

# Abubakr S Bahaj

## List of Publications by Year in descending order

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135  
papers

6,457  
citations

76326

40  
h-index

66911

78  
g-index

139  
all docs

139  
docs citations

139  
times ranked

4166  
citing authors

#	ARTICLE	IF	CITATIONS
1	Power and thrust measurements of marine current turbines under various hydrodynamic flow conditions in a cavitation tunnel and a towing tank. <i>Renewable Energy</i> , 2007, 32, 407-426.	8.9	582
2	Generating electricity from the oceans. <i>Renewable and Sustainable Energy Reviews</i> , 2011, 15, 3399-3416.	16.4	298
3	The prediction of the hydrodynamic performance of marine current turbines. <i>Renewable Energy</i> , 2008, 33, 1085-1096.	8.9	275
4	Climate change future proofing of buildings—Generation and assessment of building simulation weather files. <i>Energy and Buildings</i> , 2008, 40, 2148-2168.	6.7	257
5	Transforming existing weather data for worldwide locations to enable energy and building performance simulation under future climates. <i>Renewable Energy</i> , 2013, 55, 514-524.	8.9	220
6	Experimental verifications of numerical predictions for the hydrodynamic performance of horizontal axis marine current turbines. <i>Renewable Energy</i> , 2007, 32, 2479-2490.	8.9	211
7	Hydrodynamics of marine current turbines. <i>Renewable Energy</i> , 2006, 31, 249-256.	8.9	210
8	Fundamentals applicable to the utilisation of marine current turbines for energy production. <i>Renewable Energy</i> , 2003, 28, 2205-2211.	8.9	195
9	Experimentally validated numerical method for the hydrodynamic design of horizontal axis tidal turbines. <i>Ocean Engineering</i> , 2007, 34, 1013-1020.	4.3	184
10	Experimental analysis of the flow field around horizontal axis tidal turbines by use of scale mesh disk rotor simulators. <i>Ocean Engineering</i> , 2010, 37, 218-227.	4.3	182
11	An experimental investigation simulating flow effects in first generation marine current energy converter arrays. <i>Renewable Energy</i> , 2012, 37, 28-36.	8.9	160
12	Comparison between CFD simulations and experiments for predicting the far wake of horizontal axis tidal turbines. <i>IET Renewable Power Generation</i> , 2010, 4, 613.	3.1	149
13	Simulated electrical power potential harnessed by marine current turbine arrays in the Alderney Race. <i>Renewable Energy</i> , 2005, 30, 1713-1731.	8.9	148
14	Urban energy generation: Influence of micro-wind turbine output on electricity consumption in buildings. <i>Energy and Buildings</i> , 2007, 39, 154-165.	6.7	144
15	Urban energy generation: The added value of photovoltaics in social housing. <i>Renewable and Sustainable Energy Reviews</i> , 2007, 11, 2121-2136.	16.4	137
16	Tidal energy resource assessment for tidal stream generators. <i>Proceedings of the Institution of Mechanical Engineers, Part A: Journal of Power and Energy</i> , 2007, 221, 137-146.	1.4	131
17	Multi criteria decision analysis for offshore wind energy potential in Egypt. <i>Renewable Energy</i> , 2018, 118, 278-289.	8.9	129
18	Potential of emerging glazing technologies for highly glazed buildings in hot arid climates. <i>Energy and Buildings</i> , 2008, 40, 720-731.	6.7	121

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19	Initial evaluation of tidal stream energy resources at Portland Bill, UK. <i>Renewable Energy</i> , 2006, 31, 121-132.	8.9	113
20	Effects of turbulence on tidal turbines: Implications to performance, blade loads, and condition monitoring. <i>International Journal of Marine Energy</i> , 2016, 14, 1-26.	1.8	111
21	Analytical estimates of the energy yield potential from the Alderney Race (Channel Islands) using marine current energy converters. <i>Renewable Energy</i> , 2004, 29, 1931-1945.	8.9	101
22	Quantifying wave and yaw effects on a scale tidal stream turbine. <i>Renewable Energy</i> , 2014, 63, 297-307.	8.9	91
23	Social structure, reasonable gain, and entrepreneurship in Africa. <i>Strategic Management Journal</i> , 2016, 37, 1118-1131.	7.3	87
24	Power output performance characteristics of a horizontal axis marine current turbine. <i>Renewable Energy</i> , 2006, 31, 197-208.	8.9	81
25	Accuracy of the actuator disc-RANS approach for predicting the performance and wake of tidal turbines. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2013, 371, 20120293.	3.4	72
26	Uncertainty in wave energy resource assessment. Part 2: Variability and predictability. <i>Renewable Energy</i> , 2010, 35, 1809-1819.	8.9	70
27	Uncertainty in wave energy resource assessment. Part 1: Historic data. <i>Renewable Energy</i> , 2010, 35, 1792-1808.	8.9	69
28	Electricity consumption and household characteristics: Implications for census-taking in a smart metered future. <i>Computers, Environment and Urban Systems</i> , 2017, 63, 58-67.	7.1	69
29	Wake studies of a 1/30th scale horizontal axis marine current turbine. <i>Ocean Engineering</i> , 2007, 34, 758-762.	4.3	68
30	A comparison of estimators for the generalised Pareto distribution. <i>Ocean Engineering</i> , 2011, 38, 1338-1346.	4.3	58
31	Assessment of the energy extraction potential at tidal sites around the Channel Islands. <i>Energy</i> , 2017, 124, 171-186.	8.8	57
32	Continuous radionuclide recovery from wastewater using magnetotactic bacteria. <i>Journal of Magnetism and Magnetic Materials</i> , 1998, 184, 241-244.	2.3	56
33	Dust Removal from Solar PV Modules by Automated Cleaning Systems. <i>Energies</i> , 2019, 12, 2923.	3.1	56
34	Review of thermal and environmental performance of prefabricated buildings: Implications to emission reductions in China. <i>Renewable and Sustainable Energy Reviews</i> , 2021, 137, 110472.	16.4	55
35	Infrastructural challenges to better health in maternity facilities in rural Kenya: community and healthworker perceptions. <i>Reproductive Health</i> , 2015, 12, 103.	3.1	49
36	Domestic micro-generation: Economic, regulatory and policy issues for the UK. <i>Energy Policy</i> , 2008, 36, 3095-3106.	8.8	47

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37	Tidal current power for Indonesia? An initial resource estimation for the Alas Strait. <i>Renewable Energy</i> , 2013, 49, 137-142.	8.9	47
38	Tribological design constraints of marine renewable energy systems. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2010, 368, 4807-4827.	3.4	46
39	Carbon emissions by rural energy in China. <i>Renewable Energy</i> , 2014, 66, 641-649.	8.9	45
40	Promoting low carbon behaviours through personalised information? Long-term evaluation of a carbon calculator interview. <i>Energy Policy</i> , 2018, 120, 284-293.	8.8	45
41	Implications of the UK field trial of building mounted horizontal axis micro-wind turbines. <i>Energy Policy</i> , 2010, 38, 6130-6144.	8.8	42
42	Thermal Performance Evaluation of School Buildings using a Children-based Adaptive Comfort Model. <i>Procedia Environmental Sciences</i> , 2017, 38, 844-851.	1.4	40
43	Assessing socially acceptable locations for onshore wind energy using a GIS-MCDA approach. <i>International Journal of Low-Carbon Technologies</i> , 2019, 14, 160-169.	2.6	38
44	Student project allocation using integer programming. <i>IEEE Transactions on Education</i> , 2003, 46, 359-367.	2.4	34
45	PV array <5kWp+single inverter=grid connected PV system: Are multiple inverter alternatives economic?. <i>Solar Energy</i> , 2006, 80, 1179-1188.	6.1	34
46	Measurements and predictions of forces, pressures and cavitation on 2-D sections suitable for marine current turbines. <i>Proceedings of the Institution of Mechanical Engineers Part M: Journal of Engineering for the Maritime Environment</i> , 2004, 218, 127-138.	0.5	32
47	Quantifying the added value of BiPV as a shading solution in atria. <i>Solar Energy</i> , 2009, 83, 220-231.	6.1	32
48	Metal uptake and separation using magnetotactic bacteria. <i>IEEE Transactions on Magnetics</i> , 1994, 30, 4707-4709.	2.1	31
49	Sick and stuck at home – how poor health increases electricity consumption and reduces opportunities for environmentally-friendly travel in the United Kingdom. <i>Energy Research and Social Science</i> , 2018, 44, 250-259.	6.4	31
50	Onshore wind and the likelihood of planning acceptance: Learning from a Great Britain context. <i>Energy Policy</i> , 2019, 128, 954-966.	8.8	31
51	On the use of discrete seasonal and directional models for the estimation of extreme wave conditions. <i>Ocean Engineering</i> , 2010, 37, 425-442.	4.3	30
52	Shaping array design of marine current energy converters through scaled experimental analysis. <i>Energy</i> , 2013, 59, 83-94.	8.8	30
53	Marine current energy conversion: the dawn of a new era in electricity production. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2013, 371, 20120500.	3.4	30
54	Influence of turbulence on the wake of a marine current turbine simulator. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2014, 470, 20140331.	2.1	30

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55	Fuel poverty-induced "prebound effect"™ in achieving the anticipated carbon savings from social housing retrofit. <i>Building Services Engineering Research and Technology</i> , 2016, 37, 176-193.	1.8	30
56	Floating solar PV to reduce water evaporation in water stressed regions and powering water pumping: Case study Jordan. <i>Energy Conversion and Management</i> , 2022, 260, 115598.	9.2	30
57	Small hydropower development in China: Growing challenges and transition strategy. <i>Renewable and Sustainable Energy Reviews</i> , 2021, 137, 110653.	16.4	29
58	Photovoltaic roofing: issues of design and integration into buildings. <i>Renewable Energy</i> , 2003, 28, 2195-2204.	8.9	27
59	Characterisation of magnetotactic bacteria using image processing techniques. <i>IEEE Transactions on Magnetics</i> , 1993, 29, 3358-3360.	2.1	25
60	An alternative method for the estimation of the magnetic moment of non-spherical magnetotactic bacteria. <i>IEEE Transactions on Magnetics</i> , 1996, 32, 5133-5135.	2.1	25
61	Assessment of Large Scale Photovoltaic Power Generation from Carport Canopies. <i>Energies</i> , 2017, 10, 686.	3.1	25
62	New approach to determine the Importance Index for developing offshore wind energy potential sites: Supported by UK and Arabian Peninsula case studies. <i>Renewable Energy</i> , 2020, 152, 441-457.	8.9	25
63	The Effect of Boundary Proximity Upon the Wake Structure of Horizontal Axis Marine Current Turbines. <i>Journal of Offshore Mechanics and Arctic Engineering</i> , 2012, 134, .	1.2	24
64	Determination of magnetic susceptibility of loaded micro-organisms in bio-magnetic separation. <i>IEEE Transactions on Magnetics</i> , 1989, 25, 3809-3811.	2.1	23
65	How Sharing Can Contribute to More Sustainable Cities. <i>Sustainability</i> , 2017, 9, 701.	3.2	22
66	Extraction of heavy metals using microorganisms and high gradient magnetic separation. <i>IEEE Transactions on Magnetics</i> , 1991, 27, 5371-5374.	2.1	21
67	Characterization and growth of magnetotactic bacteria: Implications of clean up of environmental pollution. <i>Journal of Applied Physics</i> , 1993, 73, 5394-5396.	2.5	21
68	Low magnetic-field separation system for metal-loaded magnetotactic bacteria. <i>Journal of Magnetism and Magnetic Materials</i> , 1998, 177-181, 1453-1454.	2.3	21
69	Influence of turbulence on the drag of solid discs and turbine simulators in a water current. <i>Experiments in Fluids</i> , 2014, 55, 1.	2.4	19
70	Small hydropower development in Tibet: Insight from a survey in Nagqu Prefecture. <i>Renewable and Sustainable Energy Reviews</i> , 2018, 81, 3032-3040.	16.4	19
71	The Impact of an Electrical Mini-grid on the Development of a Rural Community in Kenya. <i>Energies</i> , 2019, 12, 778.	3.1	19
72	Inlet grid-generated turbulence for large-eddy simulations. <i>International Journal of Computational Fluid Dynamics</i> , 2013, 27, 307-315.	1.2	18

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73	Holographic optical elements: various principles for solar control of conservatories and sunrooms. <i>Solar Energy</i> , 2005, 78, 441-454.	6.1	15
74	Smart glazing solutions to glare and solar gain: a "sick building"™ case study. <i>Energy and Buildings</i> , 2005, 37, 1058-1067.	6.7	14
75	Electrical Minigrids for Development: Lessons From the Field. <i>Proceedings of the IEEE</i> , 2019, 107, 1967-1980.	21.3	14
76	High gradient magnetic separation of motile and non-motile magnetotactic bacteria. <i>IEEE Transactions on Magnetics</i> , 1996, 32, 5106-5108.	2.1	13
77	Means of enhancing and promoting the use of solar energy. <i>Renewable Energy</i> , 2002, 27, 97-105.	8.9	12
78	Dataset of the livability performance of the city of Birmingham, UK, as measured by its citizen wellbeing, resource security, resource efficiency and carbon emissions. <i>Data in Brief</i> , 2017, 15, 691-695.	1.0	12
79	EFFICIENCY ENHANCEMENTS THROUGH THE USE OF MAGNETIC FIELD GRADIENT IN ORIENTATION MAGNETIC SEPARATION FOR THE REMOVAL OF POLLUTANTS BY MAGNETOTACTIC BACTERIA. <i>Separation Science and Technology</i> , 2002, 37, 3661-3671.	2.5	10
80	Development of a highly magnetic iron sulphide for metal uptake and magnetic separation. <i>Journal of Magnetism and Magnetic Materials</i> , 2005, 293, 567-571.	2.3	10
81	Pole-mounted horizontal axis micro-wind turbines: UK field trial findings and market size assessment. <i>Energy Policy</i> , 2011, 39, 3822-3831.	8.8	10
82	The Role of Digital Trace Data in Supporting the Collection of Population Statistics " the Case for Smart Metered Electricity Consumption Data. <i>Population, Space and Place</i> , 2016, 22, 849-863.	2.3	10
83	Multi Criteria Decision Analysis to Optimise Siting of Electric Vehicle Charging Points"Case Study Winchester District, UK. <i>Energies</i> , 2022, 15, 2497.	3.1	10
84	World's first solar powered transport refrigeration system. <i>Renewable Energy</i> , 1998, 15, 572-576.	8.9	9
85	Modelling of the flow field surrounding tidal turbine arrays for varying positions in a channel. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2013, 371, 20120246.	3.4	9
86	Experimental validation of the distributed drag method for simulating large marine current turbine arrays using porous fences. <i>International Journal of Marine Energy</i> , 2016, 16, 298-316.	1.8	9
87	Dielectrophoresis of microscopic particles. <i>Journal Physics D: Applied Physics</i> , 1979, 12, L109-L112.	2.8	8
88	A comparative study of the magnetic separation characteristics of magnetotactic and sulphate reducing bacteria. <i>Journal of Applied Physics</i> , 1998, 83, 6444-6446.	2.5	8
89	The Effect of Boundary Proximity Upon the Wake Structure of Horizontal Axis Marine Current Turbines. , 2008, , .		8
90	Preliminary design of the OWEL wave energy converter pre-commercial demonstrator. <i>Renewable Energy</i> , 2014, 61, 51-56.	8.9	8

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91	Tracking a city's center of gravity over 500 years of growth from a time series of georectified historical maps. <i>Cartography and Geographic Information Science</i> , 2020, 47, 524-536.	3.0	8
92	The recovery of gold and uranium from gold ore leached residues by HGMS. <i>IEEE Transactions on Magnetism</i> , 1983, 19, 2136-2138.	2.1	7
93	Vortex capture in high gradient magnetic separators at moderate Reynolds number. <i>IEEE Transactions on Magnetism</i> , 1989, 25, 3803-3805.	2.1	7
94	Wastewater treatment by bio-magnetic separation: A comparison of iron oxide and iron sulphide biomass recovery. <i>Water Science and Technology</i> , 1998, 38, 311.	2.5	7
95	Implementation of the first building integrated photovoltaic cladding on the south coast of the United Kingdom. <i>Renewable Energy</i> , 2002, 26, 509-519.	8.9	7
96	Solar photovoltaic energy: generation in the built environment. <i>Proceedings of the Institution of Civil Engineers: Civil Engineering</i> , 2005, 158, 45-51.	0.3	7
97	Foundation-based flow acceleration structures for marine current energy converters. <i>IET Renewable Power Generation</i> , 2011, 5, 287.	3.1	7
98	A simple, scalable and low-cost method to generate thermal diagnostics of a domestic building. <i>Applied Energy</i> , 2014, 134, 519-530.	10.1	7
99	City-wide building height determination using light detection and ranging data. <i>Environment and Planning B: Urban Analytics and City Science</i> , 2019, 46, 1741-1755.	2.0	7
100	Ensuring statistics have power: Guidance for designing, reporting and acting on electricity demand reduction and behaviour change programs. <i>Energy Research and Social Science</i> , 2020, 59, 101260.	6.4	7
101	Effects of High Ambient Temperature on Electric Vehicle Efficiency and Range: Case Study of Kuwait. <i>Energies</i> , 2022, 15, 3178.	3.1	7
102	Photovoltaic power for refrigeration of transported perishable goods. , 0, , .		6
103	Small-Scale Wind Turbines. , 2017, , 389-418.		6
104	Continuous cultivation and recovery of magnetotactic bacteria. <i>IEEE Transactions on Magnetism</i> , 1997, 33, 4263-4265.	2.1	5
105	Status of Marine Current Energy Conversion in China. <i>International Marine Energy Journal</i> , 2021, 4, 11-23.	0.8	5
106	Offshore Wind Energy Potential Around the East Coast of the Red Sea, KSA. , 2017, , .		5
107	The Relationship Between Dielectrophoretic and Impedance Response of Dielectric Particles Immersed in Aqueous Media. <i>IEEE Transactions on Industry Applications</i> , 1985, IA-21, 1300-1305.	4.9	4
108	Wave Energy Resource Assessment Using Satellite Altimeter Data. , 2008, , .		4

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109	Delivering developing country growth: A new mechanistic approach driven by the photovoltaic industry. <i>Renewable and Sustainable Energy Reviews</i> , 2009, 13, 2142-2148.	16.4	4
110	Tidal current power effects on nearby sandbanks: a case study in the Race of Alderney. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2020, 378, 20190503.	3.4	4
111	Solar Power Potential from Industrial Buildings and Impact on Electricity Supply in Bangladesh. <i>Energies</i> , 2022, 15, 4037.	3.1	4
112	Comparing Energy Yields From Fixed and Yawing Horizontal Axis Marine Current Turbines in the English Channel. , 2008, , .		3
113	New research in tidal current energy. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2013, 371, 20120501.	3.4	3
114	Evaluating CHP management and outputs using simple operational data. <i>International Journal of Low-Carbon Technologies</i> , 2018, 13, 109-115.	2.6	3
115	Spatial Variation in Sound Frequency Components Across an Urban Area Derived from Mobile Surveys. <i>Future Cities and Environment</i> , 2019, 5, .	1.6	3
116	Economics of solar powered refrigeration transport applications. , 0, , .		2
117	Influence of iron valency on the magnetic susceptibility of a microbially produced iron sulphide.. <i>Journal of Physics: Conference Series</i> , 2005, 17, 65-69.	0.4	2
118	Development of marine current turbines for electricity production. , 2011, , .		2
119	Experimental investigation of inter-array wake properties in early tidal turbine arrays. , 2011, , .		2
120	Heating and controls use resulting from shared-cost charges in communal network social housing. <i>Building Services Engineering Research and Technology</i> , 2020, 41, 315-331.	1.8	2
121	Superconducting high gradient magnetic separator incorporating a current carrying wire matrix. <i>IEEE Transactions on Magnetics</i> , 1985, 21, 2056-2058.	2.1	1
122	Electrical connector contact resistance behaviour within a PV shingle roof. , 0, , .		1
123	Post installation optimisation of a building integrated PV system at Southampton University. , 0, , .		1
124	Generating Electrical Power from Ocean Resources. , 2012, , 1-6.		1
125	Aspirations of Retailers and Visitors Towards the Regeneration of Declining Streets in Cities. <i>Future Cities and Environment</i> , 2018, 4, .	1.6	1
126	Solar PV Penetration Scenarios for a University Campus in KSA. <i>Energies</i> , 2022, 15, 3150.	3.1	1



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127	Magnetic filtration studies using a permanently magnetised matrix. IEEE Transactions on Magnetics, 1987, 23, 2755-2757.	2.1	0
128	Analysis of market development for photovoltaics. , 0, , .		0
129	Solar photovoltaic energy: generation in the built environment. Civil Engineering Innovation, 2007, 1, 55-62.	0.0	0
130	Briefing: olympic delivery authorityâ€™s 2012 transport strategy. Civil Engineering Innovation, 2009, 3, 03-05.	0.0	0
131	The First Building Integrated Photovoltaic Cladding on the South Coast of the UK. , 2000, , 773-778.		0
132	Solar photovoltaic energy: generation in the built environment. Civil Engineering Innovation, 2007, 1, 55-62.	0.0	0
133	Status of Solar Energy Conversion and Applications in Yemen. , 1991, , 1155-1157.		0
134	City-wide Building Energy Efficiency Assessment Using EPC Data. Future Cities and Environment, 2018, 4, .	1.6	0
135	Satellite imagery to select a sample of rooftops for a PV installation project in Jeddah, Saudi Arabia. Journal of Physics: Conference Series, 2021, 2042, 012014.	0.4	0