

Carlos Guardiola

List of Publications by Year in descending order

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Version: 2024-02-01

91
papers

1,920
citations

257101

24
h-index

344852

36
g-index

94
all docs

94
docs citations

94
times ranked

1106
citing authors

#	ARTICLE	IF	CITATIONS
1	Surge limit definition in a specific test bench for the characterization of automotive turbochargers. <i>Experimental Thermal and Fluid Science</i> , 2006, 30, 449-462.	1.5	116
2	Air mass flow estimation in turbocharged diesel engines from in-cylinder pressure measurement. <i>Experimental Thermal and Fluid Science</i> , 2010, 34, 37-47.	1.5	111
3	A methodology for combustion detection in diesel engines through in-cylinder pressure derivative signal. <i>Mechanical Systems and Signal Processing</i> , 2010, 24, 2261-2275.	4.4	67
4	On the effect of pulsating flow on surge margin of small centrifugal compressors for automotive engines. <i>Experimental Thermal and Fluid Science</i> , 2009, 33, 1163-1171.	1.5	57
5	A Challenging Future for the IC Engine: New Technologies and the Control Role. <i>Oil and Gas Science and Technology</i> , 2015, 70, 15-30.	1.4	57
6	Semiempirical in-cylinder pressure based model for NOX prediction oriented to control applications. <i>Applied Thermal Engineering</i> , 2011, 31, 3275-3275.	3.0	56
7	Identifying static and dynamic prediction models for NOx emissions with evolving fuzzy systems. <i>Applied Soft Computing Journal</i> , 2011, 11, 2487-2500.	4.1	53
8	A new knock event definition for knock detection and control optimization. <i>Applied Thermal Engineering</i> , 2018, 131, 80-88.	3.0	52
9	An approach to model-based fault detection in industrial measurement systems with application to engine test benches. <i>Measurement Science and Technology</i> , 2006, 17, 1809-1818.	1.4	48
10	A computationally efficient Kalman filter based estimator for updating look-up tables applied to NOx estimation in diesel engines. <i>Control Engineering Practice</i> , 2013, 21, 1455-1468.	3.2	46
11	Injection diagnosis through common-rail pressure measurement. <i>Proceedings of the Institution of Mechanical Engineers, Part D: Journal of Automobile Engineering</i> , 2006, 220, 347-357.	1.1	43
12	Cycle by cycle NOx model for diesel engine control. <i>Applied Thermal Engineering</i> , 2017, 110, 1011-1020.	3.0	42
13	Methodology for characterisation and simulation of turbocharged diesel engines combustion during transient operation. Part 2: Phenomenological combustion simulation. <i>Applied Thermal Engineering</i> , 2009, 29, 150-158.	3.0	41
14	Sensitivity Study of a NOx Estimation Model for On-Board Applications. , 0, , .		40
15	Turbine adapted maps for turbocharger engine matching. <i>Experimental Thermal and Fluid Science</i> , 2011, 35, 146-153.	1.5	39
16	A stochastic method for the energy management in hybrid electric vehicles. <i>Control Engineering Practice</i> , 2014, 29, 257-265.	3.2	38
17	Adaptive determination of cut-off frequencies for filtering the in-cylinder pressure in diesel engines combustion analysis. <i>Applied Thermal Engineering</i> , 2011, 31, 2869-2876.	3.0	34
18	A learning algorithm concept for updating look-up tables for automotive applications. <i>Mathematical and Computer Modelling</i> , 2013, 57, 1979-1989.	2.0	34

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19	CRITICAL CAVITATION NUMBER DETERMINATION IN DIESEL INJECTION NOZZLES. <i>Experimental Techniques</i> , 2004, 28, 49-52.	0.9	33
20	Development of a control-oriented model to optimise fuel consumption and NOX emissions in a DI Diesel engine. <i>Applied Energy</i> , 2014, 119, 405-416.	5.1	33
21	An analysis of the in-cylinder pressure resonance excitation in internal combustion engines. <i>Applied Energy</i> , 2018, 228, 1272-1279.	5.1	33
22	A comparison of different methods for fuel delivery unevenness detection in Diesel engines. <i>Mechanical Systems and Signal Processing</i> , 2006, 20, 2219-2231.	4.4	30
23	Strategies for improving the mode transition in a sequential parallel turbocharged automotive diesel engine. <i>International Journal of Automotive Technology</i> , 2009, 10, 141-149.	0.7	28
24	Switching strategy between HP (high pressure)- and LPEGR (low pressure exhaust gas recirculation) systems for reduced fuel consumption and emissions. <i>Energy</i> , 2015, 90, 1790-1798.	4.5	28
25	Modelling driving behaviour and its impact on the energy management problem in hybrid electric vehicles. <i>International Journal of Computer Mathematics</i> , 2014, 91, 147-156.	1.0	27
26	In-cylinder pressure based model for exhaust temperature estimation in internal combustion engines. <i>Applied Thermal Engineering</i> , 2017, 115, 212-220.	3.0	26
27	Simultaneous Estimation of Intake and Residual Mass Using In-Cylinder Pressure in an Engine with Negative Valve Overlap. <i>IFAC-PapersOnLine</i> , 2016, 49, 461-468.	0.5	25
28	Estimation of trapped mass by in-cylinder pressure resonance in HCCI engines. <i>Mechanical Systems and Signal Processing</i> , 2016, 66-67, 862-874.	4.4	25
29	Analytical Optimal Solution to the Energy Management Problem in Series Hybrid Electric Vehicles. <i>IEEE Transactions on Vehicular Technology</i> , 2018, 67, 6803-6813.	3.9	25
30	A direct transform for determining the trapped mass on an internal combustion engine based on the in-cylinder pressure resonance phenomenon. <i>Mechanical Systems and Signal Processing</i> , 2015, 62-63, 480-489.	4.4	23
31	DFT-based controller for fuel injection unevenness correction in turbocharged diesel engines. <i>IEEE Transactions on Control Systems Technology</i> , 2006, 14, 819-827.	3.2	22
32	Cycle by Cycle Trapped Mass Estimation for Diagnosis and Control. <i>SAE International Journal of Engines</i> , 0, 7, 1523-1531.	0.4	22
33	An on-engine method for dynamic characterisation of NO concentration sensors. <i>Experimental Thermal and Fluid Science</i> , 2011, 35, 470-476.	1.5	21
34	Modeling the Vacuum Circuit of a Pneumatic Valve System. <i>Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME</i> , 2009, 131, .	0.9	20
35	Exhaust pressure pulsation observation from turbocharger instantaneous speed measurement. <i>Measurement Science and Technology</i> , 2004, 15, 1185-1194.	1.4	19
36	A bias correction method for fast fuel-to-air ratio estimation in diesel engines. <i>Proceedings of the Institution of Mechanical Engineers, Part D: Journal of Automobile Engineering</i> , 2013, 227, 1099-1111.	1.1	19

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37	Impact of driving dynamics in RDE test on NO _x emissions dispersion. Proceedings of the Institution of Mechanical Engineers, Part D: Journal of Automobile Engineering, 2020, 234, 1770-1778.	1.1	19
38	ECU-oriented models for NO _x prediction. Part 1: a mean value engine model for NO _x prediction. Proceedings of the Institution of Mechanical Engineers, Part D: Journal of Automobile Engineering, 2015, 229, 992-1015.	1.1	18
39	Model-based passive and active diagnostics strategies for diesel oxidation catalysts. Applied Thermal Engineering, 2017, 110, 962-971.	3.0	18
40	Cylinder charge composition observation based on in-cylinder pressure measurement. Measurement: Journal of the International Measurement Confederation, 2019, 131, 559-568.	2.5	18
41	Closed-loop control of a dual-fuel engine working with different combustion modes using in-cylinder pressure feedback. International Journal of Engine Research, 2020, 21, 484-496.	1.4	18
42	Insight into the HEV/PHEV optimal control solution based on a new tuning method. Control Engineering Practice, 2014, 29, 247-256.	3.2	17
43	Knock probability estimation through an in-cylinder temperature model with exogenous noise. Mechanical Systems and Signal Processing, 2018, 98, 756-769.	4.4	17
44	Adaptive calibration for reduced fuel consumption and emissions. Proceedings of the Institution of Mechanical Engineers, Part D: Journal of Automobile Engineering, 2016, 230, 2002-2014.	1.1	16
45	Assessment of a sequentially turbocharged diesel engine on real-life driving cycles. International Journal of Vehicle Design, 2009, 49, 214.	0.1	15
46	A fuzzy logic map-based knock control for spark ignition engines. Applied Energy, 2020, 280, 116036.	5.1	15
47	On Board NO _x Prediction in Diesel Engines: A Physical Approach. Lecture Notes in Control and Information Sciences, 2010, , 25-36.	0.6	14
48	Cost of ownership-efficient hybrid electric vehicle powertrain sizing for multi-scenario driving cycles. Proceedings of the Institution of Mechanical Engineers, Part D: Journal of Automobile Engineering, 2016, 230, 382-394.	1.1	14
49	A combustion phasing control-oriented model applied to an RCCI engine. IFAC-PapersOnLine, 2018, 51, 119-124.	0.5	13
50	Model-Based Ammonia Slip Observation for SCR Control and Diagnosis. IEEE/ASME Transactions on Mechatronics, 2020, 25, 1346-1353.	3.7	13
51	Applying evolving fuzzy models with adaptive local error bars to on-line fault detection. , 2008, , .		12
52	An on-board method to estimate the light-off temperature of diesel oxidation catalysts. International Journal of Engine Research, 2020, 21, 1480-1492.	1.4	12
53	Optimal Control as a method for Diesel engine efficiency assessment including pressure and NO _x constraints. Applied Thermal Engineering, 2017, 117, 452-461.	3.0	11
54	Methodology for Design and Calibration of a Drift Compensation Method for Fuel-To-Air Ratio Estimation. , 2012, , .		10

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55	Optimal heat release shaping in a reactivity controlled compression ignition (RCCI) engine. Control Theory and Technology, 2017, 15, 117-128.	1.0	10
56	A comparison of different algorithms for boost pressure control in a heavy-duty turbocharged diesel engine. Proceedings of the Institution of Mechanical Engineers, Part D: Journal of Automobile Engineering, 2007, 221, 629-640.	1.1	9
57	Combined experimental and modeling methodology for intake line evaluation in turbocharged diesel engines. International Journal of Automotive Technology, 2011, 12, 359-367.	0.7	9
58	Further analysis of a compression-expansion machine for a Brayton Waste Heat Recovery cycle on an IC engine. Applied Thermal Engineering, 2018, 128, 345-356.	3.0	9
59	An OBD strategy to estimate SCR ageing and detect urea injection faults. IFAC-PapersOnLine, 2018, 51, 369-376.	0.5	9
60	On the potential of traffic light information availability for reducing fuel consumption and NO _x emissions of a diesel light-duty vehicle. Proceedings of the Institution of Mechanical Engineers, Part D: Journal of Automobile Engineering, 2020, 234, 981-991.	1.1	9
61	From OBD to connected diagnostics: a game changer at fleet, vehicle and component level. IFAC-PapersOnLine, 2021, 54, 558-563.	0.5	9
62	Analysis of the Aftertreatment Sizing for Pre-Turbo DPF and DOC Exhaust Line Configurations. , 0, , .		8
63	Fast estimation of diesel oxidation catalysts inlet gas temperature. Control Engineering Practice, 2016, 56, 148-156.	3.2	8
64	Representation Limits of Mean Value Engine Models. Lecture Notes in Control and Information Sciences, 2012, , 185-206.	0.6	8
65	A New Model for Matching Advanced Boosting Systems to Automotive Diesel Engines. SAE International Journal of Engines, 2014, 7, 131-144.	0.4	7
66	Control Oriented Model for Diesel Oxidation Catalyst Diagnosis. IFAC-PapersOnLine, 2015, 48, 427-433.	0.5	7
67	Determination of the resonance response in an engine cylinder with a bowl-in-piston geometry by the finite element method for inferring the trapped mass. International Journal of Engine Research, 2016, 17, 534-542.	1.4	7
68	Optimal control of a turbocharged direct injection diesel engine by direct method optimization. International Journal of Engine Research, 2019, 20, 640-652.	1.4	7
69	Integration of intermittent measurement from in-cylinder pressure resonance in a multi-sensor mass flow estimator. Mechanical Systems and Signal Processing, 2019, 131, 152-165.	4.4	7
70	Online Quality Control with Flexible Evolving Fuzzy Systems. , 2012, , 375-406.		7
71	Increasing knock detection sensitivity by combining knock sensor signal with a control oriented combustion model. Mechanical Systems and Signal Processing, 2022, 168, 108665.	4.4	7
72	Real-time energy optimization of HEVs under-connected environment: a benchmark problem and receding horizon-based solution. Control Theory and Technology, 2022, 20, 145-160.	1.0	7

#	ARTICLE	IF	CITATIONS
73	Fuel and Immission Potential of Context Aware Engine Control. , 0, , .		6
74	REAL-TIME DETERMINATION OF THE IN-CYCLE EVOLUTION OF THE TURBOCHARGER SPEED IN INTERNAL COMBUSTION ENGINES. Experimental Techniques, 2006, 30, 44-50.	0.9	5
75	Data-Driven Design of Takagi-Sugeno Fuzzy Systems for Predicting NOx Emissions. Communications in Computer and Information Science, 2010, , 1-10.	0.4	5
76	ECU-oriented models for NOx prediction. Part 2: adaptive estimation by using an NOx sensor. Proceedings of the Institution of Mechanical Engineers, Part D: Journal of Automobile Engineering, 2015, 229, 1345-1360.	1.1	5
77	Oxygen catalyst depletion strategy based on TWC control-oriented modelling. IFAC-PapersOnLine, 2018, 51, 355-361.	0.5	5
78	MEASUREMENT OF THE OIL CONSUMPTION OF AN AUTOMOTIVE TURBOCHARGER. Experimental Techniques, 2005, 29, 25-27.	0.9	4
79	Considerations on the low-pressure exhaust gas recirculation system control in turbocharged diesel engines. International Journal of Engine Research, 2014, 15, 250-260.	1.4	4
80	Study of the turbocharger shaft motion by means of infrared sensors. Mechanical Systems and Signal Processing, 2015, 56-57, 246-258.	4.4	4
81	Fuel and Pollutant Efficient Vehicle Speed Optimization in Real Driving Conditions. IFAC-PapersOnLine, 2018, 51, 225-232.	0.5	4
82	Fault Detection in Engine Measurement Systems by a Model-Based Approach. , 2004, , .		2
83	A method for data consistency checking in compressor and variable-geometry turbine maps. Proceedings of the Institution of Mechanical Engineers, Part D: Journal of Automobile Engineering, 2006, 220, 1465-1473.	1.1	2
84	Short-circuit effects on spark ignition engine after-treatment and fuel-to-air ratio control. International Journal of Engine Research, 2020, 21, 885-894.	1.4	2
85	Fuel-to-air ratio control under short-circuit conditions through UEGO sensor signal analysis. International Journal of Engine Research, 2020, 21, 1577-1583.	1.4	2
86	Individual cylinder fuel blend estimation in a dual-fuel engine using an in-cylinder pressure based observer. Control Engineering Practice, 2021, 109, 104760.	3.2	2
87	Improving CO2 emission assessment of diesel-based powertrains in dynamic driving cycles by data fusion techniques. Proceedings of the Institution of Mechanical Engineers, Part D: Journal of Automobile Engineering, 2021, 235, 362-372.	1.1	1
88	An analysis of the resonance attenuation in a combustion chamber. International Journal of Engine Research, 2023, 24, 1714-1723.	1.4	1
89	Reply to notes on "A methodology for combustion detection in diesel engines through in-cylinder pressure derivative signal". Mechanical Systems and Signal Processing, 2011, 25, 3211.	4.4	0
90	Editorial: IFAC Workshop on Engine and Powertrain Control, Simulation and Modeling (ECOSM 2012). Control Engineering Practice, 2014, 29, 174-175.	3.2	0

#	ARTICLE	IF	CITATIONS
91	Engine Control., 2021,, 681-693.		0