

# 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	Multi-criteria assessment of offshore wind turbine support structures. <i>Renewable Energy</i> , 2011, 36, 2831-2837.	8.9	159
2	Risk-based methods for sustainable energy system planning: A review. <i>Renewable and Sustainable Energy Reviews</i> , 2017, 74, 602-615.	16.4	127
3	Review of corrosion fatigue in offshore structures: Present status and challenges in the offshore wind sector. <i>Renewable and Sustainable Energy Reviews</i> , 2016, 61, 141-154.	16.4	112
4	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
5	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
6	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
7	The effect of residual stresses arising from laser shock peening on fatigue crack growth. <i>Engineering Fracture Mechanics</i> , 2010, 77, 2033-2039.	4.3	71
8	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
9	Weld toe stress concentrations in multi-planar stiffened tubular KK joints. <i>International Journal of Fatigue</i> , 2009, 31, 164-172.	5.7	64
10	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
11	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
12	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
13	Environmental life cycle assessment of commercial passenger jet airliners. <i>Transportation Research, Part D: Transport and Environment</i> , 2013, 19, 34-41.	6.8	52
14	Corrosion fatigue load frequency sensitivity analysis. <i>Marine Structures</i> , 2015, 42, 115-136.	3.8	49
15	Stochastic Prediction of Offshore Wind Farm LCOE through an Integrated Cost Model. <i>Energy Procedia</i> , 2017, 107, 383-389.	1.8	46
16	Use of a Wave Energy Converter as a Motion Suppression Device for Floating Wind Turbines. <i>Energy Procedia</i> , 2013, 35, 223-233.	1.8	41
17	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
18	Conceptual design of a floating support structure for an offshore vertical axis wind turbine: the lessons learnt. <i>Ships and Offshore Structures</i> , 2014, 9, 3-21.	1.9	31

#	ARTICLE	IF	CITATIONS
19	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
20	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
21	A review of offshore wind monopiles structural design achievements and challenges. <i>Ocean Engineering</i> , 2021, 235, 109409.	4.3	26
22	Current practices and recent advances in condition assessment of aged ships. <i>Ships and Offshore Structures</i> , 2007, 2, 261-271.	1.9	25
23	Parametric equations for T-butt weld toe stress intensity factors. <i>International Journal of Fatigue</i> , 1999, 21, 1051-1062.	5.7	24
24	Fatigue life improvement of drill collars through control of bore eccentricity. <i>Engineering Failure Analysis</i> , 1999, 6, 301-319.	4.0	24
25	An experimental and analytical study of fatigue crack shape control by cold working. <i>Engineering Fracture Mechanics</i> , 2008, 75, 355-363.	4.3	24
26	Stochastic financial appraisal of offshore wind farms. <i>Renewable Energy</i> , 2020, 145, 1176-1191.	8.9	24
27	Effect of residual stress on ACFM crack measurements in drill collar threaded connections. <i>NDT and E International</i> , 2004, 37, 337-343.	3.7	23
28	Stability requirements for floating offshore wind turbine (FOWT) during assembly and temporary phases: Overview and application. <i>Ocean Engineering</i> , 2014, 84, 164-175.	4.3	21
29	Application of short repairs for fatigue life extension. <i>International Journal of Fatigue</i> , 2004, 26, 413-420.	5.7	19
30	Risk Based Maintenance for Offshore Wind Structures. <i>Procedia CIRP</i> , 2013, 11, 296-300.	1.9	19
31	Floating Offshore Vertical Axis Wind Turbines: Opportunities, Challenges and Way Forward. <i>Energies</i> , 2021, 14, 8000.	3.1	19
32	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
33	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
34	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
35	Profiling Corrosion Rates for Offshore Wind Turbines with Depth in the North Sea. <i>Energies</i> , 2020, 13, 2518.	3.1	17
36	The role of microstructure in the corrosion-fatigue crack growth behaviour in structural steels. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2021, 803, 140470.	5.6	17

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37	Dynamic modelling of microalgae cultivation process in high rate algal wastewater pond. Algal Research, 2017, 24, 457-466.	4.6	16
38	Stress intensity factors for threaded connections. Engineering Fracture Mechanics, 1995, 50, 545-567.	4.3	15
39	Minimization of stress concentration factors in fatigue crack repairs. International Journal of Fatigue, 1998, 20, 719-725.	5.7	15
40	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
41	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
42	Material pre-straining effects on fatigue behaviour of S355 structural steel. Journal of Constructional Steel Research, 2021, 183, 106707.	3.9	15
43	The use of approximate strain-life fatigue crack initiation predictions. International Journal of Fatigue, 1994, 16, 351-356.	5.7	14
44	A theoretical and experimental study of alternating current stress measurement under different loading modes. Journal of Strain Analysis for Engineering Design, 1998, 33, 291-303.	1.8	14
45	Controlled failure design of drillstring threaded connections. Fatigue and Fracture of Engineering Materials and Structures, 2003, 26, 1081-1090.	3.4	14
46	Residual static strength of high strength steel cracked tubular joints. Marine Structures, 2004, 17, 291-309.	3.8	13
47	Determination of stress concentration factors in offshore wind welded structures through a hybrid experimental and numerical approach. Ocean Engineering, 2019, 178, 38-47.	4.3	13
48	Structural integrity assessment of floating offshore wind turbine support structures. Ocean Engineering, 2020, 208, 107487.	4.3	13
49	Informing parametric risk control policies for operational uncertainties of offshore wind energy assets. Ocean Engineering, 2019, 177, 1-11.	4.3	12
50	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
51	Thin-skin AC field in anisotropic rectangular bar and ACPD stress measurement. NDT and E International, 2000, 33, 317-323.	3.7	11
52	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
53	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
54	The influence of microstructure on the fatigue crack growth rate in marine steels in the Paris Region. Fatigue and Fracture of Engineering Materials and Structures, 2020, 43, 2416-2440.	3.4	11

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55	Mode I stress intensity factors for edge cracks emanating from 2-D U-notches using composition of SIF weight functions. <i>International Journal of Fatigue</i> , 2006, 28, 355-365.	5.7	10
56	Carbon brainprint “ An estimate of the intellectual contribution of research institutions to reducing greenhouse gas emissions. <i>Chemical Engineering Research and Design</i> , 2015, 96, 74-81.	5.6	10
57	Novel findings in desalination. <i>Desalination</i> , 2015, 360, 13-18.	8.2	10
58	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
59	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
60	Evaluation of mode I stress intensity factors for edge cracks from 2-D V-notches using composition of constituent SIF weight functions. <i>International Journal of Fatigue</i> , 2007, 29, 1253-1268.	5.7	9
61	Surface crack shape evolution modelling using an RMS SIF approach. <i>International Journal of Fatigue</i> , 2010, 32, 297-301.	5.7	9
62	Determination of crack tip stress intensity factors in complex geometries by the composition of constituent weight function solutions. <i>Fatigue and Fracture of Engineering Materials and Structures</i> , 2004, 27, 1-7.	3.4	8
63	Numerical analysis of pitting corrosion fatigue in floating offshore wind turbine foundations. <i>Procedia Structural Integrity</i> , 2019, 17, 64-71.	0.8	8
64	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
65	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
66	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
67	A preliminary techno-economic comparison between a grid-connected and non-grid connected offshore floating wind farm. , 2019, , .		7
68	Corrosion fatigue crack growth in offshore wind monopile steel HAZ material. , 2015, , 207-212.		7
69	Modelling of jack-up response for fatigue under simulated service conditions. <i>Marine Structures</i> , 1999, 12, 327-348.	3.8	6
70	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
71	Fatigue life improvement of threaded connections by cold rolling. <i>Journal of Strain Analysis for Engineering Design</i> , 2005, 40, 83-93.	1.8	5
72	Reanalysis of offshore T-joint fatigue life predictions based on a complete weld profile model. <i>Renewable Energy</i> , 2014, 71, 486-494.	8.9	5

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73	Fatigue design of offshore steel mono-pile wind substructures. Proceedings of Institution of Civil Engineers: Energy, 2014, 167, 196-202.	0.6	5
74	Design Implications towards Inspection Reduction of Large Scale Structures. Procedia CIRP, 2017, 60, 434-439.	1.9	4
75	Influence of soil-structure modelling techniques on offshore wind turbine monopile structural response. Wind Energy, 2022, 25, 998-1012.	4.2	4
76	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
77	A cluster analysis of investment strategies in the offshore wind energy market. , 2017, , .		3
78	The influence of partial surface shot peening on fatigue crack growth behaviour of a high-strength ferritic steel. Fatigue and Fracture of Engineering Materials and Structures, 2018, 41, 663-674.	3.4	3
79	Welding sequence effects on residual stress distribution in offshore wind monopile structures. Frattura Ed Integrita Strutturale, 2016, 10, 125-131.	0.9	3
80	Development of a failure assessment diagram based method for engineering criticality assessment of CO <sub>2</sub> transportation pipelines. Proceedings of the Institution of Mechanical Engineers, Part E: Journal of Process Mechanical Engineering, 2013, 227, 140-145.	2.5	2
81	Cash flow at risk of offshore wind plants. , 2017, , .		2
82	A numerical analysis of the effects of manufacturing processes on material pre-strain in offshore wind monopiles. Procedia Structural Integrity, 2018, 13, 953-958.	0.8	2
83	Material pre-straining effects on fracture toughness variation in offshore wind turbine foundations. Engineering Fracture Mechanics, 2021, 252, 107844.	4.3	2
84	Objective Analysis of Corrosion Pits in Offshore Wind Structures Using Image Processing. Energies, 2021, 14, 5428.	3.1	2
85	Human-free offshore lifting solutions. Journal of Physics: Conference Series, 2018, 1102, 012030.	0.4	0
86	Cavitation shotless peening effects on fatigue crack growth behaviour under bending loads. Material Design and Processing Communications, 2019, , e88.	0.9	0
87	Alleviation of Fatigue in Renewable Energy Support Structures. , 2011, , .		0