

CURRICULUM VITAE

Alexandros A. Theodoulides
Dr. Naval Architect and Marine Engineer

July 2020

I) GENERAL

Family name: Theodoulides
Name: Alexandros
Date of Birth: July 10th, 1963
Marital status: Married, 2 children
Address: Socratous 26, 14561 KIFISIA, GREECE
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II) GRADUATE STUDIES

1981: Graduation from High School
1981-1986: Studies in the Department of Naval Architecture and Marine Engineering of NTUA
1986: Diploma of Naval Architect and Marine Engineer

III) POST-GRADUATE STUDIES

1995: Awarding of PHD Title.
Ph. D. Thesis title: "Contribution to the study of the steady obstructed uniform flows with a free surface. Linear and nonlinear problem".

IV) PROFESSIONAL ACTIVITIES

Nov. 1993 - 2012: Head of the Research and Rules Development Department of Hellenic Register of Shipping.
2006 – 2010 Head of Hull Department (Plan Approval) of Hellenic Register of Shipping
2010 – 2012 Director of Plan Approval & Engineering Division of HRS
2009 – 2017 Assistant Professor at the Naval Architecture Dept. of the Technological Educational Institute of Athens.
2017 – Today Assistant Professor at the Department of Naval Architects of the University of West Attica.

V) RESEARCH ACTIVITIES

a) Participation in Research Projects

a1) As Scientific Responsible

1995: "Software development for the assessment of structural Integrity of Ships"
1995: "Rational calculation of the wave loading of ships (based on the wave-climate of several sea-areas)"
1999: "Development of Rules and Regulations for the design, construction and certification of marinas & floating pontoons»,
2006: "Development of virtual environment for application to the safety of ships of new technology."

2006: "Development of Rules and Regulations for the construction and Classification of Double Hull Oil Tankers with length less than 150m"

a2) As Researcher

1987 "Contribution to the design of the New Landing Ships of the Hellenic Navy",

1987: "Hydrodynamic of the Ships Propulsion",

1991: "Wave propagation and diffraction in continuous media. Direct and Inverse Problem"

1996 «Development of design principles for the construction of High Speed Craft in F.R.P .»

1997 CA – FSEA : Concerted Action on Formal Safety and Environmental Assessment

1998 "Design optimization of Ro/Ro Passenger vessel of new technology."

1999 "An integrated system for electronic management of drawings and codes with application to Naval Architecture .»

1999 "A forecasting system of high resolution for maritime and other applications

2000 Harmonization of Rules and Design Rationale – (HARDER)

2000 Probabilistic Rules based optimal design of Ro-Ro passenger ships – (ROROPROB)

2001 Wave climate of ship routes and application to the safety of ships of new technology

2005 An Enhanced operational System for wave monitoring and Prediction with Applications in Hellenic Navigation

2006 "Autonomous, ecological, floating desalination plan"

2006 Development of an innovative ballast water treatment methodology by using centrifugation, ultra-violet radiation and high energy ultrasounds

2009 Exact geometry simulation for optimized design of vehicles and vessels (EXCITING)

2010 Composite Patch Repair for Marine and Civil Engineering Infrastructure Applications (COPATCH)

2015 Use of LNG as fuel for the propulsion of Commercial Ships (LNG-COMSHIP)

b) Evaluation of Research Projects

Involvement as Research evaluator in the context of the Fifth Framework (GROWTH – Marine Technologies).

c) Rules Development

Responsible for the development and maintenance of the following set of HRS Rules:

- "Rules and Regulations for the Classification and Construction of Steel Ships"
- "Rules and Regulations for the Classification and Construction of Small Craft"
- "Tentative Rules and Regulations for the Construction and Certification of Inflatable Boats".
- "Tentative Rules and Regulations for the Classification and Construction of Lifting Appliances in a Marine Environment"
- "Tentative Rules and Regulations for the Construction and Certification of Lifting Appliances "

- "Tentative Rules and Regulations for the Construction and Certification of Freight Containers"
- "Tentative Rules and Regulations for the Construction and Certification of Floating Docks"

VI) SCIENTIFIC WORKS

- 1986: A. THEODOULIDES: "Hydrodynamic Analysis of floating and/or submerged bodies", Diploma thesis
- 1991: ATHANASSOULIS, G., VOUTSINAS, S., THEODOULIDES A., "A Hamiltonian Variational Principle for steady, nonlinear, free-surface flows", First Int. Conference on Math. and Num. Asp. on Propagation Phenomena, Strasbourg.
- 1991: ATHANASSOULIS, G., THEODOULIDES A., "Steady free surface flow of a liquid layer. A Hamiltonian variational principle for the localized nonlinear problem", Greek Conf. on Wave Prop. Phen. in Solids and Fluids, Thessaloniki.
- 1995: THEODOULIDES A., "Contribution to the study of the steady problem of obstructed uniform flow with a free surface. Linear and nonlinear problem". PhD. Thesis.
- 2002 C.G. Politis, V.G. Voutsinas, A.A. Theodoulides, "On line assessment of operability of a RO-RO passenger ship in a seaway", in Proceedings of "*Atmospheric Modelling from Microscale to Global – 5th RAMS Workshop and related applications*", Santorini, Greece.
- 2003 P. AILLIOT, M. PREVOSTO, T. SOUKISSIAN, C. DIAMANTI, A. THEODOULIDES AND C. POLITIS, "Simulation of Sea State Parameters Process to study the Profitability of a Maritime Line", The Thirteenth International Offshore And Polar Engineering Conference.
- 2009 A.A Theodoulides, C.G. Politis, M.G. Gerardis, I.N. Ergas, «Comparative Study of Strength Assessment Procedures Used by the Classification Societies», IMDC 2009.
- 2011 I. G. Tigkas, A. Theodoulides, "On the effective breadth of plating", IMAM 2011.
- 2015 G. Theotokatos, G.A. Livanos, S. Dimitrellou, E. Strantzali, D.-N. Pagonis, K. Politis, A. Theodoulides, D. Peirounakis, P. Mizithras, "Design of LNG storage and feeding system for an open type ferry", International Maritime Association of the Mediterranean, Pula, Croatia, 21-24, September 2015.

VII) PROFESSIONAL QUALIFICATIONS

- a) Scientific areas of familiarization
- Ship's structural strength assessment
 - Ship Hydrodynamics
 - Ocean Engineering
- b) Technical Software
- MAESTRO (Ship's structural assessment)
 - SWAN (Ship Hydrodynamics)
 - SOLIDWORKS (Design and structural analysis of steel structures)
 - ANSYS (Structural analysis)
- c) Professional expertise
- Development and implementation of Class Rules and Regulations
 - Hull structures plan approval procedures