

# Silvio Simani

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/8050075/publications.pdf>

Version: 2024-02-01

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	Reliability improvement of wind turbine power generation using model-based fault detection and fault tolerant control: A review. <i>Renewable Energy</i> , 2019, 135, 877-896.	8.9	124
2	Robust FDI applied to thruster faults of a satellite system. <i>Control Engineering Practice</i> , 2010, 18, 1093-1109.	5.5	101
3	Fault Diagnosis of a Wind Turbine Benchmark via Identified Fuzzy Models. <i>IEEE Transactions on Industrial Electronics</i> , 2015, 62, 3775-3782.	7.9	89
4	Active actuator fault-tolerant control of a wind turbine benchmark model. <i>International Journal of Robust and Nonlinear Control</i> , 2014, 24, 1283-1303.	3.7	80
5	Differential geometry based active fault tolerant control for aircraft. <i>Control Engineering Practice</i> , 2014, 32, 227-235.	5.5	73
6	Dynamic system identification and model-based fault diagnosis of an industrial gas turbine prototype. <i>Mechatronics</i> , 2006, 16, 341-363.	3.3	57
7	Model-based robust fault detection and isolation of an industrial gas turbine prototype using soft computing techniques. <i>Neurocomputing</i> , 2012, 91, 29-47.	5.9	53
8	Data-driven and adaptive control applications to a wind turbine benchmark model. <i>Control Engineering Practice</i> , 2013, 21, 1678-1693.	5.5	45
9	Adaptive square-root unscented Kalman filter: An experimental study of hydraulic actuator state estimation. <i>Mechanical Systems and Signal Processing</i> , 2019, 132, 670-691.	8.0	38
10	Overview of Modelling and Advanced Control Strategies for Wind Turbine Systems. <i>Energies</i> , 2015, 8, 13395-13418.	3.1	35
11	Decoupling Adaptive Sliding Mode Observer Design for Wind Turbines Subject to Simultaneous Faults in Sensors and Actuators. <i>IEEE/CAA Journal of Automatica Sinica</i> , 2021, 8, 837-847.	13.1	35
12	Development of a physics-based model to predict the performance of pumps as turbines. <i>Applied Energy</i> , 2018, 231, 343-354.	10.1	32
13	Overview of modelling and control strategies for wind turbines and wave energy devices: Comparisons and contrasts. <i>Annual Reviews in Control</i> , 2015, 40, 27-49.	7.9	29
14	Fault tolerant control of a simulated hydroelectric system. <i>Control Engineering Practice</i> , 2016, 51, 13-25.	5.5	29
15	Application of a Data-Driven Fuzzy Control Design to a Wind Turbine Benchmark Model. <i>Advances in Fuzzy Systems</i> , 2012, 2012, 1-12.	0.9	28
16	Development of a personalized thermal comfort driven controller for HVAC systems. <i>Energy</i> , 2021, 237, 121568.	8.8	28
17	Planning of a Resilient Underground Distribution Network Using Georeferenced Data. <i>Energies</i> , 2019, 12, 644.	3.1	27
18	Data-Driven Approach for Wind Turbine Actuator and Sensor Fault Detection and Isolation. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , 2011, 44, 8301-8306.	0.4	25

#	ARTICLE	IF	CITATIONS
19	Energy Production by Means of Pumps As Turbines in Water Distribution Networks. <i>Energies</i> , 2017, 10, 1666.	3.1	25
20	Fault Detection and Diagnosis for Aeronautic and Aerospace Missions. <i>Lecture Notes in Control and Information Sciences</i> , 2010, , 91-128.	1.0	24
21	Wind turbine simulator fault diagnosis via fuzzy modelling and identification techniques. <i>Sustainable Energy, Grids and Networks</i> , 2015, 1, 45-52.	3.9	22
22	Active fault tolerant control of nonlinear systems: The cart-pole example. <i>International Journal of Applied Mathematics and Computer Science</i> , 2011, 21, 441-445.	1.5	19
23	Data-Driven Techniques for the Fault Diagnosis of a Wind Turbine Benchmark. <i>International Journal of Applied Mathematics and Computer Science</i> , 2018, 28, 247-268.	1.5	19
24	A new aerodynamic decoupled frequential FDIR methodology for satellite actuator faults. <i>International Journal of Adaptive Control and Signal Processing</i> , 2014, 28, 812-832.	4.1	17
25	A Review on Optimal Control for the Smart Grid Electrical Substation Enhancing Transition Stability. <i>Energies</i> , 2021, 14, 8451.	3.1	17
26	Optimal Routing an Ungrounded Electrical Distribution System Based on Heuristic Method with Micro Grids Integration. <i>Sustainability</i> , 2019, 11, 1607.	3.2	15
27	Residual generator fuzzy identification for automotive diesel engine fault diagnosis. <i>International Journal of Applied Mathematics and Computer Science</i> , 2013, 23, 419-438.	1.5	14
28	Avionic Air Data Sensors Fault Detection and Isolation by means of Singular Perturbation and Geometric Approach. <i>Sensors</i> , 2017, 17, 2202.	3.8	14
29	Intelligent Fault Diagnosis Techniques Applied to an Offshore Wind Turbine System. <i>Applied Sciences (Switzerland)</i> , 2019, 9, 783.	2.5	14
30	Data-Driven Fault Diagnosis of a Wind Farm Benchmark Model. <i>Energies</i> , 2017, 10, 866.	3.1	13
31	Comparison of Different Approaches to Predict the Performance of Pumps As Turbines (PATs). <i>Energies</i> , 2018, 11, 1016.	3.1	13
32	Automatic Overcurrent Protection Coordination after Distribution Network Reconfiguration Based on Peer-To-Peer Communication. <i>Energies</i> , 2021, 14, 3253.	3.1	12
33	Hybrid Model-Based Fault Detection of Wind Turbine Sensors. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , 2011, 44, 7061-7066.	0.4	11
34	Performance Analysis of Data-Driven and Model-Based Control Strategies Applied to a Thermal Unit Model. <i>Energies</i> , 2017, 10, 67.	3.1	10
35	Fault diagnosis and fault-tolerant control in aerospace systems. <i>International Journal of Robust and Nonlinear Control</i> , 2019, 29, 5291-5292.	3.7	10
36	Design and performance evaluation of residual generators for the FDI of an aircraft. <i>International Journal of Automation and Computing</i> , 2007, 4, 156-163.	4.5	9

#	ARTICLE	IF	CITATIONS
37	Residual Generator Fuzzy Identification for Wind Turbine Benchmark Fault Diagnosis. <i>Machines</i> , 2014, 2, 275-298.	2.2	9
38	Fault-Tolerant Neuro Adaptive Constrained Control of Wind Turbines for Power Regulation with Uncertain Wind Speed Variation. <i>Energies</i> , 2019, 12, 4712.	3.1	9
39	Fuzzy and Neural Network Approaches to Wind Turbine Fault Diagnosis. <i>Applied Sciences (Switzerland)</i> , 2021, 11, 5035.	2.5	9
40	Novel Non-Model-Based Fault Detection and Isolation of Satellite Reaction Wheels Based on a Mixed-Learning Fusion Framework. <i>IFAC-PapersOnLine</i> , 2019, 52, 194-199.	0.9	8
41	Model-based Fault Detection and Isolation Using Neural Networks: An Industrial Gas Turbine Case Study. , 2011, , .		7
42	Data-Driven Design of Fuzzy Logic Fault Tolerant Control for a Wind Turbine Benchmark. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , 2012, 45, 108-113.	0.4	7
43	Data-Driven Design of a Fault Tolerant Fuzzy Controller for a Simulated Hydroelectric System. <i>IFAC-PapersOnLine</i> , 2015, 48, 1090-1095.	0.9	7
44	Fault tolerant control of an offshore wind turbine model via identified fuzzy prototypes. , 2014, , .		6
45	Robust Control Examples Applied to a Wind Turbine Simulated Model. <i>Applied Sciences (Switzerland)</i> , 2018, 8, 29.	2.5	6
46	LEO satellite active FTC with aerodynamic disturbance decoupled fault diagnosis. <i>European Journal of Control</i> , 2020, 51, 76-94.	2.6	6
47	Optimal Distribution Network Planning applying Heuristic Algorithms Considering allocation of PV Rooftop Generation. , 2020, , .		6
48	Fault Diagnosis of a Wind Turbine Simulated Model via Neural Networks. <i>IFAC-PapersOnLine</i> , 2018, 51, 381-388.	0.9	5
49	Fuzzy PID Control System Analysis for a Wind Turbine Maximum Power Point Tracking Using FAST and Matlab Simulink. <i>Smart Innovation, Systems and Technologies</i> , 2021, , 905-917.	0.6	4
50	A novel algorithm for high compression rates focalized on electrical power quality signals. <i>Heliyon</i> , 2021, 7, e06475.	3.2	4
51	Identification-Oriented Control Designs with Application to a Wind Turbine Benchmark. <i>International Journal of Advanced Computer Science and Applications</i> , 2013, 4, .	0.7	4
52	Model-based fault diagnosis approaches with application to an industrial gas turbine simulator. , 2009, , .		3
53	Active fault tolerant control of wind turbines using identified nonlinear filters. , 2013, , .		3
54	Fault tolerant model predictive control applied to a simulated hydroelectric system. , 2016, , .		3

#	ARTICLE	IF	CITATIONS
55	Adaptive Signal Processing Strategy for a Wind Farm System Fault Accommodation. IFAC-PapersOnLine, 2018, 51, 52-59.	0.9	3
56	Data-Driven Control Techniques for Renewable Energy Conversion Systems: Wind Turbine and Hydroelectric Plants. Electronics (Switzerland), 2019, 8, 237.	3.1	3
57	Fuzzy Control Techniques Applied to Wind Turbine Systems and Hydroelectric Plants. , 2019, , .		3
58	A Monte Carlo Analysis and Design for FDI of a Satellite Attitude Control System. , 2007, , 1318-1323.		3
59	Self-Tuning Control Techniques for Wind Turbine and Hydroelectric Plant Systems. Journal of Power and Energy Engineering, 2019, 07, 27-61.	0.6	3
60	Fault tolerant control design for a wind farm benchmark via fuzzy modelling and identification. , 2014, , .		2
61	Advanced Control Design and Fault Diagnosis. Energies, 2021, 14, 5699.	3.1	2
62	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
63	Wind Turbine Pitch Actuator Regulation for Efficient and Reliable Energy Conversion: A Fault-Tolerant Constrained Control Solution. Actuators, 2022, 11, 102.	2.3	2
64	Active fault tolerant control scheme for a general aviation aircraft model. , 2009, , .		1
65	Robust actuator fault diagnosis of a wind turbine benchmark model. , 2013, , .		1
66	Fault diagnosis and fault tolerant control strategies for aerospace systems. , 2016, , .		1
67	Adaptive signal processing strategy for a wind farm system fault accommodation. , 2017, , .		1
68	Fuzzy Control Techniques for Energy Conversion Systems: Wind Turbine and Hydroelectric Plants. , 2019, , .		1
69	Fuzzy Control Techniques for Energy Conversion Systems. Advances in Intelligent Systems and Computing, 2020, , 943-955.	0.6	1
70	A Study of Fault Diagnosis and Recovery Techniques for Manufacturing Systems. , 2007, , 1372-1377.		0
71	Adaptive nonlinear filters for joint fault estimation and accommodation of a wind farm benchmark. , 2016, , .		0
72	Active Fault Tolerant Control of a Wind Farm System. IFAC-PapersOnLine, 2018, 51, 1119-1126.	0.9	0

#	ARTICLE	IF	CITATIONS
73	Fault Tolerant Control for Wind Turbine Systems. , 2018, , 77-104.		0
74	Robust Control Applications to a Wind Turbine-Simulated System. , 2018, , .		0
75	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
76	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
77	Fault Diagnosis and Fault-Tolerant Control for Avionic Systems. Advances in Intelligent Systems and Computing, 2021, , 191-201.	0.6	0
78	Simulation and Experimental Validation of Fuzzy Control Techniques for Wind Turbine System and Hydroelectric Plant. , 2021, , .		0
79	Design and Validation of a Fault Tolerant Fuzzy Control for a Wind Park High-Fidelity Simulator. , 2021, , .		0