

Feargal Brennan

List of Publications by Year in descending order

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Version: 2024-02-01

87
papers

2,192
citations

257450

24
h-index

254184

43
g-index

88
all docs

88
docs citations

88
times ranked

1637
citing authors

#	ARTICLE	IF	CITATIONS
1	Influence of soil-structure modelling techniques on offshore wind turbine monopile structural response. <i>Wind Energy</i> , 2022, 25, 998-1012.	4.2	4
2	The role of microstructure in the corrosion-fatigue crack growth behaviour in structural steels. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2021, 803, 140470.	5.6	17
3	Feasibility of Very Large Floating Structure as Offshore Wind Foundation: Effects of Hinge Numbers on Wave Loads and Induced Responses. <i>Journal of Waterway, Port, Coastal and Ocean Engineering</i> , 2021, 147, .	1.2	10
4	A fracture mechanics framework for optimising design and inspection of offshore wind turbine support structures against fatigue failure. <i>Wind Energy Science</i> , 2021, 6, 677-699.	3.3	8
5	Material pre-straining effects on fracture toughness variation in offshore wind turbine foundations. <i>Engineering Fracture Mechanics</i> , 2021, 252, 107844.	4.3	2
6	Objective Analysis of Corrosion Pits in Offshore Wind Structures Using Image Processing. <i>Energies</i> , 2021, 14, 5428.	3.1	2
7	Material pre-straining effects on fatigue behaviour of S355 structural steel. <i>Journal of Constructional Steel Research</i> , 2021, 183, 106707.	3.9	15
8	A review of offshore wind monopiles structural design achievements and challenges. <i>Ocean Engineering</i> , 2021, 235, 109409.	4.3	26
9	Floating Offshore Vertical Axis Wind Turbines: Opportunities, Challenges and Way Forward. <i>Energies</i> , 2021, 14, 8000.	3.1	19
10	Stochastic financial appraisal of offshore wind farms. <i>Renewable Energy</i> , 2020, 145, 1176-1191.	8.9	24
11	The influence of microstructure on the fatigue crack growth rate in marine steels in the Paris Region. <i>Fatigue and Fracture of Engineering Materials and Structures</i> , 2020, 43, 2416-2440.	3.4	11
12	Structural integrity assessment of floating offshore wind turbine support structures. <i>Ocean Engineering</i> , 2020, 208, 107487.	4.3	13
13	Profiling Corrosion Rates for Offshore Wind Turbines with Depth in the North Sea. <i>Energies</i> , 2020, 13, 2518.	3.1	17
14	Numerical analysis of pitting corrosion fatigue in floating offshore wind turbine foundations. <i>Procedia Structural Integrity</i> , 2019, 17, 64-71.	0.8	8
15	Cavitation shotless peening effects on fatigue crack growth behaviour under bending loads. <i>Material Design and Processing Communications</i> , 2019, , e88.	0.9	0
16	Informing parametric risk control policies for operational uncertainties of offshore wind energy assets. <i>Ocean Engineering</i> , 2019, 177, 1-11.	4.3	12
17	Determination of stress concentration factors in offshore wind welded structures through a hybrid experimental and numerical approach. <i>Ocean Engineering</i> , 2019, 178, 38-47.	4.3	13
18	Multi-stage stochastic optimization framework for power generation system planning integrating hybrid uncertainty modelling. <i>Energy Economics</i> , 2019, 80, 760-776.	12.1	67

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19	A systematic Failure Mode Effects and Criticality Analysis for offshore wind turbine systems towards integrated condition based maintenance strategies. <i>Ocean Engineering</i> , 2019, 176, 118-133.	4.3	93
20	A preliminary techno-economic comparison between a grid-connected and non-grid connected offshore floating wind farm. , 2019, , .		7
21	The influence of partial surface shot peening on fatigue crack growth behaviour of a high-strength ferritic steel. <i>Fatigue and Fracture of Engineering Materials and Structures</i> , 2018, 41, 663-674.	3.4	3
22	Effect of electricity market price uncertainty modelling on the profitability assessment of offshore wind energy through an integrated lifecycle techno-economic model. <i>Journal of Physics: Conference Series</i> , 2018, 1102, 012027.	0.4	7
23	A numerical analysis of the effects of manufacturing processes on material pre-strain in offshore wind monopiles. <i>Procedia Structural Integrity</i> , 2018, 13, 953-958.	0.8	2
24	Human-free offshore lifting solutions. <i>Journal of Physics: Conference Series</i> , 2018, 1102, 012030.	0.4	0
25	Experimental investigation of mechanical and fracture properties of offshore wind monopile weldments: SLIC interlaboratory test results. <i>Fatigue and Fracture of Engineering Materials and Structures</i> , 2018, 41, 2485-2501.	3.4	31
26	Multi-Criteria Decision Analysis for Benchmarking Human-Free Lifting Solutions in the Offshore Wind Energy Environment. <i>Energies</i> , 2018, 11, 1175.	3.1	7
27	A lifecycle techno-economic model of offshore wind energy for different entry and exit instances. <i>Applied Energy</i> , 2018, 221, 406-424.	10.1	84
28	Parametric CAPEX, OPEX, and LCOE expressions for offshore wind farms based on global deployment parameters. <i>Energy Sources, Part B: Economics, Planning and Policy</i> , 2018, 13, 281-290.	3.4	55
29	Risk-based methods for sustainable energy system planning: A review. <i>Renewable and Sustainable Energy Reviews</i> , 2017, 74, 602-615.	16.4	127
30	Corrosion fatigue crack growth mechanisms in offshore monopile steel weldments. <i>Fatigue and Fracture of Engineering Materials and Structures</i> , 2017, 40, 1868-1881.	3.4	26
31	Influence of statistical uncertainty of component reliability estimations on offshore wind farm availability. <i>Reliability Engineering and System Safety</i> , 2017, 168, 28-39.	8.9	63
32	Stochastic Prediction of Offshore Wind Farm LCOE through an Integrated Cost Model. <i>Energy Procedia</i> , 2017, 107, 383-389.	1.8	46
33	Life Cycle Optimization for Sustainable Algal Biofuel Production Using Integrated Nutrient Recycling Technology. <i>ACS Sustainable Chemistry and Engineering</i> , 2017, 5, 9869-9880.	6.7	18
34	Design Implications towards Inspection Reduction of Large Scale Structures. <i>Procedia CIRP</i> , 2017, 60, 434-439.	1.9	4
35	Fatigue crack growth rates for offshore wind monopile weldments in air and seawater: SLIC inter-laboratory test results. <i>Materials and Design</i> , 2017, 114, 494-504.	7.0	75
36	Dynamic modelling of microalgae cultivation process in high rate algal wastewater pond. <i>Algal Research</i> , 2017, 24, 457-466.	4.6	16

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37	A cluster analysis of investment strategies in the offshore wind energy market. , 2017, , .		3
38	Cash flow at risk of offshore wind plants. , 2017, , .		2
39	A relative crack opening time correlation for corrosion fatigue crack growth in offshore structures. Fatigue and Fracture of Engineering Materials and Structures, 2016, 39, 395-411.	3.4	11
40	Review of corrosion fatigue in offshore structures: Present status and challenges in the offshore wind sector. Renewable and Sustainable Energy Reviews, 2016, 61, 141-154.	16.4	112
41	Welding sequence effects on residual stress distribution in offshore wind monopile structures. Frattura Ed Integrita Strutturale, 2016, 10, 125-131.	0.9	3
42	Carbon brainprint “ An estimate of the intellectual contribution of research institutions to reducing greenhouse gas emissions. Chemical Engineering Research and Design, 2015, 96, 74-81.	5.6	10
43	Novel findings in desalination. Desalination, 2015, 360, 13-18.	8.2	10
44	Corrosion fatigue load frequency sensitivity analysis. Marine Structures, 2015, 42, 115-136.	3.8	49
45	Corrosion fatigue crack growth in offshore wind monopile steel HAZ material. , 2015, , 207-212.		7
46	Stability requirements for floating offshore wind turbine (FOWT) during assembly and temporary phases: Overview and application. Ocean Engineering, 2014, 84, 164-175.	4.3	21
47	Conceptual design of a floating support structure for an offshore vertical axis wind turbine: the lessons learnt. Ships and Offshore Structures, 2014, 9, 3-21.	1.9	31
48	A framework for variable amplitude corrosion fatigue materials tests for offshore wind steel support structures. Fatigue and Fracture of Engineering Materials and Structures, 2014, 37, 717-721.	3.4	15
49	Reanalysis of offshore T-joint fatigue life predictions based on a complete weld profile model. Renewable Energy, 2014, 71, 486-494.	8.9	5
50	Fatigue design of offshore steel mono-pile wind substructures. Proceedings of Institution of Civil Engineers: Energy, 2014, 167, 196-202.	0.6	5
51	Experimental Determination of the Overturning Moment and Net Lateral Force Generated by a Novel Vertical Axis Wind Turbine: Experiment Design Under Load Uncertainty. Experimental Techniques, 2013, 37, 7-14.	1.5	11
52	Use of a Wave Energy Converter as a Motion Suppression Device for Floating Wind Turbines. Energy Procedia, 2013, 35, 223-233.	1.8	41
53	Risk Based Maintenance for Offshore Wind Structures. Procedia CIRP, 2013, 11, 296-300.	1.9	19
54	Environmental life cycle assessment of commercial passenger jet airliners. Transportation Research, Part D: Transport and Environment, 2013, 19, 34-41.	6.8	52

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55	Development of a failure assessment diagram based method for engineering criticality assessment of CO ₂ transportation pipelines. Proceedings of the Institution of Mechanical Engineers, Part E: Journal of Process Mechanical Engineering, 2013, 227, 140-145.	2.5	2
56	Bonding Integrity Study between Steel Pipeline and Composite Wraps Using Structural Health Monitoring Technique. Journal of Pipeline Systems Engineering and Practice, 2013, 4, 68-73.	1.6	3
57	Multi-criteria assessment of offshore wind turbine support structures. Renewable Energy, 2011, 36, 2831-2837.	8.9	159
58	Alleviation of Fatigue in Renewable Energy Support Structures. , 2011, , .		0
59	Surface crack shape evolution modelling using an RMS SIF approach. International Journal of Fatigue, 2010, 32, 297-301.	5.7	9
60	The effect of residual stresses arising from laser shock peening on fatigue crack growth. Engineering Fracture Mechanics, 2010, 77, 2033-2039.	4.3	71
61	A Comparison Between the Preliminary Design Studies of a Fixed and A Floating Support Structure For A 5 Mw Offshore Wind Turbine In The North Sea. , 2010, , .		12
62	Weld toe stress concentrations in multi-planar stiffened tubular KK joints. International Journal of Fatigue, 2009, 31, 164-172.	5.7	64
63	An experimental and analytical study of fatigue crack shape control by cold working. Engineering Fracture Mechanics, 2008, 75, 355-363.	4.3	24
64	Current practices and recent advances in condition assessment of aged ships. Ships and Offshore Structures, 2007, 2, 261-271.	1.9	25
65	Evaluation of mode I stress intensity factors for edge cracks from 2-D V-notches using composition of constituent SIF weight functions. International Journal of Fatigue, 2007, 29, 1253-1268.	5.7	9
66	Mode I stress intensity factors for edge cracks emanating from 2-D U-notches using composition of SIF weight functions. International Journal of Fatigue, 2006, 28, 355-365.	5.7	10
67	Stress intensity factors for cracks emanating from two-dimensional semicircular notches using the composition of SIF weight functions. Fatigue and Fracture of Engineering Materials and Structures, 2005, 28, 423-435.	3.4	15
68	Fatigue life improvement of threaded connections by cold rolling. Journal of Strain Analysis for Engineering Design, 2005, 40, 83-93.	1.8	5
69	Determination of crack tip stress intensity factors in complex geometries by the composition of constituent weight function solutions. Fatigue and Fracture of Engineering Materials and Structures, 2004, 27, 1-7.	3.4	8
70	Application of short repairs for fatigue life extension. International Journal of Fatigue, 2004, 26, 413-420.	5.7	19
71	Effect of residual stress on ACFM crack measurements in drill collar threaded connections. NDT and E International, 2004, 37, 337-343.	3.7	23
72	Residual static strength of high strength steel cracked tubular joints. Marine Structures, 2004, 17, 291-309.	3.8	13

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73	Controlled failure design of drillstring threaded connections. <i>Fatigue and Fracture of Engineering Materials and Structures</i> , 2003, 26, 1081-1090.	3.4	14
74	Development of the alternating current stress measurement model for magnetostriction behaviour of mild steel under orthogonal magnetic fields for stress measurement. <i>Journal of Strain Analysis for Engineering Design</i> , 2002, 37, 21-31.	1.8	9
75	The effect of rack/rib plate on the stress concentration factors in jack-up chords. <i>Marine Structures</i> , 2001, 14, 485-505.	3.8	40
76	A new method for predicting stress intensity factors in cracked welded tubular joints. <i>International Journal of Fatigue</i> , 2000, 22, 447-456.	5.7	17
77	Predicting weld toe stress concentration factors for T and skewed T-joint plate connections. <i>International Journal of Fatigue</i> , 2000, 22, 573-584.	5.7	59
78	Thin-skin AC field in anisotropic rectangular bar and ACPD stress measurement. <i>NDT and E International</i> , 2000, 33, 317-323.	3.7	11
79	Parametric equations for T-butt weld toe stress intensity factors. <i>International Journal of Fatigue</i> , 1999, 21, 1051-1062.	5.7	24
80	Modelling of jack-up response for fatigue under simulated service conditions. <i>Marine Structures</i> , 1999, 12, 327-348.	3.8	6
81	Review of empirical and semi-empirical Y factor solutions for cracked welded tubular joints. <i>Marine Structures</i> , 1999, 12, 565-583.	3.8	6
82	Fatigue life improvement of drill collars through control of bore eccentricity. <i>Engineering Failure Analysis</i> , 1999, 6, 301-319.	4.0	24
83	Minimization of stress concentration factors in fatigue crack repairs. <i>International Journal of Fatigue</i> , 1998, 20, 719-725.	5.7	15
84	A theoretical and experimental study of alternating current stress measurement under different loading modes. <i>Journal of Strain Analysis for Engineering Design</i> , 1998, 33, 291-303.	1.8	14
85	Stress intensity factors for threaded connections. <i>Engineering Fracture Mechanics</i> , 1995, 50, 545-567.	4.3	15
86	The use of approximate strain-life fatigue crack initiation predictions. <i>International Journal of Fatigue</i> , 1994, 16, 351-356.	5.7	14
87	Evaluation of stress intensity factors by multiple reference state weight function approach. <i>Theoretical and Applied Fracture Mechanics</i> , 1994, 20, 249-256.	4.7	17