

Name of Expert:	Pedro Manuel Palma Leal Figueira
Date of Birth:	09/11/1944
Country of Citizenship/Residence	Portugal/ Lisbon

Education and degrees:

1970 - “Instituto Superior Técnico” of the Technical University of Lisbon in 1970, Graduate in Civil Engineering

1981 - National Laboratory of Civil Engineering. Degree of Specialist in Maritime Hydraulics in

Employment record relevant to the assignment:

PRESENT	POSITIONS AND ACTIVITY
November 2018	Founder, Partner and Consultant at OCEANING – Engenheiros Consultores OEC Lda
January 2013	Expert Consultant of the World Bank for several projects
PREVIOUS	POSITIONS
2011 - 2019	Founder, Consultant and Technical Director of HYD Applf CONSULT Lda
1996 - 2006	Adjunct Professor (1996-2001) and Coordinating Professor (2001-2006) of Port and Maritime Works of the Civil Engineering Course of the Engineering Institute (ISEL) of the Polytechnic High School of Lisbon <i>Contact: ISEL - Instituto Superior de Engenharia de Lisboa Rua Conselheiro Emídio Navarro, 1, 1959-007 Lisboa, Tel (+351) 218 317 000</i>
1994 - 2000	Consultant, partner and technical director of ENVIMODE – Consultores de Hidroinformática A.C.E.
1981 - 2011	Founder, Consultant and Technical Director at WW – Consultores de Hidráulica e Obras Marítimas, S.A. <i>Contact: Unknown present contact</i>
1981 - 1989	Research Officer of the Hydraulics Department of the do National Laboratory of Civil Engineering <i>Contact: lnec@lnec.pt, Tel: +351 218 443 000</i>
1975 - 1987	Assistant Professor of Hydraulics of the Civil Engineering Course of the Engineering Institute (ISEL) of the Polytechnic High School of Lisbon
1970 - 1981	Research Assistant of the Hydraulics Department of the National Laboratory of Civil Engineering

Period	Employing organization and your title/position. Contact information for references	Country	Summary of activities performed relevant to the Assignment
2011-2018	Works in HYD CONSULT for APRAM For References: Mr. João Reis Tel +351 966912000 e-mail: jreis1957@gmail.com	Portugal	Design Leader of Rehabilitation works for the Port of Ribeira Brava
2013 – 2018	Works for WORLD BANK For References: Mr. Jean-Martin Brault: Tel +1 (202) 459-1891 e-mail: jbrault@worldbank.org	Portugal	Technical expert of WB during the design and construction of Raoued sea outfall in nord Tunis
2017-2018	Works for TPF Mr Nelson Madeira Tel +351916614432 e-mail: nelson.madeira@tpf.pt	Portugal	Design Leader of Rehabilitation works for: - Port of Funchal main Breakwater - Port of Funchal Ro-Ro Ramp - Machico Port Structure, Madeira - Port of Caniçal east landfill protection - Machico breakwater and quay
2015	Works for Consulgal: For References: Mr Manuel Madeira Tel +351 919712714 e-mail: manuel.madeira@consulgal.pt	Portugal	Responsible by marine and port works for the “Preliminary study of an artificial island for a real estate development project - Divina Island” Paphos, Chipre. 2015
1981-2011	Works in WW – Consultores de Hidráulica e Obras Marítimas S.A. Works Vilamoura Marina: For References: Ms. Isolete Correia Tel +351 9176363787 e-mail: isolete_correia@lusort.com	Portugal	Team leader in the project of Transformation of the 10 ha outer port of Vilamoura Marina into a mooring area for 75 superyachts Algarve, Portugal. 2009
	Works in WW – Consultores de Hidráulica e Obras Marítimas S.A. Works for APRAM For References: Mr. João Reis Tel +351 966912000 e-mail: jreis1957@gmail.com	Portugal	New Commercial Port of Caniçal in Madeira, Portugal, 1992 to 2005. Responsible for the design of several project components along the study period. Project Manager from 2002 to 2005

Membership in Professional Associations and Publications:

Member nº 10241 of Portuguese Engineers Association (Ordem dos Engenheiros).
Member of PIANC - World Association for Waterborne Transport Infrastructure

Language Skills (indicate only languages in which you can work):

	Speaking	Reading	Writing
English	Proficient	Proficient	Proficient
French	Proficient	Proficient	Proficient
Spanish	Fair	Proficient	Weak
Portuguese		Mother language	

Adequacy for the Assignment:
Reference to Prior Work/Assignments that Best Illustrates Capability to Handle the Assigned Tasks
Preliminary study of the Yenikapi Cruise Terminal in Istanbul, Turkey. 2017

Client: TPF / Municipality of Istanbul Master plan of port and maritime works.

Consulting Engineer; Protection works. Access and maneuvering of ships,

Location of the quays

Preliminary study of an artificial island for a real estate development project - Divina Island

Yeroskipou / Paphos, Chipre. 2015

Client: Consulgal / ATUM Développements.

The project includes an artificial island of about 105 ha connected to the mainland by a bridge. The island will be built in depths of 4 to 10 m.

Technical Manager for Maritime Works

Embankments, wave protection, beaches, internal channel, marina, sediment dynamics

Technical Assistance and Design supervision

External Port of Vilamoura Marina, Vilamoura, Algarve, Portugal. 2009

Client: Marina de Vilamoura S.A.

Transformation of the 10 ha outer port of the Marina to a mooring area for 75 superyachts.

Project leader

Port structures.

Masterplans of Funchal, Caniçal and Porto Santo Ports, Madeira, Portugal 2005

Client: APRAM, Madeira Ports Administration

Modernization of ports for the new conditions in Madeira, namely the transfer of commercial cargo to Caniçal

Team Leader

Port Planning

New Commercial Port of Caniçal in Madeira, Portugal, 1992 to 2005

Client: APRAM Madeira Ports Authority

Transfer of Madeira's commercial port activity from Funchal to Caniçal, in several phases, from 1992 to 2005.

Main port components:

- Landfill for a container terminal with 2.6 ha, and 420 m of quays with operation depths of -6 to -8m (CD);
- Shipyard with syncrolift for boats up to 90m;
- Deepwater caisson breakwater in a prism of stone material foundation with depths until -40m (CD);
- Ro-Ro ramp; Fishing port; Other land and coastal protection structures;
- Civil engineering works in the reclaimed platforms (drainage, pavements, ...)

Coordinator of modeling studies for ship maneuvering.

Design leader of several project components along the study period.

Project Manager between 2002-2005

Ports and Port Terminals

Port of Porto Moniz, Madeira, Portugal, 2001

Client: APRAM Madeira Ports Authority

Concrete caisson breakwaters founded on a stone prism at depths up to 20m.

Technical support

Ports and Port Terminals

LNG and cement offshore Terminal at Socorridos, Madeira, Portugal, 2005

Client: EEM Madeira Electricity Company

Open offshore structure studied at Basic Design level, with platform quays made with concrete caissons. Land access provided by metallic bridge. A protected reclamation platform has been studied for LNG tanks.

Position: Project leader

Ports and Port Terminals

Other important recent works:**Extension of the thermal central of Coloane, Macao (China) 2016- 2018**

Client: Tosha GEO Lda / Companhia Electricidade Macau

Relevant aspects: New seawater intake (3x1800 PE 2 km pipes) in mud trench.

Technical Manager for Maritime Works

Preliminary studies of maritime works. Technical Assistance during Design and bidding phases

Lake Tanganyika. Port and navigation conditions improvement, East Afric, 2016 – 2017

Client: World Bank

Feasibility studies of a dam in Lukuga River for the control of the lake Tanganyika level.

Expertise in hydrology, sediment dynamics and port engineer.

Raoued Sea outfall. Tunis Nord sanitation system. Tunisie. 2013 – 2018

Client: World Bank.

Length 6km, D=1600mm, Maximum depth :20m, Maximum flow 3m³/s

Expert Consultant in Sea Outfalls.

Technical assistance from design stage to construction.

Final design review

Expert's contact information: (e-mail : pedro.figueira@oceaning.pt ;
phone +351 919365327)

Certification:

I, the undersigned, certify that to the best of my knowledge and belief, this CV correctly describes myself, my qualifications, and my experience, and I am available, as and when necessary, to undertake the assignment in case of an award. I understand that any misstatement or misrepresentation described herein may lead to my disqualification or dismissal by the Client, and/or sanctions by the Financiers.

Pedro Manuel Palma Leal Figueira

8th February 2019
