

# Aonghus McNabola

## List of Publications by Year in descending order

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Version: 2024-02-01

111  
papers

4,009  
citations

136950

32  
h-index

138484

58  
g-index

111  
all docs

111  
docs citations

111  
times ranked

3520  
citing authors

#	ARTICLE	IF	CITATIONS
1	Air pollution abatement performances of green infrastructure in open road and built-up street canyon environments – A review. <i>Atmospheric Environment</i> , 2017, 162, 71-86.	4.1	611
2	The nexus between air pollution, green infrastructure and human health. <i>Environment International</i> , 2019, 133, 105181.	10.0	249
3	Passive methods for improving air quality in the built environment: A review of porous and solid barriers. <i>Atmospheric Environment</i> , 2015, 120, 61-70.	4.1	160
4	Relative exposure to fine particulate matter and VOCs between transport microenvironments in Dublin: Personal exposure and uptake. <i>Atmospheric Environment</i> , 2008, 42, 6496-6512.	4.1	122
5	“Exposure Track” The Impact of Mobile-Device-Based Mobility Patterns on Quantifying Population Exposure to Air Pollution. <i>Environmental Science &amp; Technology</i> , 2016, 50, 9671-9681.	10.0	119
6	A critical review and assessment of Eco-Driving policy & technology: Benefits & limitations. <i>Transport Policy</i> , 2014, 35, 42-49.	6.6	111
7	Energy recovery in the water industry using micro-hydropower: an opportunity to improve sustainability. <i>Water Policy</i> , 2014, 16, 168-183.	1.5	103
8	Comparison of particulate matter dose and acute heart rate variability response in cyclists, pedestrians, bus and train passengers. <i>Science of the Total Environment</i> , 2014, 468-469, 821-831.	8.0	95
9	Optimal Location of Pump as Turbines (PATs) in Water Distribution Networks to Recover Energy and Reduce Leakage. <i>Water Resources Management</i> , 2017, 31, 5043-5059.	3.9	72
10	Efficient drain water heat recovery in horizontal domestic shower drains. <i>Energy and Buildings</i> , 2013, 59, 44-49.	6.7	70
11	Analysing the Co-Benefits of transport fleet and fuel policies in reducing PM2.5 and CO2 emissions. <i>Journal of Cleaner Production</i> , 2018, 172, 623-634.	9.3	70
12	A model for the extrapolation of the characteristic curves of Pumps as Turbines from a datum Best Efficiency Point. <i>Energy Conversion and Management</i> , 2018, 174, 1-7.	9.2	70
13	Modelling the impacts of a carbon emission-differentiated vehicle tax system on CO2 emissions intensity from new vehicle purchases in Ireland. <i>Energy Policy</i> , 2009, 37, 1404-1411.	8.8	68
14	A strategic assessment of micro-hydropower in the UK and Irish water industry: Identifying technical and economic constraints. <i>Renewable Energy</i> , 2015, 81, 808-815.	8.9	64
15	A numerical investigation of the impact of low boundary walls on pedestrian exposure to air pollutants in urban street canyons. <i>Science of the Total Environment</i> , 2009, 407, 760-769.	8.0	62
16	Smart Water Management towards Future Water Sustainable Networks. <i>Water (Switzerland)</i> , 2020, 12, 58.	2.7	61
17	Development of an evaluation method for hydropower energy recovery in wastewater treatment plants: Case studies in Ireland and the UK. <i>Sustainable Energy Technologies and Assessments</i> , 2014, 7, 166-177.	2.7	58
18	Life cycle environmental balance and greenhouse gas mitigation potential of micro-hydropower energy recovery in the water industry. <i>Journal of Cleaner Production</i> , 2015, 99, 152-159.	9.3	54

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19	Optimization of Water Distribution Networks for Combined Hydropower Energy Recovery and Leakage Reduction. <i>Journal of Water Resources Planning and Management - ASCE</i> , 2016, 142, .	2.6	53
20	Comparing the environmental and economic impacts of on- or off-grid solar photovoltaics with traditional energy sources for rural irrigation systems. <i>Renewable Energy</i> , 2019, 140, 895-904.	8.9	52
21	Pressure management and energy recovery in water distribution networks: Development of design and selection methodologies using three pump-as-turbine case studies. <i>Renewable Energy</i> , 2017, 114, 1038-1050.	8.9	51
22	Cost Model for Pumps as Turbines in Run-of-River and In-Pipe Microhydropower Applications. <i>Journal of Water Resources Planning and Management - ASCE</i> , 2019, 145, .	2.6	50
23	Heat Recovery from Wastewater – A Review of Available Resource. <i>Water (Switzerland)</i> , 2021, 13, 1274.	2.7	50
24	Energy recovery in the water industry: an assessment of the potential of micro-hydropower. <i>Water and Environment Journal</i> , 2014, 28, 294-304.	2.2	49
25	Reducing pedestrian exposure to environmental pollutants: A combined noise exposure and air quality analysis approach. <i>Transportation Research, Part D: Transport and Environment</i> , 2009, 14, 309-316.	6.8	47
26	The potential impacts of different traffic management strategies on air pollution and public health for a more sustainable city: A modelling case study from Dublin, Ireland. <i>Sustainable Cities and Society</i> , 2020, 60, 102229.	10.4	45
27	The Control of Environmental Tobacco Smoke: A Policy Review. <i>International Journal of Environmental Research and Public Health</i> , 2009, 6, 741-758.	2.6	44
28	Spatial and temporal considerations in the performance of wastewater heat recovery systems. <i>Journal of Cleaner Production</i> , 2020, 247, 119583.	9.3	40
29	Energy recovery potential using micro hydropower in water supply networks in the UK and Ireland. <i>Water Science and Technology: Water Supply</i> , 2013, 13, 552-560.	2.1	39
30	Hydropower energy recovery in irrigation networks: Validation of a methodology for flow prediction and pump as turbine selection. <i>Renewable Energy</i> , 2020, 147, 1728-1738.	8.9	39
31	Optimizing the use of on-street car parking system as a passive control of air pollution exposure in street canyons by large eddy simulation. <i>Atmospheric Environment</i> , 2011, 45, 1684-1694.	4.1	38
32	Numerical modelling of the passive control of air pollution in asymmetrical urban street canyons using refined mesh discretization schemes. <i>Building and Environment</i> , 2012, 56, 232-240.	6.9	38
33	Hydro-power energy recovery in pressurized irrigation networks: A case study of an Irrigation District in the South of Spain. <i>Agricultural Water Management</i> , 2018, 204, 17-27.	5.6	34
34	Reduced exposure to air pollution on the boardwalk in Dublin, Ireland. Measurement and prediction. <i>Environment International</i> , 2008, 34, 86-93.	10.0	33
35	The passive control of air pollution exposure in Dublin, Ireland: A combined measurement and modelling case study. <i>Science of the Total Environment</i> , 2013, 458-460, 331-343.	8.0	33
36	A Model for Selecting the Most Cost-Effective Pressure Control Device for More Sustainable Water Supply Networks. <i>Water (Switzerland)</i> , 2019, 11, 1297.	2.7	33

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37	The impacts of inter-vehicle spacing on in-vehicle air pollution concentrations in idling urban traffic conditions. <i>Transportation Research, Part D: Transport and Environment</i> , 2009, 14, 567-575.	6.8	32
38	Exploring the modeling of spatiotemporal variations in ambient air pollution within the land use regression framework: Estimation of PM <sub>10</sub> concentrations on a daily basis. <i>Journal of the Air and Waste Management Association</i> , 2015, 65, 628-640.	1.9	32
39	Improvement in the estimation and back-extrapolation of CO <sub>2</sub> emissions from the Irish road transport sector using a bottom-up data modelling approach. <i>Transportation Research, Part D: Transport and Environment</i> , 2017, 56, 18-32.	6.8	32
40	A Comparison of Energy Recovery by PATs against Direct Variable Speed Pumping in Water Distribution Networks. <i>Fluids</i> , 2018, 3, 41.	1.7	31
41	New Directions: Passive control of personal air pollution exposure from traffic emissions in urban street canyons. <i>Atmospheric Environment</i> , 2010, 44, 2940-2941.	4.1	29
42	Maximizing Hydropower Generation in Gravity Water Distribution Networks: Determining the Optimal Location and Number of Pumps as Turbines. <i>Journal of Water Resources Planning and Management - ASCE</i> , 2020, 146, .	2.6	28
43	Effects of the Smoking Ban on Benzene and 1,3-Butadiene Levels in Pubs in Dublin. <i>Journal of Environmental Science and Health - Part A Toxic/Hazardous Substances and Environmental Engineering</i> , 2006, 41, 799-810.	1.7	27
44	Assessment of pathways to reduce CO <sub>2</sub> emissions from passenger car fleets: Case study in Ireland. <i>Applied Energy</i> , 2017, 189, 283-300.	10.1	27
45	An evaluation of the impact of the Dublin Port Tunnel and HGV management strategy on air pollution emissions. <i>Transportation Research, Part D: Transport and Environment</i> , 2017, 52, 1-14.	6.8	27
46	Decentralized drain water heat recovery from commercial kitchens in the hospitality sector. <i>Energy and Buildings</i> , 2019, 194, 247-259.	6.7	25
47	Current and Future Environmental Balance of Small-Scale Run-of-River Hydropower. <i>Environmental Science &amp; Technology</i> , 2015, 49, 6344-6351.	10.0	24
48	Downscaling national road transport emission to street level: A case study in Dublin, Ireland. <i>Journal of Cleaner Production</i> , 2018, 183, 797-809.	9.3	24
49	A Functional Data Analysis Approach for the Detection of Air Pollution Episodes and Outliers: A Case Study in Dublin, Ireland. <i>Mathematics</i> , 2020, 8, 225.	2.2	24
50	In-kitchen aerosol exposure in twelve cities across the globe. <i>Environment International</i> , 2022, 162, 107155.	10.0	24
51	Optimal cycling and walking speed for minimum absorption of traffic emissions in the lungs. <i>Journal of Environmental Science and Health - Part A Toxic/Hazardous Substances and Environmental Engineering</i> , 2007, 42, 1999-2007.	1.7	22
52	Microhydropower Energy Recovery at Wastewater-Treatment Plants: Turbine Selection and Optimization. <i>Journal of Energy Engineering - ASCE</i> , 2017, 143, .	1.9	22
53	Pump-As-Turbine: Characterization as an Energy Recovery Device for the Water Distribution Network. <i>Journal of Hydraulic Engineering</i> , 2017, 143, .	1.5	21
54	Pump-as-Turbine Selection Methodology for Energy Recovery in Irrigation Networks: Minimising the Payback Period. <i>Water (Switzerland)</i> , 2019, 11, 149.	2.7	21

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55	Evaluation of the design and performance of a micro hydropower plant in a pressurised irrigation network: Real world application at farm-level in Southern Spain. <i>Renewable Energy</i> , 2021, 169, 1106-1120.	8.9	21
56	A principal components analysis of the factors effecting personal exposure to air pollution in urban commuters in Dublin, Ireland. <i>Journal of Environmental Science and Health - Part A Toxic/Hazardous Substances and Environmental Engineering</i> , 2009, 44, 1219-1226.	1.7	20
57	Analysis of the relationship between urban background air pollution concentrations and the personal exposure of office workers in Dublin, Ireland, using baseline separation techniques. <i>Atmospheric Pollution Research</i> , 2011, 2, 80-88.	3.8	20
58	Personal Exposure to Air Pollution in Office Workers in Ireland: Measurement, Analysis and Implications. <i>Toxics</i> , 2013, 1, 60-76.	3.7	20
59	A comparison of route-choice navigation across air pollution exposure, CO2 emission and traditional travel cost factors. <i>Transportation Research, Part D: Transport and Environment</i> , 2018, 65, 82-100.	6.8	20
60	Assessing the Impact of Vehicle Speed Limits and Fleet Composition on Air Quality Near a School. <i>International Journal of Environmental Research and Public Health</i> , 2019, 16, 149.	2.6	20
61	Potential of Energy Recovery and Water Saving Using Micro-Hydropower in Rural Water Distribution Networks. <i>Journal of Water Resources Planning and Management - ASCE</i> , 2019, 145, .	2.6	20
62	Multi-Country Scale Assessment of Available Energy Recovery Potential Using Micro-Hydropower in Drinking, Pressurised Irrigation and Wastewater Networks, Covering Part of the EU. <i>Water (Switzerland)</i> , 2021, 13, 899.	2.7	19
63	Optimization-Based Methodology for Selection of Pump-as-Turbine in Water Distribution Networks: Effects of Different Objectives and Machine Operation Limits on Best Efficiency Point. <i>Journal of Water Resources Planning and Management - ASCE</i> , 2021, 147, .	2.6	18
64	The technical and economic feasibility of energy recovery in water supply networks. <i>Renewable Energy and Power Quality Journal</i> , 0, , 1123-1127.	0.2	18
65	Is There a Residual and Hidden Potential for Small and Micro Hydropower in Europe? A Screening-Level Regional Assessment. <i>Water Resources Management</i> , 2022, 36, 1745-1762.	3.9	18
66	Evaluation of combined sewer overflow assessment methods: case study of Cork City, Ireland. <i>Water and Environment Journal</i> , 2017, 31, 202-208.	2.2	17
67	The development and assessment of an aspiration efficiency reducing system of air pollution control for particulate matter in building ventilation systems. <i>Energy and Buildings</i> , 2013, 61, 177-184.	6.7	16
68	Estimating regional potential for micro-hydropower energy recovery in irrigation networks on a large geographical scale. <i>Renewable Energy</i> , 2020, 155, 396-406.	8.9	16
69	Evaluating artificial neural networks for predicting minute ventilation and lung deposited dose in commuting cyclists. <i>Journal of Transport and Health</i> , 2014, 1, 305-315.	2.2	15
70	Reducing energy consumption and increasing filter life in HVAC systems using an aspiration efficiency reducer: Long-term performance assessment at full-scale. <i>Journal of Building Engineering</i> , 2017, 12, 267-274.	3.4	15
71	Making green technology greener: Achieving a balance between carbon and resource savings through ecodesign in hydropower systems. <i>Resources, Conservation and Recycling</i> , 2015, 105, 11-17.	10.8	14
72	Sustainable Water-Energy Nexus towards Developing Countries – Water Sector Efficiency. <i>Energies</i> , 2021, 14, 3525.	3.1	14

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73	Decentralized drain water heat recovery: A probabilistic method for prediction of wastewater and heating system interaction. <i>Energy and Buildings</i> , 2019, 183, 684-696.	6.7	13
74	Augmenting limited background monitoring data for improved performance in land use regression modelling: Using support vector regression and mobile monitoring. <i>Atmospheric Environment</i> , 2019, 201, 310-322.	4.1	13
75	Energy Transfer from the Freshwater to the Wastewater Network Using a PAT-Equipped Turbopump. <i>Water (Switzerland)</i> , 2020, 12, 38.	2.7	13
76	Energy Recovery Potential in Industrial and Municipal Wastewater Networks Using Micro-Hydropower in Spain. <i>Water (Switzerland)</i> , 2021, 13, 691.	2.7	13
77	New Challenges in Water Systems. <i>Water (Switzerland)</i> , 2020, 12, 2340.	2.7	12
78	Predicting and quantifying the effect of variations in long-term water demand on micro-hydropower energy recovery in water supply networks. <i>Urban Water Journal</i> , 2017, 14, 676-684.	2.1	11
79	Modelling personal exposure to particulate air pollution: An assessment of time-integrated activity modelling, Monte Carlo simulation & artificial neural network approaches. <i>International Journal of Hygiene and Environmental Health</i> , 2015, 218, 107-116.	4.3	10
80	Innovating for low-carbon energy through hydropower: Enabling a conservation charity's transition to a low-carbon community. <i>Creativity and Innovation Management</i> , 2018, 27, 375-386.	3.3	10
81	Modelling of intra-urban variability of prevailing ambient noise at different temporal resolution. <i>Noise Mapping</i> , 2017, 4, 20-44.	1.8	9
82	Network-wide traffic and environmental impacts of acceleration and deceleration among Eco-Driving Vehicles in different road configurations. <i>Transportation Planning and Technology</i> , 2018, 41, 244-264.	2.0	9
83	The Development of a Decision Support Software for the Design of Micro-Hydropower Schemes Utilizing a Pump as Turbine. <i>Proceedings (mdpi)</i> , 2018, 2, 678.	0.2	8
84	Socio-Technical Viability Framework for Micro Hydropower in Group Water-Energy Schemes. <i>Energies</i> , 2021, 14, 4222.	3.1	8
85	Design and Year-Long Performance Evaluation of a Pump as Turbine (PAT) Pico-Hydropower Energy Recovery Device in a Water Network. <i>Water (Switzerland)</i> , 2021, 13, 3014.	2.7	8
86	Environmental tobacco smoke in designated smoking areas in the hospitality industry: Exposure measurements, exposure modelling and policy assessment. <i>Environment International</i> , 2012, 44, 68-74.	10.0	7
87	Effects of Long-Term Flow Variation on Microhydropower Energy Production in Pressure Reducing Valves in Water Distribution Networks. <i>Journal of Water Resources Planning and Management - ASCE</i> , 2017, 143, 04016076.	2.6	7
88	Decentralized Drain Water Heat Recovery: Interaction between Wastewater and Heating Flows on a Single Residence Scale. <i>Proceedings (mdpi)</i> , 2018, 2, .	0.2	7
89	The co-development of HedgeDATE, a public engagement and decision support tool for air pollution exposure mitigation by green infrastructure. <i>Sustainable Cities and Society</i> , 2021, 75, 103299.	10.4	7
90	Energy recovery in the water industry: an assessment of the potential of micro-hydropower. <i>Water and Environment Journal</i> , 2013, 27, n/a-n/a.	2.2	6

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91	Inventory compilation for renewable energy systems: the pitfalls of materiality thresholds and priority impact categories using hydropower case studies. <i>International Journal of Life Cycle Assessment</i> , 2015, 20, 1701-1707.	4.7	6
92	Development of a high resolution wave climate modelling methodology for offshore, nearshore and onshore locations of interest. <i>International Journal of Marine Energy</i> , 2016, 16, 30-40.	1.8	6
93	Potential Energy Recovery Using Micro-Hydropower Technology in Irrigation Networks: Real-World Case Studies in the South of Spain. <i>Proceedings (mdpi)</i> , 2018, 2, 679.	0.2	6
94	Prediction of Global Efficiency and Economic Viability of Replacing PRVs with Hydraulically Regulated Pump-as-Turbines at Instrumented Sites within Water Distribution Networks. <i>Journal of Water Resources Planning and Management - ASCE</i> , 2022, 148, .	2.6	6
95	Spatiotemporal representativeness of air pollution monitoring in Dublin, Ireland. <i>Science of the Total Environment</i> , 2022, 827, 154299.	8.0	5
96	Reducing the Energy Dependency of Water Networks in Irrigation, Public Drinking Water, and Process Industry: REDAWN Project. <i>Proceedings (mdpi)</i> , 2018, 2, 681.	0.2	4
97	A numerical analysis of particulate matter control technology integrated with HVAC system inlet design and implications on energy consumption. <i>Building and Environment</i> , 2022, 211, 108726.	6.9	4
98	Energy Saving Measures in Pressurized Irrigation Networks: A New Challenge for Power Generation. <i>Proceedings (mdpi)</i> , 2018, 2, .	0.2	3
99	Numerical investigation on the ingress of particulate matter from ambient air into the inlet of a building air handling unit. <i>Indoor Air</i> , 2021, 31, 1940-1951.	4.3	3
100	Energy Recovery in the Water & Waste Water Industry using Micro-Hydropower: A Review. , 2012, , .		3
101	Developing green process innovation through network action learning. <i>Creativity and Innovation Management</i> , 2022, 31, 248-259.	3.3	3
102	A numerical analysis of the aspiration efficiency of a personal sampler. <i>International Journal of Environment and Pollution</i> , 2010, 41, 109.	0.2	2
103	Potential Micro-Hydropower Generation in Community-Owned Rural Water Supply Networks in Ireland. <i>Proceedings (mdpi)</i> , 2018, 2, 677.	0.2	2
104	Development of a fleet emissions control (FEC) framework for passenger cars. <i>Journal of Cleaner Production</i> , 2019, 226, 482-492.	9.3	2
105	Can teaching be evaluated through reflection on student performance in continuous assessment? A case study of practical engineering modules. <i>Innovations in Education and Teaching International</i> , 2015, 52, 464-473.	2.5	1
106	Fostering Renewable Energies and Energy Efficiency in the Water Sector Using PATs and Wheels. <i>Proceedings (mdpi)</i> , 2018, 2, .	0.2	1
107	Environmental Hydraulics Research. <i>Water (Switzerland)</i> , 2020, 12, 2749.	2.7	1
108	New Directions: Improved atmosphere in pubs due to the smoking ban in Ireland. <i>Atmospheric Environment</i> , 2005, 39, 4815-4816.	4.1	0

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109	Spoiling air pollution dispersion: A numerical investigation of exhaust plume dispersion from cars with rear spoilers. Transportation Research, Part D: Transport and Environment, 2011, 16, 296-301.	6.8	0
110	Energy harvesting in water supply systems. , 2020, , 229-254.		0
111	ASSESSMENT OF THE IMPACT OF ROOF-LEVEL BUILDING FEATURES ON AIR POLLUTION INSIDE URBAN STREET CANYONS. WIT Transactions on Ecology and the Environment, 2020, , .	0.0	0