# SOFIA PEPPA MSC PHD

Phone: (0030) 210-5385870 speppa@uniwa.gr 28 Ag. Spyridonos Street, 122 43 Egaleo, Athens, Greece

Current post March 2018 -	Assistant Professor, Department of Naval Architecture, University of West Attica, Athens, Greece
QUALIFICATIONS	
2012	<b>Ph.D. in Engineering</b> Department of Naval Architecture and Marine Engineering National Technical University of Athens
2005	MSc in Quality Assurance Department of Science and Technology Hellenic Open University
2001	MSc in Naval Technology Department of Naval Architecture and Marine Engineering National Technical University of Athens
1996	<b>Diploma (Bachelor + MEng equivalent) in Naval Architecture and Marine Engineering</b> Department of Naval Architecture and Marine Engineering National Technical University of Athens

# **EMPLOYMENT/PREVIOUS POSTS**

Feb 2017 – Feb 2018	<i>Assistant Professor</i> , Department of Naval Architecture, Technological Educational Institute of Athens
Mar 2011 – Jan 2017	<i>Lecturer in CASD Design</i> , Department of Naval Architecture, Technological Educational Institute of Athens
Mar 2008 – Jul 2010	<i>Teaching Assistant</i> , Department of Naval Architecture, Technological Educational Institute of Athens
Jan 2006 – Mar 2011	<i>Quality Control Manager</i> , Laboratory for Ship and Marine Hydrodynamics, Department of Naval Architecture and Marine Engineering, NTUA

Jan 2002 – Mar 2011	<i>Laboratory Assistant</i> , Laboratory for Ship and Marine Hydrodynamics, Department of Naval Architecture and Marine Engineering, NTUA
Jul 2000 – Feb 2001	Technical Superintendent
Jun 1998 – Jul 2000	<b>Project Manager,</b> EPEAEK Methods of Upgrading Postgraduate Studies, Department of Naval Architecture Marine Engineering, NTUA
Jun 1996 – Jan 1998	<i>Research assistant,</i> Laboratory for Ship and Marine Hydrodynamics, Department of Naval Architecture and Marine Engineering, NTUA

#### **TEACHING EXPERIENCE**

## Postgraduate Course

# University of West Attica, Department of Naval Architecture

2017- to date	Computational fluid dynamics with applications in Naval Architecture
	& Marine engineering (MSc Program: Advanced Technologies in
	Naval Architecture & Marine Engineering)

## Undergraduate Courses

# University of West Attica, Department of Naval Architecture

2018- to date	Resistance – Propulsion – Ship hydrodynamics
2018- to date	The Regulation of International Shipping – Environmental Protection
2012- to date	Small Craft Technology
2012- to date	Traditional Ship Design
2014- 2018	Shipyard Installations, Shipping Companies and Classification Societies
2011-2018	Ship lines Drawing and Introduction to CASD
2012-2014	Ship Theory I
2012-2013	Mechanical Eng. Drawing and Introduction to MCAD
2012-2013	Special Marine Constructions and Sailing Vessels

# **Technological Educational Institute of Athens**

Teaching Assistant, Department of Naval Architecture

2007-2010 Ship lines Drawing and Introduction to CASD

# National Technical University of Athens

Teaching Assistant, Department of Naval Architecture and Marine Engineering

2006-2010	Principles of Marine and Naval Hydrodynamics
2006-2010	Fluid Mechanics
2004-2006 & 2001-2002	Ship Dynamics and Seakeeping
2002-2004 & 1997-1999	Hydrodynamic Design of Small Vessels
2001-2006	Mechanical and Naval Architecture Laboratory I and II
1999-2000	Hydrostatics and Ship Stability

#### **RESEARCH EXPERIENCE**

## 2018-2021

UNIWA, Department of Naval Architecture. Project leader of the research project: NAYS

## 2005-2008

ISTRAM. Participation as a researcher in the following research projects: POA (G4RD-CT-2001-00601), SCRACH PHASES I-V, ECOSHAPE (AST3-CT-2003-502884), TATEM (AIP3-CT-2004-502909)

# 1996-2002

NTUA, Department of Naval Architecture and Marine Engineering. Participation as a researcher in the following research projects:

- Development of high-speed hull series for naval ships operating in Greek seas
- Development of a systematic series of double-chine planing hull forms
- Determination of the propulsion characteristics of traditional vessels-Proposal for improvement
- ACME
- Advance Materials and Design Procedures for Large Size SES Structures
- NAUTIS
- Advanced technology to optimize Maritime operational safety, integration, and interface (ATOMOS II)
- Composite Marine Propellers, (COMARPROP)
- EUROWAVES

#### Journal Publications – Conference Papers

- Pagonis, D.-N., Livanos, G., Theotokatos, G., Peppa, S., and Themelis, N., "Open type ferry safety systems design for using LNG fuel," Marine Science and Application, 15(4), 2016.
- Peppa S., and Triantafyllou, G. S., "Sensitivity of two-dimensional flow past transversely oscillating cylinder to streamwise cylinder oscillations," Physics of Fluids 28(3):037102, 2016.
- Labeas, G., and Peppa, S., "Fatigue crack growth behavior of friction stir welded aluminium alloys," Key Engineering Materials Vol. 665, pp. 89-92, 2016.
- Peppa, S., Kaiktsis, L., and Triantafyllou, G. S., "Hydrodynamic forces and flow structures in flow past a cylinder forced to vibrate transversely and in-line to a steady flow," Journal of Offshore Mechanics and Arctic Engineering, 138(1), 2016.
- Peppa, S., Kaiktsis, L., and Triantafyllou, G. S., "Numerical simulation of threedimensional flow past a cylinder oscillating at the Strouhal frequency," Journal of Pressure Vessel Technology, Transactions of the ASME, 137(1), 2014.
- Peppa, S., Kaiktsis, L., Frouzakis, C. E., and Triantafyllou, G. S., "Flow past an oscillating cylinder: Effects of oscillation mode on wake structure," IUTAM Symposium on Critical flow dynamics involving moving/deformable structures with design applications, Santorini, Greece, 2018.
- Peppa, S., Kaiktsis, L., Frouzakis, C. E., and Triantafyllou, G. S., "Computational study of three-dimensional flow past an oscillating cylinder: effects of oscillation mode on flow structure and forces," ISOPE-2016 Conference, Rhodos, Greece, 2016.
- Triantafyllou, G., and Peppa, S., "Sensitivity of two-dimensional flow past transversely oscillating cylinder to streamwise cylinder oscillations," Bulletin of the American Physical Society, Vol. 60(21), American Physical Society, 2015.
- Labeas, G., and Peppa, S., "Fatigue crack growth behavior of friction stir welded aluminium alloys," 14<sup>th</sup> International Conference on Fracture and Damage Mechanics, Budva, Montenegro, 2015.
- Peppa, S., Kaiktsis, L., Frouzakis, C., and Triantafyllou, G. S., "A comparison of forces in two- and three-dimensional flow past an oscillating cylinder," Proceedings, ASME 2015 Pressure Vessels and Piping Division Conference, PVP2015-45390, Boston, Massachusetts, USA, 2015.
- Peppa, S., Kaiktsis, L., Triantafyllou, G., "Numerical simulation of three-dimensional flow past an oscillating cylinder", Proceedings, ASME 2013 Pressure Vessels and Piping Division Conference, PVP2013-97943, Paris, France, 2013.
- Peppa, S., Kaiktsis, L., Triantafyllou, G., "The effect of in-line oscillation on the forces of a cylinder vibrating in a steady flow", American Society of Mechanical Engineers, Fluids Engineering Division (Publication) FEDSM, Proceedings, <sup>7th</sup> International

Symposium on Fluid-Structure Interactions, Flow-Sound Interactions, and Flow-Induced Vibration and Noise, Montreal, Québec, Canada, Volume 3 (PARTS A AND B), 2010, pp. 21-28.

- Peppa, S., Kaiktsis, L., Triantafyllou, G., "Chaotic wakes in flow past an oscillating cylinder", Proceedings, 6<sup>th</sup> Conference on Bluff Body Wakes and Vortex Induced Vibrations, Capri Island Italy, 2010.
- Triantafyllou, G., Kaiktsis, L., Peppa, S., "Hydrodynamic forces on a cylinder vibrating transversely and in-line to a steady stream", 61st Annual Meeting of the APS, San Antonio, Texas, 2008.
- Peppa, S., Kaiktsis, L., Triantafyllou, G., "Computational study of flow past an oscillating structure Flow-structure interaction", Proceedings, Flow 2008, Kozani, Greece, 2008.
- Peppa, S., Kaiktsis, L., Triantafyllou, G., "Simulation of a flow past a circular cylinder with inflow shear", Proceedings, 4<sup>th</sup> Symposium on Bluff Body Wakes and Vortex Induced Vibrations, Santorini Greece, 2005, pp. 211-215.
- Loukakis, T. A., Grigoropoulos, G., Peppa, S., "Propulsion optimization diagrams for fishing vessels", Proceedings, 8<sup>th</sup> International Marine Design Conference, IMDC 03, Athens Greece, 2003, Vol. I, pp. 123-135.
- Grigoropoulos, G., Loukakis, T. A., Peppa, S., "Seakeeping performance of high-speed monohulls", Proceedings, 6<sup>th</sup> International Marine Design Conference, IMDC 97, Newcastle England, 1997, pp. 539-553.
- Grigoropoulos, G., Loukakis, T. A., Peppa, S., "Seakeeping operability of high-speed monohulls in Aegean Sea", Proceedings, International Maritime Association of Mediterranean, VIII Congress, Istanbul Turkey, 1997, pp. 1.5-1.10.

# **Posters and Presentations**

- Peppa, S., Kaiktsis, L., Triantafyllou, G. S., "Simulation of a flows past oscillating bluff bodies", ERCOFTAC Spring Festival Aristotle University of Thessaloniki, April 26<sup>th</sup> 2018.
- Grigoropoulos, G., Loukakis, T. A., Peppa, S., "Operability of high-speed monohulls in the Aegean sea environment", Presentation to the Joint Branch of the Royal Institution of Naval Architects and the Institute of Marine Engineers in Greece, Athens, May 23<sup>rd</sup> 1996.

#### **PROFESSIONAL AFFILIATIONS**

- Member of The Greek Chamber
- Member of Hellenic Society of Naval Architects
- Working Group "Protection and Promotion of Traditional boat and wooden shipbuilding Art of Greek Area ", Ministry of Culture and Sports

#### LANGUAGES

English: Fluent

German: Basic