#	**Anastasios - Spyridon Misthos** Naval Architect & Marine Engineer	

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Presentation title:	**Desing of an Eco- Racing Yacht - A Naval Approach**

The aim of this paper was to investigate the employment of eco-friendly modern design solutions in the cruising yacht industry, in order to achieve low emissions and access to environmentally restricted marine zones, and the interaction of the design requirements with efficient and functional space planning. After thorough research of various hull geometries and their characteristics, we settled into the concept of a racing yacht. Regarding the geometry, we chose a yacht design because of the particular benefits that this geometry presents on the subjects of stability, low draft, minimal wetted surface and consequently lower drag forces. Concerning the sailing system, we designed it around 11 m. Further energy can be accumulated from the solar panels designed into the sundeck, while the dedicated sky sail can be used in certain wind conditions to reduce further the energy consumption of the yacht. Both the hull geometry and the photovoltaic (PV) units and solutions were then introduced into the design of a prototype yacht designed to host four guests and crew and perform Mediterranean voyages. The environment design of the hull and sails used as guidelines in order to produce a 7.20 m yacht that is sufficient to travel and racing.

Short CV:

POSITION:

TECHNICAL PERSONNEL OF NAVAL ARCHITECTURE DEPARTMENT

EDUCATION:

DEGREE OF TECHNICAL SUPERVISOR (FOREMAN) IN SHIPBUILDING (DROSSOS SCHOOL, PIRAEUS 1980)

DEGREE OF NAVAL ARCHITECT & MARINE ENGINEER (TECHNOLOGICAL EDUCATIONAL INSTITUTE OF ATHENS, T.E.I. - ATHENS - 1985)

DEGREE OF PEDAGOGICAL & TECHNOLOGICAL EDUCATION (ΠΑ.ΤΕ.Σ/Σ.Ε.Λ.Ε.Τ.Ε - 1992)

CV:

EDUCATION

Degree of Technical Supervisor (Foreman) in Shipbuilding (Drossos School, Piraeus 1980)

Degree of Naval Architect & Marine Engineer (Technological Educational Institute of Athens, T.E.I. - Athens - 1985)

Degree of Pedagogical & Technological Education (Πα.Τε.Σ/Σ.Ε.Λ.Ε.Τ.Ε - 1992)

WORK EXPERIENCE

1979-83 Naval Architect/Marine Engineer Supervisor in Marenco Co Ltd

1983-Today Technical Personnel of Naval Architecture Department Laboratories

TEACHING EXPERIENCE

1983-84 Adjunct Instructor of Naval Architecture Dpt. in The Center of Advanced Technological & Vocational Education (K.A.T.E.E.) of Athens

1996-2009 Lab Associate of The Naval Architecture Dpt. of T.E.I-A

1984-Today Technical Personnel of Naval Architecture Department Laboratories

LECTURE NOTES

Lecture Notes for The Marine Engineering II Lab for the Operation Program for Education & Initial Vocational Training - 2005 (Ε.Π.Ε.Α.Ε.Κ)

Lecture Notes for The Ship Drawings Lab / E-class Asynchronous E-Learning Platform

Presentation of Rhinoceros, 3D Computer Graphics and Computer-Aided Design (Cad) Application Software.

Exercise: Ship Lines Plan With Rhinoceros

3D Designing Application in Ship Lines Plan, (Rhinoceros), Part A, B and C

Lecture Notes for the Greek Traditional Boat Drawing Project

Lecture Notes for the Welding Technology-Study-Applications & Quality Control

PROFESSIONAL CERTIFICATION

Registered in the Merchant Ships General Inspectorate (Κ.Ε.Ε.Π)-1985.

PUBLICATIONS:

Misthos, A.S.A. and Mazarakos T.P., (2019). Desing of an Eco - Racing Yacht - A Naval Approach, International Conference: Energy in Transportation 2019 (EinT 2019), 28 September, 2019, Athens.