

CENTEC Publications – January to May 2014

Group	Journals	Book Chapters	Conf. Proc.	Total by Group
1	7	7	0	14
2	8	11	0	19
3	13	11	0	24
4 (5)	8	5	1	14
Total by Type of Publication	36	34	1	71

1. Marine Environment

1.1 Papers in Journals (7)

- 1.1.126 Goncalves, M., Martinho, P. and Guedes Soares, C. (2014), “Wave energy conditions in the western French coast”, *Renewable Energy*, Vol. 62, pp. 155-163.
- 1.1.127 Slunyaev, A., Pelinovsky, E. and Guedes Soares, C. (2014) “Reconstruction of extreme events through numerical simulations”, *Journal of Offshore Mechanics and Arctic Engineering*, Vol. 136, pp. 011302-1 - 011302-10.
- 1.1.128 Goncalves, M., Martinho, P. and Guedes Soares, C. (2014), “Assessment of wave energy in the canary islands”, *Renewable Energy*, Vol. 68, pp.774-784.
- 1.1.129 Rusu, L., Bernardino, M. and Guedes Soares, C. (2014), “Wind and Wave Modelling in the Black Sea”, *Journal of Operational Oceanography*, Vol. 7, pp. 5-20.
- 1.1.130 Zhang, HD., Cherneva, Z., Guedes Soares, C. and Onorato, M. (2014), “Modeling Extreme Wave Heights from Laboratory Experiments with the Nonlinear Schrödinger Equation”, *Natural Hazards and Earth System Sciences*, Vol. 14, pp. 959-968.
- 1.1.131 Antão, E. and Guedes Soares, C. (2014), “Approximation of Bivariate Probability Density of Individual Wave Steepness and Height with Copulas”, *Coastal Engineering*, Vol. 89, pp. 45-52.
- 1.1.132 Petrova, P.G. and Guedes Soares, C. (2014), “Distribution of nonlinear wave amplitude and heights from laboratory generated following and crossing bimodal seas”, *Natural Hazards and Earth System Sciences*, Vol. 14, pp. 1207-1222.

1.2 Papers in Books (7)

- 1.2.77 Guedes Soares, C., Bento, A.R., Goncalves, M., Silva, D. and Martinho, P. (2014), “Assessment of Mean Wave Energy Potential for the Atlantic European Coast Using Numerical Modelling”, *Developments in Maritime Transportation and Exploitation of Sea Resources*, Guedes Soares, C. and López Peña, F. (Eds.), Francis & Taylor Group, London, UK, pp. 1003-1012.
- 1.2.78 Humeniuk, J.F., Ponce de Leon, S., Violante-Carvalho, N. and Guedes Soares, C.

- (2014), “Sheltering effect of islands on the Pacific swell”, *Developments in Maritime Transportation and Exploitation of Sea Resources*, Guedes Soares, C. and López Peña F. (Eds.). Francis & Taylor Group, London, UK, pp. 973-978.
- 1.2.79 Rusu, E. and Guedes Soares, C. (2014), “Modelling the effect of wave current interaction at the mouth of the Danube River”, *Developments in Maritime Transportation and Exploitation of Sea Resources*, Guedes Soares, C. and López Peña F. (Eds.). Francis & Taylor Group, London, UK, pp. 979-986.
- 1.2.80 Rusu, E., Silva, D. and Guedes Soares, C. (2014), “Efficiency assessments for different WEC types operating in the Portuguese coastal environment”, *Developments in Maritime Transportation and Exploitation of Sea Resources*, Guedes Soares, C. and López Peña F. (Eds.). Francis & Taylor Group, London, UK, pp. 961-972.
- 1.2.81 Rusu, L. and Guedes Soares, C. (2014), “Forecasting containership responses in the Azores Archipelago”, *Developments in Maritime Transportation and Exploitation of Sea Resources*, Guedes Soares, C. and López Peña F. (Eds.). Francis & Taylor Group, London, UK, pp. 987-994.
- 1.2.82 Salvação, N., Bernardino, M. and Guedes Soares, C. (2014), “Assessing the offshore wind energy potential along coasts of Portugal and Galicia”, *Developments in Maritime Transportation and Exploitation of Sea Resources*, Guedes Soares, C. and López Peña F. (Eds.). Francis & Taylor Group, London, UK, pp. 995-1002.
- 1.2.83 Vettor, R., Semedo, A., Guedes Soares, C., Breivik, O., Sterl, A. and Reistad, M. (2014), “Wind sea and Swell Waves in the Northeast Atlantic Ocean”, *Developments in Maritime Transportation and Exploitation of Sea Resources*, Guedes Soares, C. and López Peña F. (Eds.). Francis & Taylor Group, London, UK, pp. 1029-1036.

2. Marine Dynamics and Hydrodynamics

2.1 Papers in Journals (8)

- 2.1.125 Wang, S. and Guedes Soares, C. (2014), “Numerical study on the water impact of 3D bodies by an explicit finite element method”, *Ocean Engineering*, Vol. 78, pp. 73-88.
- 2.1.126 Sutulo, S. and Guedes Soares, C. (2014), “An Algorithm for Offline Identification of Ship Manoeuvring Mathematical Models after Free-Running Tests”, *Ocean Engineering*, Vol. 79, pp. 10-25.
- 2.1.127 Karmakar, D. and Guedes Soares, C. (2014), “Wave transformation due to multiple bottom-standing porous barriers”, *Ocean Engineering*, Vol. 80, pp. 50-63.
- 2.1.128 Luo, W.L., Moreira, L. and Guedes Soares, C. (2014), “Manoeuvring Simulation of Catamaran by Using Implicit Models Based on Support Vector Machines”, *Ocean Engineering*, Vol. 82, pp. 150-159.
- 2.1.129 Varela, J.M. and Guedes Soares, C. (2014), “Ring Discretization Method of the wave spectrum for real-time numerical simulations of the sea surface in Computer Graphics”, *Computer Graphics and Applications (IEEE)*, Vol. 34, pp. 58-71.
- 2.1.130 Wang, S. and Guedes Soares, C. (2014), “Asymmetrical water impact of two-dimensional wedges with roll angle with multi-material Eulerian Formulation”, *International Journal of Maritime Engineering*, Vol. 156, pp. A-115 - A130.
- 2.1.131 Hirdaris, S.E., Bai, W., Dessi, D., Ergin, A., Gu, X., Hermundstad, O.A., Ruijsmans, R., Iijima, K., Nielsen, U.D., Parunov, J., Fonseca, N., Papanikolaou, A., Argyriadis, K. and Incecik, A. (2014), “Loads for use in the design of ships and offshore structures”, *Ocean Engineering*, Vol. 78, pp. 131-174.

Luo, W. L.; Guedes Soares, C., and Zou, Z. J. Experimental and numerical study of the effect of a pier on ship trajectories in currents. *International Journal of Maritime Engineering*. 2014; 156(Part A1):A-93 - A-104.

2.2 Papers in Books (11)

- 2.2.112 Wang, S. and Guedes Soares, C. (2014), "Comparison of simplified approaches and numerical tools to predict the loads on bottom slamming of marine", *Developments in Maritime Transportation and Exploitation of Sea Resources*, Guedes Soares, C. and López Peña F. (Eds.). Francis & Taylor Group, London, UK, pp. 157-170.
- 2.2.113 Wang, S. and Guedes Soares, C. (2014), "Numerical study on hydroelastic water entry of a wedge", *Developments in Maritime Transportation and Exploitation of Sea Resources*, Guedes Soares, C. and López Peña F. (Eds.). Francis & Taylor Group, London, UK, pp. 199-208.
- 2.2.114 Varela, J.M. and Guedes Soares, C. (2014), "A High Level Architecture framework for real-time simulation of ship towing operations Virtual Environments", *Developments in Maritime Transportation and Exploitation of Sea Resources*, Guedes Soares, C. and López Peña F. (Eds.). Francis & Taylor Group, London, UK, pp. 135-146.
- 2.2.115 Turk, A., Prpić-Oršić, J., Ribeiro e Silva, S. and Guedes Soares, C. (2014), "Experimental investigations of roll damping towards the prediction of parametric rolling in regular waves", *Developments in Maritime Transportation and Exploitation of Sea Resources*, Guedes Soares, C. and López Peña F. (Eds.). Francis & Taylor Group, London, UK, pp. 127-134.
- 2.2.116 Rezanejad, K. and Guedes Soares, C. (2014), "Numerical study of a large floating oscillating water column device using a 2D boundary element", *Developments in Maritime Transportation and Exploitation of Sea Resources*, Guedes Soares, C. and López Peña F. (Eds.). Francis & Taylor Group, London, UK, pp. 951-960.
- 2.2.117 Nava, V., Guedes Soares, C. and Arena, F. (2014), "On the assessment of extreme forces on a floating spar wind", *Developments in Maritime Transportation and Exploitation of Sea Resources*, Guedes Soares, C. and López Peña F. (Eds.). Francis & Taylor Group, London, UK, pp. 933-942.
- 2.2.118 Karmakar, D. and Guedes Soares, C. (2014), "Reliability based design loads of offshore semi-submersible floating wind turbines", *Developments in Maritime Transportation and Exploitation of Sea Resources*, Guedes Soares, C. and López Peña F. (Eds.). Francis & Taylor Group, London, UK, pp. 919-926.
- 2.2.119 Inok, F., Lavrov, A. and Guedes Soares, C. (2014), "Analysis of the free surface turbulent flow around a forward moving Wigley hull with OpenFOAM", *Developments in Maritime Transportation and Exploitation of Sea Resources*, Guedes Soares, C. and López Peña F. (Eds.). Francis & Taylor Group, London, UK, pp. 33-40.
- 2.2.120 Inok, F., Lavrov, A. and Guedes Soares, C. (2014), "Analysis of complex fluid flow test cases with OpenFOAM", *Developments in Maritime Transportation and Exploitation of Sea Resources*, Guedes Soares, C. and López Peña F. (Eds.). Francis & Taylor Group, London, UK, pp. 183-190.
- 2.2.121 Gadelho, J.F.M., Lavrov, A. and Guedes Soares, C. (2014), "Modelling the effect of obstacles on the 2D wave propagation with OpenFOAM", *Developments in Maritime Transportation and Exploitation of Sea Resources*, Guedes Soares, C. and López Peña F. (Eds.). Francis & Taylor Group, London, UK, pp. 1057-1065.
- 2.2.122 Asghari, M. and Fonseca, N. (2014), "Motion responses of a semi-submersible floating wind turbine in irregular waves", *Developments in Maritime Transportation*

and *Exploitation of Sea Resources*, Guedes Soares, C. and López Peña F. (Eds.). Francis & Taylor Group, London, UK, pp. 889-898.

3. Marine Structures

3.1 Papers in Journals (13)

- 3.1.139 Mantari, J.L. and Guedes Soares, C. (2014), “A trigonometric plate theory with 5-unknowns and stretching effect for advanced composite plates”, *Composite Structures*, Vol. 107, pp. 396-405.
- 3.1.140 Mantari, J.L. and Guedes Soares, C. (2014), “Optimized sinusoidal higher order shear deformation theory for the analysis of functionally graded plates and shells”, *Composites Part B*, Vol. 56, pp. 126-136.
- 3.1.141 Saad-Eldeen, S., Garbatov, Y. and Guedes Soares, C. (2014), “Strength Assessment of a Severely Corroded Box Girder Subjected to Bending Moment”, *Journal of Constructional Steel Research*, Vol. 92, pp. 90-102.
- 3.1.142 Garbatov, Y., Guedes Soares, C. and Parunov, J. (2014), “Fatigue strength experiments of corroded small scale steel specimens”, *International Journal of Fatigue*, Vol. 59, pp. 137-144.
- 3.1.143 Mantari, J.L. and Guedes Soares, C. (2014), “Static response of advanced composite plates by a new non-polynomial higher-order shear deformation theory”, *International Journal of Mechanical Sciences*, Vol. 78, pp. 60-71.
- 3.1.144 Mantari, J.L. and Guedes Soares, C. (2014), “Four-unknowns quasi-3D shear deformation theory for advanced composite plates”, *Composite Structures*, Vol. 109, pp. 231-239.
- 3.1.145 Mantari, J.L., Bonilla, E.M. and Guedes Soares, C. (2014), “A new tangential-exponential higher order shear deformation theory for advanced composite plates”, *Composites Part B*, Vol. 60, pp. 319-328.
- 3.1.146 Adak, M. and Guedes Soares, C. (2014), “Effects of Different Restraints on the Weld Induced Residual Deformations and Stresses in a Steel Plate”, *International Journal of Advanced Manufacturing Technology*, Vol. 71, pp. 699-710.
- 3.1.147 Gordo, J.M. and Guedes Soares, C. (2014), “Experimental analysis of the effect of the frame spacing variation on the ultimate bending moment of box girders”, *Marine Structures*, Vol. 37, pp. 111-134.
- 3.1.148 Villavicencio, R., Liu, B. and Guedes Soares, C. (2014), “Experimental and numerical analysis of a tanker side panel laterally punched by a knife edge indenter”, *Marine Structures*, Vol. 37, pp. 173-202.
- 3.1.149 Edalat, P., Khedmati, M.R. and Guedes Soares, C. (2014), “Free Vibration Analysis of Open Thin Deep Shells with Variable Radii of Curvature”, *Meccanica*, Vol. 49, pp. 1385-1405.
- 3.1.150 Garbatov, Y., Guedes Soares, C., Parunov, J. and Kodvanj, J. (2014), “Tensile strength assessment of corroded small scale specimen”, *Corrosion Science*, Vol. 85, pp. 296-303.
- 3.1.151 Chen, B.Q., Hashemzadeh, M. and Guedes Soares, C. (2014), “Numerical and experimental studies on temperature and distortion patterns in butt-welded plates”, *Int. Journal Advanced Manufacturing Technology*, Vol. 72, pp. 1121-1131.

3.2 Papers in Books (11)

- 3.2.88 Villavicencio, R. and Guedes Soares, C. (2014), "Analysis of collisions between tugs and tankers", *Developments in Maritime Transportation and Exploitation of Sea Resources*, Guedes Soares, C. and López Peña F. (Eds.). Francis & Taylor Group, London, UK, pp. 405-414.
- 3.2.89 Ventura, M. (2014), "Ship dimensioning in the initial design", *Developments in Maritime Transportation and Exploitation of Sea Resources*, Guedes Soares, C. and López Peña F. (Eds.). Francis & Taylor Group, London, UK, pp. 531-542.
- 3.2.90 Tekgoz, M., Garbatov, Y. and Guedes Soares, C. (2014), "Ultimate strength of a plate accounting for shakedown effect and corrosion degradation", *Developments in Maritime Transportation and Exploitation of Sea Resources*, Guedes Soares, C. and López Peña F. (Eds.). Francis & Taylor Group, London, UK, pp. 395-404.
- 3.2.91 Saad-Eldeen, S., Garbatov, Y. and Guedes Soares, C. (2014), "Ultimate strength assessment of steel plates with a large opening", *Developments in Maritime Transportation and Exploitation of Sea Resources*, Guedes Soares, C. and López Peña F. (Eds.). Francis & Taylor Group, London, UK, pp. 373-380.
- 3.2.92 Makouei, S.H., Teixeira, A.P. and Guedes Soares, C. (2014), "Reliability analysis of a corroded double hull Aframax tanker ship for hull girder and deck panel limit states", *Developments in Maritime Transportation and Exploitation of Sea Resources*, Guedes Soares, C. and López Peña F. (Eds.). Francis & Taylor Group, London, UK, pp. 735-746.
- 3.2.93 Hussein, A.W. and Guedes Soares, C. (2014), "Analysis of the relative importance of ultimate limit state variables in the reliability analysis of tankers and bulk carriers", *Developments in Maritime Transportation and Exploitation of Sea Resources*, Guedes Soares, C. and López Peña F. (Eds.). Francis & Taylor Group, London, UK, pp. 711-720.
- 3.2.94 Hashemzadeh, M., Chen, B.Q. and Guedes Soares, C. (2014), "Comparison between Different Heat Source Types in Thin-Plate Welding Simulation", *Developments in Maritime Transportation and Exploitation of Sea Resources*, Guedes Soares, C. and López Peña F. (Eds.). Francis & Taylor Group, London, UK, pp. 329-336.
- 3.2.95 Gordo, J.M. (2014), "Residual stresses relaxation of welded structures under alternate loading", *Developments in Maritime Transportation and Exploitation of Sea Resources*, Guedes Soares, C. and López Peña F. (Eds.). Francis & Taylor Group, London, UK, pp. 317-328.
- 3.2.96 Chen, B.Q., Hashemzadeh, M. and Guedes Soares, C. (2014), "Numerical analysis of the effects of weld parameters on distortions and residual stresses in butt welded steel plates", *Developments in Maritime Transportation and Exploitation of Sea Resources*, Guedes Soares, C. and López Peña F. (Eds.). Francis & Taylor Group, London, UK, pp. 309-320.
- 3.2.97 Yeter, B., Garbatov, Y. and Guedes Soares, C. (2014), "Spectral fatigue assessment of an offshore wind turbine structure under wave and wind", *Developments in Maritime Transportation and Exploitation of Sea Resources*, Guedes Soares, C. and López Peña F. (Eds.). Francis & Taylor Group, London, UK, pp. 425-434.
- 3.2.98 Yeter, B., Garbatov, Y. and Guedes Soares, C. (2014), "Fatigue damage analysis of a fixed offshore wind turbine supporting structure", *Developments in Maritime Transportation and Exploitation of Sea Resources*, Guedes Soares, C. and López Peña F. (Eds.). Francis & Taylor Group, London, UK, pp. 415-424.

5 Safety and Logistics of Maritime Transportation (previously designated: Safety, Reliability and Maintenance)

5.1 Papers in Journals (8)

- 5.1.114 Silva, J.E., Garbatov, Y. and Guedes Soares, C. (2014), “Reliability Assessment of a Steel Plate Subjected to Distributed and Localized Corrosion Wastage”, *Engineering Structures*, Vol. 59, pp. 13-20.
- 5.1.115 Marques, P.H., Jesus, V., Olea, S.A., Vairinhos, V. and Jacinto, C. (2014), “The effect of alcohol and drug testing at the workplace on individuals occupational accident risk”, *Safety Science*, Vol. 68, pp. 108-120.
- 5.1.116 Huang, W., Garbatov, Y. and Guedes Soares, C. (2014), “Fatigue reliability of a web frame subjected to random non-uniform corrosion wastage”, *Structural Safety*, Vol. 48, pp. 51-62.
- 5.1.117 Gaspar, B., Naess, A., Leira, B.J. and Guedes Soares, C. (2014), “System reliability analysis by Monte Carlo based method and finite element structural models”, *Journal of Offshore Mechanics and Arctic Engineering*, Vol. 136, pp. 031603-1 - 031603-9.
- 5.1.118 Shi, X., Teixeira, A.P., Zhang, J. and Guedes Soares, C. (2014), “Structural reliability analysis based on probabilistic response modelling using the Maximum Entropy Method”, *Engineering Structures*, Vol. 70, pp. 106-116.
- 5.1.119 Simões, A. Ferreira, A.M., Salvador, R. and Guedes Soares, C. (2014), “Qualitative and quantitative analysis of the Cluster of the sea in the Portuguese ZEE”, *Maria Scientia*, Vol. 7, pp. 55-75.
- 5.1.120 Gaspar, B., Teixeira, A.P. and Guedes Soares, C. (2014), “Assessment of the Efficiency of Kriging Surrogate Models for Structural Reliability Analysis”, *Probabilistic Engineering Mechanics*, Vol. 37, pp. 24-34.
- Simões, A.; Ferreira, A. M.; Salvador, R., and Guedes Soares, C. Analise qualitativa e quantitativa do *cluster* do mar portugues // Qualitative and quantitative analysis of the Cluster of the sea in the Portuguese ZEE. *Maria Scientia*. 2014; 7:55-75.

5.2 Papers in Books (5)

- 5.2.166 Makouei, S.H., Teixeira, A.P. and Guedes Soares, C. (2014), “An approach to estimate the ship longitudinal strength using numerical databases of stress-strain curves of stiffened panels”, *Developments in Maritime Transportation and Exploitation of Sea Resources*, Guedes Soares, C. and López Peña F. (Eds.). Francis & Taylor Group, London, UK, pp. 345-350.
- 5.2.167 Antao, P., Teixeira, A.P. and Guedes Soares, C. (2014), “Integration of human factors into the ship design process”, *Developments in Maritime Transportation and Exploitation of Sea Resources*, Guedes Soares, C. and López Peña F. (Eds.). Francis & Taylor Group, London, UK, pp. 443-452.
- 5.2.168 Santos, F.P., Teixeira, A.P. and Guedes Soares, C. (2014), “Influence of logistic strategies on the availability and maintenance costs of an offshore wind turbine”, *Safety, Reliability and Risk Analysis: Beyond the Horizon*, Steenbergen et al (Eds.), Francis & Taylor Group, London, UK, pp. 791-799.
- 5.2.169 Cordeiro, P.F., Jacinto, C. and Santos, F.P. (2014), “Assessing the intercoder reliability of the RIAAT process”, *Occupational Safety and Hygiene II*, Arezes et al (Eds.), Taylor and Francis Group, London, UK, pp. 19-24.

Gaspar, B.; Teixeira, A. P., and Guedes Soares, C. Assessment of the efficiency of Kriging models for reliability analysis of complex structures. G. Deodatis, B.R. Ellingwood and D.M. Frangopol (Eds.). *Safety, Reliability, Risk and Life-Cycle Performance of Structures and Infrastructures*. London: Taylor & Francis Group; 2014; pp. 524-756.

5.3 Conference Proceedings

- 5.3.1 Santos, F.P., Jacinto, C., Silva, S.A., Fialho, T. and Guedes Soares, C. (2014), “Intercoder reliability of accidents at work for four variables of the ESAW methodology (in Portuguese)”, *International Symposium on Occupational Safety and Hygiene (SHO 2104)*, 13-14 February, Guimaraes, Portugal, pp. 386-389.