Nicu Bizon

List of Publications by Year in Descending Order

152 papers	1,967 citations	29 h-index	40 g-index
195 ext. papers	2,578 ext. citations	4.6 avg, IF	6.55 L-index

#	Paper	IF	Citations
152	Implementation of a Signal Pre-processing, Processing and Analysis System for Nuclear Quadrupole Resonance. *Signals and Communication Technology*, **2022**, 153-175	0.5	
151	Analysis of Nuclear Quadrupole Resonance Response Signals. *Signals and Communication Technology*, **2022**, 95-107	0.5	
150	Design, Modeling, and Model-Free Control of Permanent Magnet-Assisted Synchronous Reluctance Motor for e-Vehicle Applications. *Sustainability*, **2022**, 14, 5423	3.6	
149	Application of Fractional-Order PI Controllers and Neuro-Fuzzy PWM Technique to Multi-Rotor Wind Turbine Systems. *Electronics (Switzerland)*, **2022**, 11, 1340	2.6	1
148	Simplified Super Twisting Sliding Mode Approaches of the Double-Powered Induction Generator-Based Multi-Rotor Wind Turbine System. *Sustainability*, **2022**, 14, 5014	3.6	0
147	Developing a Generalized Multi-Level Inverter with Reduced Number of Power Electronics Components. *Sustainability*, **2022**, 14, 5545	3.6	1
146	Direct Power Control Based on Modified Sliding Mode Controller for a Variable-Speed Multi-Rotor Wind Turbine System Using PWM Strategy. *Energies*, **2022**, 15, 3689	3.1	0
145	A Theoretical Terahertz Metamaterial Absorber Structure with a High Quality Factor Using Two Circular Ring Resonators for Biomedical Sensing. *Inventions*, **2021**, 6, 78	2.9	3
144	A Comprehensive Review of the Evolution of Networked Control System Technology and Its Future Potentials. *Sustainability*, **2021**, 13, 2962	3.6	3
143	A New Active Control Driver Circuit for Satellite Torquer System Using Second Generation Current Conveyor. *Electronics (Switzerland)*, **2021**, 10, 911	2.6	1
142	Intelligent charging station in 5G environments: Challenges and perspectives. *International Journal of Energy Research*, **2021**, 45, 16418-16435	4.5	3
141	An Optimized Triggering Algorithm for Event-Triggered Control of Networked Control Systems. *Mathematics*, **2021**, 9, 1262	2.3	2
140	Electronically Tunable Full Wave Precision Rectifier Using DVCCTAs. *Electronics (Switzerland)*, **2021**, 10, 1262	2.6	0
139	A Comprehensive Risk Assessment Framework for Synchrophasor Communication Networks in a Smart Grid Cyber Physical System with a Case Study. *Energies*, **2021**, 14, 3428	3.1	2
138	A Synergetic Sliding Mode Controller Applied to Direct Field-Oriented Control of Induction Generator-Based Variable Speed Dual-Rotor Wind Turbines. *Energies*, **2021**, 14, 4437	3.1	11
137	An Improved Particle Swarm Optimization Technique and its Application in Load Frequency Control **2021**,		3
136	A Terahertz Metamaterial Absorber Based Refractive Index Sensor with High Quality Factor **2021**,		1

135	Design and Implementation of a Maximum Power Point Tracking System for a Piezoelectric Wind Energy Harvester Generating High Harmonicity. *Sustainability*, **2021**, 13, 7709	3.6	1
134	. *IEEE Transactions on Sustainable Energy*, **2021**, 12, 1500-1511	8.2	4
133	Improved Adaptive Hamiltonian Control Law for Constant Power Load Stability Issue in DC Microgrid: Case Study for Multiphase Interleaved Fuel Cell Boost Converter. *Sustainability*, **2021**, 13, 8093	3.6	
132	Design and control of multiphase interleaved boost converters-based on differential flatness theory for PEM fuel cell multi-stack applications. *International Journal of Electrical Power and Energy Systems*, **2021**, 124, 106346	5.1	9
131	Design and Energy Analysis for Fuel Cell Hybrid Electric Vehicle. *Power Systems*, **2021**, 707-733	0.4	
130	Optimal energy management strategies for the electric vehicles compiling bibliometric maps. *International Journal of Energy Research*, **2021**, 45, 10129-10172	4.5	8
129	Hybrid Gravitational Firefly Algorithm-Based Load Frequency Control for Hydrothermal Two-Area System. *Mathematics*, **2021**, 9, 712	2.3	9
128	A Simple and Safe Strategy for Improving the Fuel Economy of a Fuel Cell Vehicle. *Mathematics*, **2021**, 9, 604	2.3	2
127	Load Frequency Control Using Hybrid Intelligent Optimization Technique for Multi-Source Power Systems. *Energies*, **2021**, 14, 1581	3.1	12
126	Multi-Objective Energy Management Strategy for PV/FC Hybrid Power Systems. *Electronics (Switzerland)*, **2021**, 10, 1721	2.6	
125	A Three-Phase Resonant Boost Inverter Fed Brushless DC Motor Drive for Electric Vehicles. *Electronics (Switzerland)*, **2021**, 10, 1799	2.6	0
124	A brief review of sensorless motors position control **2021**,		1
123	Design, Modeling, and Differential Flatness Based Control of Permanent Magnet-Assisted Synchronous Reluctance Motor for e-Vehicle Applications. *Sustainability*, **2021**, 13, 9502	3.6	3
122	Terminal Synergetic Control for Direct Active and Reactive Powers in Asynchronous Generator-Based Dual-Rotor Wind Power Systems. *Electronics (Switzerland)*, **2021**, 10, 1880	2.6	10
121	State-of-the-Art Review on IoT Threats and Attacks: Taxonomy, Challenges and Solutions. *Sustainability*, **2021**, 13, 9463	3.6	5
120	Third-Order Sliding Mode Applied to the Direct Field-Oriented Control of the Asynchronous Generator for Variable-Speed Contra-Rotating Wind Turbine Generation Systems. *Energies*, **2021**, 14, 5877	3.1	7
119	Advanced Direct Vector Control Method for Optimizing the Operation of a Double-Powered Induction Generator-Based Dual-Rotor Wind Turbine System. *Mathematics*, **2021**, 9, 2403	2.3	7
118	Improved Rotor Flux and Torque Control Based on the Third-Order Sliding Mode Scheme Applied to the Asynchronous Generator for the Single-Rotor Wind Turbine. *Mathematics*, **2021**, 9, 2297	2.3	10

117	Fuel Cell Electric Vehicles: A Brief Review of Current Topologies and Energy Management Strategies. *Energies*, **2021**, 14, 252	3.1	49
116	LI-Care: A LabVIEW and IoT Based eHealth Monitoring System. *Electronics (Switzerland)*, **2021**, 10, 3137	2.6	1
115	Efficient and Secure Strategy for Energy Systems of Interconnected Farmers? Associations to Meet Variable Energy Demand. *Mathematics*, **2020**, 8, 2182	2.3	3
114	The design of the graphical interface for the SCADA system on an industrial platform **2020**,		1
113	Performance of the load-following control switched to the air and hydrogen regulators of the fuel cell system **2020**,		1
112	Differential Flatness-Based Cascade Energy/Current Control of Battery/Supercapacitor Hybrid Source for Modern e-Vehicle Applications. *Mathematics*, **2020**, 8, 704	2.3	9
111	Differential Flatness Based-Control Strategy of a Two-Port Bidirectional Supercapacitor Converter for Hydrogen Mobility Applications. *Energies*, **2020**, 13, 2794	3.1	4
110	. *IEEE Transactions on Transportation Electrification*, **2020**, 6, 519-529	7.6	16
109	Implementing Blockchain Technology in Irrigation Systems That Integrate Photovoltaic Energy Generation Systems. *Sustainability*, **2020**, 12, 1540	3.6	14
108	Optimization of the Fuel Cell Renewable Hybrid Power Systems. *Green Energy and Technology*, **2020** ,	0.6	5
107	Energy Efficiency and Fuel Economy of a Fuel Cell/Renewable Energy Sources Hybrid Power System with the Load-Following Control of the Fueling Regulators. *Mathematics*, **2020**, 8, 151	2.3	18
106	An Optimization Model for the Temporary Locations of Mobile Charging Stations. *Mathematics*, **2020**, 8, 453	2.3	14
105	Hybrid Power Systems. *Green Energy and Technology*, **2020**, 17-55	0.6	1
104	Global Extremum Seeking Algorithms. *Green Energy and Technology*, **2020**, 107-184	0.6	
103	Fuel Economy Maximization Strategies. *Green Energy and Technology*, **2020**, 243-284	0.6	
102	Design and control of permanent magnet assisted synchronous reluctance motor with copper loss minimization using MTPA. *Journal of Electrical Engineering*, **2020**, 71, 11-19	0.6	9
101	Energy Management of the Grid-Connected PV Array. *Power Systems*, **2020**, 255-288	0.4	
100	Mitigation of Energy Variability in Renewable/Fuel Cell Hybrid Power Systems. *Green Energy and Technology*, **2020**, 303-332	0.6	

99	Fuel Cell Net Power Maximization Strategies. *Green Energy and Technology*, **2020**, 185-241	0.6	
98	Energy Harvesting from the Partially Shaded Photovoltaic Systems. *Green Energy and Technology*, **2020**, 285-301	0.6	
97	PV Microgrids Efficiency: From Nanomaterials and Semiconductor Polymer Technologies for PV Cells to Global MPPT Control for PV Arrays. *Power Systems*, **2020**, 289-325	0.4	1
96	Optimization Algorithms and Energy Management Strategies. *Green Energy and Technology*, **2020**, 57-105	0.6	2
95	An optimized NQR spectrometer for detection of prohibited substances. *Measurement: Journal of the International Measurement Confederation*, **2020**, 151, 107158	4.6	7
94	Comparative study regarding the integration of photovoltaic sources in agriculture **2020**,		1
93	Adaptive Control of Fuel Cell Converter Based on a New Hamiltonian Energy Function for Stabilizing the DC Bus in DC Microgrid Applications. *Mathematics*, **2020**, 8, 2035	2.3	6
92	Efficient Operation of the Hybrid Power System Using an Optimal Fueling Strategy and Control of the Fuel Cell Power Based on the Required Power Tracking Algorithm. *Sustainability*, **2020**, 12, 9690	3.6	1
91	Renewable/Fuel Cell Hybrid Power System Operation Using Two Search Controllers of the Optimal Power Needed on the DC Bus. *Energies*, **2020**, 13, 6111	3.1	3
90	Improving the Fuel Economy and Battery Lifespan in Fuel Cell/Renewable Hybrid Power Systems Using the Power-Following Control of the Fueling Regulators. *Applied Sciences (Switzerland)*, **2020**, 10, 8310	2.6	2
89	Reducing the Cost of Electricity by Optimizing Real-Time Consumer Planning Using a New Genetic Algorithm-Based Strategy. *Mathematics*, **2020**, 8, 1144	2.3	5
88	Energy management strategies for hybrid electric vehicles - vosviwer bibliometric analysis **2020**,		2
87	Overview of Microgrid. *Power Systems*, **2020**, 3-19	0.4	3
86	Power Quality Issues and Mitigation Techniques in Microgrid. *Power Systems*, **2020**, 719-748	0.4	2
85	Control and Protection of the Smart Microgrids Using Internet of Things: Technologies, Architecture and Applications. *Power Systems*, **2020**, 749-770	0.4	3
84	Design and Experimental Investigations of an Energy Storage System in Microgrids. *Power Systems*, **2020**, 207-232	0.4	2
83	Sensitivity analysis of the fuel economy strategy based on load-following control of the fuel cell hybrid power system. *Energy Conversion and Management*, **2019**, 199, 111946	10.6	12
82	Software and hardware solutions for Using the keyboards by blind people **2019**,		2

81	Hydrogen saving through optimized control of both fueling flows of the Fuel Cell Hybrid Power System under a variable load demand and an unknown renewable power profile. *Energy Conversion and Management*, **2019**, 184, 1-14	10.6	18
80	Hybrid power sources (HPSs) for space applications: Analysis of PEMFC/Battery/SMES HPS under unknown load containing pulses. *Renewable and Sustainable Energy Reviews*, **2019**, 105, 14-37	16.2	18
79	Optimization of the Fuel Cell Renewable Hybrid Power System Using the Control Mode of the Required Load Power on the DC Bus. *Energies*, **2019**, 12, 1889	3.1	14
78	Fuel saving strategy using real-time switching of the fueling regulators in the proton exchange membrane fuel cell system. *Applied Energy*, **2019**, 252, 113449	10.7	15
77	Efficient fuel economy strategies for the Fuel Cell Hybrid Power Systems under variable renewable/load power profile. *Applied Energy*, **2019**, 251, 113400	10.7	21
76	Real-time optimization strategies of Fuel Cell Hybrid Power Systems based on Load-following control: A new strategy, and a comparative study of topologies and fuel economy obtained. *Applied Energy*, **2019**, 241, 444-460	10.7	40
75	Issues in Securing Critical Infrastructure Networks for Smart Grid Based on SCADA, Other Industrial Control and Communication Systems. *Power Systems*, **2019**, 289-324	0.4	
74	Malicious and Deliberate Attacks and Power System Resiliency. *Power Systems*, **2019**, 223-246	0.4	3
73	Better Fuel Economy by Optimizing Airflow of the Fuel Cell Hybrid Power Systems Using Fuel Flow-Based Load-Following Control. *Energies*, **2019**, 12, 2792	3.1	6
72	Permanent Magnet Synchronous Motor Dynamic Modeling with State Observer-based Parameter Estimation for AC Servomotor Drive Application **2019**, 12,		9
71	Model Based Control of Battery/Supercapacitor Hybrid Source for Modern e-Vehicle **2019**,		1
70	Model-Free Control of Multiphase Interleaved Boost Converter for Fuel Cell/Reformer Power Generation **2019**,		4
69	Model Free-Based Torque Control of Permanent Magnet Synchronous Motor Drives **2019**,		1
68	Study of Hamiltonian Energy Control of Multiphase Interleaved Fuel Cell Boost Converter **2019**,		3
67	The Use of Nuclear Quadrupole Resonance Spectroscopy for Detection of Prohibited Substances: Techniques and Equipment **2019**,		5
66	Cyber Security Objectives and Requirements for Smart Grid. *Engergy Systems in Electrical Engineering*, **2019**, 607-634	0.3	1
65	Hydrogen economy of the fuel cell hybrid power system optimized by air flow control to mitigate the effect of the uncertainty about available renewable power and load dynamics. *Energy Conversion and Management*, **2019**, 179, 152-165	10.6	33
64	Optimization of the proton exchange membrane fuel cell hybrid power system for residential buildings. *Energy Conversion and Management*, **2018**, 163, 22-37	10.6	47

63	Nonlinear Differential Flatness-Based Speed/Torque Control With State-Observers of Permanent Magnet Synchronous Motor Drives. *IEEE Transactions on Industry Applications*, **2018**, 54, 2874-2884	4.3	22
62	Optimal operation of fuel cell/wind turbine hybrid power system under turbulent wind and variable load. *Applied Energy*, **2018**, 212, 196-209	10.7	35
61	Analytical and experimental studies on a new linear energy harvester. *Canadian Journal of Physics*, **2018**, 96, 727-733	1.1	3
60	Robust Flatness Control with Extended Luenberger Observer for PMSM Drive **2018**,		4
59	Effective mitigation of the load pulses by controlling the battery/SMES hybrid energy storage system. *Applied Energy*, **2018**, 229, 459-473	10.7	39
58	Fuel economy using the global optimization of the Fuel Cell Hybrid Power Systems. *Energy Conversion and Management*, **2018**, 173, 665-678	10.6	47
57	Real-time strategies to optimize the fueling of the fuel cell hybrid power source: A review of issues, challenges and a new approach. *Renewable and Sustainable Energy Reviews*, **2018**, 91, 1089-1102	16.2	43
56	Real-time optimization strategy for fuel cell hybrid power sources with load-following control of the fuel or air flow. *Energy Conversion and Management*, **2018**, 157, 13-27	10.6	56
55	Renewable (REW) / Fuel Cell (FC) Hybrid Power System with mitigation of the REW variability by the FC fuel flow control **2018**,		1
54	Modeling an ANN-based control for optimal operation of PEMFC systems **2018**,		1
53	Fuel Cell (FC) Hybrid Power System with mitigation of the load power variability by the FC fuel flow control **2018**,		1
52	Blockchain Technology Applied in Health The Study of Blockchain Application in the Health System (II) **2018**,		6
51	Experimental Comparison of Three Real-Time Optimization Strategies Applied to Renewable/ FC-Based Hybrid Power Systems Based on Load-Following Control. *Energies*, **2018**, 11, 3537	3.1	9
50	ICT based Smart Management Solution to Realize Water and Energy Savings through Energy Efficiency Measures in Water Distribution Systems **2018**,		2
49	Air Flow Real-time Optimization Strategy for Fuel Cell Hybrid Power Sources with Fuel Flow Based on Load-following. *Fuel Cells*, **2018**, 18, 809-823	2.9	14
48	Robust Flatness-based Control with State Observer-Based Parameter Estimation for PMSM Drive **2018**,		6
47	Performance analysis of the tracking of the global extreme on multimodal patterns using the Asymptotic Perturbed Extremum Seeking Control scheme. *International Journal of Hydrogen Energy* , **2017**, 42, 17645-17654	6.7	35
46	Designing and modelling of the asymptotic perturbed extremum seeking control scheme for tracking the global extreme. *International Journal of Hydrogen Energy*, **2017**, 42, 17632-17644	6.7	38

45	Communications for Electric Power System. *Power Systems*, **2017**, 547-559	0.4	1
44	SCADA Applications for Electric Power System. *Power Systems*, **2017**, 561-609	0.4	5
43	Searching of the extreme points on photovoltaic patterns using a new Asymptotic Perturbed Extremum Seeking Control scheme. *Energy Conversion and Management*, **2017**, 144, 286-302	10.6	31
42	Energy Efficiency of PEM Fuel Cell Hybrid Power Source. *Lecture Notes in Energy*, **2017**, 371-391	0.4	3
41	Energy optimization of fuel cell system by using global extremum seeking algorithm. *Applied Energy*, **2017**, 206, 458-474	10.7	56
40	Design of hybrid power systems using HOMER simulator for different renewable energy sources **2017**,		16
39	Real-time strategy to optimize the airflow rate of fuel cell hybrid power source under variable load cycle **2017**,		9
38	Real-time strategy to optimize the fuel flow rate of fuel cell hybrid power source under variable load cycle **2017**,		11
37	Differential Flatness-Based Control of Current/Voltage Stabilization for a Single-Phase PFC with Multiphase Interleaved Boost Converters **2017**,		6
36	Energy Harvesting from the Fuel Cell Hybrid Power Source Based on Extremum Seeking Control Schemes. *Lecture Notes in Energy*, **2017**, 329-370	0.4	1
35	Energy Harvesting from the Photovoltaic Hybrid Power Source Based on Extremum Seeking Control Schemes. *Lecture Notes in Energy*, **2017**, 143-176	0.4	0
34	**2016**,		2
33	Global Maximum Power Point Tracking (GMPPT) of Photovoltaic array using the Extremum Seeking Control (ESC): A review and a new GMPPT ESC scheme. *Renewable and Sustainable Energy Reviews*, **2016**, 57, 524-539	16.2	59
32	Global Extremum Seeking Control of the power generated by a Photovoltaic Array under Partially Shaded Conditions. *Energy Conversion and Management*, **2016**, 109, 71-85	10.6	64
31	Control of High-Energy High-Power Densities Storage Devices by Li-ion Battery and Supercapacitor for Fuel Cell/Photovoltaic Hybrid Power Plant for Autonomous System Applications. *IEEE Transactions on Industry Applications*, **2016**, 52, 4395-4407	4.3	66
30	Global maximum power point tracking based on new extremum seeking control scheme. *Progress in Photovoltaics: Research and Applications*, **2016**, 24, 600-622	6.8	29
29	Energy control strategies for the Fuel Cell Hybrid Power Source under unknown load profile. *Energy* , **2015**, 86, 31-41	7.9	40
28	Efficient energy control strategies for a Standalone Renewable/Fuel Cell Hybrid Power Source. *Energy Conversion and Management*, **2015**, 90, 93-110	10.6	110

27	Model based control of modified four-phase interleaved boost converter for fuel cell power source for mobile based station **2015**,		6
26	Load-following mode control of a standalone renewable/fuel cell hybrid power source. *Energy Conversion and Management*, **2014**, 77, 763-772	10.6	82
25	Improving the PEMFC energy efficiency by optimizing the fueling rates based on extremum seeking algorithm. *International Journal of Hydrogen Energy*, **2014**, 39, 10641-10654	6.7	46
24	Tracking the maximum efficiency point for the FC system based on extremum seeking scheme to control the air flow. *Applied Energy*, **2014**, 129, 147-157	10.7	32
23	Preventing reactant starvation of a 5 kW PEM fuel cell stack during sudden load change **2014**,		4
22	On the search speed for the Extremum Seeking Control 2D-schemes. Part I - signal processing using orthogonal dither signals **2013**,		1
21	On the search speed for the Extremum Seeking Control 2D-schemes. Part II - performances estimation **2013**,		2
20	Energy efficiency for the multiport power converters architectures of series and parallel hybrid power source type used in plug-in/V2G fuel cell vehicles. *Applied Energy*, **2013**, 102, 726-734	10.7	43
19	Energy harvesting from the FC stack that operates using the MPP tracking based on modified extremum seeking control. *Applied Energy*, **2013**, 104, 326-336	10.7	35
18	Energy harvesting from the PV Hybrid Power Source. *Energy*, **2013**, 52, 297-307	7.9	24
17	FC energy harvesting using the MPP tracking based on advanced extremum seeking control. *International Journal of Hydrogen Energy*, **2013**, 38, 1952-1966	6.7	26
16	Analysis, Control and Optimal Operations in Hybrid Power Systems. *Green Energy and Technology*, **2013**,	0.6	10
15	Overview of Hybrid Power System. *Green Energy and Technology*, **2013**, 1-39	0.6	
14	Applications in Control of the Hybrid Power Systems. *Green Energy and Technology*, **2013**, 227-290	0.6	2
13	Energy efficiency of multiport power converters used in plug-in/V2G fuel cell vehicles. *Applied Energy*, **2012**, 96, 431-443	10.7	41
12	Nonlinear control of fuel cell hybrid power sources: Part I – Voltage control. *Applied Energy*, **2011**, 88, 2559-2573	10.7	34
11	Nonlinear control of fuel cell hybrid power sources: Part II – Current control. *Applied Energy*, **2011**, 88, 2574-2591	10.7	38
10	A new topology of fuel cell hybrid power source for efficient operation and high reliability. *Journal of Power Sources*, **2011**, 196, 3260-3270	8.9	33

9	On tracking robustness in adaptive extremum seeking control of the fuel cell power plants. *Applied Energy*, **2010**, 87, 3115-3130	10.7	63
8	Intelligent Control of the Energy Generation Systems **2010**, 40-96		
7	Fuzzy interpolation of the average signal steps **2009**,		2
6	Fuzzy bang-bang control of a switching voltage regulator **2008**,		1
5	Fuel cell current ripple minimization using a bi-buck power interface **2008**,		2
4	Energy generation system behaviour using a clocked fuzzy peak current control **2007**,		1
3	Fuzzy Gain Control for the Control Action of a Time Delay Processes. *IFAC Postprint Volumes IPPV / International Federation of Automatic Control*, **1998**, 31, 643-648		
2	Fuzzy 3D Interpolation - Zero Level. *IFAC Postprint Volumes IPPV / International Federation of Automatic Control*, **1997**, 30, 339-344		
1	Design and fabrication of a new micro-power scaled electromagnetic harvester. *Journal of Energy Systems*,51-66	0.8	2