

# Francisco Gil-Montoya

## List of Publications by Year in descending order

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147  
papers

6,480  
citations

76196

40  
h-index

71532

76  
g-index

150  
all docs

150  
docs citations

150  
times ranked

7210  
citing authors

#	ARTICLE	IF	CITATIONS
1	Optimization methods applied to renewable and sustainable energy: A review. <i>Renewable and Sustainable Energy Reviews</i> , 2011, 15, 1753-1766.	8.2	1,276
2	Scientific production of renewable energies worldwide: An overview. <i>Renewable and Sustainable Energy Reviews</i> , 2013, 18, 134-143.	8.2	278
3	Worldwide Research Trends on Wheat and Barley: A Bibliometric Comparative Analysis. <i>Agronomy</i> , 2019, 9, 352.	1.3	266
4	Review of bioclimatic architecture strategies for achieving thermal comfort. <i>Renewable and Sustainable Energy Reviews</i> , 2015, 49, 736-755.	8.2	180
5	Worldwide Research Trends on Medicinal Plants. <i>International Journal of Environmental Research and Public Health</i> , 2020, 17, 3376.	1.2	178
6	Global trends in nitrate leaching research in the 1960â€“2017 period. <i>Science of the Total Environment</i> , 2018, 643, 400-413.	3.9	159
7	Microalgae research worldwide. <i>Algal Research</i> , 2018, 35, 50-60.	2.4	150
8	Worldwide Research on Plant Defense against Biotic Stresses as Improvement for Sustainable Agriculture. <i>Sustainability</i> , 2018, 10, 391.	1.6	126
9	Indoor lighting techniques: An overview of evolution and new trends for energy saving. <i>Energy and Buildings</i> , 2017, 140, 50-60.	3.1	115
10	Electric vehicles in Spain: An overview of charging systems. <i>Renewable and Sustainable Energy Reviews</i> , 2017, 77, 970-983.	8.2	115
11	Trends in plant research using molecular markers. <i>Planta</i> , 2018, 247, 543-557.	1.6	114
12	Renewable energy production in Spain: A review. <i>Renewable and Sustainable Energy Reviews</i> , 2014, 33, 509-531.	8.2	104
13	Innovation and technology for sustainable mining activity: A worldwide research assessment. <i>Journal of Cleaner Production</i> , 2019, 221, 38-54.	4.6	103
14	A fast method for identifying worldwide scientific collaborations using the Scopus database. <i>Telematics and Informatics</i> , 2018, 35, 168-185.	3.5	98
15	A parabolic-trough collector for cleaner industrial process heat. <i>Journal of Cleaner Production</i> , 2015, 89, 272-285.	4.6	95
16	Adaptive community detection in complex networks using genetic algorithms. <i>Neurocomputing</i> , 2017, 266, 101-113.	3.5	95
17	An overview of research and energy evolution for small hydropower in Europe. <i>Renewable and Sustainable Energy Reviews</i> , 2017, 75, 476-489.	8.2	87
18	Worldwide Research on Energy Efficiency and Sustainability in Public Buildings. <i>Sustainability</i> , 2017, 9, 1294.	1.6	87

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19	Intelligent homesâ€™ technologies to optimize the energy performance for the net zero energy home. Energy and Buildings, 2017, 153, 262-274.	3.1	84
20	An overview of renewable energy potential in Palestine. Renewable and Sustainable Energy Reviews, 2016, 65, 943-960.	8.2	81
21	Wind turbine selection for wind farm layout using multi-objective evolutionary algorithms. Expert Systems With Applications, 2014, 41, 6585-6595.	4.4	77
22	Economic analysis of sustainable water use: A review of worldwide research. Journal of Cleaner Production, 2018, 198, 1120-1132.	4.6	77
23	The worldwide research trends on water ecosystem services. Ecological Indicators, 2019, 99, 310-323.	2.6	76
24	The metagenomics worldwide research. Current Genetics, 2017, 63, 819-829.	0.8	72
25	A memetic algorithm applied to the design of water distribution networks. Applied Soft Computing Journal, 2010, 10, 261-266.	4.1	70
26	Optimal displacement of photovoltaic arrayâ€™s rows using a novel shading model. Applied Energy, 2015, 144, 1-9.	5.1	60
27	Power quality techniques research worldwide: A review. Renewable and Sustainable Energy Reviews, 2016, 54, 846-856.	8.2	60
28	The Electric Bicycle: Worldwide Research Trends. Energies, 2018, 11, 1894.	1.6	60
29	Improvement of efficiency through an energy management program as a sustainable practice in schools. Journal of Cleaner Production, 2016, 135, 794-805.	4.6	59
30	Sustainable Energy Based on Sunflower Seed Husk Boiler for Residential Buildings. Sustainability, 2018, 10, 3407.	1.6	59
31	An overview of energy balance compared to sustainable energy in United Arab Emirates. Renewable and Sustainable Energy Reviews, 2016, 55, 1195-1209.	8.2	55
32	The research on energy in Spain: A scientometric approach. Renewable and Sustainable Energy Reviews, 2014, 29, 173-183.	8.2	53
33	OpenZmeter: An Efficient Low-Cost Energy Smart Meter and Power Quality Analyzer. Sustainability, 2018, 10, 4038.	1.6	48
34	The Higher Education Sustainability through Virtual Laboratories: The Spanish University as Case of Study. Sustainability, 2018, 10, 4040.	1.6	47
35	Estimating the Optimum Tilt Angles for South-Facing Surfaces in Palestine. Energies, 2020, 13, 623.	1.6	47
36	Energy retrofit strategies for housing sector in the arid climate. Energy and Buildings, 2016, 131, 158-171.	3.1	45

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37	Plasmodium genomics: an approach for learning about and ending human malaria. Parasitology Research, 2019, 118, 1-27.	0.6	45
38	Energy Recovery from Waste Tires Using Pyrolysis: Palestine as Case of Study. Energies, 2020, 13, 1817.	1.6	45
39	Minimization of voltage deviation and power losses in power networks using Pareto optimization methods. Engineering Applications of Artificial Intelligence, 2010, 23, 695-703.	4.3	42
40	A Pareto-based multi-objective evolutionary algorithm for automatic rule generation in network intrusion detection systems. Soft Computing, 2013, 17, 255-263.	2.1	42
41	Mango stone properties as biofuel and its potential for reducing CO2 emissions. Journal of Cleaner Production, 2018, 190, 53-62.	4.6	42
42	An Open Hardware Design for Internet of Things Power Quality and Energy Saving Solutions. Sensors, 2019, 19, 627.	2.1	42
43	Solar greenhouse dryer system for wood chips improvement as biofuel. Journal of Cleaner Production, 2016, 135, 1233-1241.	4.6	41
44	The Role of Smart Contracts in Sustainability: Worldwide Research Trends. Sustainability, 2019, 11, 3049.	1.6	41
45	Worldwide research trends on desalination. Desalination, 2021, 519, 115305.	4.0	41
46	Towards forest sustainability in Mediterranean countries using biomass as fuel for heating. Journal of Cleaner Production, 2017, 156, 624-634.	4.6	40
47	A monitoring system for intensive agriculture based on mesh networks and the android system. Computers and Electronics in Agriculture, 2013, 99, 14-20.	3.7	39
48	Is the wind a periodical phenomenon? The case of Mexico. Renewable and Sustainable Energy Reviews, 2011, 15, 721-728.	8.2	38
49	Wind energy research in Mexico. Renewable Energy, 2018, 123, 719-729.	4.3	36
50	An active contour computer algorithm for the classification of cucumbers. Computers and Electronics in Agriculture, 2013, 92, 75-81.	3.7	35
51	Multi-objective crop planning using pareto-based evolutionary algorithms. Agricultural Economics (United Kingdom), 2011, 42, 649-656.	2.0	34
52	Energy benchmarking for shopping centers in Gulf Coast region. Energy Policy, 2016, 91, 247-255.	4.2	34
53	DNA Damage Repair System in Plants: A Worldwide Research Update. Genes, 2017, 8, 299.	1.0	33
54	The research of water use in Spain. Journal of Cleaner Production, 2016, 112, 4719-4732.	4.6	31

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55	Rooftop analysis for solar flat plate collector assessment to achieving sustainability energy. Journal of Cleaner Production, 2017, 148, 545-554.	4.6	31
56	Power Quality: Scientific Collaboration Networks and Research Trends. Energies, 2018, 11, 2067.	1.6	31
57	Integration of communication technologies in sensor networks to monitor the Amazon environment. Journal of Cleaner Production, 2013, 59, 32-42.	4.6	29
58	Worldwide Scientific Production Indexed by Scopus on Labour Relations. Publications, 2017, 5, 25.	1.9	29
59	A Multi-Level World Comprehensive Neural Network Model for Maximum Annual Solar Irradiation on a Flat Surface. Energies, 2020, 13, 6422.	1.6	29
60	Genetic algorithm for S-transform optimisation in the analysis and classification of electrical signal perturbations. Expert Systems With Applications, 2013, 40, 6766-6777.	4.4	28
61	Community detection in national-scale high voltage transmission networks using genetic algorithms. Advanced Engineering Informatics, 2018, 38, 232-241.	4.0	28
62	Controlled deficit irrigation for orange trees in Mediterranean countries. Journal of Cleaner Production, 2017, 162, 130-140.	4.6	27
63	Low-pressure sprinkler irrigation in maize: Differences in water distribution above and below the crop canopy. Agricultural Water Management, 2018, 203, 353-365.	2.4	27
64	The Significance of the Adaptive Thermal Comfort Practice over the Structure Retrofits to Sustain Indoor Thermal Comfort. Energies, 2021, 14, 2946.	1.6	26
65	A Parallel Multilevel Metaheuristic for Graph Partitioning. Journal of Heuristics, 2004, 10, 315-336.	1.1	25
66	Improving the climate safety of workers in Almería-type greenhouses in Spain by predicting the periods when they are most likely to suffer thermal stress. Applied Ergonomics, 2011, 42, 391-396.	1.7	25
67	Human parasitology worldwide research. Parasitology, 2018, 145, 699-712.	0.7	25
68	Intelligent low cost telecontrol system for agricultural vehicles in harmful environments. Journal of Cleaner Production, 2016, 113, 204-215.	4.6	24
69	Olive Cake Improvement for Bioenergy: the Drying Kinetics. International Journal of Green Energy, 2015, 12, 559-569.	2.1	23
70	Wireless surveillance system for greenhouse crops. DYNA (Colombia), 2014, 81, 164.	0.2	22
71	Urban design to achieving the sustainable energy of residential neighbourhoods in arid climate. Journal of Cleaner Production, 2019, 228, 135-152.	4.6	22
72	Multilevel Heuristic Algorithm for Graph Partitioning. Lecture Notes in Computer Science, 2003, , 143-153.	1.0	22

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73	Analysis of Research Topics and Scientific Collaborations in Renewable Energy Using Community Detection. Sustainability, 2018, 10, 4510.	1.6	21
74	Pareto-based evolutionary algorithms for the calculation of transformation parameters and accuracy assessment of historical maps. Computers and Geosciences, 2013, 57, 124-132.	2.0	20
75	Wind missing data arrangement using wavelet based techniques for getting maximum likelihood. Energy Conversion and Management, 2019, 185, 552-561.	4.4	19
76	Analysis of Research Topics and Scientific Collaborations in Energy Saving Using Bibliometric Techniques and Community Detection. Energies, 2019, 12, 2030.	1.6	18
77	Benchmarking Energy Use at University of Almeria (Spain). Sustainability, 2020, 12, 1336.	1.6	17
78	The Impact of Modern Artificial Lighting on the Optimum Window-to-Wall Ratio of Residential Buildings in Jordan. Applied Sciences (Switzerland), 2021, 11, 5888.	1.3	17
79	Assessment of the Potential of UAV Video Image Analysis for Planning Irrigation Needs of Golf Courses. Water (Switzerland), 2016, 8, 584.	1.2	15
80	Dielectric and Bioimpedance Research Studies: A Scientometric Approach Using the Scopus Database. Publications, 2018, 6, 6.	1.9	15
81	Analysis of power flow under non-sinusoidal conditions in the presence of harmonics and interharmonics using geometric algebra. International Journal of Electrical Power and Energy Systems, 2019, 111, 486-492.	3.3	15
82	Energy performance analytics and behavior prediction during unforeseen circumstances of retrofitted buildings in the arid climate. Energy Reports, 2021, 7, 6182-6195.	2.5	15
83	Date Seeds (Phoenix dactylifera L.) Valorization for Boilers in the Mediterranean Climate. Sustainability, 2019, 11, 711.	1.6	14
84	Energies and Its Worldwide Research. Energies, 2020, 13, 6700.	1.6	14
85	The Bibliometric Literature on Scopus and WoS: The Medicine and Environmental Sciences Categories as Case of Study. International Journal of Environmental Research and Public Health, 2021, 18, 5851.	1.2	14
86	A daily baseline model based on transfer functions for the verification of energy saving. A case study of the administration room at the Palacio de la Madraza, Granada. Applied Energy, 2018, 224, 538-549.	5.1	13
87	Proposed methodology for evaluation of small hydropower sustainability in a Mediterranean climate. Journal of Cleaner Production, 2019, 214, 717-729.	4.6	13
88	The Significance of Occupantsâ€™ Interaction with Their Environment on Reducing Cooling Loads and Dermatological Distresses in East Mediterranean Climates. International Journal of Environmental Research and Public Health, 2021, 18, 8870.	1.2	13
89	Quadrature Current Compensation in Non-Sinusoidal Circuits Using Geometric Algebra and Evolutionary Algorithms. Energies, 2019, 12, 692.	1.6	12
90	A new approach to single-phase systems under sinusoidal and non-sinusoidal supply using geometric algebra. Electric Power Systems Research, 2020, 189, 106605.	2.1	12

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91	Influence of the Advancement in the LED Lighting Technologies on the Optimum Windows-to-Wall Ratio of Jordanians Residential Buildings. <i>Energies</i> , 2021, 14, 5446.	1.6	12
92	The Identification of Scientific Communities and Their Approach to Worldwide Malaria Research. <i>International Journal of Environmental Research and Public Health</i> , 2018, 15, 2703.	1.2	11
93	Worldwide Research on Low Cost Technologies through Bibliometric Analysis. <i>Inventions</i> , 2020, 5, 9.	1.3	11
94	Vector Geometric Algebra in Power Systems: An Updated Formulation of Apparent Power under Non-Sinusoidal Conditions. <i>Mathematics</i> , 2021, 9, 1295.	1.1	11
95	Bibliometric Maps of BIM and BIM in Universities: A Comparative Analysis. <i>Sustainability</i> , 2019, 11, 4398.	1.6	10
96	Determination of Instantaneous Powers From a Novel Time-Domain Parameter Identification Method of Non-Linear Single-Phase Circuits. <i>IEEE Transactions on Power Delivery</i> , 2022, 37, 3608-3619.	2.9	10
97	The Effects of Soiling and Frequency of Optimal Cleaning of PV Panels in Palestine. <i>Energies</i> , 2022, 15, 4232.	1.6	10
98	Solar Reflector Materials Degradation Due to the Sand Deposited on the Backside Protective Paints. <i>Energies</i> , 2018, 11, 808.	1.6	9
99	Assessing the Orange Tree Crown Volumes Using Google Maps as a Low-Cost Photogrammetric Alternative. <i>Agronomy</i> , 2020, 10, 893.	1.3	9
100	Coatings in Photovoltaic Solar Energy Worldwide Research. <i>Coatings</i> , 2019, 9, 797.	1.2	8
101	Sustainable Thermal Energy Generation at Universities by Using Loquat Seeds as Biofuel. <i>Sustainability</i> , 2020, 12, 2093.	1.6	8
102	A New Electromechanical Analogy Approach Based on Electrostatic Coupling for Vertical Dynamic Analysis of Planar Vehicle Models. <i>IEEE Access</i> , 2021, 9, 119492-119502.	2.6	8
103	Comparative analysis of power variables in high performance embedded and x86 architectures using GNU/Linux. <i>Computers and Electrical Engineering</i> , 2011, 37, 541-549.	3.0	7
104	The assessment of evolutionary algorithms for analyzing the positional accuracy and uncertainty of maps. <i>Expert Systems With Applications</i> , 2014, 41, 6346-6360.	4.4	7
105	Simulation of power quality disturbances through the wavelet transform. , 2018, , .		7
106	Optimization Methods Applied to Power Systems. <i>Energies</i> , 2019, 12, 2302.	1.6	7
107	Evolutionary Algorithms for Community Detection in Continental-Scale High-Voltage Transmission Grids. <i>Symmetry</i> , 2019, 11, 1472.	1.1	7
108	Analysis of non-active power in non-sinusoidal circuits using geometric algebra. <i>International Journal of Electrical Power and Energy Systems</i> , 2020, 116, 105541.	3.3	7

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109	The Contribution of Spanish Science to Patents: Medicine as Case of Study. <i>International Journal of Environmental Research and Public Health</i> , 2020, 17, 3638.	1.2	7
110	zEnergy: An open source project for power quality assessment and monitoring. , 2011, , .		6
111	Annealing-tabu PAES: a multi-objective hybrid meta-heuristic. <i>Optimization</i> , 2011, 60, 1473-1491.	1.0	6
112	Multi-Objective Evolutionary Algorithms to Find Community Structures in Large Networks. <i>Mathematics</i> , 2020, 8, 2048.	1.1	6
113	Detection of Communities within the Multibody System Dynamics Network and Analysis of Their Relations. <i>Symmetry</i> , 2019, 11, 1525.	1.1	6
114	Formulating the geometric foundation of Clarke, Park, and FBD transformations by means of Clifford's geometric algebra. <i>Mathematical Methods in the Applied Sciences</i> , 2022, 45, 4252-4277.	1.2	6
115	Cooperative learning and electronic group portfolio: tutoring tools, development of competences and assessment. <i>International Journal of Learning Technology</i> , 2011, 6, 46.	0.2	5
116	Engaging students in computer-supported cooperative learning. <i>International Journal of Learning Technology</i> , 2013, 8, 297.	0.2	5
117	Genetic approach towards a vaccine against malaria. <i>European Journal of Clinical Microbiology and Infectious Diseases</i> , 2018, 37, 1829-1839.	1.3	5
118	Rampant Arch and Its Optimum Geometrical Generation. <i>Symmetry</i> , 2019, 11, 627.	1.1	5
119	Geometric Algebra Framework Applied to Symmetrical Balanced Three-Phase Systems for Sinusoidal and Non-Sinusoidal Voltage Supply. <i>Mathematics</i> , 2021, 9, 1259.	1.1	5
120	A Multi-Objective Evolutionary Algorithm for Network Intrusion Detection Systems. <i>Lecture Notes in Computer Science</i> , 2011, , 73-80.	1.0	4
121	A Hybrid Active Filter Using the Backstepping Controller for Harmonic Current Compensation. <i>Symmetry</i> , 2019, 11, 1161.	1.1	4
122	Basket-Handle Arch and Its Optimum Symmetry Generation as a Structural Element and Keeping the Aesthetic Point of View. <i>Symmetry</i> , 2019, 11, 1243.	1.1	4
123	Geometric Algebra in Nonsinusoidal Power Systems: A Case of Study for Passive Compensation. <i>Symmetry</i> , 2019, 11, 1287.	1.1	4
124	Energy Saving at Cities. <i>Energies</i> , 2020, 13, 3758.	1.6	4
125	Geometric Algebra Applied to Multiphase Electrical Circuits in Mixed Time-Frequency Domain by Means of Hypercomplex Hilbert Transform. <i>Mathematics</i> , 2022, 10, 1419.	1.1	4
126	Higher-order statistics for power systems: Effects of the sampling frequency on ergodicity. <i>Applied Mathematical Modelling</i> , 2016, 40, 6924-6933.	2.2	3



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127	Optimization of the Contracted Electric Power by Means of Genetic Algorithms. <i>Energies</i> , 2019, 12, 1270.	1.6	3
128	Optimizaci3n de Tensi3n en Redes de Distribuci3n utilizando T3cnicas de Optimizaci3n Evolutiva. <i>Informacion Tecnologica (discontinued)</i> , 2006, 17, .	0.1	3
129	Conversion of an existing electrostatic precipitator casing to Pulse Jet Fabric filter in fossil power plants. <i>DYNA (Colombia)</i> , 2016, 83, 189-197.	0.2	2
130	Symmetry in Engineering Sciences. <i>Symmetry</i> , 2019, 11, 797.	1.1	2
131	Worldwide Research Trends in the Recycling of Materials. , 2020, , 303-312.		2
132	Symmetry in Engineering Sciences II. <i>Symmetry</i> , 2020, 12, 1077.	1.1	2
133	Geometric Algebra for teaching AC Circuit Theory. <i>International Journal of Circuit Theory and Applications</i> , 2021, 49, 3473-3487.	1.3	2
134	Worldwide research trends on hydropower. , 2021, , 249-280.		2
135	Cryptanalysis of Hash Functions Using Advanced Multiprocessing. <i>Advances in Intelligent and Soft Computing</i> , 2010, , 221-228.	0.2	1
136	A MATLAB application for monitoring the operation and power quality of electrical machines. , 2018, , .		1
137	Environmental Energy Sustainability at Universities. <i>Sustainability</i> , 2020, 12, 9219.	1.6	1
138	Electronics and Its Worldwide Research. <i>Electronics (Switzerland)</i> , 2020, 9, 977.	1.8	1
139	Multi-Objective Evolutionary Algorithms Used in Greenhouse Planning for Recycling Biomass into Energy. <i>Advances in Intelligent and Soft Computing</i> , 2010, , 463-470.	0.2	1
140	Wave energy resource assessment at southern coast of the Gulf of Mexico. <i>DYNA (Colombia)</i> , 2015, 82, 49-55.	0.2	1
141	Geometric Power and Poynting Vector: a Physical Derivation for Harmonic Power Flow using Geometric Algebra. , 2022, , .		1
142	Open source tool for energy saving and efficient system management. , 2011, , .		0
143	Worldwide trends in energy market research. , 2021, , 277-292.		0
144	Worldwide Research Trends on Smart Homes. <i>Power Systems</i> , 2021, , 1-31.	0.3	0

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145	Worldwide Research Trends on Hazardous Waste. , 2020, , 1-17.		0
146	Transfer of parasitology research to patents worldwide. Acta Tropica, 2022, 232, 106532.	0.9	0
147	Load Disaggregation Through Particle Filtering of Harmonic Features. , 2022, , .		0