Silvio Simani

List of Publications by Year
in descending order

79 papers	1,349 citations	331670 21 h-index	377865 34 g-index
96 all docs	96 docs citations	96 times ranked	1097 citing authors

#	Article	IF	Citations
1	Control Strategy Applied to Smart Photovoltaic Inverters for Reactive Power Exchange Through Volt-Var Control to Improve Voltage Quality in Electrical Distribution Networks. Smart Innovation, Systems and Technologies, 2022, , 357-366.	0.6	2
2	Wind Turbine Pitch Actuator Regulation for Efficient and Reliable Energy Conversion: A Fault-Tolerant Constrained Control Solution. Actuators, 2022, 11, 102.	2.3	2
3	Application of Data–Driven Fault Diagnosis Design Techniques to a Wind Turbine Test–Rig. Lecture Notes in Networks and Systems, 2021, , 23-38.	0.7	0
4	Fuzzy PID Control System Analysis for a Wind Turbine Maximum Power Point Tracking Using FAST and Matlab Simulink. Smart Innovation, Systems and Technologies, 2021, , 905-917.	0.6	4
5	A novel algorithm for high compression rates focalized on electrical power quality signals. Heliyon, 2021, 7, e06475.	3.2	4
6	Decoupling Adaptive Sliding Mode Observer Design for Wind Turbines Subject to Simultaneous Faults in Sensors and Actuators. IEEE/CAA Journal of Automatica Sinica, 2021, 8, 837-847.	13.1	35
7	Fuzzy and Neural Network Approaches to Wind Turbine Fault Diagnosis. Applied Sciences (Switzerland), 2021, 11, 5035.	2.5	9
8	Automatic Overcurrent Protection Coordination after Distribution Network Reconfiguration Based on Peer-To-Peer Communication. Energies, 2021, 14, 3253.	3.1	12
9	Advanced Control Design and Fault Diagnosis. Energies, 2021, 14, 5699.	3.1	2
10	Development of a personalized thermal comfort driven controller for HVAC systems. Energy, 2021, 237, 121568.	8.8	28
11	Direct Speed Control Scheme for Maximum Power Point Tracking of a 1.5MW DFIG Wind Turbine. Smart Innovation, Systems and Technologies, 2021, , 918-928.	0.6	0
12	Fault Diagnosis and Fault-Tolerant Control for Avionic Systems. Advances in Intelligent Systems and Computing, 2021, , 191-201.	0.6	0
13	Simulation and Experimental Validation of Fuzzy Control Techniques for Wind Turbine System and Hydroelectric Plant. , 2021, , .		0
14	Design and Validation of a Fault Tolerant Fuzzy Control for a Wind Park High–Fidelity Simulator. , 2021, , .		0
15	A Review on Optimal Control for the Smart Grid Electrical Substation Enhancing Transition Stability. Energies, 2021, 14, 8451.	3.1	17
16	LEO satellite active FTC with aerodynamic disturbance decoupled fault diagnosis. European Journal of Control, 2020, 51, 76-94.	2.6	6
17	Optimal Distribution Network Planning applying Heuristic Algorithms Considering allocation of PV Rooftop Generation. , 2020, , .		6
18	Fuzzy Control Techniques for Energy Conversion Systems. Advances in Intelligent Systems and Computing, 2020, , 943-955.	0.6	1

#	Article	IF	Citations
19	Fault diagnosis and fault‐tolerant control in aerospace systems. International Journal of Robust and Nonlinear Control, 2019, 29, 5291-5292.	3.7	10
20	Adaptive square-root unscented Kalman filter: An experimental study of hydraulic actuator state estimation. Mechanical Systems and Signal Processing, 2019, 132, 670-691.	8.0	38
21	Planning of a Resilient Underground Distribution Network Using Georeferenced Data. Energies, 2019, 12, 644.	3.1	27
22	Fuzzy Control Techniques for Energy Conversion Systems: Wind Turbine and Hydroelectric Plants. , 2019, , .		1
23	Optimal Routing an Ungrounded Electrical Distribution System Based on Heuristic Method with Micro Grids Integration. Sustainability, 2019, 11, 1607.	3.2	15
24	Data-Driven Control Techniques for Renewable Energy Conversion Systems: Wind Turbine and Hydroelectric Plants. Electronics (Switzerland), 2019, 8, 237.	3.1	3
25	Intelligent Fault Diagnosis Techniques Applied to an Offshore Wind Turbine System. Applied Sciences (Switzerland), 2019, 9, 783.	2.5	14
26	Fault-Tolerant Neuro Adaptive Constrained Control of Wind Turbines for Power Regulation with Uncertain Wind Speed Variation. Energies, 2019, 12, 4712.	3.1	9
27	Fuzzy Control Techniques Applied to Wind Turbine Systems and Hydroelectric Plants. , 2019, , .		3
28	Novel Non-Model-Based Fault Detection and Isolation of Satellite Reaction Wheels Based on a Mixed-Learning Fusion Framework. IFAC-PapersOnLine, 2019, 52, 194-199.	0.9	8
29	Reliability improvement of wind turbine power generation using model-based fault detection and fault tolerant control: A review. Renewable Energy, 2019, 135, 877-896.	8.9	124
30	Self-Tuning Control Techniques for Wind Turbine and Hydroelectric Plant Systems. Journal of Power and Energy Engineering, 2019, 07, 27-61.	0.6	3
31	Adaptive Signal Processing Strategy for a Wind Farm System Fault Accommodation. IFAC-PapersOnLine, 2018, 51, 52-59.	0.9	3
32	Fault Diagnosis of a Wind Turbine Simulated Model via Neural Networks. IFAC-PapersOnLine, 2018, 51, 381-388.	0.9	5
33	Active Fault Tolerant Control of a Wind Farm System. IFAC-PapersOnLine, 2018, 51, 1119-1126.	0.9	0
34	Development of a physics-based model to predict the performance of pumps as turbines. Applied Energy, 2018, 231, 343-354.	10.1	32
35	Robust Control Examples Applied to a Wind Turbine Simulated Model. Applied Sciences (Switzerland), 2018, 8, 29.	2.5	6
36	Fault Tolerant Control for Wind Turbine Systems. , 2018, , 77-104.		0

#	Article	IF	Citations
37	Comparison of Different Approaches to Predict the Performance of Pumps As Turbines (PATs). Energies, 2018, 11, 1016.	3.1	13
38	Robust Control Applications to a Wind Turbine-Simulated System. , 2018, , .		0
39	Data–Driven Techniques for the Fault Diagnosis of a Wind Turbine Benchmark. International Journal of Applied Mathematics and Computer Science, 2018, 28, 247-268.	1.5	19
40	Adaptive signal processing strategy for a wind farm system fault accommodation. , 2017, , .		1
41	Avionic Air Data Sensors Fault Detection and Isolation by means of Singular Perturbation and Geometric Approach. Sensors, 2017, 17, 2202.	3.8	14
42	Performance Analysis of Data-Driven and Model-Based Control Strategies Applied to a Thermal Unit Model. Energies, 2017, 10, 67.	3.1	10
43	Data–Driven Fault Diagnosis of a Wind Farm Benchmark Model. Energies, 2017, 10, 866.	3.1	13
44	Energy Production by Means of Pumps As Turbines in Water Distribution Networks. Energies, 2017, 10, 1666.	3.1	25
45	Fault tolerant control of a simulated hydroelectric system. Control Engineering Practice, 2016, 51, 13-25.	5.5	29
46	Fault tolerant model predictive control applied to a simulated hydroelectric system. , 2016, , .		3
47	Adaptive nonlinear filters for joint fault estimation and accommodation of a wind farm benchmark. , 2016, , .		0
48	Fault diagnosis and fault tolerant control strategies for aerospace systems. , 2016, , .		1
49	Overview of Modelling and Advanced Control Strategies for Wind Turbine Systems. Energies, 2015, 8, 13395-13418.	3.1	35
50	Wind turbine simulator fault diagnosis via fuzzy modelling and identification techniques. Sustainable Energy, Grids and Networks, 2015, 1, 45-52.	3.9	22
51	Data–Driven Design of a Fault Tolerant Fuzzy Controller for a Simulated Hydroelectric System. IFAC-PapersOnLine, 2015, 48, 1090-1095.	0.9	7
52	Overview of modelling and control strategies for wind turbines and wave energy devices: Comparisons and contrasts. Annual Reviews in Control, 2015, 40, 27-49.	7.9	29
53	Fault Diagnosis of a Wind Turbine Benchmark via Identified Fuzzy Models. IEEE Transactions on Industrial Electronics, 2015, 62, 3775-3782.	7.9	89
54	Residual Generator Fuzzy Identification for Wind TurbineBenchmark Fault Diagnosis. Machines, 2014, 2, 275-298.	2.2	9

#	Article	IF	Citations
55	A new aerodynamic decoupled frequential FDIR methodology for satellite actuator faults. International Journal of Adaptive Control and Signal Processing, 2014, 28, 812-832.	4.1	17
56	Active actuator fault–tolerant control of a wind turbine benchmark model. International Journal of Robust and Nonlinear Control, 2014, 24, 1283-1303.	3.7	80
57	Fault tolerant control design for a wind farm benchmark via fuzzy modelling and identification. , 2014, , .		2
58	Fault tolerant control of an offshore wind turbine model via identified fuzzy prototypes. , 2014, , .		6
59	Differential geometry based active fault tolerant control for aircraft. Control Engineering Practice, 2014, 32, 227-235.	5.5	73
60	Active fault tolerant control of wind turbines using identified nonlinear filters. , 2013, , .		3
61	Data-driven and adaptive control applications to a wind turbine benchmark model. Control Engineering Practice, 2013, 21, 1678-1693.	5.5	45
62	Robust actuator fault diagnosis of a wind turbine benchmark model. , 2013, , .		1
63	Residual generator fuzzy identification for automotive diesel engine fault diagnosis. International Journal of Applied Mathematics and Computer Science, 2013, 23, 419-438.	1.5	14
64	Identification–Oriented Control Designs with Application to a Wind Turbine Benchmark. International Journal of Advanced Computer Science and Applications, 2013, 4, .	0.7	4
65	Data–Drive Design of Fuzzy Logic Fault Tolerant Control for a Wind Turbine Benchmark. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2012, 45, 108-113.	0.4	7
66	Application of a Data-Driven Fuzzy Control Design to a Wind Turbine Benchmark Model. Advances in Fuzzy Systems, 2012, 2012, 1-12.	0.9	28
67	Model-based robust fault detection and isolation of an industrial gas turbine prototype using soft computing techniques. Neurocomputing, 2012, 91, 29-47.	5.9	53
68	Model-based Fault Detection and Isolation Using Neural Networks: An Industrial Gas Turbine Case Study. , 2011, , .		7
69	Data–Driven Approach for Wind Turbine Actuator and Sensor Fault Detection and Isolation. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2011, 44, 8301-8306.	0.4	25
70	Hybrid Model–Based Fault Detection of Wind Turbine Sensors. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2011, 44, 7061-7066.	0.4	11
71	Active fault tolerant control of nonlinear systems: The cart-pole example. International Journal of Applied Mathematics and Computer Science, 2011, 21, 441-445.	1.5	19
72	Robust FDI applied to thruster faults of a satellite system. Control Engineering Practice, 2010, 18, 1093-1109.	5.5	101

#	Article	IF	Citations
73	Fault Detection and Diagnosis for Aeronautic and Aerospace Missions. Lecture Notes in Control and Information Sciences, 2010, , 91-128.	1.0	24
74	Model-based fault diagnosis approaches with application to an industrial gas turbine simulator. , 2009, , .		3
75	Active fault tolerant control scheme for a general aviation aircraft model. , 2009, , .		1
76	A Study of Fault Diagnosis and Recovery Techniques for Manufacturing Systems. , 2007, , 1372-1377.		0
77	Design and performance evaluation of residual genertors for the FDI of an aircraft. International Journal of Automation and Computing, 2007, 4, 156-163.	4.5	9
78	A Monte Carlo Analysis and Design for FDI of a Satellite Attitude Control System. , 2007, , 1318-1323.		3
79	Dynamic system identification and model-based fault diagnosis of an industrial gas turbine prototype. Mechatronics, 2006, 16, 341-363.	3.3	57