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	Curve Tilting With Nonlinear Model Predictive Control for Enhancing Motion Comfort. IEEE Transactions on Control Systems Technology, 2022, 30, 1538-1549.	5.2	10
2	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
3	Simulating 3D Human Postural Stabilization in Vibration and Dynamic Driving. Applied Sciences (Switzerland), 2022, 12, 6657.	2.5	4
4	A Hybrid Submicroscopic-Microscopic Traffic Flow Simulation Framework. IEEE Transactions on Intelligent Transportation Systems, 2021, 22, 3430-3443.	8.0	23
5	Integrated nonlinear model predictive control for automated driving. Control Engineering Practice, 2021, 106, 104654.	5.5	55
6	Musculoskeletal Driver Model for the Steering Feedback Controller. Vehicles, 2021, 3, 111-126.	3.1	3
7	MPC-based Path Following Design for Automated Vehicles with Rear Wheel Steering. , 2021, , .		8
8	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
9	Comfort and Time Efficiency: A Roundabout Case Study. , 2021, , .		5
10	Feasibility of a Neural Network-Based Virtual Sensor for Vehicle Unsprung Mass Relative Velocity Estimation. Sensors, 2021, 21, 7139.	3.8	9
11	Conceptual Testing of Visual HMIs for Merging of Trucks. Advances in Intelligent Systems and Computing, 2020, , 462-474.	0.6	2
12	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
13	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
14	Offline and Online Tyre Model Reconstruction by Locally Weighted Projection Regression. , 2020, , .		3
15	MPC-Based Motion-Cueing Algorithm for a 6-DOF Driving Simulator with Actuator Constraints. Vehicles, 2020, 2, 625-647.	3.1	25
16	Survey on Wheel Slip Control Design Strategies, Evaluation and Application to Antilock Braking Systems. IEEE Access, 2020, 8, 10951-10970.	4.2	61
17	Recent Advancements in Continuous Wheel Slip Control. Lecture Notes in Mechanical Engineering, 2020, , 1525-1535.	0.4	1
18	Torque Vectoring Control on Ice for Electric Vehicles with Individually Actuated Wheels. Lecture Notes in Mechanical Engineering, 2020, , 1543-1551.	0.4	1

#	Article	IF	Citations
19	Validating SuperHuman Automated Driving Performance. , 2020, , .		0
20	Near Optimal Control With Reachability and Safety Guarantees. IFAC-PapersOnLine, 2019, 52, 230-235.	0.9	2
21	A Real-Time Nonlinear MPC for Extreme Lateral Stabilization of Passenger Vehicles. , 2019, , .		6
22	SafeVRU: A Research Platform for the Interaction of Self-Driving Vehicles with Vulnerable Road Users. , 2019, , .		24
23	Anti-Lock Braking Control Design Using a Nonlinear Model Predictive Approach and Wheel Information. , 2019, , .		8
24	Tire Model with Temperature Effects for Formula SAE Vehicle. Applied Sciences (Switzerland), 2019, 9, 5328.	2.5	12
25	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
26	Shared and Distributed X-in-the-Loop Tests for Automotive Systems: Feasibility Study. IEEE Access, 2018, 6, 4017-4026.	4.2	25
27	Delay-compensating strategy to enhance string stability of adaptive cruise controlled vehicles. Transportmetrica B, 2018, 6, 211-229.	2.3	58
28	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
29	Search-Based Optimal Motion Planning for Automated Driving. , 2018, , .		55
30	Design of Haptic Feedback Control for Steer-by-Wire. , 2018, , .		4
31	Performance benchmark of state-of-the-art lateral path-following controllers. , 2018, , .		24
32	Base-brake functions of electric vehicle: disturbance compensation in decoupled brake system. International Journal of Vehicle Design, 2016, 70, 69.	0.3	7
33	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
34	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
35	Wheel force measurement for vehicle dynamics control using an intelligent bearing. , 2016, , 547-552.		7
36	Vehicle motion control with subsystem prioritization. Mechatronics, 2015, 30, 297-315.	3.3	24

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37	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
38	Hierarchical control of overactuated vehicles via sliding mode techniques. , 2014, , .		2
39	Analysis of subsystems coordination for electric vehicle during straight-line braking and brake-in-turn. , 2013, , .		4
40	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
41	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
42	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
43	Fuzzy identification of uncertain ground parameters for autonomous mobile machines. International Journal of Vehicle Autonomous Systems, 2011, 9, 219.	0.2	0
44	Fuzzy evaluation of tyreâ€“surface interaction parameters. Journal of Terramechanics, 2010, 47, 113-130.	3.1	22
45	Kinematic Discrepancy Minimization for AWD Terrain Vehicle Dynamics Control. , 2010, , .		2
46	Fuzzy Architecture of Safety-Relevant Vehicle Systems. , 2010, , .		0
47	Autonomously Operated Power-Dividing Unit for Driveline Modeling and AWD Vehicle Dynamics Control. , 2008, , .		6
48	Alterable fuzzy sets in automotive control applications. International Journal of Modelling, Identification and Control, 2008, 3, 305.	0.2	8
49	Generalized Model and Computational Algorithm for Modeling Passive Driveline Systems of AWD Automobiles. , 2008, , .		0
50	Intelligent control for ABS application with identification of road and environmental properties. International Journal of Vehicle Autonomous Systems, 2006, 4, 44.	0.2	7
51	ROAD IDENTIFICATION FOR ITSâ€INTEGRATED SYSTEMS OF AUTOMOTIVE ACTIVE SAFETY. Transport, 2005, 20, 55-61.	1.2	1
52	Simulation of Brake Control for Motorcycles. , 0, , .		1
53	Identification of Road Properties in Advanced Active Safety Applications: Overview and Conceptual Solutions. , 0, , .		0
54	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

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55	Investigation of Brake Control Using Test Rig-in-the-Loop Technique. , 0, , .		15
56	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
57	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
58	Influence of Active Subsystems on Electric Vehicle Behavior and Energy Characteristics. , 0, , .		1
59	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
60	Influence of Active Camber Control on Steering Feel. SAE International Journal of Passenger Cars - Mechanical Systems, 0, 9, 124-134.	0.4	5
61	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
62	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