

Antonio Fernandez-Cardador

List of Publications by Year in descending order

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47
papers

1,423
citations

430874

18
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361022

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47
all docs

47
docs citations

47
times ranked

727
citing authors

#	ARTICLE	IF	CITATIONS
1	Energy Savings in Metropolitan Railway Substations Through Regenerative Energy Recovery and Optimal Design of ATO Speed Profiles. IEEE Transactions on Automation Science and Engineering, 2012, 9, 496-504.	5.2	161
2	Optimal underground timetable design based on power flow for maximizing the use of regenerative-braking energy. Proceedings of the Institution of Mechanical Engineers, Part F: Journal of Rail and Rapid Transit, 2012, 226, 397-408.	2.0	137
3	Multi objective particle swarm optimization algorithm for the design of efficient ATO speed profiles in metro lines. Engineering Applications of Artificial Intelligence, 2014, 29, 43-53.	8.1	118
4	Fuzzy optimal schedule of high speed train operation to minimize energy consumption with uncertain delays and driver's behavioral response. Engineering Applications of Artificial Intelligence, 2012, 25, 1548-1557.	8.1	95
5	Optimal design of metro automatic train operation speed profiles for reducing energy consumption. Proceedings of the Institution of Mechanical Engineers, Part F: Journal of Rail and Rapid Transit, 2011, 225, 463-474.	2.0	89
6	Design of Robust and Energy-Efficient ATO Speed Profiles of Metropolitan Lines Considering Train Load Variations and Delays. IEEE Transactions on Intelligent Transportation Systems, 2015, 16, 2061-2071.	8.0	87
7	Optimal design of energy-efficient ATO CBTC driving for metro lines based on NSGA-II with fuzzy parameters. Engineering Applications of Artificial Intelligence, 2014, 36, 164-177.	8.1	74
8	Assessment of energy-saving techniques in direct-current-electrified mass transit systems. Transportation Research Part C: Emerging Technologies, 2014, 38, 85-100.	7.6	63
9	Real time regulation of efficient driving of high speed trains based on a genetic algorithm and a fuzzy model of manual driving. Engineering Applications of Artificial Intelligence, 2014, 29, 79-92.	8.1	63
10	Predictive Traffic Regulation for Metro Loop Lines Based on Quadratic Programming. Proceedings of the Institution of Mechanical Engineers, Part F: Journal of Rail and Rapid Transit, 2006, 220, 79-89.	2.0	58
11	Modeling and optimizing energy-efficient manual driving on high-speed lines. IEEJ Transactions on Electrical and Electronic Engineering, 2012, 7, 633-640.	1.4	49
12	Analysis of the demand charge in DC railway systems and reduction of its economic impact with Energy Storage Systems. International Journal of Electrical Power and Energy Systems, 2017, 93, 459-467.	5.5	40
13	Real time eco-driving of high speed trains by simulation-based dynamic multi-objective optimization. Simulation Modelling Practice and Theory, 2018, 84, 50-68.	3.8	36
14	A method to optimise train energy consumption combining manual energy efficient driving and scheduling. WIT Transactions on the Built Environment, 2010, , .	0.0	36
15	Balancing energy consumption and risk of delay in high speed trains: A three-objective real-time eco-driving algorithm with fuzzy parameters. Transportation Research Part C: Emerging Technologies, 2018, 95, 652-678.	7.6	34
16	Fuzzy train tracking algorithm for the energy efficient operation of CBTC equipped metro lines. Engineering Applications of Artificial Intelligence, 2016, 53, 19-31.	8.1	32
17	Efficient design of Automatic Train Operation speed profiles with on board energy storage devices. , 2010, , .		24
18	Energy Efficiency and Integration of Urban Electrical Transport Systems: EVs and Metro-Trains of Two Real European Lines. Energies, 2019, 12, 366.	3.1	22

#	ARTICLE	IF	CITATIONS
19	A Monovoltage Equivalent Model of Bi-Voltage Autotransformer-Based Electrical Systems in Railways. IEEE Transactions on Power Delivery, 2012, 27, 699-708.	4.3	19
20	Energy savings in metro-transit systems: A comparison between operational Italian and Spanish lines. Proceedings of the Institution of Mechanical Engineers, Part F: Journal of Rail and Rapid Transit, 2016, 230, 345-359.	2.0	19
21	Determining the optimum installation of energy storage systems in railway electrical infrastructures by means of swarm and evolutionary optimization algorithms. International Journal of Electrical Power and Energy Systems, 2021, 124, 106295.	5.5	18
22	Computer-aided design of ATO speed commands according to energy consumption criteria. WIT Transactions on the Built Environment, 2008, , .	0.0	17
23	Smart traffic-scenario compressor for the efficient electrical simulation of mass transit systems. International Journal of Electrical Power and Energy Systems, 2017, 88, 150-163.	5.5	15
24	A multi-objective algorithm for train driving energy reduction with multiple time targets. Engineering Optimization, 2021, 53, 719-734.	2.6	14
25	Riding the Rails to DC Power Efficiency: Energy efficiency in dc-electrified metropolitan railways. IEEE Electrification Magazine, 2014, 2, 32-38.	1.8	13
26	Evaluation of the impact that the traffic model used in railway electrical simulation has on the assessment of the installation of a Reversible Substation. International Journal of Electrical Power and Energy Systems, 2018, 102, 201-210.	5.5	13
27	An Eco-Driving Algorithm for Interoperable Automatic Train Operation. Applied Sciences (Switzerland), 2020, 10, 7705.	2.5	11
28	Improving the Traffic Model to Be Used in the Optimisation of Mass Transit System Electrical Infrastructure. Energies, 2017, 10, 1134.	3.1	7
29	Assessment of the Worthwhileness of Efficient Driving in Railway Systems with High-Receptivity Power Supplies. Energies, 2020, 13, 1836.	3.1	7
30	Simulation-based assessment of the installation of a Reversible Substation in a railway line, including a realistic model of large traffic perturbations. International Journal of Electrical Power and Energy Systems, 2020, 115, 105476.	5.5	6
31	Statistical dwell time model for metro lines. WIT Transactions on the Built Environment, 2007, , .	0.0	6
32	Eco-Driving in Railway Lines Considering the Uncertainty Associated with Climatological Conditions. Sustainability, 2022, 14, 8645.	3.2	6
33	Energy efficiency in high speed railway traffic operation: a real-time ecodriving algorithm. , 2015, , .		5
34	Multi-stage optimization of the installation of Energy Storage Systems in railway electrical infrastructures with nature-inspired optimization algorithms. Engineering Applications of Artificial Intelligence, 2021, 104, 104370.	8.1	5
35	A Variable No-Load Voltage Scheme for Improving Energy Efficiency in DC-Electrified Mass Transit Systems. , 2014, , .		5
36	Optimal deployment of energy storage systems in a DC-electrified railway system. , 2012, , .		5

#	ARTICLE	IF	CITATIONS
37	An Optimization Procedure to Determine the Topology of AC Railways Power Supply Networks. , 2007, , .		4
38	Optimal Location and Sizing of Energy Storage Systems in DC-Electrified Railway Lines Using a Coral Reefs Optimization Algorithm with Substrate Layers. Energies, 2021, 14, 4753.	3.1	4
39	ATO ecodriving design to minimise energy consumption in Metro de Bilbao. WIT Transactions on the Built Environment, 2012, , .	0.0	2
40	An optimisation-based traffic regulator for metro lines. WIT Transactions on the Built Environment, 2007, , .	0.0	2
41	Optimizing Mass Transit Systems Electrical Infrastructure by Application of the Particle Swarm Optimization Algorithm. , 2019, , .		1
42	A computer tool for automatic braking distance calculation. , 2008, , .		1
43	Efficient driving algorithms for non-disturbed and disturbed trains with the CBTC signalling system. , 2015, , .		0
44	Improvement of a DC electrical railway simulator using artificial intelligence. , 2018, , .		0
45	Sensitivities and uncertainties of eco-driving algorithm estimating train power consumption. , 2020, , .		0
46	Catenary and autotransformer coupled optimization for 2Ã—25kV systems planning. WIT Transactions on the Built Environment, 2006, , .	0.0	0
47	A mixed AC/DC model for railway power systems. WIT Transactions on the Built Environment, 2006, , .	0.0	0