Barys N Shyrokau

List of Publications by Year
in descending order

62	1,002	567281 15	526287 27
papers	citations	h-index	g-index

66	66	66	733
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	A Survey of Traction Control and Antilock Braking Systems of Full Electric Vehicles With Individually Controlled Electric Motors. IEEE Transactions on Vehicular Technology, 2015, 64, 3878-3896.	6.3	178
2	Survey on Wheel Slip Control Design Strategies, Evaluation and Application to Antilock Braking Systems. IEEE Access, 2020, 8, 10951-10970.	4.2	61
3	Delay-compensating strategy to enhance string stability of adaptive cruise controlled vehicles. Transportmetrica B, 2018, 6, 211-229.	2.3	58
4	Search-Based Optimal Motion Planning for Automated Driving. , 2018, , .		55
5	Integrated nonlinear model predictive control for automated driving. Control Engineering Practice, 2021, 106, 104654.	5.5	55
6	MPC-Based Haptic Shared Steering System: A Driver Modeling Approach for Symbiotic Driving. IEEE/ASME Transactions on Mechatronics, 2021, 26, 1201-1211.	5.8	33
7	The new paradigm of an anti-lock braking system for a full electric vehicle: experimental investigation and benchmarking. Proceedings of the Institution of Mechanical Engineers, Part D: Journal of Automobile Engineering, 2016, 230, 1364-1377.	1.9	31
8	Experimental investigations on continuous regenerative anti-lock braking system of full electric vehicle. International Journal of Automotive Technology, 2016, 17, 327-338.	1.4	30
9	Shared and Distributed X-in-the-Loop Tests for Automotive Systems: Feasibility Study. IEEE Access, 2018, 6, 4017-4026.	4.2	25
10	MPC-Based Motion-Cueing Algorithm for a 6-DOF Driving Simulator with Actuator Constraints. Vehicles, 2020, 2, 625-647.	3.1	25
11	Vehicle motion control with subsystem prioritization. Mechatronics, 2015, 30, 297-315.	3.3	24
12	Performance benchmark of state-of-the-art lateral path-following controllers. , 2018, , .		24
13	SafeVRU: A Research Platform for the Interaction of Self-Driving Vehicles with Vulnerable Road Users. , 2019, , .		24
14	A Hybrid Submicroscopic-Microscopic Traffic Flow Simulation Framework. IEEE Transactions on Intelligent Transportation Systems, 2021, 22, 3430-3443.	8.0	23
15	Fuzzy evaluation of tyreâ€“surface interaction parameters. Journal of Terramechanics, 2010, 47, 113-130.	3.1	22
16	Vehicle dynamics control with energy recuperation based on control allocation for independent wheel motors and brake system. International Journal of Powertrains, 2013, 2, 153.	0.3	20
17	Design and Testing of ABS for Electric Vehicles with Individually Controlled On-Board Motor Drives. SAE International Journal of Passenger Cars - Mechanical Systems, 0, 7, 902-913.	0.4	19
18	Vehicle dynamics with brake hysteresis. Proceedings of the Institution of Mechanical Engineers, Part D: Journal of Automobile Engineering, 2013, 227, 139-150.	1.9	17

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19	The effect of steering-system linearity, simulator motion, and truck driving experience on steering of an articulated tractor-semitrailer combination. Applied Ergonomics, 2018, 71, 17-28.	3.1	17
20	A Model-Based Approach for the Estimation of Bearing Forces and Moments Using Outer Ring Deformation. IEEE Transactions on Industrial Electronics, 2020, 67, 461-470.	7.9	17
21	Hardware-in-the-loop test rig for integrated vehicle control systems. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2013, 46, 683-688.	0.4	16
22	Experimental Study on Continuous ABS Operation in Pure Regenerative Mode for Full Electric Vehicle. SAE International Journal of Passenger Cars - Mechanical Systems, 0, 8, 364-369.	0.4	16
23	Investigation of Brake Control Using Test Rig-in-the-Loop Technique. , 0, , .		15
24	Reconstruction of Wheel Forces Using an Intelligent Bearing. SAE International Journal of Passenger Cars - Electronic and Electrical Systems, 0, 9, 196-203.	0.3	15
25	A semi-analytical bearing model considering outer race flexibility for model based bearing load monitoring. Mechanical Systems and Signal Processing, 2018, 104, 384-397.	8.0	15
26	Tire Model with Temperature Effects for Formula SAE Vehicle. Applied Sciences (Switzerland), 2019, 9, 5328.	2.5	12
27	Advancement of Vehicle Dynamics Control with Monitoring the Tire Rolling Environment. SAE International Journal of Passenger Cars - Mechanical Systems, 0, 3, 199-216.	0.4	10
28	Curve Tilting With Nonlinear Model Predictive Control for Enhancing Motion Comfort. IEEE Transactions on Control Systems Technology, 2022, 30, 1538-1549.	5.2	10
29	Coordination of Steer Angles, Tyre Inflation Pressure, Brake and Drive Torques for Vehicle Dynamics Control. SAE International Journal of Passenger Cars - Mechanical Systems, 0, 6, 241-251.	0.4	9
30	Feasibility of a Neural Network-Based Virtual Sensor for Vehicle Unsprung Mass Relative Velocity Estimation. Sensors, 2021, 21, 7139.	3.8	9
31	Alterable fuzzy sets in automotive control applications. International Journal of Modelling, Identification and Control, 2008, 3, 305.	0.2	8
32	Anti-Lock Braking Control Design Using a Nonlinear Model Predictive Approach and Wheel Information. , 2019, , .		8
33	An approach to develop haptic feedback control reference for steering systems using open-loop driving manoeuvres. Vehicle System Dynamics, 2020, 58, 1953-1976.	3.7	8
34	MPC-based Path Following Design for Automated Vehicles with Rear Wheel Steering. , 2021, , .		8
35	Intelligent control for ABS application with identification of road and environmental properties. International Journal of Vehicle Autonomous Systems, 2006, 4, 44.	0.2	7
36	Base-brake functions of electric vehicle: disturbance compensation in decoupled brake system. International Journal of Vehicle Design, 2016, 70, 69.	0.3	7

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37	Wheel force measurement for vehicle dynamics control using an intelligent bearing. , 2016, , 547-552.		7
38	Autonomously Operated Power-Dividing Unit for Driveline Modeling and AWD Vehicle Dynamics Control. , 2008, , .		6
39	A Real-Time Nonlinear MPC for Extreme Lateral Stabilization of Passenger Vehicles. , 2019, , .		6
40	Influence of Active Camber Control on Steering Feel. SAE International Journal of Passenger Cars - Mechanical Systems, 0, 9, 124-134.	0.4	5
41	Comfort and Time Efficiency: A Roundabout Case Study. , 2021, , .		5
42	Analysis of subsystems coordination for electric vehicle during straight-line braking and brake-in-turn. , 2013, , .		4
43	Design of Haptic Feedback Control for Steer-by-Wire. , 2018, , .		4
44	Vehicle Dynamics Control Using Model Predictive Control Allocation Combined with an Adaptive Parameter Estimator. SAE International Journal of Connected and Automated Vehicles, 0, 3, .	0.4	4
45	Simulating 3D Human Postural Stabilization in Vibration and Dynamic Driving. Applied Sciences (Switzerland), 2022, 12, 6657.	2.5	4
46	Offline and Online Tyre Model Reconstruction by Locally Weighted Projection Regression. , 2020, , .		3
47	Musculoskeletal Driver Model for the Steering Feedback Controller. Vehicles, 2021, 3, 111-126.	3.1	3
48	Experimental Validation of Torque-Based Control for Realistic Handwheel Haptics in Driving Simulators. IEEE Transactions on Vehicular Technology, 2022, 71, 196-209.	6.3	3
49	Kinematic Discrepancy Minimization for AWD Terrain Vehicle Dynamics Control. , 2010, , .		2
50	Hierarchical control of overactuated vehicles via sliding mode techniques. , 2014, , .		2
51	Near Optimal Control With Reachability and Safety Guarantees. IFAC-PapersOnLine, 2019, 52, 230-235.	0.9	2
52	Conceptual Testing of Visual HMIs for Merging of Trucks. Advances in Intelligent Systems and Computing, 2020, , 462-474.	0.6	2
53	Simulation of Brake Control for Motorcycles. , 0, , .		1
54	Influence of Active Subsystems on Electric Vehicle Behavior and Energy Characteristics. , 0, , .		1

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55	ROAD IDENTIFICATION FOR ITSâ€INTEGRATED SYSTEMS OF AUTOMOTIVE ACTIVE SAFETY. Transport, 2005, 20, 55-61.	1.2	1
56	Recent Advancements in Continuous Wheel Slip Control. Lecture Notes in Mechanical Engineering, 2020, , 1525-1535.	0.4	1
57	Torque Vectoring Control on Ice for Electric Vehicles with Individually Actuated Wheels. Lecture Notes in Mechanical Engineering, 2020, , 1543-1551.	0.4	1
58	Identification of Road Properties in Advanced Active Safety Applications: Overview and Conceptual Solutions. , 0, , .		0
59	Fuzzy identification of uncertain ground parameters for autonomous mobile machines. International Journal of Vehicle Autonomous Systems, 2011, 9, 219.	0.2	0
60	Generalized Model and Computational Algorithm for Modeling Passive Driveline Systems of AWD Automobiles. , 2008, , .		0
61	Fuzzy Architecture of Safety-Relevant Vehicle Systems. , 2010, , .		0
62	Validating SuperHuman Automated Driving Performance. , 2020, , .		0