

# Curriculum Vitae

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Dr. Georgios A. Livanos

Associate Professor

Department of Naval Architect Engineers  
School of Technological Applications

## CURRICULUM VITAE

### GENERAL INFORMATION

Name: Georgios  
Surname: Livanos  
Address: TEI Athens, School of Technological Applications, Athens 122 10  
Tel: +30 210 5385340  
e-mail: *glivanos@teiath.gr*  
Location and Date of Birth: Athens – 13.06.1979  
Position: Associate Professor  
Scientific Area: Marine Energy Systems and Design of Machinery

### STUDIES

#### □ Post Graduation Studies

2007: **PhD** in the scientific area of tribology and lubrication of large marine diesel engines, obtained from the Dept. of Naval Architects and Marine Engineers of National Technical University of Athens

*PhD Thesis Title: "A Comprehensive Model of Friction in Four-Stroke Marine Diesel Engines".*

*Supervisor: Professor Nikolaos P. Kyrtatos (National Technical University of Athens)*

2006: **MBA** (Master in Business Administration) obtained from the Dept. of Electrical and Information Technology Engineers of National Technical University of Athens

*Grade: 8.30/10*

#### □ Pre-graduation studies

2002: Diploma (with honors) in Naval Architecture and Marine Engineering

*Grade: 9.03/10*

*Diploma Thesis Subject: «Operation of Large two-stroke Marine Diesel engine with Fire in Scavenging Air Receiver».*

*Supervisor: Nikolaos P. Kyrtatos, Professor of National Technical University of Athens.*

*Diploma Thesis Score: 10/10*

#### □ Basic middle Education

1991-1997: Graduation (with honors) from the 2<sup>nd</sup> High School and 2<sup>nd</sup> Lyceum of Zografou, Athens, Greece

*Grade: 19.6/20*

## FOREIGN LANGUAGES

English: Fluency in writing and speaking,

2006: Obtain the State Certificate of Foreign Language Proficiency (C1 level of English Language: Effective Operational Proficiency in English) from the Ministry of National Education and Religious Affairs of the Hellenic Republic

1994: Obtain the First Certificate in English (FCE) from the Cambridge University

## WORKING EXPERIENCE

From 2013 until Today: Associate Professor in Dept. of Naval Architects, School of Technological Applications, TEI Athens - Marine Industry Consultant

From 2009 until 2013: Assistant Professor in Dept. of Naval Architects, School of Technological Applications, TEI Athens- Marine Industry Consultant.

From 2008 until 2009: Business Development Manager of Marine and Power Plants Engine Manufacturer Wartsila Finland Oy.

From 2002 until 2007, Laboratory of Marine Engineering of National Technical University of Athens as Research Engineer – Scientific Consultant in the framework of EU funded projects

## PARTICIPATION IN RESEARCH PROJECTS

1. **LNGCOMSHIP:** Implementation of LNG Fuel in Commercial Ship Propulsion Plants.

*Duration:* 1/12/2012 – 30/9/2015

*Funding:* Greek General Secretariat of Research & Technology

2. **E-Greenship:** An integrated system for monitoring ship's emissions and operating parameters with application to optimal management of the ship energy demands during operation

*Duration:* 10/1/2011 – 9/1/2014

*Funding:* Greek General Secretariat of Research & Technology

3. **HERCULES** (High Efficiency R&D on Combustion with Ultra Low Emissions for Ships)

*Scientific Code (KA):* 63/1448

*Duration:* 1/3/2004 – 31/9/2007

*Funding:* European Union

4. **SMOKERMEN** (SMOKE Emissions Reduction in Marine ENgines)

*Scientific Code (KA):* 63/1324

*Duration:* 1/7/2002 – 31/6/2005

*Funding:* European Union

5. **LIFETIME** (Low In Fuel and Emissions Two-stroke Intelligent Marine Engine)

*Scientific Code (KA):* 63/1186

*Duration:* 1/4/2000 – 31/8/2003

*Funding:* European Union

5.     **ATECS** (Advanced Truck Engine Control System)  
Scientific Code (KA):             63/1120  
Duration:                         1/1/2000 – 31/12/2003  
Funding:                         European Union
6.     **CLEATRANS** (Clean Fuels for Clean and Efficient Urban Transportation)  
Scientific Code (KA):             63/1280  
Duration:                         36 months  
Funding:                         European Union
7.     **FUNIT** (Future UNit Injector Technologies )  
Scientific Code (KA):             63/1187  
Duration:                         1/2/2000 – 31/1/2003  
Funding:                         European Union
8.     **PREMTECH II**  
Scientific Code (KA):             67/424/02  
Duration:                         1/7/2001 – 30/6/2005  
Funding:                         European Union

## LIST OF PUBLICATIONS

### PAPERS PUBLISHED IN SCIENTIFIC JOURNALS

- [1]     **Livanos G.A.**, Theotokatos G., Kyrtatos N.P., *Simulation of Large Marine Two-Stroke Diesel Engine Operation during Fire in the Scavenging Air Receiver*, Journal of Marine Engineering and Technology, IMAREST, Part A, No A3 (2003), pp. 9-16.
- [2]     **Livanos G.A.**, Kanellopoulou E., Kyrtatos N.P., *Marine Diesel Engine Transient Operation with Reduced Smoke Emissions*. Journal of the Japan Institution of Marine Engineering, Vol 41 (2006), pp. 31-38.
- [3]     **Livanos G.A.**, Kyrtatos N.P., *Friction Model of a Marine Diesel Engine Piston Assembly*. Tribology International, Elsevier, Vol 40 (2007), pp. 1441-1453.
- [4]     **Livanos G.A.**, *The Development of a Simplified Test Rig for Measuring the Average Friction Torque of the Piston – Crank – Slider Mechanism of an Internal Combustion Engine*. Scientific Problems of Machines Operation and Maintenance, Polish Academy of Sciences, Committee of Machine Engineering, Vol. 44 (2009), pp. 61-69.
- [5]     **Livanos G.A.**, *Development of a Simplified Instantaneous Friction Model of the Piston-Crank-Slider Mechanism of Internal Combustion Engines*. SAE International Journal of Engines, June 2011, Vol. 4, 581-596, doi: 10.4271/2011-01-0612
- [6]     Theotokatos G., and **Livanos G.**, (2012), *Techno-economical analysis of single pressure exhaust gas waste heat recovery systems in marine propulsion plants*, Proceedings of the Institution of Mechanical Engineers, Part M, Journal of Engineering for the Maritime Environment, accepted for publication.

- [7] **Livanos G.A.**, Theotokatos G., Pagonis D.N., Techno-economic Investigation of Alternative Propulsion Plants for Ferries and RoRo ships. Energy Conversion and Management, Elsevier Vol.79, 2014, pp. 640-651
- [8] Christina Diakaki, Natalia Panagiotidou, Anastasios Pouliezios, Georgios Kontes, George Stavrakakis, Kostas Belibassakis, Theodoros Gerostathis, **George Livanos**, Dimitrios-Nikolaos Pagonis, Gerasimos Theotokatos A decision support system for the development of voyage and maintenance plans for ships, International Journal of Decision Support Systems, IJDSS (2014),

### **SCIENTIFIC PAPERS PUBLISHED IN INTERNATIONAL CONFERENCES**

- [1] **Livanos G.A.**, Kanellopoulou E, Kyrtatos N.P., *Marine Diesel Engine Rapid Load Acceptance without Smoke Emissions*, Proceedings of the 7<sup>th</sup> International Symposium on Marine Engineering, Tokyo, October 24<sup>th</sup> to 28<sup>th</sup> , 2005
- [2] **Livanos G.A.**, Kyrtatos N.P., *A Model of the Friction Losses in Diesel Engines*, SAE paper, 2006-01-0888, 2006 Society of Automotive Engineers (SAE) World Congress, Detroit, Michigan, April 3-6, 2006.
- [3] **Livanos G.A.**, Simotas G.N., Dimopoulos G.G., Kyrtatos N.P., *Simulation of Marine Diesel Engine Propulsion System Dynamics during Extreme Maneuvering*. Paper No: ICES2006-1366, Proceedings of ICE6: 2006 Spring Conference of the ASME Internal Combustion Engine Division, Aachen, Germany, May 7-10, 2006
- [4] **Livanos G.A.**, Simotas G.N., Kyrtatos N.P., *Tanker Propulsion Plant Transient Behavior During Ice Breaking Conditions*, Paper No: 2006-JSC-364, The 16<sup>th</sup> International Offshore and Polar Engineering Conference, ISOPE-2006, San Francisco, California, USA, May 28-June 2, 2006
- [5] **Livanos G.A.**, Papalambrou G., Kyrtatos N.P., Christou A., *Electronic Engine Control for Ice Operation of Tankers*. PAPER NO: 44, Proceedings of the 25<sup>th</sup> CIMAC World Congress, Vienna, Austria, May 21-24, 2007.
- [6] Theotokatos G., and **Livanos G.**, (2011), *Exhaust Gas Waste Heat Recovery in Marine Propulsion Plants*, 14th International Congress of the International Maritime Association of the Mediterranean (IMAM 2011), September 13-16, Genoa, Italy.
- [7] **Livanos G.**, Theotokatos G., and Pagonis D.-N., (2012), Techno-economical Investigation of Alternative Propulsion Concepts of Ferries Operating in Mediterranean Sea – Introduction of LNG as Alternative Fuel, 3rd International Conference on Contemporary Problems of Thermal Engineering, CPOTE 2012, 18-20 September 2012, Gliwice, Poland.
- [8] **Livanos G.**, (2012) Techno-economical Investigation of Alternative Natural Gas Compression Stations Technologies, 3rd International Conference on Contemporary Problems of Thermal Engineering, CPOTE 2012, 18-20 September 2012, Gliwice, Poland.

- [9] Pagonis D.N. Theotokatos G., Livanos G.A., *Determining Instantaneous Engine Speed with High Accuracy Employing an Optical Measuring System*. 1<sup>st</sup> International MARINELIVE Conference on ALL ELECTRIC SHIP, Athens, Greece, June 3-5, 2012
- [10] Pagonis D.N. Theotokatos G., Livanos G.A., *Accurate Instantaneous Engine Speed Recording by Employing an Optical Measuring System – Application to a Typical Low Power Industrial Engine*. SAE paper, 2013-01-0304, 2013 Society of Automotive Engineers (SAE) World Congress, Detroit, Michigan, April, 2013.

### **TECHNICAL REPORTS**

- [1] Livanos G.A., *Numerical Simulation of Fire in the Scavenging Air Receiver of Large Marine Diesel Engine*, LME/TR-100 (2002).
- [2] Livanos G.A., *Post Processing of the Measurement Results of the MAN B&W 5L16/24 test engine of the Laboratory of Marine Engineering*, LME/TR-106 (2004)
- [3] Livanos G.A., *Simulation of Operation of Automotive Engine FIAT 1242 8v-CLEATRANS*, LME/TR-109 (2002).
- [4] Livanos G.A., *Tanker Propulsion Plant Transient Behaviour in Ice Breaking Conditions*, LME/TR-119 (2006).
- [5] Livanos G.A., *A Model of the Friction Losses in Diesel Engines: Application in MAN 5L16/24 LME Test Engine*. LME/TR-120 (2006).
- [6] Livanos G.A., *Simulation Results of the MAN B&W 5L16/24 Test Engine of the Laboratory of Marine Engineering*. LME/TR-121.
- [7] Livanos G.A., *Inlet and Exhaust Valves Lift Measurements of the MAN B&W 5L16/24 Test Engine of the Laboratory of Marine Engineering*. LME/TR-125.