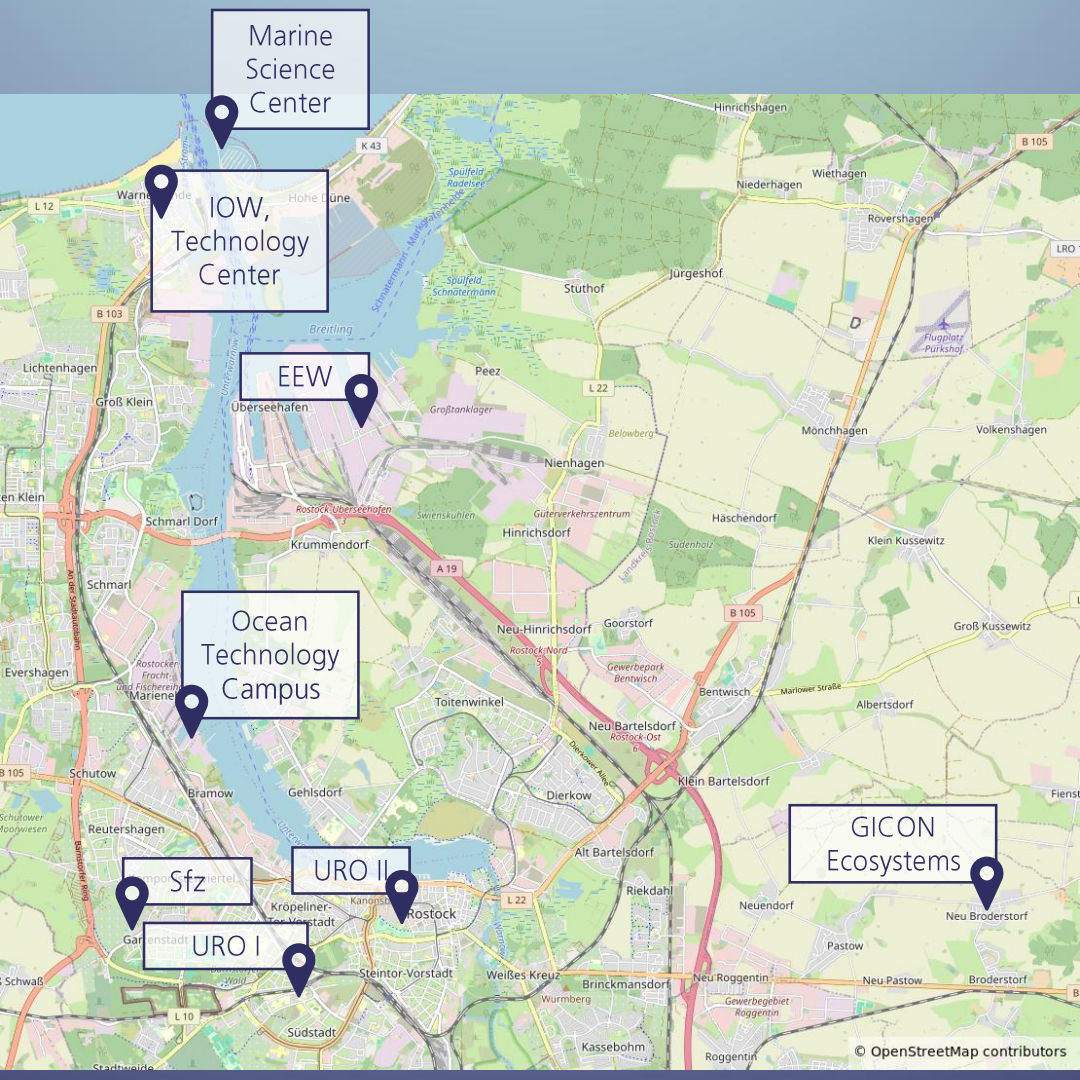
Balancing Climate Goals and Ecosystem Health

EEW SPC

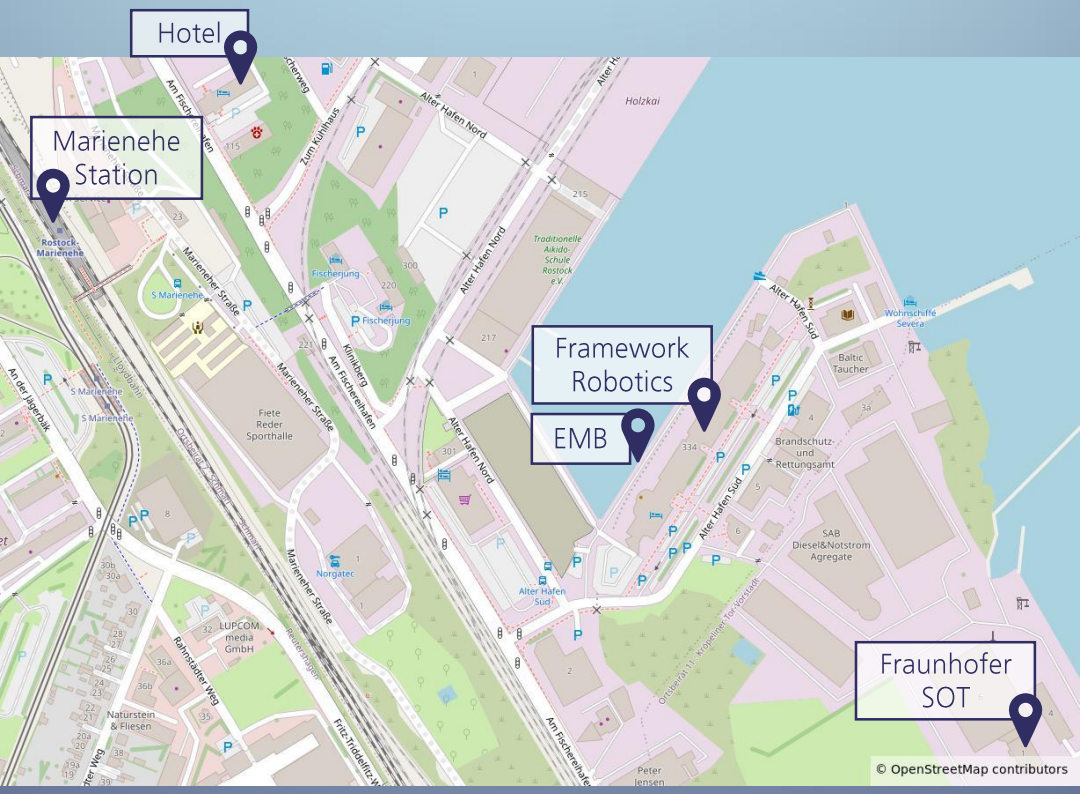
Evo Logics®

OCEAN
TECHNOLOGY
CAMPUS ROSTOCK

Locations overview



Monday, 29 June



Meet the Ocean Technology Campus

We will begin the day with an icebreaker session to get to know each other at Fraunhofer SOT.

This will be followed by an introduction to the Ocean Technology Campus Rostock, presented by Prof. Dr. Uwe Freiherr von Lukas, Head of the Chair for Marine Graphics at the University of Rostock (URO), speaker of the OTC Steering Committee, and Director of the Fraunhofer Institute for Computer Graphics Research (IGD) Rostock.

After lunch, we will visit Framework Robotics, where we will learn about their modular underwater systems and customized solutions for ROVs and AUVs, guided by their principle: “What you need is what we build”.

In the afternoon, Prof. Dr. Kosleck, Head of the Chair of Ocean Engineering, will provide an introduction to offshore wind energy.

The day will conclude with a guided city tour of Rostock. Please grab a snack before the tour. Afterwards, the group will meet for an optional joint dinner at a restaurant (to be confirmed).

Monday, 29 June

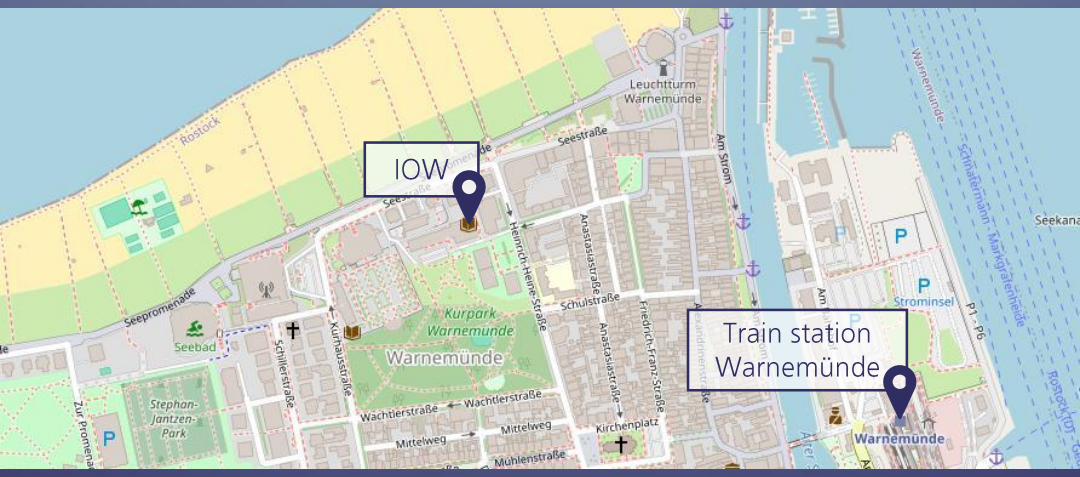
When?	What?	Where?
09:00 – 10:45	Opening Session & Ice Breaker	Fraunhofer SOT
10:45 – 11:00	Break	
11:00 – 12:00	Introduction to Ocean Technology Campus	
12:00 – 13:00	Lunch	AFZ
13:00 – 14:00	Company presentation	Framework Robotics
14:00 – 14:30	Fraunhofer SOT & DOL	Fraunhofer SOT
14:30 – 15:30	Talk: Introduction to offshore wind energy	
18:30 – 20:00	Rostock City Tour	Start: Tram station Neuer Markt

Tuesday, 30 June
Focus Day: Exploring Challenges

The second day begins with a visit aboard the research vessel "Elisabeth Mann Borgese" (EMB), offering insights into its marine research equipment.

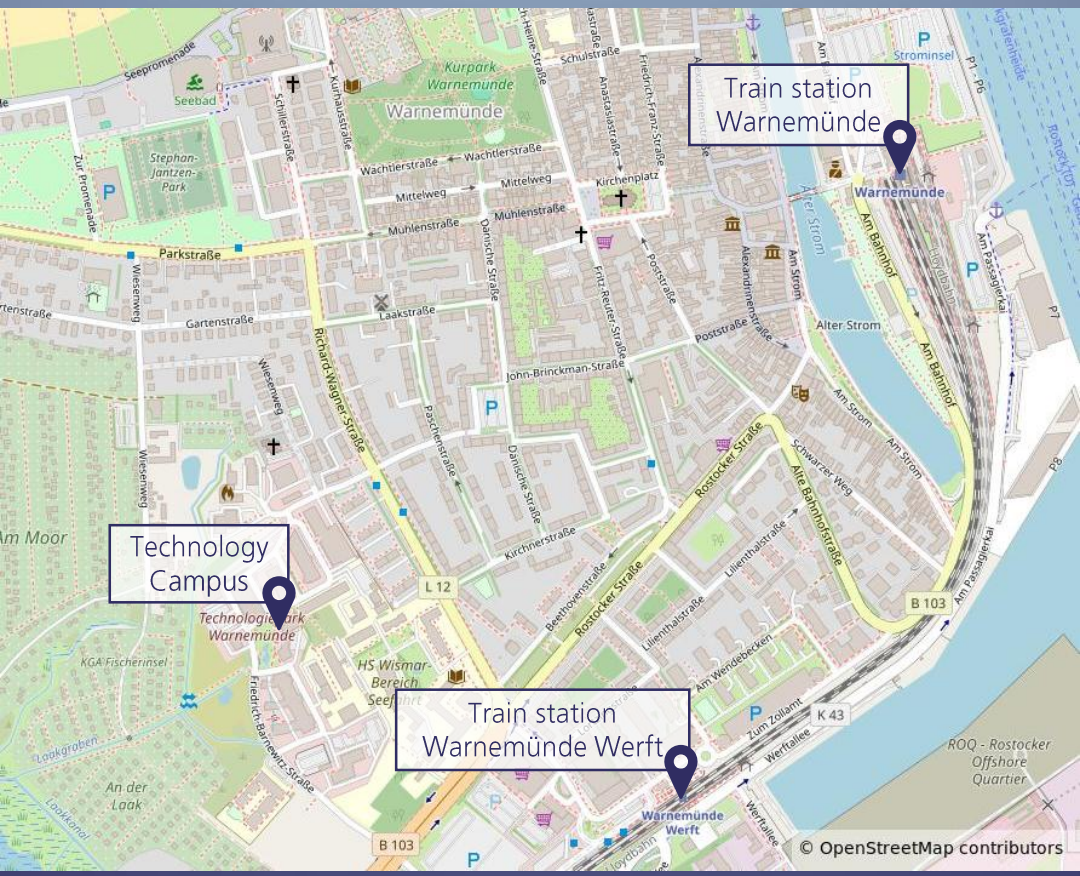
Afterwards, we will travel to Warnemünde for an institutional presentation by Dr. Regine Labrenz (IOW Technology Transfer & OTC Innovation Field Lead for Ocean Open Innovation). The Leibniz Institute for Baltic Sea Research (IOW), founded in 1992, focuses on inter-disciplinary research into coastal oceans and marginal seas, with particular emphasis on the Baltic Sea. Its work spans physical oceanography, marine chemistry, biological oceanography, and marine geology.

This will be followed by a presentation of the FINO II platform by Sjard Wucherpfennig, providing insights into offshore research infrastructure and its role in energy and environmental studies.



Afterwards, there will be a lunch break with time to enjoy local snacks such as a traditional "Fischbrötchen" *am Strom* or other options in Warnemünde.

In the afternoon, the programme continues with two contributions from the Federal Maritime and Hydrographic Agency (BSH). First, experts will talk about maritime spatial planning and offshore wind energy planning in the German Sea areas, followed by Wiebke Hahne, who will provide insights into underwater acoustics and the national noise register.



In the evening, the OTC Meetup will take place at the Technology Campus Warnemünde, featuring Prof. Rouven Seifert (University of Rostock, Department of Business Administration) and the Störtebeker Brewery. Under the theme of "The power of prototyping: from idea to market-ready innovation", a short session will explore the journey from initial concept to applied innovation. Afterwards, the meetup offers networking opportunities with institutions and companies.

Tuesday, 30 June

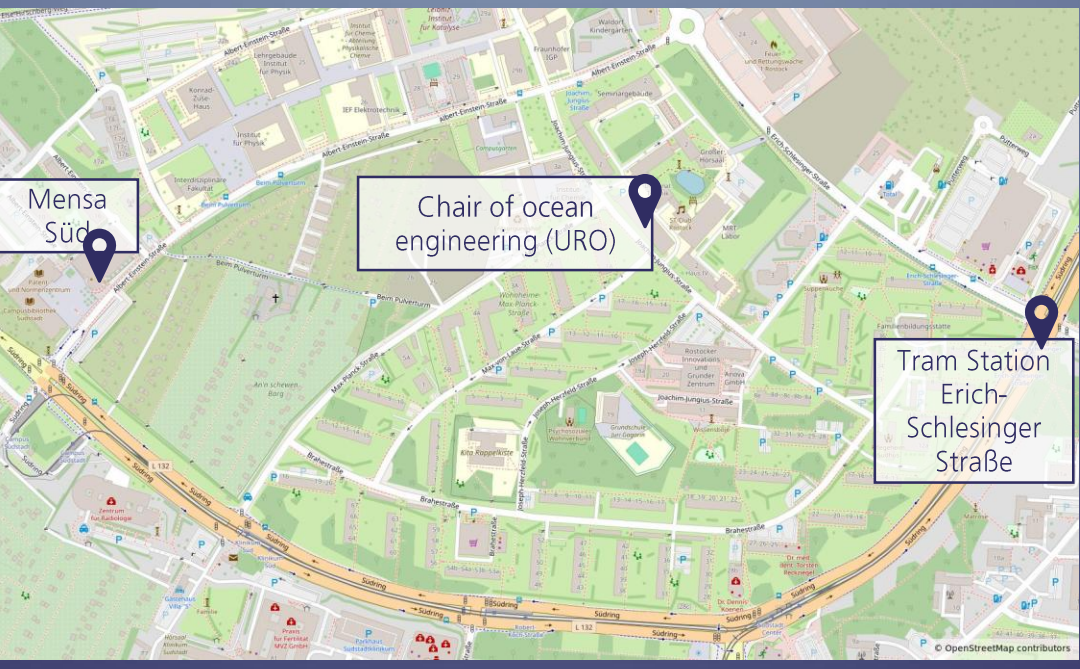
When?	What?	Where?
09:00 – 10:00	Elisabeth Mann Borgese	Waterfront at AFZ
10:00 – 11:00	Train to Warnemünde	
11:00 – 11:45	Introduction to IOW by Dr. Regine Labrenz	IOW
11:45-12:30	Introduction to FINO II platform by Sjard Wucherpfennig	
12:30 – 14:00	Lunch	Warnemünde
14:00-15:00	BSH	IOW
15:00-16:00	BSH	
17:00 – 20:00	OTC Meetup	Technology Campus Warnemünde

Wednesday, 01 July
Focus Day: Exploring Challenges

Today you will take part in a hands-on workshop in which a floater is constructed under guidance of the Chair of Ocean Engineering to deploy either an underwater camera or a measurement probe within the water column. The session offers a practical introduction to applied marine engineering and encourages teamwork and problem-solving.

Workshop safety reminder:

- Wear sturdy, closed-toe shoes with flat soles
- Avoid loose or flowing clothing
- Tie back long hair
- No jewelry or accessories that could get caught



We will have lunch at the university canteen nearby. After the second workshop session we will end the day with pizza and drinks!

Wednesday, 01 July

When?	What?	Where?
9:00 – 12:00	Hands-on-Practice	URO, Albert-Einstein-Straße 2
12:00 – 13:00	Lunch	Mensa Süd
13:00 – 18:00	Hands-on-Practice	URO, Albert-Einstein-Straße 2
18:00 – open end	Pizza Night	

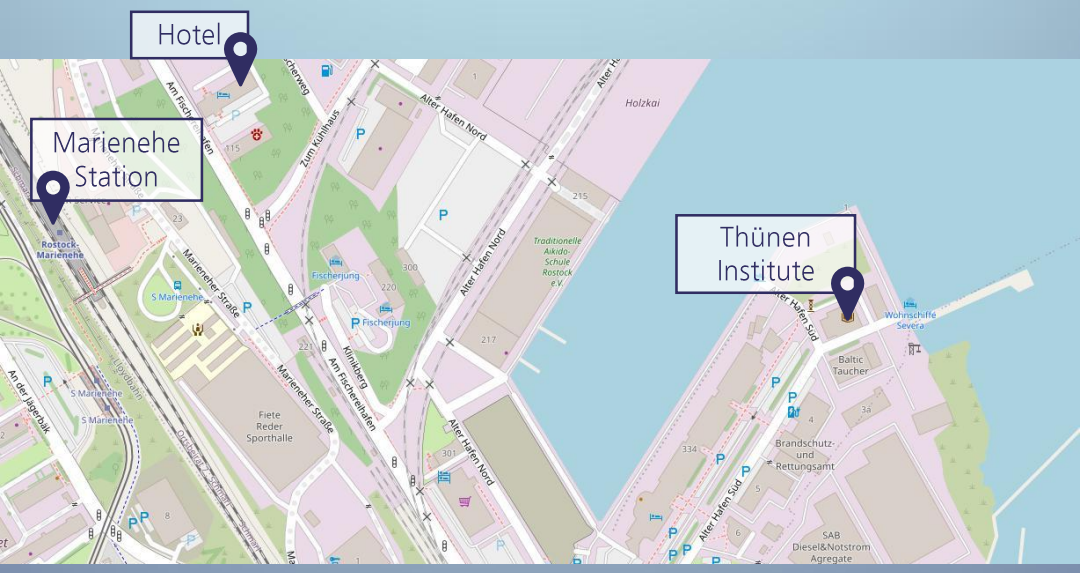
Thursday, 02 July
Focus Day: Exploring Challenges

The Thünen Institute for Baltic Sea Fisheries is a federal research institute aiming to bridge the gap between academic research and practical fisheries applications.

After a short institutional introduction, we will explore acoustic telemetry systems with André Steckenreuter (Innovasea). The company specialises in advanced solutions for fish tracking and aquaculture, and also provides key technologies for environmental monitoring in offshore wind farm environments.

Afterwards there will be a talk by Hans Burchard, professor of physical oceanography at IOW. He will provide insights in the current research program "CoastalFutures2" that aims to model environmental key processes in coastal areas of the North and Baltic Sea.

In the afternoon, Christian Brock (University of Rostock) and Nardine Stybel (EUCC) will give two inputs on the topic of social acceptance. Following the presentations, they will also be present during an interactive stakeholder role-play session. Be prepared to actively participate in a dynamic discussion on different perspectives and interests related to offshore wind development.



Thursday, 02 July

When?	What?	Where?
9:00 – 9:30	Welcome to the Thünen Institute	Thünen Institute
9:30 – 11:45	Talk: Acoustic Telemetry Systems, Innovasea	
11:45 – 12:00	Break	
12:00 – 13:00	Talk: CoastalFutures2	
13:00 – 14:00	Lunch	
14:00 – 17:00	Talk and Discussion: Social Acceptance	
17:00-19:00	Option for Meeting the German Environment Minister Carsten Schneider	Fraunhofer SOT

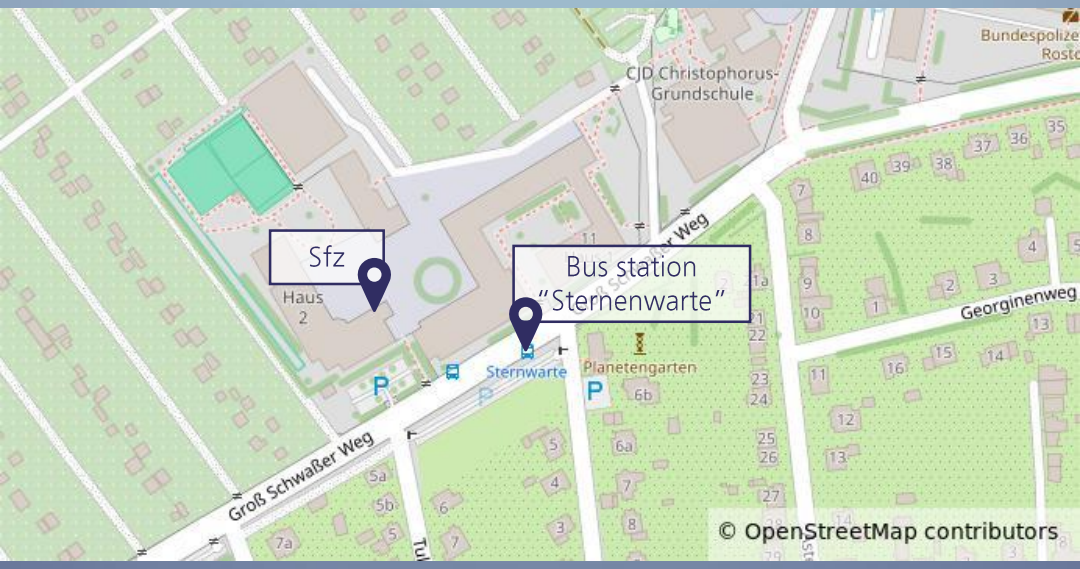
Friday, 03 July

For today's programme, participants will be split into two cohorts.

Cohort 2 will go on board the research catamaran Limanda, where Dr. Heike Link will introduce various sampling gears and scientific equipment. You will also have the opportunity to test your self-built floater prototype under real field conditions.

Lunch packs will be provided. Please remember to bring additional snacks and any personal medication if required.

Cohort 1 will take part in a workshop on building a marine probe at the "Schülerforschungszentrum" (SFZ) (nearest bus stop: Sternwarte), a school laboratory where pupils and students have the opportunity to design, build, and test their own projects.



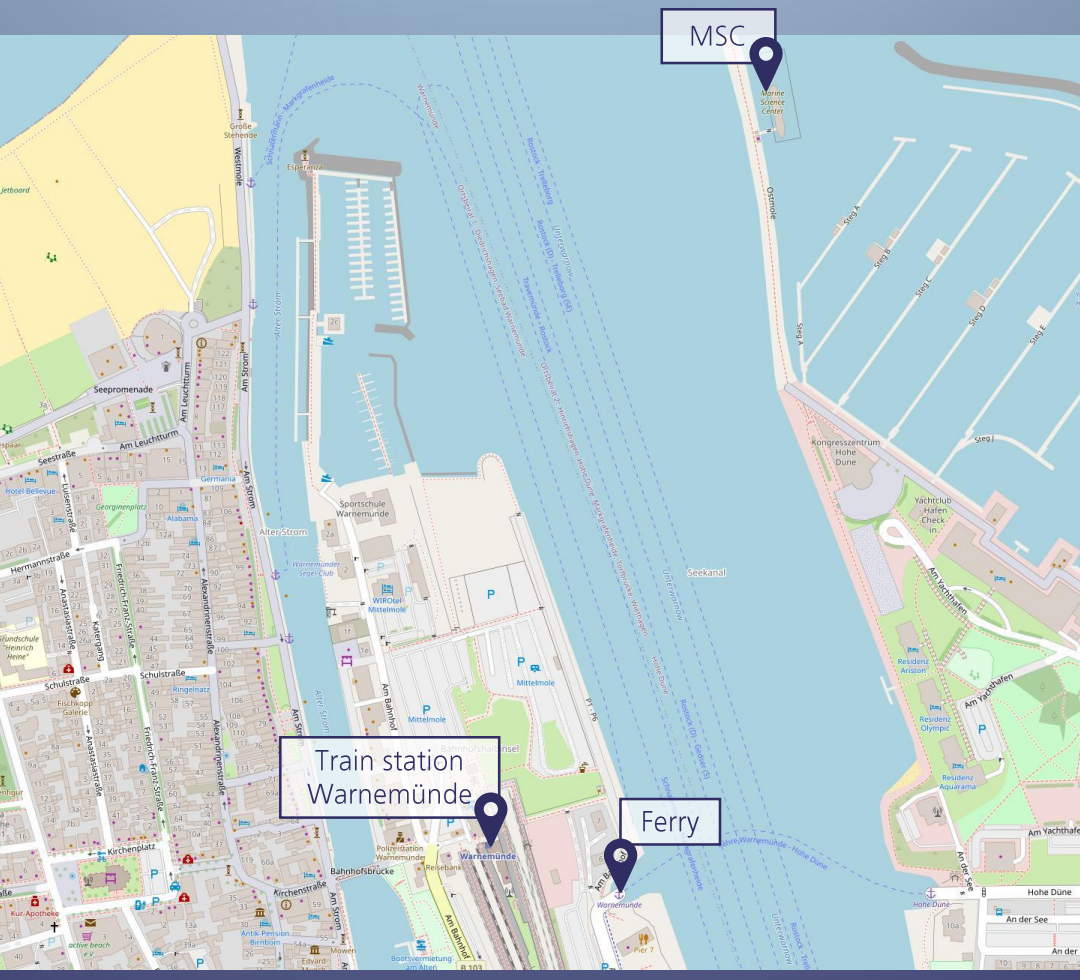
Friday, 03 July

When?	What?	Where?
	Cohort 1	
9:00 – 17:00	Workshop: Building a marine probe	Sfz, Groß Schwaßer Weg 11, „Haus 2"
	Cohort 2	
8:00 – 17:00	Gear Demonstration and Testing of Floater Prototype	Start: Limanda moorings (near Thünen Institute)

Saturday, 04 July

After a relaxed morning, we will meet at the Marine Science Center (MSC) located in the marina Hohe Düne. Take the ferry from S-Bahn station Warnemünde to get there.

The research centre is a unique platform where visitors can get in touch with applied science. Its work is mainly focused on behaviour studies with seals.



Afterwards we will proceed to your next workshop about offshore wind and the environment with Petra Ringeltaube, Senior Environment & Permit Manager at RWE Offshore Wind GmbH, right at the beach. You will interactively learn about the challenging conflicts when it comes to finding a balance between protected areas, economic interests, fishery and more.

We end the day with a relaxed hang out at the beach. Let's hope for a warm and sunny day so you can take the chance and jump into the water!

Saturday, 04 July

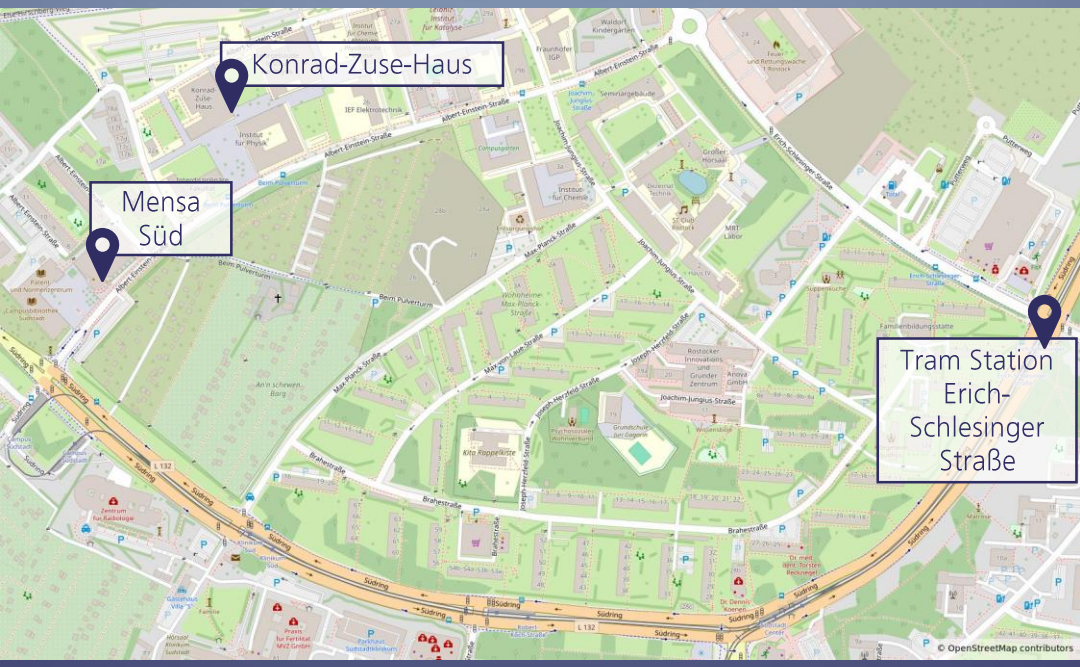
When?	What?	Where?
14:00 – 15:00	Field Trip: Marine Science Center	Warnemünde / Hohe Düne
15:00 – 19:00	Workshop: Offshore Wind and the Environment	
19:00 – open end	Hang out at the Beach	

Monday, 06 July

The second week will begin with another parallel program. The cohorts stay the same.

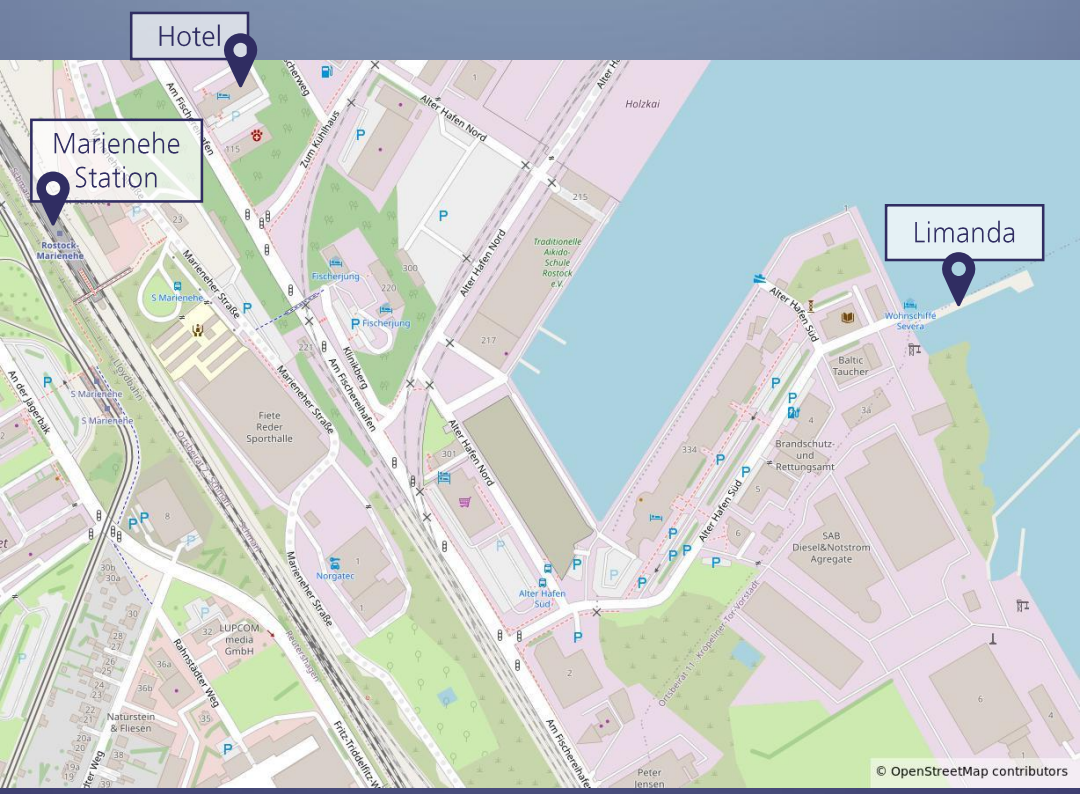
Cohort 2 is welcomed at Konrad-Zuse-Haus to a machine learning workshop that starts at 9:00, room 001. Please bring your own laptop. Dr. Stefan Lüdtke, Junior Professor at the Institute Visual and Analytic Computing, University of Rostock, will introduce you to the topic and you will have the opportunity to train a model yourself.

Cohort 1 will meet at 8:00 aboard "Limanda" for a gear and equipment demonstration by Dr. Heike Link and you will also have the chance to test your self-built floater prototype.



Monday, 06 July

When?	What?	Where?
	Cohort 1	
8:00 – 17:00	Gear Demonstration and Testing of Floater Type on Limanda	Start: Limanda moorings (near Thünen Institute)
	Cohort 2	
9:00 – 17:00	Workshop: Machine Learning	URO, Konrad-Zuse-Haus (Albert-Einstein-Str. 22), Room 001

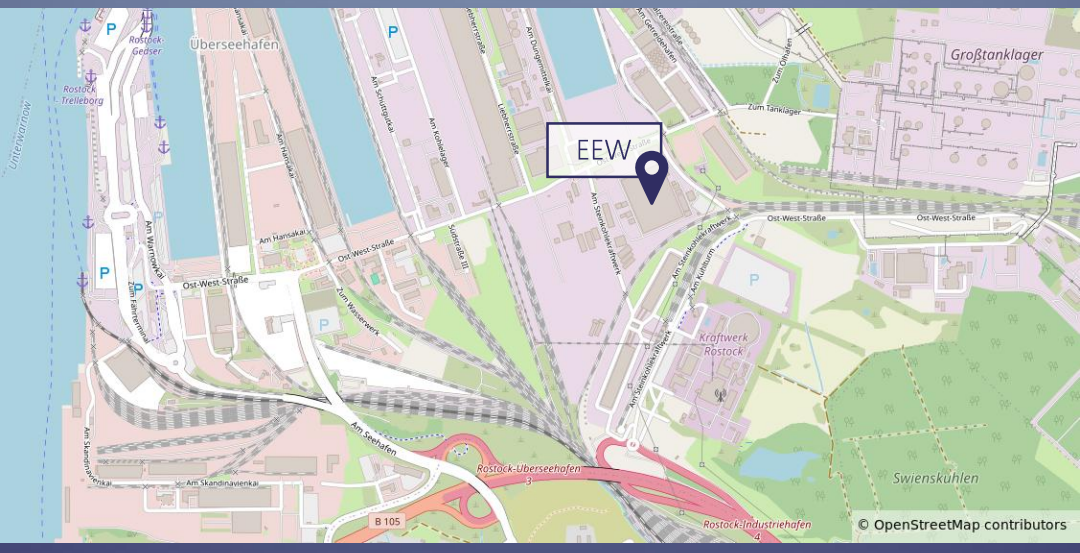


Tuesday, 07 July

Today is a BIG day. We will visit EWW, a company that constructs huge piles for offshore wind turbines. The factory site is located at the seaport. From here, the monopiles are shipped to offshore wind farms around the world.

From the harbour we will head to Neu Broderstorf, a small village south-east of Rostock. We will spend the rest of the day at GICON Ecosystems, a company that is specialized in various environmental services which include monitoring, mapping and permit management. The company will provide exciting insights into these fields and their relevance for offshore developments.

We will travel together in university vehicles. Meeting points and departure times will be shared in advance.



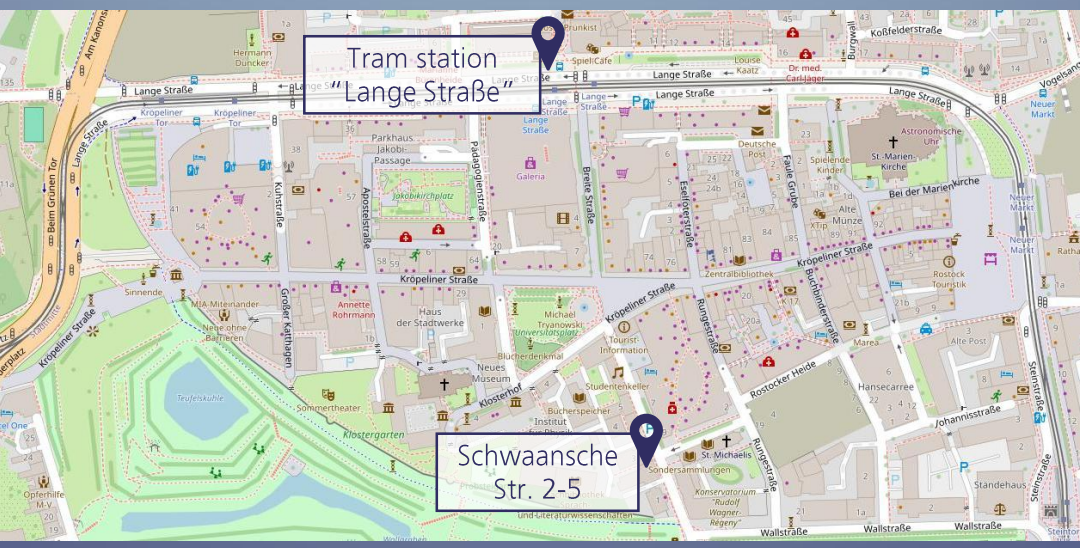
Tuesday, 07 July

When?	What?	Where?
8:15	Meeting up for the shared ride	Meeting point (t.b.a.)
9:00 – 10:30	Tour: EEW Monopile Manufacturing	EEW
10:30 – 11:00	Change of location	
11:00 – 16:00	Tour: GICON Ecosystems	GICON, Alte Dorfstraße 11, Neu Broderstorf

Wednesday, 08 July
Focus Day: Innovating Solutions

In the last days you have intensively studied the complex field offshore wind energy conflicts. Now it is time for innovative thinking!

We will meet at 9:00 at university. Please, bring your laptops! The whole day is reserved for you to work out solutions to the challenges you have learned about. The Design Sprint gives you the opportunity to work in groups developing ideas and concepts.



Wednesday, 08 July

When?	What?	Where?
9:00 – 12:00	Design Sprint	URO, Schwaansche Str. 2, 18055 Rostock
12:00 – 13:00	Lunch	St. Georg Mensa
13:00 – 17:00	Design Sprint	URO, Schwaansche Str. 2, 18055 Rostock

Thursday, 09 July
Focus Day: Innovating Solutions

We will start the day with you presenting the results of yesterday's Design Sprint. We are looking forward to hearing about your innovative and exciting project ideas!

After lunch there will be three more talks, during which you will learn more about inspiring start-ups in the field of marine technology.

SAILWINT has an ambitious objective. The company is committed to overcome the age of fossil fuels by producing green hydrogen on free-floating, autonomous wind turbine ships. Dr. Nils Barnickel will provide insights into current projects.

How can degraded coastal ecosystems recover? ZosteraTec claims to have the answer: eelgrass. Prof. Mathias Paschen will tell you about the many valuable benefits of seagrass cultivation, which are difficult to replicate through technological measures alone.

Engineer Dr. Yvonne Haba's work focuses on more technical challenges. Her project "Underwater Cable Testing" (UCT) aims to find solutions for power transmission in the deep sea. Modern technology requires reliable power supply that can withstand the conditions in the places we wish to explore.

We will end the day with a barbecue at the water front.

Thursday, 09 July

When?	What?	Where?
10:00 – 12:00	Presentation of Results	Thünen Institute
12:00 – 13:00	Lunch	
13:00 – 14:00	Talk: SAILWINT	
14:00 - 14:30	Break	
14:30 – 15:30	Talk: ZosteraTec	
15:30 – 16:00	Break	
16:00 – 17:00	Talk: UCT	
18:00 – open end	Networking Barbecue	

Friday, 10 July

Today the RoOT Summer School will come to an end. After two weeks of intensive study, knowledge-exchange and hard work our programme will conclude today with a talk followed by a feedback session.

The company 50Hertz is one of the key players in energy transition in Germany. It is specialized in power grid technology. A talk by Marian Mügel, Head of Offshore Transmission Systems, will focus on grid connection and power transmission of offshore wind farms.

Afterwards we will come together to evaluate the whole programme and see what can be improved. We are very much interested in your feedback!

Friday, 10 July

When?	What?	Where?
9:00 - 10:00	Talk: 50Hertz	Thünen Institute
10:00 – 12:00	Feedback and Evaluation	

Get home safely!