

## The National Iranian marine laboratory (NIMALA)

# Introducing the lab

The National Iranian marine laboratory (NIMALA) was established in 2012 with the approach to carry out all design and engineering tests for surface ships and submarines.

The design, purchase, installation and calibration of the laboratory have been performed by the most reputable international companies using the ITTC documentation. In addition to calibrating each measuring instrument, the total calibration is performed based on standard models. .

The carriage is a manned vehicle with dimensions of 7 \* 7.6 meters. Its low speed motor is 0.5 to 5 m / s and its top speed is 4.5 to 19 m / s.

The wavemaker installed at the National Iranian Marine Laboratory has the ability to produce regular and irregular waves up to a maximum height of 50 centimeters.



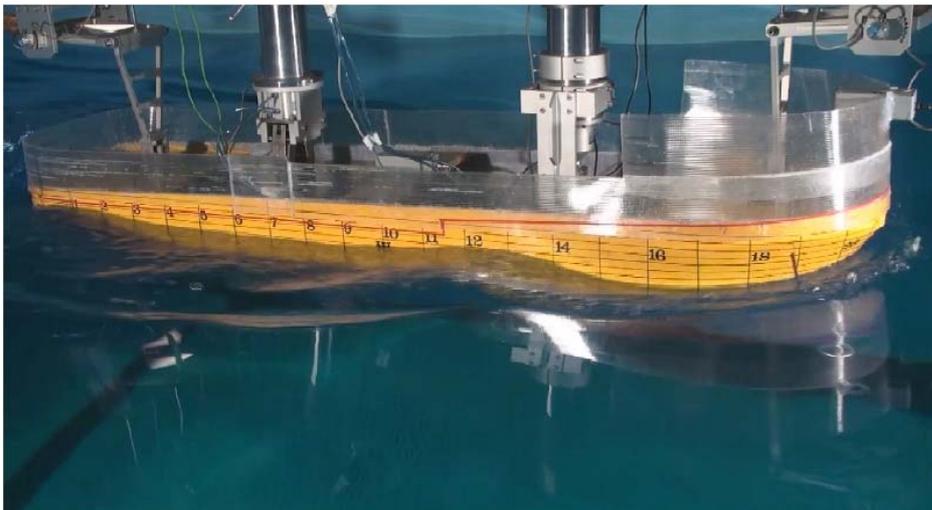
NIMALA as the most efficient and largest country reference in providing laboratory services and scientific advice on conducting sea experiments on types of surface and submarine vessels, propulsion systems,

marine structures, nationally and internationally, on With the aim of increasing the quantitative and qualitative level of laboratory services and increasing customer satisfaction, the basis of national and international standards has been to establish an international standard: 2005 ISO / IEC 17025 and ISO 9001: 2015, and senior management of this laboratory with a commitment ratio To apply professional practice and Providing quality services to customers and continuously improving the quality of work processes. Following are the labors of the lab activities.

## Resistance group

Testing the resistance of surface and submarine vessels, displacement and planing is one of the most commonly used tests in NIMALA.

This laboratory, having two years of high calibration, possesses a precision traction and high velocity range and different suffering, has tested the resistance of a large number of commercial and non-commercial vessels to determine the propulsion force and engine power Need done.



## Maneuvering group

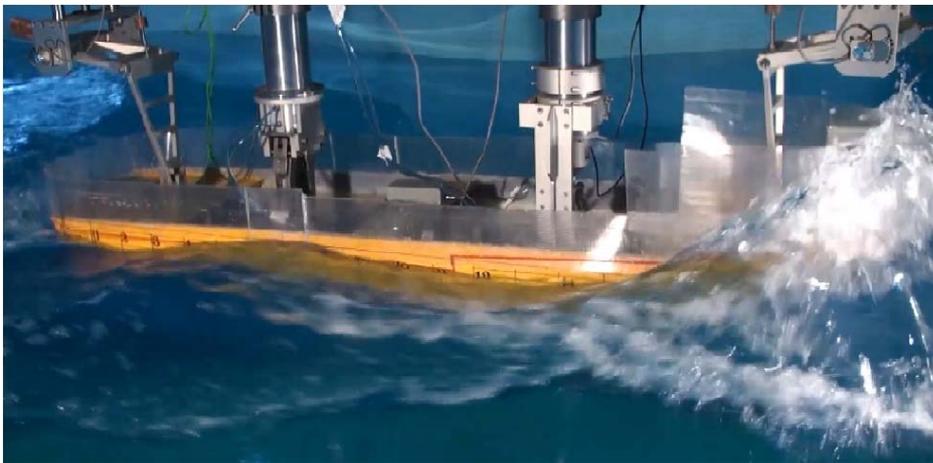
Determining the maneuverability of the vessels to reduce the chances of collision, reduce fuel consumption and reduce zero time, including the capabilities of the National Marine Laboratory of the Persian Gulf.

In order to determine the maneuverability of ship based on the IMO instruction, a series of tight tests are conducted to extract the hydrodynamic coefficients in maneuvering equations of motion by using the HPMM system in this lab. Some of these tests include:



## Seakeeping group

In order to assess the functionality or survival of ship in different marine conditions and the measurement of the Added resistance, the movements and accelerations imposed on the model in these conditions, the test is carried out in irregular and irregular wave conditions in this laboratory.



## propulsion group

Testing of various types propeller such as Open Water and Self-propulsion test, including the capabilities of NIMALA.

Due to the obligation to implement the EEDI rules for reducing the pollution of ships and the need to implement a model test for existing vessels as well as new vessels, the test run of the laboratory can meet the needs of domestic and even foreign marine industry in the field of testing the propeller model.



## Offshore group

The testing of various offshore structures, breakwaters, and fish cages includes the capabilities of the National Marine Laboratory of the Persian Gulf.

## Contact us

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