

Maritime Technology Innovation Center Offshore Wind Certification Courses

GWO & OPITO
COURSE GUIDE



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Adviser



Implementer



Co-organizer



- Instructed by Bureau of Energy, Ministry of Economic Affairs
- Executed by Metal Industries Research Development Centre
- Cooperation with Maersk Training and DNV

Preface

Taiwan will embrace 5.7GW of Offshore Wind Energy by year 2025, and a more ambitious decade of 15GW from 2026–2035 is on the way. Industry booming and growing talent demand is highly anticipated.

Quote from President Tsai “By implementing three–phrase offshore wind energy plan, we can establish local offshore wind farms and create long–term, stable market demand. This approach will also drive the sustainable development of localized supply chain.

Leading by Taiwan, Vietnam, Japan, and South Korea are planning for more capacity in Offshore Wind Energy, East Asia is repeating what Europe has been through in the past decades, and Offshore Wind Industry is for sure one of the shining sectors in this century.

About US

Maritime Technology Innovation Center by Metal Industries Research & Development Centre (MTIC by MIRDC) is one of the most comprehensive GWO-Certified Training Centers in the region, and the largest Marine Technology Development compound in Taiwan.

Through consultancy from Maersk Training, MTIC by MIRDC is certified to offer GWO-certified trainings, ranged from Basic Safety Training (BST) and Basic Technology Training (BTT), to Advanced Rescue Training (ART), Enhanced First Aid (EFA), Slinger & Signaller (SLS) and Blade Repair (BR).

In 2023, MTIC becomes the first OPITO (Offshore Petroleum Industry Training Organization)-certified training center in Taiwan. OPITO offers industry-recognized global training and emergency standards such as HUET (Helicopter Underwater Escape Training) HUET will be required for Taiwan's offshore wind farms further from seashore, make sure technician can travel safe to work and go home, if using helicopter as transportation. We are also partnering with DNV to provide the full seminar on Marine Operation Level 1 and 2.

MTIC by MIRDC, with the experienced instructor and consultants are also delivering tailor-made training program for wind developer, turbine and part manufacturers, and O&M provider. Training ranging from Industry Introduction for New-Hired to Bolt Tightening for Factory Workers. Our certified instructors and equipment are the solution for your all training needs.

- Instructed by: Bureau of Energy, Ministry of Economic Affairs
- Executed by: Metal Industries Research & Development Centre
- Partner with: Maersk Training, DNV.
- Location: No 500, Zheng-da Rd. Qiding Dist., Kaohsiung City, 852 Taiwan
- Website: www.mtic.org.tw
- Phone: 886 7 698 8899 ext. 7232, 7233 or 7236 for training inquiry
- Email: gwotraining@mail.mirdc.org.tw

We Proudly Offer the Following

- Reasonable instructor to participant ratio, to make sure quality training is delivered in bi-lingual environment.
- Instructors from field with practical experience and knowledge.
- Up-to-date training facilities and equipment, 100% cope to updated standard.
- Offers training from various standard (GWO, OPITO, DNV), training ranges from basic, to advanced and from safety to skill.
- Flexible tailor-made training, new staff orientation, staff outing, back office and technician training available on request.

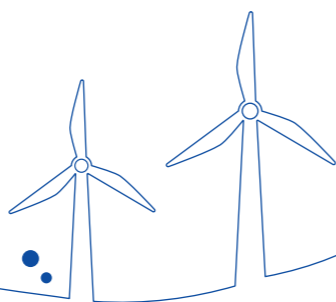


GWO CERTIFICATION TRAINING

Global Wind Organisation is a non-profit body founded and owned by its members – all of whom are globally leading wind turbine manufacturers and owners/operators. GWO strives for an injury free work environment in the wind turbine industry, setting common international standards for safety training and emergency procedures.

Most turbine manufacturers and wind farm developers list GWO training standards into their training patterns. Any individual with a GWO certificate in the Wind Industry Database (WINDA) is considered competent and knowledgeable according to the learning objectives of that standard. GWO members accept the certificate as confirmation the individual possesses the required knowledge and competences as described in the standard.

GWO trainings can be categorized into SAFETY and TECHNICAL. Each category comes with basic, and advanced level. Safety training will require a refresh training every two years to make sure updates standards and procedures are followed.



Safety Training

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Why does the industry need GWO Standards?



- **Standardization**
3/4 of GWO members have standardized 30% or more of their entry level training.



- **Safety**
Eight out of ten members agree GWO has raised safety training standards across the industry.



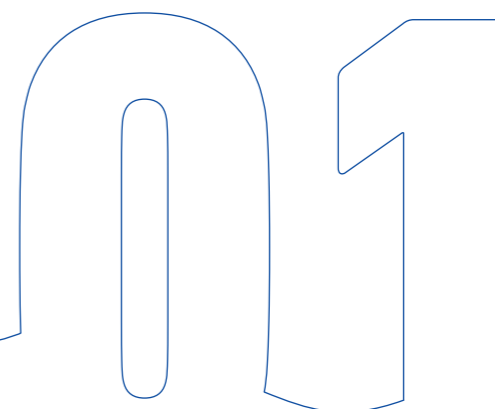
- **Local Sourcing**
More than 445 training providers are certified to deliver GWO training in over 45 countries.



- **Supply Chain Alignment**
GWO has become a contractual expectation up and down the supply chain.

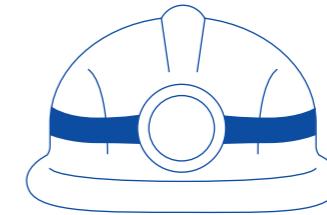


- **Productivity**
GWO technicians are available for up to 6 days more each year than staff trained outside the GWO framework agreement.



Technical Training

Basic Technical Training – M / E / H	23
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Safety Training

Safety training is developed that participants can identify and avoid risk at every aspect of wind turbine operation. They will learn how to use proper Personal Protective Equipment, and follow Emergency Response Procedures to increase safety in the turbine environment. They also need to be trained at different areas such as nacelle, hub, tower, blade, and transit piece to get accustomed to emergency and evacuation procedures in particular settings.

- Basic Safety Training
- Basic Safety Training Refresher
- On-Site Training
- Advanced Rescue Training
- Advanced Rescue Training Refresher
- Enhanced First Aid and Refresher

GWO Basic Safety Training (BST)



ELIGIBILITY

- 18 years old or above
- weight must be in-between 36 and 120 kg
- Working at Heights need to be completed before taking Sea Survival.



TOTAL COURSE DURATION

5 days



PRICING

NT \$ 59,000 (Please contact us for a single module pricing)



AVAILABLE LANGUAGES

Chinese Mandarin, English



CERTIFICATION VALIDITY PERIOD

2 years (Refresher courses can be taken to extend the validity period)

Certificate of Training/Module Duration

- Working at Heights (WAH) / 2 days
- Fire Awareness (FAW) / 0.5 day
- Manual Handling (MH) / 0.5 day
- Sea Survival (SS) / 1 day
- First Aid (FA) / 1 day

Brief Introduction

In accordance with the safety guidelines for Offshore Wind Power operations promulgated by the Occupational Safety & Health Administration of the Ministry of Labor, all personnel engaged in Offshore Wind Power “marine operations” are required to possess a valid GWO Basic Safety Training certification. This certification ensures that the participant is able to respond properly in case of hazards during offshore operations. ※ Each module includes theoretical courses and practical exercises.

Course Outline

Working at Heights

- Introduction on the hazard and risk of working at heights.
- Understanding laws and regulations on safety training and equipment of working at heights
- Appropriate usage of Personal Protective Equipment (PPE) ,including pre-checking, daily maintenance, and proper wearing.
- Practice on working at heights, including ladder climbing, rescuing, single and double evacuating from heights.

Sea Survival

- Basic knowledge of sea survival.
- Emergency evacuation procedure in offshore wind environment.
- Sea Survival equipment usage and self-saving overboard maneuver.
- Lifeboat Climbing and upending, helicopter evacuation.
- Crew transfer, and sea surface CSD evacuation.



Course Outline



Manuel Handling

- Basic knowledge of ergonomics.
- Proper heavy lifting with bare hands to avoid injury.
- Moving heavy objects solely and with teammates.

Fire Awareness

- Basic knowledge of combustion.
- Fire prevention and distinguishing.
- Proper usage of fire distinguishing equipment.
- Safe evacuation from fire in confined spaces.

First Aid

- Basic knowledge of work-related injure treatment and first response.
- Post-treatment recovery position, and medical dressing practice.
- Heimlich, CPR, and AED maneuver.
- Scenario Role-play.



GWO

Basic Safety Training



GWO Basic Safety Training Refresher (BSTR)



ELIGIBILITY

- 18 years old or above
- weight must be in-between 36 and 120 kg
- must possess a valid GWO BST 1-5 certificate



CERTIFICATION VALIDITY PERIOD

Will be extended for another 2 years



TOTAL COURSE DURATION

3 days



PRICING

NT \$ 45,000
(Please contact us for a single module pricing)



AVAILABLE LANGUAGES

Chinese Mandarin, English

Certificate of Training/Module Duration

- Working at Heights (WAH) Refresher / 1 day
- Manual Handling (MH) Refresher / 1 day
- Sea Survival (SS) Refresher / 0.5 day
- First Aid (FA) Refresher / 0.5 day
- Fire Awareness (FAW) Refresher / 0.5 day

Brief Introduction

The refresher courses are mainly composed of practical exercises.

GWO On-Site Training (OT)



ELIGIBILITY

Those who are in need for GWO On-Site training.



CERTIFICATION VALIDITY PERIOD

2 years (Refresher course can be taken to extend the validity period)



TOTAL COURSE DURATION

2.5 days



PRICING

Variable (feel free to inquire)



AVAILABLE LANGUAGES

Chinese Mandarin, English

Certificate Name/Module Duration

- Working at Heights (WAH) / 2 days
- Manual Handling (MH) / 0.5 day

Brief Introduction

Flexibility

The on-site training option offers your company a very flexible solution. The set-up can be arranged according to your request.

Attractive business case

The training is given in the vicinity of or on your site, resulting in no travel expenses and often limiting additional hotel expenses.

All training to be given on site

We offer GWO Safety training. In some cases, the training is given in the vicinity of one of the customers' wind turbines or tower, which results in a more realistic training.



GWO Advanced Rescue Training (ART)



1



ELIGIBILITY

- weight must be in-between 36 and 120 kg
- must possess the valid BST Working at High (WAH/WAHR), First Aid (FA/FAR) and Manual Handling (MH/MHR) certificates



CERTIFICATION VALIDITY PERIOD

2 years (Refresher course can be taken to extend the validity period)



TOTAL COURSE DURATION

3 days



AVAILABLE LANGUAGES

Chinese Mandarin, English



PRICING

NT \$ 45,000

Certificate of Training

- Advanced Rescue Training – Nacelle
- Advanced Rescue Training – Hub
- Singleton Advanced Rescue Training – Nacelle
- Singleton Advanced Rescue Training – Hub

Content Introduction

The aim of the GWO Advanced Rescue Training is to provide the participants with theoretical and practical knowledge to access and rescue an injured person from the hub and the nacelle, tower and basement section; to train the participants to conduct advanced rescue operations in a WTG using the necessary standard rescue and fall protection equipment.

Course Outline

This course objective is to enhance the skills learned from the BST Working at High (WAH) module.

- Assess and determine evacuation strategy during a rescue operation, attending to a clear and preferred evacuation route for the injured person outside or inside the tower.
- Perform rescue operations in the Hub, Spinner and inside a Blade; Assess and determine rescue strategy (relevant rescue method, technique, certified equipment, and required personnel) for various rescue scenarios.
- Package an injured person on a rescue stretcher and spineboard in a vertical or horizontal configuration to enable safe transportation, by doing regular checks, using rescue equipment such as cervical collar and avoiding head down configuration of the unconscious injured person.
- Apply rescue methods and techniques in performing descending and ascending rescue operations, from a WTG hub, spinner and inside a blade using a rescue stretcher and spineboard, manually operated lowering/raising rescue system for limited distance rescue (rescue device, pulley system or similar), and other rescue equipment relevant to the Course Participants.

1



GWO Advanced Rescue Training Refresher (ARTR)



ELIGIBILITY

- weight must be in-between 36 and 120 kg
- must possess the valid GWO Advanced Rescue Training – Nacelle (ART-N/ART-NR), BST Working at High (WAH/WAHR), First Aid (FA/FAR) and Manual Handling (MH/MHR) certificates



CERTIFICATION VALIDITY PERIOD

2 years



TOTAL COURSE DURATION

3 days



AVAILABLE LANGUAGES

Chinese Mandarin, English



PRICING

NT \$ 45,000

Certificate of Training

- Advanced Rescue Training – Nacelle Refresher
- Advanced Rescue Training – Hub Refresher
- Working at Heights Refresher
- Manual Handling Refresher

Content Introduction

The aim of the GWO Advanced Rescue Training is to provide the participants with theoretical and practical knowledge to access and rescue an injured person from the hub and the nacelle, tower and basement section; to train the participants to conduct advanced rescue operations in a WTG using the necessary standard rescue and fall protection equipment.

Course Outline

The aim of the ARTR Module is to review and build on previously gained knowledge and skills from the ART training as well as working at heights and manual handling training through theoretical and practical training. Hence, enable participants to perform entry-type injured person rescue operations, in a WTG, using industry standard rescue equipment, rescue methods and techniques.



GWO Enhanced First Aid (EFA) and Refresher (EFAR)



ELIGIBILITY

18 years old or above



CERTIFICATION VALIDITY PERIOD

2 years (Refresher course can be taken to extend the validity period)



AVAILABLE LANGUAGES

Chinese Mandarin, English



TOTAL COURSE DURATION

3 days

※ Refresher Duration : 2 days



PRICING

NT \$ 45,000

※ Refresher Pricing: NT \$ 30,000

Certificate of Training

- First Aid (Refresher)
- Enhanced First Aid (Refresher)

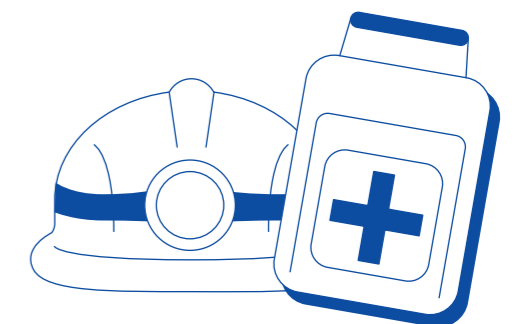
Content Introduction

GWO Enhanced First Aid provides the knowledge and skills to administer safe, effective and immediate lifesaving and enhanced first aid measures to save life and give assistance in remote areas. Participants will be able to administer safe, effective and immediate lifesaving and enhanced first aid measures to save lives and give assistance in remote areas using advanced emergency equipment and medical teleconsultation.

Course Outline

The course objective is to increase the skills learned from the GWO Basic Safety Training (BST) – First Aid (FA) module.

- The importance of carrying out basic and enhanced First Aid in a safe and sound manner, in accordance with the legislative requirements of their geographic location and according to European Resuscitation Council (ERC) and American Heart Association (AHA) guidelines.
- Identifying and explaining normal function, normal signs and symptoms of serious and minor injuries and illness related to the human body.
- Requesting telemedical consultation and medical/rescue assistance providing a concise and relevant report of the casualty's condition and obtaining medical advice to further stabilize the casualty by using telemedical consultation through National resources (e.g. Coastguard) or through private contractor (where established).
- Understanding the complexity and restrictions of medical pain relief and the role of clinical governance in the control of medication.
- Delivering immediate enhanced first aid to stabilize the casualty, to include but not limited to: Stopping life-threatening bleeding, Establishing and maintaining an airway, Knowing the indications for and the use of Automated External Defibrillator (AED), Using basic and advanced First Aid equipment in a First Aid scenario, Resuscitation...





Technical Training

Turbine technicians can work at different parts (Nacelle, BOP, Grid, Blade Repair, HV cable and switchbox). Technical training is meant to provide a basic understanding to safely conduct operation and maintenance tasks of the above parts.

- Basic Technical Training — M / E / H
- Basic Technical Training — I
- Blade Repair
- Slinger Signaller

GWO Basic Technical Training – Mechanical / Electrical / Hydraulic (GWO BTT – M / E / H)



ELIGIBILITY

18 years old or above



CERTIFICATION VALIDITY PERIOD

No expiration date



AVAILABLE LANGUAGES

Chinese Mandarin, English



TOTAL COURSE DURATION

4 days



PRICING

NT \$ 62,000

(please, contact us for a
single module pricing)

Certificate of Training / Module Duration

- Mechanical / 2 days
- Electrical / 1 day
- Hydraulic / 1 day

Content Introduction

Provide basic knowledge and understanding of the mechanical, electrical and hydraulic systems of a wind turbine; Allow the participants to be familiar with the hazards and risks that could happen in a wind turbine; Train them to develop safe working habits and to correctly use the Personal Protective Equipment (PPE).

Courses Content

Mechanical

- Introduction of the main components, mechanical systems and the basic operations of wind turbines.
- Explain the various risks and hazards associated with mechanical systems.
- Understand the principles of bolted and welded connections and their inspection.
- Demonstrate practical skills to use manual tightening and measuring tools.
- Demonstrate the correct use of hydraulic torque and tensioning tools.
- Explain the principles of a gearbox, the functions of the brake systems, the yaw system, the cooling system and the lubrication system and demonstrate how to inspect them all.

Electrical

- Explain the basics of electricity.
- Explain the function and symbol of electrical components.
- Explain the function of different types of sensors.
- Explain and interpret a simple electrical diagram and demonstrate how to assembly it on a circuit.
- Demonstrate how to make correct and safe measurements.

Hydraulic

- Explain the basics of hydraulics and the risks and hazards associated with hydraulic work.
- Introduce the function of different types of pumps and demonstrate how to check start/stop pressure of the pump.
- Explain the function of different types of actuators, valves and sensors.
- Introduce the function of accumulators and demonstrate how to check and pre-charge them.
- Identify the components which transfer the oil and describe the handling of oil procedures.
- Identify and find components on a hydraulic diagram and demonstrate how to measure the hydraulic pressure accurately.



GWO Basic Technical Training – Installation (GWO BTT – I)



ELIGIBILITY

must possess a valid BTT Mechanical certificate



TOTAL COURSE DURATION

3 days



CERTIFICATION VALIDITY PERIOD

No expiration date



PRICING

NT \$45,000



AVAILABLE LANGUAGES

Chinese Mandarin, English

Certificate of Training

- Installation

Content Introduction

Provide the participants with the knowledge and skills to carry out basic installation tasks, using safe working procedures and the correct PPE. Participants will develop their knowledge of how to store and handle equipment, avoid dropped object incidents and work safely during lifting operations as well as usage of power/hydraulic tools while being supervised by an experienced technician.

Course Outline

This is an advanced supplementary course added to the Basic Technical Training standard as an addition to the Mechanical module that aims to provide technicians with an understanding and awareness of the associated health and safety issues when working on the installation phase of a project.

- Introduce the main installation activities and the overall risks and hazards associated with the installation environment.
- Explain the principles and standards for handling and storing goods and components onsite or within a storage area before and after installation.
- Explain the basic principles of the lifting equipment.
- Demonstrate how to perform the basic electrical completion including the principles and standards for handling and installing cables.
- Explain the basic hydraulic completion.
- Explain the principles of operating external generators during installation.
- Explain the basis of how to do a handover to commissioning.



GWO Blade Repair (BR)



1



ELIGIBILITY

18 years old or above



TOTAL COURSE DURATION

10 days



CERTIFICATION VALIDITY PERIOD

No expiration date



PRICING

NT \$ 150,000



AVAILABLE LANGUAGES

Chinese Mandarin, English

Certificate of Training

- Blade Repair

Content Introduction

Perform and document a wind turbine blade inspection, execute repair work in accordance with a work instruction while maintaining the aerodynamic profile and structural integrity in glass fiber reinforced composite parts of a wind turbine. The GWO blade repair training course is intended as an entry level course and therefore the participant will not be expected to perform repairs in major structural elements of blades like spars, spar caps and carbon fiber.

Course Outline

Explain typical types of composite construction, materials and the importance of surface finish relating to aerodynamic performance and efficiency; Prepare, operate and maintain the correct tools and equipment, electrical or mechanical; Demonstrate the ability to work safely with applicable chemicals while utilizing the applicable personal protective equipment in a controlled manner throughout all phases of composite inspection and repair work.

- Trailing edge repairs up to 1,5 m in length
- Leading edge repairs up to 1,5 m in length
- Laminate repairs down to core material
- Core material replacement up to 200 cm²
- Surface repair to paint and gelcoat



GWO Slinger Signaller (SLS)



1



ELIGIBILITY

18 years old or above



TOTAL COURSE DURATION

2 days



CERTIFICATION VALIDITY PERIOD

No expiration date



PRICING

NT \$ 32,000



AVAILABLE LANGUAGES

Chinese Mandarin, English

Certificate of Training

- Slinger Signaller

Content Introduction

To ensures safe lifting during manufacturing, installation and maintenance of wind turbines and their components wherever crane operations are necessary. To provide awareness of the risks and hazards related to working with slinger signalling in the wind industry. Participants will be equipped with the required knowledge and skills to conduct assigned slinger signaller tasks safely and efficiently. The course includes conducting slinging techniques and signalling during simple lifting operations. All operations covered are based on a lifting plan covering known hazards.

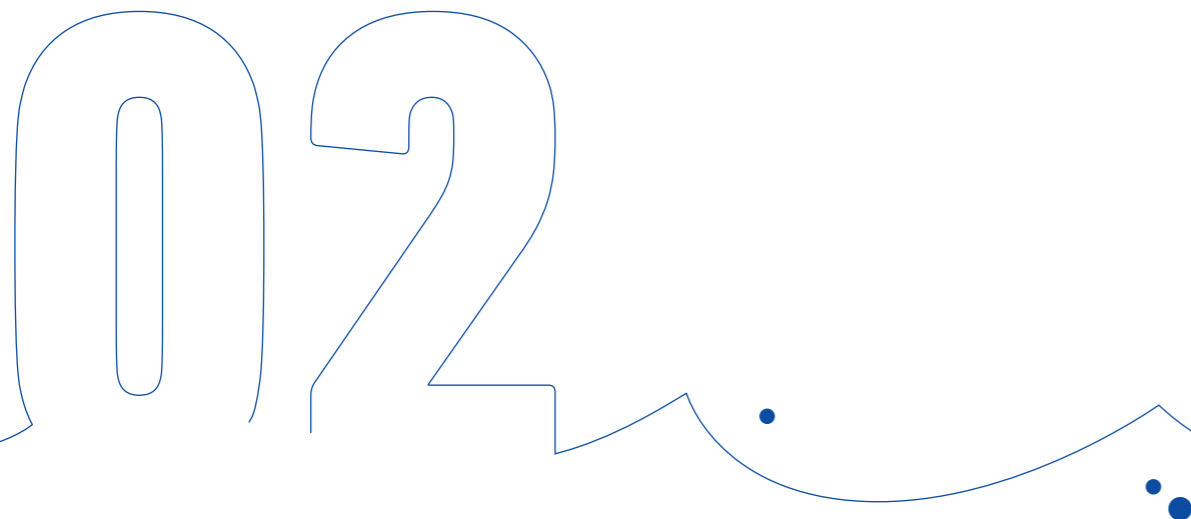
Course Outline

- Handling of lifting accessories and complying with instruction/procedures set up by the employer to manage lifting.
- Slinging various types of loads, based on weight, centre of gravity, shape and size.
- Learning about the essentials of lifting operations and how to prevent or treat related accidents.
- Attaching and detaching the load to and from the crane lifting attachment.
- Initiating and directing the safe movement of the crane, including multiple signalers during limited or blind lifts.
- Conducting visual pre and post inspection on lifting accessories and load.
- Slinging various types of loads, based on weight, center of gravity, shape and size.
- Carrying out generic routine lifts in accordance with the lift plan and ensuring safe lift-off and lay down of the load

OPITO CERTIFICATION TRAINING

OPITO (Offshore Petroleum Industry Training Organization, OPITO) is an international recognized safety and training standard agency with 30 years of experience, aiming to mitigate the risk at offshore marine operation for oil and gas industry. Technicians around the world have been trained for the its safety standard: Basic Offshore Safety Induction and Emergency Training – BOSIET. As most of the oil rig is away from seashore, and helicopter is often used for crew transfer, a unique training: Helicopter Underwater Escape Training– HUET has also been as a standard training pattern for staffs who need to ride on a helicopter.

OPITO is also contributing to the development, manufacturing, installation and operation & maintenance of oil and gas industry around the world. It has close contact with governments, multinational oil companies and subcontractors to provide updated service and training standards which will be globally recognized and followed.



Helicopter Underwater Escape Training

Emergency Breathing System	31
Compressed Air Emergency Breathing System	32



OPERATION

Helicopter Underwater Escape Training – Emergency Breathing System (OPITO HUET EBS)



ELIGIBILITY

- Those who wants to engage in Offshore Wind Industry.
- Valid OGUK Offshore Medical Certificate or ROC medical Certificate of Seafarer.



TOTAL COURSE DURATION

1 day



PRICING

NT \$17,000



CERTIFICATION VALIDITY PERIOD

4 years (Refresher courses can be taken to extend the validity period)



AVAILABLE LANGUAGES

Chinese Mandarin, English

Certificate of Training

- OPITO HUET with EBS (Approved Course : 5095)

Content Introduction

Required by OSHA's Offshore Wind Marine Operation Safety Guideline. Anyone who will take helicopter ride for more than 10 minutes need to be trained with Helicopter Underwater Escape Training. If Emergency Breathing System will be needed, EBS module training need to be added in the HUET training.

Course Outline

Once participants completed the training and been certified, they will be able to:

- Onboard helicopter and emergency evacuate from helicopter.
- Proper use of life vest and life-saving equipment.
- Practical use of Emergency Breathing System
- Safely embark and disembark a life raft.
- Swimming and floating skill needed for sea survival.

Helicopter Underwater Escape Training – Compressed Air Emergency Breathing System (OPITO HUET CA- EBS)



ELIGIBILITY

- Those who wants to engage in Offshore Wind Industry.
- Valid OGUK Offshore Medical Certificate or ROC medical Certificate of Seafarer.



TOTAL COURSE DURATION

1 day



PRICING

NT \$17,000



CERTIFICATION VALIDITY PERIOD

4 years (Refresher courses can be taken to extend the validity period)



AVAILABLE LANGUAGES

Chinese Mandarin, English

Certificate of Training

- OPITO HUET with CA-EBS (Approved Course : 5295)

Content Introduction

Required by OSHA's Offshore Wind Marine Operation Safety Guideline. Anyone who will take helicopter ride for more than 10 minutes need to be trained with Helicopter Underwater Escape Training. If Compressed Air Emergency Breathing System will be needed, CA-EBS module training need to be added in the HUET training.

Course Outline

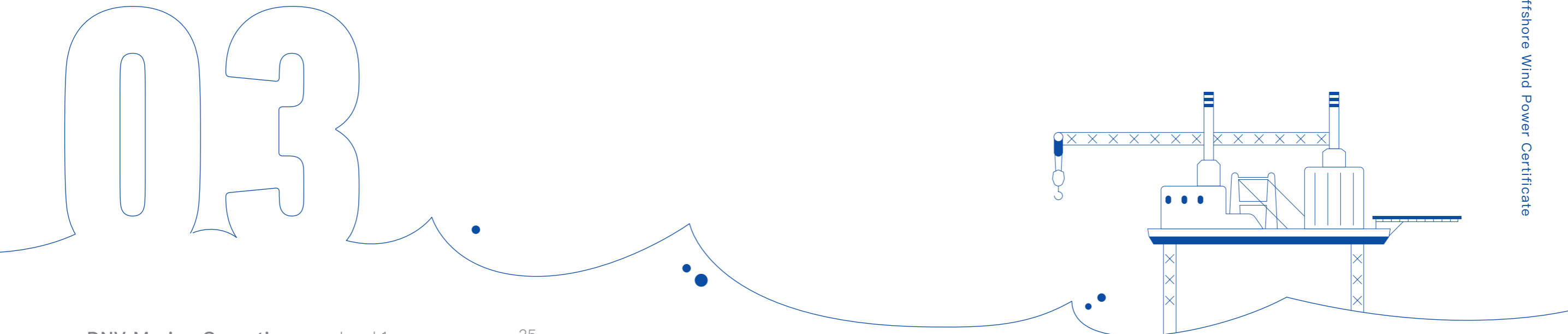
Once participants completed the training and been certified, they will be able to:

- Onboard helicopter and emergency evacuate from helicopter.
- Proper use of life vest and life-saving equipment.
- Practical use of Compressed Air Emergency Breathing System.
- Safely embark and disembark a life raft.
- Swimming and floating skill needed for sea survival.

OFFSHORE WIND POWER CERTIFICATE

Through networking with international standardization organization, we introduce professional course in all aspects including development, manufacturing, installation, marine engineering, and operation & maintenance.

Partner with Det Norske Veritas (DNV), the world’s largest classification society to conducts Marine Operation (MO) courses, which provide standard operation procedure for all marine and dock-end operations.



DNV Marine Operations

Level 1	35
Level 2	36

DNV Marine Operations Level 1 (DNV MO LV 1)



ELIGIBILITY

Those who wants to engage in Offshore Wind Industry



TOTAL COURSE DURATION

2 days



PRICING

NT \$ 28,400



AVAILABLE LANGUAGES

Chinese Mandarin



CERTIFICATION VALIDITY PERIOD

No expiration date

Certificate of Training

- DNV – Marine Operations LV1

Content Introduction

In response to the high degree of danger present in offshore operations and the relatively high risk of accidents, insurance financial institutions require “third-party certification agencies” to develop relevant marine operations regulations. Currently, there are many standards and regulations in place around the world, DNV is one of the most renowned third-party certification agencies. Over the years, they have formulated the most comprehensive international maritime engineering operation standards in the world, covering a wide range of activities and being the most used as a reference in Europe.

The course provides operating specifications, procedures and standards for marine operation related to offshore wind farms, as well as guidelines for various marine engineering project planning, preliminary preparation and implementation, including for example maritime transportation, operating vessels, crew and operators’ safety, emergency response regulations... All projects related to offshore wind power industry need to be certified by a Marine Warranty Surveyor (MWS). This standard course is developed in collaboration with DNV in order to help the responsible personnel to implement and pass the relevant Marine Warranty Survey and smoothen the subsequent development of the wind farm projects.

Course Outline

This training course focuses on the standard DNV-ST-N001. The ST specification number belongs to the technical standards category. The participants can then apply it to the planning, design, verification and execution of marine engineering projects.

The key points are

- Mooring
- Land and sea transportation regulations
- Ballasting system
- Offshore installation specifications
- Port handling
- Introduction of ships, equipment and systems

DNV Marine Operation Level 2 (DNV MO LV 2)



ELIGIBILITY

Those who have obtained DNV MO LV1 certification



CERTIFICATION VALIDITY PERIOD

No expiration date



AVAILABLE LANGUAGES

Chinese Mandarin



TOTAL COURSE DURATION

Variable
(based on the chosen items)



PRICING

Variable
(based on the chosen items)

Certificate of Training

- DNV – Marine Operations LV2

Content Introduction

Generally speaking, the items covered by the Marine Warranty Survey (MWS) include port loading and unloading, sea and land transportation, lifting operations, offshore wind farm construction and installation, cable laying, subsea operations, etc. The objective is to certify that the operations are in accordance with the existing technical regulations or codes of practice, to certify that the equipment and systems as well as the operation site comply with industry practices and are used within a safe operating range, etc.

Responsible units need to prepare the relevant review documents for the implementation of the above mentioned principles in order to successfully obtain the Certificate of Approval (CoA) related to the Marine Warranty Survey (MWS) before the start of any work.

Course Outline

Depending on the type of engineering project and component, we provide corresponding operating specifications, implementation procedures and standard-compliant courses. The marine engineering projects include: port loading and unloading, land transportation, shipping and construction and installation. The components include: tower body, blades, subsea foundations, offshore substations and cables.

The training content will be arranged according to the different engineering projects, and related specification and calculation will be explained.

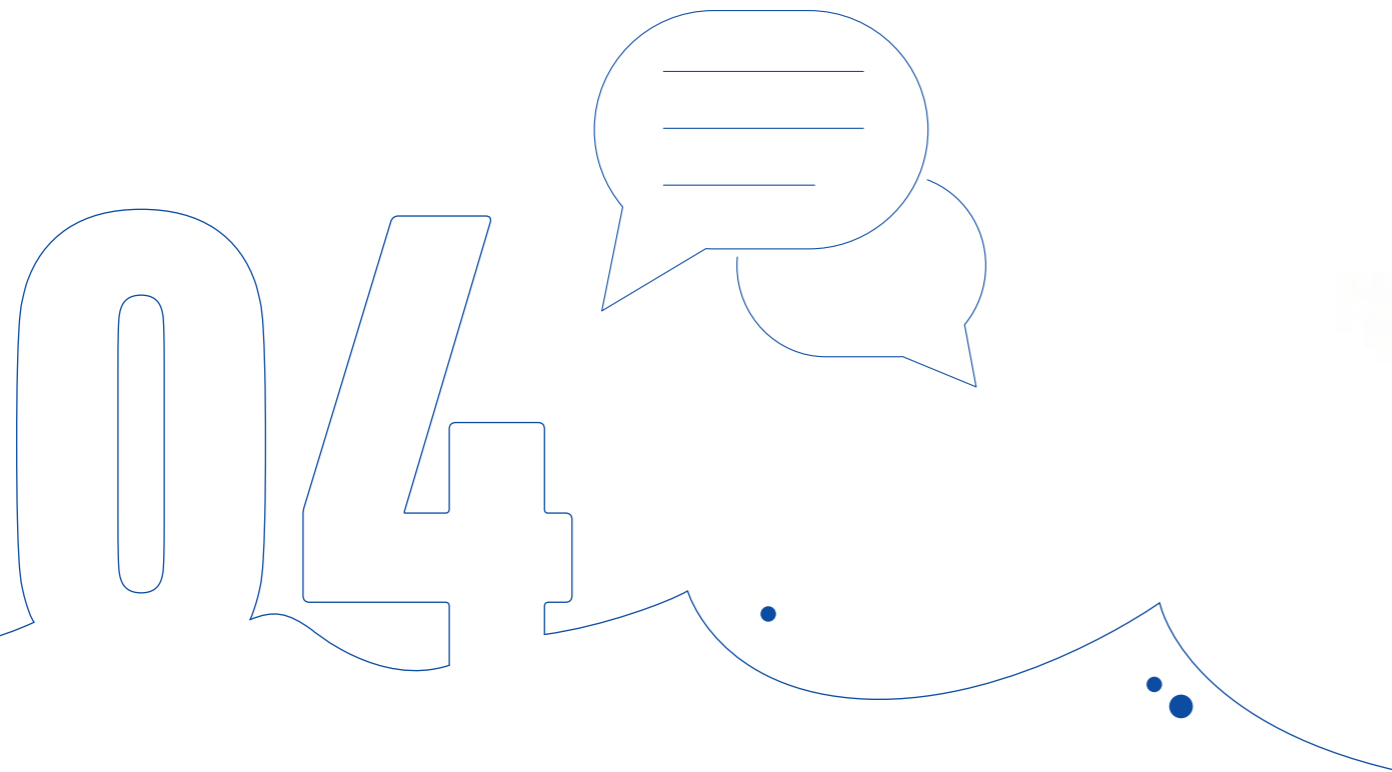
INDUSTRY INTRODUCTORY COURSE



Industry Introductory Course

Through government's 3-phase offshore wind energy development plan, we will have a total capacity of 20.7 Gigawatt generated by offshore wind power by year 2035. It is estimated to bring at least 10,000 new jobs by 2025 and with additional revenue of 130 billion every year. Many companies in Taiwan are given the opportunity to enter this emerging market, yet they need a stepping stone to enter the stage.

MTIC by MIRDC designed a series of course including Industry Introduction, Offshore Wind Power English, for the new-hired, so they can have a basic understand of the big map, and help the company find the right approach to enter the industry.



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Offshore Wind Power English for Specific Purpose (OWP ESP)



ELIGIBILITY

Those who want to engage in Offshore Wind Industry



CERTIFICATION VALIDITY PERIOD

No expiration date



TOTAL COURSE DURATION

2 days



PRICING

NT \$10,000



AVAILABLE LANGUAGES

English

Certificate of Training

- MTIC Offshore Wind Power English for Specific Purpose

Content Introduction

Facing the implementation of the current localization policy, foreign companies are at the core of offshore wind power development. Moreover, even if a wind farm project is pushed by local developers, it will still be necessary to cooperate and communicate with experienced foreign professionals, whether they are from manufacturing or engineering consulting companies or else. Foreign language skills are one of the most important requirements for talents in this industry. There are many senior engineers with extensive professional experience, however, the ability to properly communicate in English remains the critical point for most of them.

This course is divided into 5 parts. It covers a broad range of topics, from the description of the different renewable energies to the development of offshore wind energy in Taiwan. It includes an introduction to current international affairs related to green energy but also a technical description of offshore wind farms and turbines systems. All of this in English in order to allow participants to get familiar with key vocabulary used in this industry.

Course Outline

The course is divided into the 5 next main topics:

- Renewable Energy: What Do You Know about “Paris Agreement”?
- About Offshore Wind Power: How Does It Work?
- From Rig to Wind Farm: Talk about Marine Engineering
- Safety Requirements: GWO, OPITO and DNV
- Taiwan Offshore Wind Power Development

Company Customized Courses (CCC)



ELIGIBILITY

Those who are in need for customized training



AVAILABLE LANGUAGES

English, Chinese Mandarin



PRICING

Variable (feel free to inquire)

Content Introduction

With the fast development of Taiwan's offshore wind power industry coupled with the government's localization policy requirements, the technical training needs of local professionals has drastically increased. These technical training needs often include company's specific technology, industrial training and much more.

MTIC meets the needs of the industry by being able to tailor-make specific and customized training. We have now cooperated with several companies, local and international and are already proposing customized courses such as SGTT (Siemens Gamesa Technical Training) from SGRE (Siemens Gamesa Renewable Energy SA) and Offshore Wind Energy Crew Member Course from Taiwan Marine Heavy Industry (海洋重工). Such courses are important in order to enhance the localization of the industry and fulfill the training needs of local and foreign companies. It is also a way to further strengthen Taiwan's international competitiveness in the Asia-Pacific market.





MORE TO COME

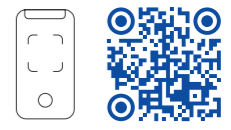
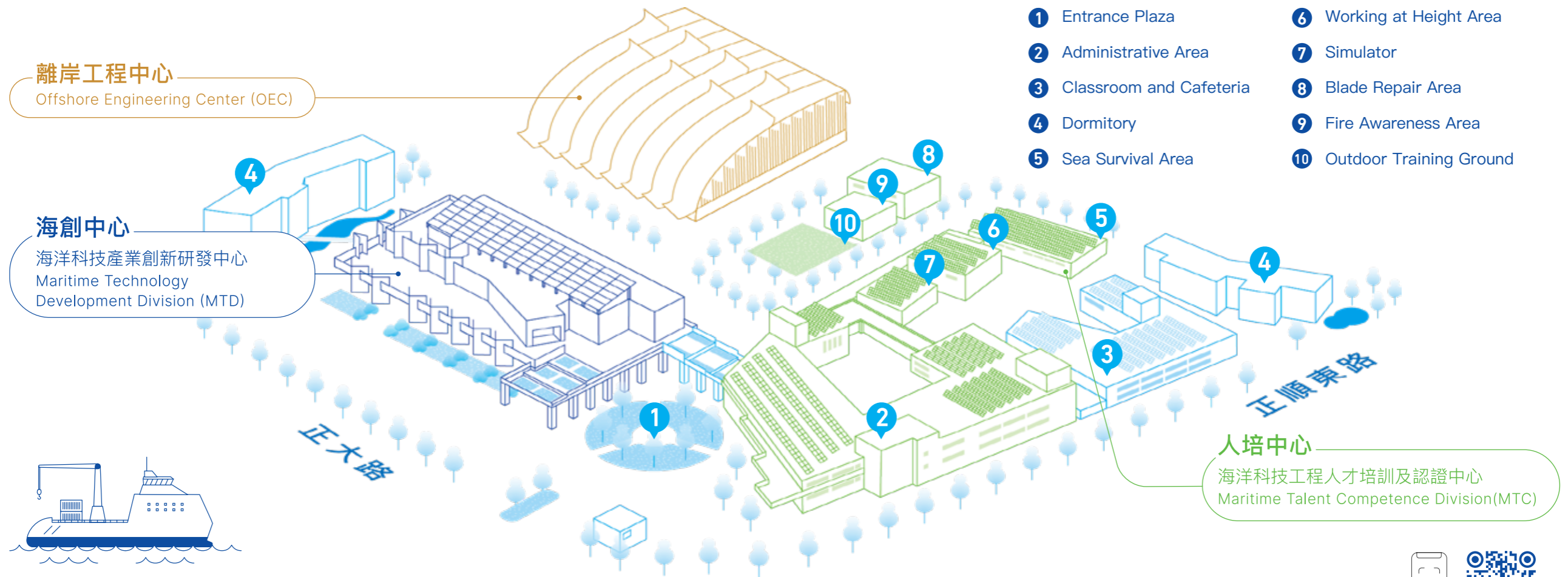
MTIC by MIRDC constant efforts to work with pioneer offshore wind training providers to bring the most updated training to Taiwan. The following trainings are been planned and will be available soon.

Course Outline

- Dynamic Positioning Operation Training — Nautical Institute standard
- Basic Offshore Safety Induction and Emergency Training (BOSIET) — OPITO standard
- Offshore Crane Operation Training — OPITO standard
- Lift Training — GWO standard
- Drone Operator Training for Blade Inspection
- ROV Operators Training Offshore Wind Farm Submarine Inspections
- AI Scheduling Management Training Course for Offshore Wind Farm Operation and Maintenance
- Offshore Wind Farm Data and Digitalization Management Training



MTIC Site Map



• Scan Google Map

Traffic

MTIC is ideally located in Xin-Da Harbor, which is on the northern part of Kaohsiung City, and can be accessed by HSR and Railway. Parking space is available if you are behind the wheel. The nearest HSR station is Tainan, and railway station is Luzhu.

If You Are Driving



Highway No 1 – Luzhu Interaction (338K) – (Westbound to Luzhu on Route 28) – Westbound to Route 17 – MTIC on your right-hand side.

If You Are Taking Public Transport



High-Speed Rail
HSR Tainan Station –Taxi (To Xinda Harbour) – MTIC (about 30 minutes)



Railway
Dahu Train Station –Taxi (To Xinda Harbour) – MTIC (about 25 minutes)



Shuttle Bus Service
Available upon request.



Public Bus
Only a few services, not recommended

MTIC Dormitory Introduction

Near to the Training centers and classrooms, with hotel-level public facilities



FLOOR DISTRIBUTION

- 1 ~ 3F : 30 single rooms in total (including 1 barrier-free room).
- 4F : Laundry room, coin-operated washing machine, dryer, dehydrator, drying rack, outdoor garden.



FACILITIES

- There are saloons on 1 – 3 floors. The 1st floor has board games, snacks, sofas, microwave ovens, electric cookers, countertops, hot and cold-water dispensers. About 7 pings per room, equipped with bed set, refrigerator, TV, hair dryer, dry and wet separation bathroom, floor-to-ceiling window balcony, independent air conditioner, desk and chair, wardrobe, bedside cabinet, ADSL / wireless network, etc.
- There are Bath towels / towels / shower kit (shampoo, body wash, mouthwash) in the room.



COST

- NT \$1600 / per night, tax and breakfast included.



NOTICE FOR BOOKING

- The accommodation fee will be linked to the EMAIL payment after the application is reviewed. Please pay the full accommodation fee before check-in. For temporary occupants, the payment must be paid on the day of receipt of the payment link letter.
- The location of the dormitory or the place of departure of the students is affected by natural disasters (human force majeure factors) on the day of check-in, such as: the warning area where the land typhoon warning is issued, or the major traffic interruption occurs, or the confirmed cases of the epidemic make it impossible to check in as scheduled. Contact the relevant personnel of the company immediately to change or cancel your reservation record.
- After the reservation is confirmed and the paying process is completed online, if you want to cancel the reservation, to copy with banks' internal protocol, it will take at least one month to process the cancellation request and the bank's administration fee will be charged to the applicant. It is hereby stated in advance.



Inquiry

+886 7 698 8899 ext. 7233 and +886 919 828 632 for English service
 Email : gwotraining@mail.mirdc.org.tw

Course Enrollment

Terms & Conditions

1. Enrollment Deadline: 10 days before the course. Tailor-made and certain courses need to be submitted 30 days before the course.
2. Well physical condition is required in certain courses.
3. Due to the restrictions and safety of personal protective equipment (PPE) for elevated operation, participants weighing more than 120 kg cannot participate in relevant courses.
4. Course cancellation must be made 7 days before the course.
5. Course replacement must be submitted 7 days before the course.
6. No refund will be made if a participant is discontinued due to personal reasons while the course is in progress.
7. Please apply your WINDA ID before GWO courses.
 - QR code for WINDA application →
8. MTIC reserves the right for course alternation and amendment.
9. All prices are subject to tax lunch. On-site dormitory is available at NT1,600 single occupancy per night, tax and breakfast included.



Enrollment

1. Email: gwotraining@mail.mirdc.org.tw for enrollment form.
2. Email completed enrollment form to gwotraining@mail.mirdc.org.tw
3. Please scan your payment slip within 3 days to gwotraining@mail.mirdc.org.tw for enrollment confirmation.
4. A Course Notice will be emailed to you 3 to 5 days before the course.

Remittance Details

Account Name	Metal Industries Research & Development Centre
Payment Way	By T/T
A/C Number	00220009670-0
Tax ID Number	83300307
Bank Name	MEGA INTERNATIONAL COMMERCIAL BANK CO ; LTD, KAOHSIUNG METROPOLITAN BRANCH
Bank Code	017
Swift Code	ICBCTWTP002

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