

DELIMARA MARINE ECOLOGY INSTITUTE

SASHANNE MICALLEF

MASTER OF ENGINEERING WITH MANAGEMENT (YEAR 2) THESIS PROJECT

This partially submerged structure seeks to aid in a sustainable development of one of the most iconic trades within Marsaxlokk and the coastal areas of Malta. Whilst replacing the depilated Delimara breakwater, this marine ecology institute aids in the regeneration of the marine ecosystems whilst providing the means for a professional ecological education and artificial reef regeneration. In the pursual of a holistic sustainable project, the spaces provide ample allocation for the inclusion of wave energy convertors that would aid in the respective technological development, whilst exploiting the Northern façade for natural lights.

The layout consists of research, educational and recreational facilities that are all accessible from the main atrium, that stretches to the roof top, where people can enjoy the picturesque views of the Marsaxlokk harbour through an inter-storey entrance.

The steel frame superstructure sits over a number of monolithic concrete structures casted off site and transported over sea. The primary slabbing system consists of steel decking that lowers the superstructure mass and shortens the projects timeline substantially. Trusses are used to support the library area overlying the auditorium that resides within the cantilevering part of the main monolithic structure.