

CURRICULUM VITAE

1.1 GENERAL INFORMATION

Name: Georgios A. Livanos
E-mail address: *glivanos@uniwa.gr*
Nationality / Date of Birth: Greek – 13.06.1979
Profession: Associate Professor of the University of Attica, Dr. Naval Architecture and Marine Engineer (Technical Chamber Registration Number: 93783).

1.2 STUDIES

□ Postgraduate Studies

2007: **PhD in the scientific field of Tribology and Lubrication in Marine Engineering**, School of Naval Architecture and Marine Engineering, National Technical University of Athens.

2005: **Master in Business Administration, “Techno-economic Systems – Management of Technological Systems”**, School of Electrical Engineers and Computer Science, National Technical University of Athens.

□ University Studies

2002: **Diploma of Naval Architect and Marine Engineer**, School of Naval Architecture and Marine Engineering, National Technical University of Athens.

Graduation Grade: 9.03/10

1.3 RESEARCH AND DEVELOPMENT ACTIVITY AND INTERESTS

Since 2002, Prof. Livanos is conducting research in a wide range of engineering areas, including tribology and lubrication of marine engines, marine energy systems, control of dynamic structural systems, interaction of propulsion engine and propeller, decision support systems, marine logistics of Liquefied Natural Gas, optimization of techno-economic systems and shipping decarbonization strategies.

2. LIST OF PUBLICATIONS

Prof. Livanos has published:

- 1 Thesis in his graduation studies, 1 Thesis for obtaining M.B.A. and 1 Thesis for Obtaining PhD.
- 13 research journal papers.
- 14 research conference papers.
- 7 Technical Reports.

2.1 LIST OF JOURNAL PAPERS

- [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 Machine Operation and Maintenance, Polish Academy of Sciences, 4(160), Vol. 44 (2009), pp. 61-69.
- [5] Livanos G.A., *Development of a Simplified Instantaneous Friction Model of the Piston-Crank-Slider Mechanism of an Internal Combustion Engine*. SAE International Journal of Engines, Vol. 4, Issue 1 (2011), pp.581-596
- [6] Theotokatos G., Livanos G.A., *Techno-economical Analysis of Single Pressure Exhaust Gas Waste Heat Recovery Systems in Marine Propulsion Plants*. Journal of Engineering for the Maritime Environment, IMechE (2013), 227(2), pp. 83-97
- [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 Pouliezos, 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),
- [9] Pagonis, D.N., Livanos, G., Theotokatos, G., Peppas, S., Themelis, N., *Open-type ferry safety system design for using LNG fuel*, Journal of Marine Science and Application, 2016.
- [10] Strantzali E., Aravossis K., Livanos G., 2017, *Evaluation of future sustainable electricity generation alternatives: The case of a Greek island*, Renewable and Sustainable Energy Reviews, Vol. 76, September 2017, Pages 775-787.
- [11] Strantzali E., Aravossis K., Livanos G., Chrysanthopoulos N., 2018, "A Novel Multicriteria Evaluation of Small-Scale LNG Supply Alternatives: The Case of Greece", Energies, 11(4), 903; <https://doi.org/10.3390/en11040903>.
- [12] Stoumpos S., Theotokatos G., Boulougouris E., Vassalos D., Lazakis I., Livanos G., 2018, "Marine dual fuel engine modelling and parametric investigation of engine settings effect on performance-emissions trade-offs", Ocean Engineering, Volume 157, Pages 376-386

- [13] Strantzali, E., Aravossis, K., Livanos, G.A., Nikoloudis, C., 2019, "A decision support approach for evaluating liquefied natural gas supply options: Implementation on Greek case study", Journal of Cleaner Production, 2019, 222, pp. 414–423

2.2 LIST OF CONFERENCE PAPERS

- [1] Livanos G.A., Kanellopoulou E, Kyrtatos N.P., *Marine Diesel Engine Rapid Load Acceptance without Smoke Emissions*, Proceedings of the 7th International Symposium on Marine Engineering, Tokyo, October 24th to 28th , 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 16th 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 25th CIMAC World Congress, Vienna, Austria, May 21-24, 2007.
- [6] Theotokatos G., Livanos G.A., *Exhaust Gas Waste Heat Recovery in Marine Propulsion Plants*, 14th International Congress of the International Maritime Association of the Mediterranean (IMAM 2011), Genoa, Italy
- [7] Livanos G.A., Theotokatos G., Pagonis D.N., *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), Gliwice, Poland, 18-20 September 2012.
- [8] Livanos G.A., *Techno-economical Investigation of Alternative Natural Gas Compression Stations Technologies*. 3rd International Conference on Contemporary Problems of Thermal Engineering (CPOTE), Gliwice, Poland, 18-20 September 2012.
- [9] Pagonis D.N. Theotokatos G., Livanos G.A., *Determining Instantaneous Engine Speed with High Accuracy Employing an Optical Measuring System*. 1st 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.

- [11] Theotokatos, G., Livanos, G.A., Dimitrellou, S., (...), Peirounakis, D., Mizithras, P., Design of lng storage and feeding system for an open type ferry, Towards Green Marine Technology and Transport -Proceedings of the 16th International Congress of the International Maritime Association of the Mediterranean, IMAM 2015.
- [12] [Theotokatos, G., Livanos, G.A., Dimitrellou, S., (...), Peirounakis, D., Mizithras, P., Computational investigation of lng storage tank for open type ferries, Towards Green Marine Technology and Transport -Proceedings of the 16th International Congress of the International Maritime Association of the Mediterranean, IMAM 2015.
- [13] [Theotokatos, G., Stoumpos, S., Lazakis, I., Livanos, G, Numerical study of a marine dual-fuel four-stroke engine, Proceedings of 3rd International Conference on Maritime Technology and Engineering, MARTECH 2016.
- [14] E. Strantzali, S. Dimitrellou, K. Aravossis, G.A. Livanos, F. Magana, 2018, " A Methodological Approach for Sustainable Energy Planning in Decentralised Regions: The case of Greek islands", International Congress on Engineering and Architecture (ENAR 2018), 14 –16 November 2018, Alanya, Turkey

2.3 TECHNICAL REPORTS

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