Pierluigi Pisu

List of Publications by Year
in descending order

128 papers	3,130 citations	257101 24 h-index	197535 49 g-index
129 all docs	129 docs citations	129 times ranked	2343 citing authors

#	Article	IF	Citations
1	A Comparative Study Of Supervisory Control Strategies for Hybrid Electric Vehicles. IEEE Transactions on Control Systems Technology, 2007, 15, 506-518.	3.2	468
2	Role of Terrain Preview in Energy Management of Hybrid Electric Vehicles. IEEE Transactions on Vehicular Technology, 2010, 59, 1139-1147.	3.9	172
3	Real-Time Detection and Estimation of Denial of Service Attack in Connected Vehicle Systems. IEEE Transactions on Intelligent Transportation Systems, 2018, 19, 3893-3902.	4.7	159
4	Fast Model Predictive Control-Based Fuel Efficient Control Strategy for a Group of Connected Vehicles in Urban Road Conditions. IEEE Transactions on Control Systems Technology, 2017, 25, 760-767.	3.2	141
5	Hierarchical control strategies for energy management of connected hybrid electric vehicles in urban roads. Transportation Research Part C: Emerging Technologies, 2016, 62, 70-86.	3.9	128
6	Nonlinear Robust Observers for State-of-Charge Estimation of Lithium-Ion Cells Based on a Reduced Electrochemical Model. IEEE Transactions on Control Systems Technology, 2015, 23, 1935-1942.	3.2	126
7	A control benchmark on the energy management of a plug-in hybrid electric vehicle. Control Engineering Practice, 2014, 29, 287-298.	3.2	110
8	Sensor Fault Detection, Isolation, and Estimation in Lithium-Ion Batteries. IEEE Transactions on Control Systems Technology, 2016, 24, 2141-2149.	3.2	101
9	Fault Detection for Robot Manipulators via Second-Order Sliding Modes. IEEE Transactions on Industrial Electronics, 2008, 55, 3954-3963.	5.2	97
10	Model-based real-time thermal fault diagnosis of Lithium-ion batteries. Control Engineering Practice, 2016, 56, 37-48.	3.2	91
11	An energy optimization strategy for power-split drivetrain plug-in hybrid electric vehicles. Transportation Research Part C: Emerging Technologies, 2012, 22, 29-41.	3.9	83
12	Online Optimal Control of Connected Vehicles for Efficient Traffic Flow at Merging Roads. , 2015, , .		66
13	Control design and fuel economy investigation of power split HEV with energy regeneration of suspension. Applied Energy, 2016, 182, 576-589.	5.1	61
14	A Comparative Study of Three Fault Diagnosis Schemes for Wind Turbines. IEEE Transactions on Control Systems Technology, 2015, 23, 1853-1868.	3.2	54
15	A fuel economic model predictive control strategy for a group of connected vehicles in urban roads. , 2015, , .		51
16	Minimum Sensor Second-Order Sliding Mode Longitudinal Control of Passenger Vehicles. IEEE Transactions on Intelligent Transportation Systems, 2004, 5, 20-32.	4.7	45
17	A Supervisory Control Strategy for Series Hybrid Electric Vehicles with Two Energy Storage Systems. , 0, , .		45
18	Resilient control strategy under Denial of Service in connected vehicles. , 2017, , .		45

#	Article	IF	Citations
19	Global optimal energy management control strategies for connected four‐wheel‐drive hybrid electric vehicles. IET Intelligent Transport Systems, 2017, 11, 264-272.	1.7	44
20	Hierarchical distributed coordination strategy of connected and automated vehicles at multiple intersections. Journal of Intelligent Transportation Systems: Technology, Planning, and Operations, 2018, 22, 144-158.	2.6	40
21	Energy Management and Drivability Control Problems for Hybrid Electric Vehicles. , 0, , .		38
22	Forward power-train energy management modeling for assessing benefits of integrating predictive traffic data into plug-in-hybrid electric vehicles. Transportation Research, Part D: Transport and Environment, 2012, 17, 201-207.	3.2	38
23	Hierarchical energy management control strategies for connected hybrid electric vehicles considering efficiencies feedback. Simulation Modelling Practice and Theory, 2019, 90, 1-15.	2.2	35
24	Model-based design validation for advanced energy management strategies for electrified hybrid power trains using innovative vehicle hardware in the loop (VHIL) approach. Applied Energy, 2017, 204, 287-302.	5.1	34
25	A Hybrid Controller for DOS-Resilient String-Stable Vehicle Platoons. IEEE Transactions on Intelligent Transportation Systems, 2021, 22, 1697-1707.	4.7	33
26	Attitude Tracking With Adaptive Rejection of Rate Gyro Disturbances. IEEE Transactions on Automatic Control, 2007, 52, 2374-2379.	3.6	32
27	Replay Attack Detection in a Platoon of Connected Vehicles with Cooperative Adaptive Cruise Control. , 2018, , .		31
28	Adaptive Threshold Based Diagnostics for Steer-By-Wire Systems. Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME, 2006, 128, 428-435.	0.9	30
29	Merging mobility and energy vision with hybrid electric vehicles and vehicle infrastructure integration. Energy Policy, 2012, 41, 599-609.	4.2	29
30	Dynamic Modeling of a Hybrid Electric Drivetrain for Fuel Economy, Performance and Driveability Evaluations. , 2003, , 443.		28
31	Nonlinear Adaptive Observer for a Lithium-Ion Battery Cell Based on Coupled Electrochemical‐Thermal Model. Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME, 2015, 137, .	0.9	28
32	Combined estimation of State-of-Charge and State-of-Health of Li-ion battery cells using SMO on electrochemical model. , 2014, , .		25
33	On-board Thermal Fault Diagnosis of Lithium-ion Batteries For Hybrid Electric Vehicle Application. IFAC-PapersOnLine, 2015, 48, 389-394.	0.5	24
34	Modeling and optimal energy management of a power split hybrid electric vehicle. Science China Technological Sciences, 2017, 60, 713-725.	2.0	22
35	Simplified exponentially convergent rotor resistance estimation for induction motors. IEEE Transactions on Automatic Control, 2003, 48, 325-330.	3.6	21
36	Vehicle chassis monitoring system. Control Engineering Practice, 2003, 11, 345-354.	3.2	20

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37	Hierarchical Model-Based Fault Diagnosis for an Electrical Power Generation Storage Automotive System. Proceedings of the American Control Conference, 2007, , .	0.0	18
38	Model-based fault detection and isolation for a diesel lean trap aftertreatment system. Control Engineering Practice, 2010, 18, 1307-1317.	3.2	18
39	False Data Injection Attack in a Platoon of CACC: Real-Time Detection and Isolation With a PDE Approach. IEEE Transactions on Intelligent Transportation Systems, 2022, 23, 8692-8703.	4.7	18
40	Impact of Dust and Sand on 5G Communications for Connected Vehicles Applications. IEEE Journal of Radio Frequency Identification, 2022, 6, 229-239.	1.5	18
41	On DoS Resiliency Analysis of Networked Control Systems: Trade-Off Between Jamming Actions and Network Delays. , 2019, 3, 559-564.		17
42	Robust Fault Diagnosis for a Horizontal Axis Wind Turbine. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2011, 44, 7055-7060.	0.4	16
43	Coordination strategy for vehicles passing multiple signalized intersections: A connected vehicle penetration rate study. , 2017, , .		15
44	Design and optimization of equivalent consumption minimization strategy for 4WD hybrid electric vehicles incorporating vehicle connectivity. Science China Technological Sciences, 2018, 61, 147-157.	2.0	15
45	The Impact of Dedicated Short Range Communication on Cooperative Adaptive Cruise Control. , 2018, , .		15
46	Large-Scale Battery Energy Storage System Dynamic Model for Power System Stability Analysis. , 2020, , .		15
47	Eco-Driving System for Energy Efficient Driving of an Electric Bus. SAE International Journal of Passenger Cars - Electronic and Electrical Systems, 0, 8, 79-89.	0.3	14
48	Detection of False Data Injection Attack in Connected and Automated Vehicles via Cloud-Based Sandboxing. IEEE Transactions on Intelligent Transportation Systems, 2022, 23, 9078-9088.	4.7	14
49	Online state and parameter estimation of Battery-Double Layer Capacitor Hybrid Energy Storage System. , 2015, , .		13
50	<title>Modeling, simulation, and concept design for hybrid-electric medium-size military trucks</title>. , 2005, 5805, 1.		11
51	Model Based Diagnostics for Vehicle Systems. , 2000, , .		11
52	A Comparative Study of Supervisory Control Strategies for Hybrid Electric Vehicles. , 2004, , 189.		10
53	Sliding mode observers for vision-based fault detection, isolation and identification in robot manipulators. , 2010, , .		10
54	Comprehensive thermal modeling of a power-split hybrid powertrain using battery cell model. Journal of Power Sources, 2011, 196, 6588-6594.	4.0	10

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55	VoGe: A Voice and Gesture System for Interacting with Autonomous Cars. , 0, , .		10
56	Real-time False Data Injection Attack Detection in Connected Vehicle Systems with PDE modeling. , 2020, , .		10
57	Modeling and Design of Heavy Duty Hybrid Electric Vehicles. , 2005, , 535.		9
58	Model-Based Fault Detection and Isolation in Automotive Electrical Systems. , 2006, , 315.		9
59	Actuators and sensors fault detection for robot manipulators via second order sliding mode observers. , 2008, , .		9
60	Adaptive threshold-based fault detection and isolation for automotive electrical systems. , 2011, , .		9
61	Thermal modeling of an on-board nickel-metal hydride pack in a power-split hybrid configuration using a cell-based resistance-capacitance, electro-thermal model. International Journal of Energy Research, 2013, 37, 331-346.	2.2	9
62	Hierarchical Energy Management Control of Connected Hybrid Electric Vehicles on Urban Roads With Efficiencies Feedback. , 2016, , .		9
63	Closed–loop hierarchical control strategies for connected and autonomous hybrid electric vehicles with random errors. IET Intelligent Transport Systems, 2018, 12, 1378-1385.	1.7	9
64	Chassis Dynamometer as a Development Platform for Vehicle Hardware In-the-Loop "VHiL". SAE International Journal of Commercial Vehicles, 0, 6, 257-267.	0.4	8
65	Modeling and Simulation of a Series Hybrid CNG Vehicle. SAE International Journal of Alternative Powertrains, 0, 3, 20-29.	0.8	8
66	Battery Electric Bus Simulator - A Tool for Energy Consumption Analysis. , 0, , .		8
67	A fuel efficient control strategy for connected vehicles in multiple-lane urban roads. , 2016, , .		8
68	Sensor Fault Diagnosis of Connected Vehicles Under Imperfect Communication Network. , 2016, , .		7
69	Inter-Area Oscillation Damping in Large-Scale Power Systems Using Decentralized Control. , 2018, , .		7
70	Supervisory Robust Control of Hybrid Electric Vehicles. , 2003, , .		7
71	Longitudinal control design of passenger vehicles with second order sliding modes. , 2000, , .		6
72	Second order sliding mode observers for Fault Detection of robot manipulators. , 2008, , .		6

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73	Model-based fault diagnosis for a vehicle chassis system. , 2009, , .		6
74	Utilizing Road Grade Preview For Increasing Fuel Economy of Hybrid Vehicles. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2009, 42, 168-173.	0.4	6
75	Conceptualization and Implementation of an AWD Parallel Hybrid Powertrain Concept. , 0, , .		6
76	Chattering reduction and robust position control in induction motor with second-order VSS. International Journal of Systems Science, 1998, 29, 1-12.	3.7	5
77	Adaptive Observer Design for a Li-Ion Cell Based on Coupled Electrochemical-Thermal Model. , 2014, , .		5
78	A Receding Horizon Switching Control Resilient to Communication Failures for Connected Vehicles. , 2017, , .		5
79	Engine-Map-Based Predictive Fuel-Efficient Control Strategies for a Group of Connected Vehicles. Automotive Innovation, 2018, 1, 311-319.	3.1	5
80	A Framework for Model-Based Fault Diagnosis with Application to Vehicle Systems. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2002, 35, 377-382.	0.4	4
81	Fuel Efficient Control Strategies for Connected Hybrid Electric Vehicles in Urban Roads. , 2015, , .		4
82	Investigation of Torque Security Problems in Electrified Vehicles. , 2015, , .		4
83	Cooperative Adaptive Cruise Control: PDE Modeling and Stability Analysis. , 2018, , .		4
84	DoS-Resilient Hybrid Controller for String-Stable Connected Vehicles. , 2019, , .		4
85	Evaluation of Navigation in Mobile Robots for Long-Term Autonomy in Automotive Manufacturing Environments. , 0, , .		4
86	The effect of Dust and Sand on the 5G Millimeter-Wave links. , 2021, , .		4
87	Analysis and Evaluation of a Two Engine Configuration in a Series Hybrid Electric Vehicle. , 2006, , 239.		3
88	Evaluation of powertrain solutions for future tactical truck vehicle systems. , 2006, , .		3
89	Rejection of harmonic sensor disturbances in passive systems, and applications to attitude control. , 2006, , .		3
90	Model-based automotive system integration: using vehicle hardware in-the-loop simulation for an integration of advanced hybrid electric powertrain. International Journal of Electric and Hybrid Vehicles, 2013, 5, 215.	0.2	3

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91	Sliding Mode Observer and State-Machine-Based Fault Diagnosis With Application in a Vehicle Chassis Steering System. Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME, 2014, 136, .	0.9	3
92	Fuel efficient model predictive control strategies for a group of connected vehicles incorporating vertical vibration. Science China Technological Sciences, 2017, 60, 1732-1746.	2.0	3
93	A Control Strategy for Driver Specific Driver Assistant System to Improve Fuel Economy of Connected Vehicles in Urban Roads. , 2019, , .		3
94	Network Aware Control Design for String Stabilization in Vehicle Platoons: An LMI Approach. , 2019, , .		3
95	An Immersive Vehicle-in-the-Loop VR Platform for Evaluating Human-to-Autonomous Vehicle Interactions. , 0, , .		3
96	Behavior Identification and Prediction for a Probabilistic Risk Framework. , 2019, , .		3
97	Fault Detection in Idle Speed Control of IC Engines. , 2009, , .		2
98	A Study on a Prognosis Algorithm for PEMFC Lifetime Prediction Based on Durability Tests. , 2010, , .		2
99	Observer-Based Diagnostic Scheme for Lithium-Ion Batteries. , 2015, , .		2
100	A Quantized Stochastic Modeling Approach for Fault Diagnosis of Lithium-ion Batteries. IFAC-PapersOnLine, 2015, 48, 970-975.	0.5	2
101	A Control Oriented Perspective for Security in Connected and Automated Vehicles. Mechanical Engineering, 2017, 139, S17-S20.	0.0	2
102	A Hybrid Control Framework for Large-Scale Battery Integration to the Power System for Stability Analysis. , 2020, , .		2
103	LMI-Based Output Feedback Control Design in the Presence of Sporadic Measurements. , 2020, , .		2
104	Support-Vector Machine Approach for Robust Fault Diagnosis of Electric Vehicle Permanent Magnet Synchronous Motor. Proceedings of the Annual Conference of the Prognostics and Health Management Society Prognostics and Health Management Society Conference, 2020, 12, 10.	0.2	2
105	Hybrid-Electric Powertrain Design Evaluation for Future Tactical Truck Vehicle Systems. , 2006, , 271.		1
106	Attitude tracking with adaptive rejection of rate gyro disturbances. , 2008, , .		1
107	Development of an Electric Vehicle Hardware-in-the-Loop Emulation Platform. , 2013, , .		1
108	A Hardware-in-the-Loop Platform for a Series Hybrid Powertrain Featuring Two Equivalent Consumption Minimization Strategies. , 2014, , .		1

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109	Estimation of Lithium-Ion Concentrations in Both Electrodes of a Lithium-Ion Battery Cell. , 2015, , .		1
110	Secure Vehicle Localization and Cruise Control for Connected Vehicles. IFAC-PapersOnLine, 2015, 48, 1192-1197.	0.5	1
111	Pointing Gesture Based Point of Interest Identification in Vehicle Surroundings. , 2018, , .		1
112	A Probabilistic Framework for Trajectory Prediction in Traffic Utilizing Driver Characterization. , 2019, , .		1
113	Decentralized Servomechanism Control Design for Inter-Area Oscillations Damping in Power System. , 2019, , .		1
114	Measurement Unknown Delay Estimation in Cyber-Physical Systems: a PDE approach. , 2021, , .		1
115	Frequency Control of Large-Scale Interconnected Power Systems via Battery Integration: A Comparison between the Hybrid Battery Model and WECC Model. Energies, 2021, 14, 5605.	1.6	1
116	Fault Detection and Isolation with Applications to Vehicle Systems. , 2016, , 293-321.		1
117	A Voice and Pointing Gesture Interaction System for On-Route Update of Autonomous Vehiclesâ€™ Path. , 0, , .		1
118	Cooperative Mandatory Lane Change for Connected Vehicles on Signalized Intersection Roads. , 0, , .		1
119	Optimal hybrid control of interarea oscillation in power system using energy storage systems. Optimal Control Applications and Methods, 2023, 44, 758-772.	1.3	1
120	HIERARCHICAL VEHICLE MODEL-BASED FAULT DIAGNOSIS USING PROPAGATION DIGRAPHS. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2002, 35, 217-222.	0.4	0
121	Model Based Fault Detection and Isolation in Idle Speed Control of IC Engines. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2009, 42, 905-910.	0.4	0
122	State machine-based fault diagnosis with application in a vehicle chassis system. , 2010, , .		0
123	PEM Fuel Cell Flooding Diagnostics Based on an Unscented Kalman Filter Approach. , 2014, , .		0
124	Observer Design Based Cyber Security for Cyber Physical Systems. , 2015, , .		0
125	A Smart Companion Robot for Automotive Assembly. , 2021, , 239-265.		0
126	Inter-Area Oscillation Damping via Hybrid LQR State Feedback Control of Large-Scale Battery. , 2021, , .		0

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127	Secure Connected and Automated Vehicles against False Data Injection Attack using Cloud-based Data Fusion. IFAC-PapersOnLine, 2021, 54, 638-643.	0.5	0
128	Optimal Multi-Channel Output Feedback Control to Damp Power System Oscillation. , 2021, , .		0