

JOE: a mobile, inverted pendulum

IEEE Transactions on Industrial Electronics

49, 107-114

DOI: [10.1109/41.982254](https://doi.org/10.1109/41.982254)

Citation Report

#	ARTICLE	IF	CITATIONS
1	On the nonlinear controllability of a quasiholonomic mobile robot. , 0, , .		50
2	Minimum-time swing-up of a rotary inverted pendulum by iterative impulsive control. , 2004, , .		17
3	Velocity control of a wheeled inverted pendulum by partial feedback linearization. , 2004, , .		23
4	SOHO security with mini self-balancing robots. Industrial Robot, 2005, 32, 492-498.	1.2	6
5	Dynamic Analysis of a Nonholonomic Two-Wheeled Inverted Pendulum Robot. Journal of Intelligent and Robotic Systems: Theory and Applications, 2005, 44, 25-46.	2.0	162
6	Near Time-optimal Constrained Trajectory Planning on Outdoor Terrain. , 0, , .		12
7	Synchronous control of the parallel dual inverted pendulum system driven by linear servomotors. , 0, , .		1
8	ERROSphere: an Equilibrator Robot. , 0, , .		7
9	General Suppression Control Framework: Application in Self-balancing Robots. Lecture Notes in Computer Science, 2005, , 375-388.	1.0	5
10	Velocity and position control of a wheeled inverted pendulum by partial feedback linearization. , 2005, 21, 505-513.		460
11	Attitude control of bicycle motion by steering angle and variable COG control. , 2005, , .		31
12	Controller Design for Two-wheels Inverted Pendulum Mobile Robot Using PISMC. , 2006, , .		13
13	Adaptive Critic Neuro-fuzzy Control of Two-wheel Vehicle. , 2006, , .		1
14	Neural-Network-based Programmable State Feedback Controller for Induction Motor Drive. , 2006, , .		0
15	Design and Control of YAIP — an Inverted Pendulum on Two Wheels Robot. , 2006, , .		20
16	Design and Implement of the Self-dynamic Controller for Two-wheel Transporter. , 2006, , .		4
17	Design and Control of YAIP - an Inverted Pendulum on Two Wheels Robot. , 2006, , .		10
18	Casterless Wheelchair Robot Using Inverted Pendulum Control. , 2006, , .		0

#	ARTICLE	IF	CITATIONS
19	Band-Limited Trajectory Planning and Tracking for Certain Dynamically Stabilized Mobile Systems. Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME, 2006, 128, 104-111.	0.9	16
20	Improving driving ability for a two-wheeled inverted-pendulum-type autonomous vehicle. Proceedings of the Institution of Mechanical Engineers, Part D: Journal of Automobile Engineering, 2006, 220, 165-175.	1.1	24
21	Velocity and orientation control of an anti-tilting mobile robot moving on an inclined plane. , 0, , .		8
22	Motion control of nonholonomic mobile underactuated manipulator. , 0, , .		4
23	An Approach to fusion control of stabilization control and human input in Electric Bicycle. Industrial Electronics Society (IECON), Annual Conference of IEEE, 2006, , .	0.0	1
24	Casterless Wheelchair Robot Using Inverted Pendulum Control. , 2006, , .		0
25	Self Sustaining Wheelchair Robot on a Curved Trajectory. , 2006, , .		1
26	Characteristic Analysis of A Two-Wheeled Robotic Rover with Anti-Overturn Ability and Combinability. , 2006, , .		2
27	Position and Orientation Control of a Mobile Wheeled Pendulum Moving on an Inclined Plane. , 2006, , .		1
28	An Adaptive Based Approach to Improve the Stability of Two Wheel Mobile Manipulator. , 2007, , .		6
29	Pilot control of an auto-balancing two-wheeled cart. Advanced Robotics, 2007, 21, 817-827.	1.1	25
30	Position and speed control of a two-wheeled balance mobile robot. Journal of Information and Optimization Sciences, 2007, 28, 985-996.	0.2	1
31	Adaptive Neural Network Control of a Self-balancing Two-wheeled Scooter. , 2007, , .		5
32	Synchronisation control of parallel dual inverted pendulums driven by linear servomotors. IET Control Theory and Applications, 2007, 1, 320-327.	1.2	20
33	Mechanical Design and Dynamic Modeling of a Two-Wheeled Inverted Pendulum Mobile Robot. , 2007, , .		35
34	A New Family of Two-Wheeled Mobile Robots: Modeling and Controllability. , 2007, 23, 169-173.		88
35	Control System Design for a Mobile Inverted Pendulum via Sliding Mode Technique. , 2007, , .		4
36	Wheeled inverted pendulum type assistant robot: inverted mobile, standing, and sitting motions. , 2007, , .		28

#	ARTICLE	IF	CITATIONS
37	Stability improvement of two wheel mobile manipulator by real time gain control technique. , 2007, , .		3
38	B-2WMR System Model and Underactuated Property Analysis. , 2007, , .		7
39	Simulation of attitude control of a wheeled inverted pendulum. , 2007, , .		16
40	Development of a Two-Wheeled Inverted Pendulum Mobile Robot. , 2007, , .		24
41	A Novel Design of A Two-Wheeled Robot. , 2007, , .		6
42	Controllability and Posture Control of a Wheeled Pendulum Moving on an Inclined Plane. , 2007, 23, 564-577.		48
43	Wheeled inverted pendulum type assistant robot: design concept and mobile control. Intelligent Service Robotics, 2008, 1, 313-320.	1.6	69
44	Motion control for a two-wheeled vehicle using a self-tuning PID controller. Control Engineering Practice, 2008, 16, 365-375.	3.2	123
45	Control of a Mobile Pendulum System for a Boxing Robot Game. , 2008, , .		1
46	Adaptive robust dynamic balance and motion control of mobile wheeled inverted pendulums. , 2008, , .		0
47	Control of a mobile inverted pendulum robot system. , 2008, , .		14
48	Position control of a mobile inverted pendulum system using radial basis function network. , 2008, , .		8
49	Adaptive nonlinear control using RBFNN for an electric unicycle. Conference Proceedings IEEE International Conference on Systems, Man, and Cybernetics, 2008, , .	0.0	21
50	Control Experiment of a Wheel-Driven Mobile Inverted Pendulum Using Neural Network. IEEE Transactions on Control Systems Technology, 2008, 16, 297-303.	3.2	162
51	Human-friendly motion control of a wheeled inverted pendulum by reduced-order disturbance observer. , 2008, , .		24
52	Research of Dynamic Model of Flexible Two-Wheel Upright Self-Balance Humanoid Robot. , 2008, , .		2
53	The PWM Servo and LQR Control of a Dual-Wheel Upright Self-Balancing Robot. , 2008, , .		1
54	Development of Inverted Pendulum System at KMITL. , 2008, , .		0

#	ARTICLE	IF	CITATIONS
55	The LQR control and design of dual-wheel upright self-balance Robot. , 2008, , .		5
56	Forward and backward motion control of wheelchair on two wheels. , 2008, , .		19
57	A wheeled-mobile robot with human interaction based on force control. , 2008, , .		3
58	Modelling and Control of a Wheelchair on Two Wheels. , 2008, , .		14
59	Autonomous dynamic balance of an electrical bicycle using variable structure under-actuated control. , 2008, , .		4
60	Fuzzy sliding-mode under-actuated control for autonomous dynamic balance of an electrical bicycle. , 2008, , .		5
61	Planned navigation of a self-balancing autonomous service robot. , 2008, , .		5
62	Design of Robust Stabilization and Fault Diagnosis for an Auto-balancing Two-Wheeled Cart. Advanced Robotics, 2008, 22, 319-338.	1.1	17
63	Controller design of a two-wheeled inverted pendulum mobile robot. , 2008, , .		12
64	A Control of Two Wheels Driven Redundant Mobile Manipulator Using A Monocular Camera System. , 2008, , .		0
65	Stabilization of a Wheeled Inverted Pendulum by a Continuous-Time Infinite-Horizon LQG Optimal Controller. , 2008, , .		14
66	The control and design of Dual - wheel upright self-balance Robot. , 2008, , .		3
67	Balance control of robot with CMAC based Q-learning. , 2008, , .		2
68	Estimation of contact forces in an inverted pendulum robot. , 2008, , .		2
69	The implementation of wheeled robot using adaptive output recurrent CMAC. , 2008, , .		3
70	Stable and quick standing-sitting motion of I-PENTAR by whole-body motion with force control. , 2008, , .		6
71	The Gesture signal filtering of self-balancing robot. , 2008, , .		0
72	Design and LQ Control of a two-wheeled self-balancing robot. , 2008, , .		9

#	ARTICLE	IF	CITATIONS
73	Motion control of a mobile pendulum system using neural network. , 2008, , .		1
74	Robust control of a mobile inverted pendulum robot using a RBF neural network controller. , 2009, , .		4
75	Low order decentralized stabilizing controller design for a mobile inverted pendulum robot. , 2009, , .		2
76	Development of the two-wheeled inverted pendulum type mobile robot WV-2R for educational purposes. , 2009, , .		11
77	Application of mobile inverted pendulum systems to Boxingbots for a boxing game. , 2009, , .		2
78	Optimal braking control for UW-Car using sliding mode. , 2009, , .		7
79	Extending interconnection and damping assignment passivity-based control (IDA-PBC) to underactuated mechanical systems with nonholonomic Pfaffian constraints: The mobile inverted pendulum robot. , 2009, , .		10
80	Implicit control of mobile under-actuated manipulators using support vector machine. , 2009, , .		0
81	Subsystem control based target tracking for two-wheeled mobile manipulator. , 2009, , .		0
82	Inverted pendulum with moving reference for benchmarking control systems performance. , 2009, , .		3
83	A stabilization control of two wheels driven wheelchair. , 2009, , .		32
84	Piezoelectric inverted pendulum as a teaching aid for Mechatronics courses. , 2009, , .		1
85	The flexible two-wheeled self-balancing robot intelligence controlling based on Boltzmann. , 2009, , .		3
86	Development of mechatronic systems for education purposes to introduce robot technology principles. , 2009, , .		1
87	Robust Control Method Applied in Self-Balancing Two-Wheeled Robot. , 2009, , .		7
88	Balancing control of Two-Wheeled Upstanding Robot using adaptive fuzzy control method. , 2009, , .		14
89	Development of a Self-Balancing Human Transportation Vehicle for the Teaching of Feedback Control. IEEE Transactions on Education, 2009, 52, 157-168.	2.0	63
90	Design of optimized fuzzy cascade controllers by means of Hierarchical Fair Competition-based Genetic Algorithms. Expert Systems With Applications, 2009, 36, 11641-11651.	4.4	22

#	ARTICLE	IF	CITATIONS
91	A hybrid controller design for biaxial inverted pendulum system. International Journal of Robust and Nonlinear Control, 2009, 19, 512-531.	2.1	4
92	Modeling and simulation of a flexible inverted pendulum system. Tsinghua Science and Technology, 2009, 14, 22-26.	4.1	26
93	Adaptive fuzzy logic control of dynamic balance and motion for wheeled inverted pendulums. Fuzzy Sets and Systems, 2009, 160, 1787-1803.	1.6	91
94	Nonlinear adaptive sliding-mode control design for two-wheeled human transportation vehicle. , 2009, , .		12
95	Model-based fuzzy control application to a self-balancing two-wheeled inverted pendulum. , 2009, , .		4
96	Modeling and path planning of the City-Climber robot part I: Dynamic modeling. , 2009, , .		7
97	Design and implementation of a balancing controller for two-wheeled vehicles using a cost-effective MCU. , 2009, , .		2
98	Robust velocity sliding mode control of mobile wheeled inverted pendulum systems. , 2009, , .		8
99	Baggage Transportation and Navigation by a Wheeled Inverted Pendulum Mobile Robot. IEEE Transactions on Industrial Electronics, 2009, 56, 3985-3994.	5.2	99
100	Experimental Validation of an Underactuated Two-Wheeled Mobile Robot. IEEE/ASME Transactions on Mechatronics, 2009, 14, 252-257.	3.7	48
101	Fuzzy Sliding-Mode Underactuated Control for Autonomous Dynamic Balance of an Electrical Bicycle. IEEE Transactions on Control Systems Technology, 2009, 17, 658-670.	3.2	74
102	A motion control of two-wheels driven mobile manipulator for human-robot cooperative transportation. , 2009, , .		11
103	Adaptive Robust Dynamic Balance and Motion Controls of Mobile Wheeled Inverted Pendulums. IEEE Transactions on Control Systems Technology, 2009, 17, 233-241.	3.2	68
104	Flexible Two-wheeled Self-Balancing Mobile Robot. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2009, 42, 117-124.	0.4	7
105	A control of two wheels driven redundant mobile manipulator using a monocular camera system. International Journal of Intelligent Systems Technologies and Applications, 2010, 8, 361.	0.2	2
106	Equation of motion of a Wheeled Inverted Pendulum on an irregular terrain. , 2010, , .		0
107	Self-tuning output recurrent cerebellar model articulation controller for a wheeled inverted pendulum control. Neural Computing and Applications, 2010, 19, 1153-1164.	3.2	9
108	Position control of a mobile inverted pendulum system using radial basis function network. International Journal of Control, Automation and Systems, 2010, 8, 157-162.	1.6	37

#	ARTICLE	IF	CITATIONS
109	Guidance control of a wheeled mobile robot with human interaction based on force control. International Journal of Control, Automation and Systems, 2010, 8, 361-368.	1.6	13
110	Motion control of mobile under-actuated manipulators by implicit function using support vector machines. IET Control Theory and Applications, 2010, 4, 2356-2368.	1.2	16
111	Support vector machine optimal control for mobile wheeled inverted pendulums with unmodelled dynamics. Neurocomputing, 2010, 73, 2773-2782.	3.5	37
112	Robust adaptive motion/force control for wheeled inverted pendulums. Automatica, 2010, 46, 1346-1353.	3.0	89
113	Real-Time Control System for a Two-Wheeled Inverted Pendulum Mobile Robot. , 2010, , .		5
114	Dynamic Modelling, Tracking Control and Simulation Results of a Novel Underactuated Wheeled Manipulator (WAcrobot). , 2010, , .		0
115	Simultaneous Tracking and Stabilization of a Wheeled Inverted Pendulum: a Backstepping Sliding-Mode Approach. International Journal of Nonlinear Sciences and Numerical Simulation, 2010, 11, .	0.4	0
116	Dynamic modeling and adaptive motion control of a two-wheeled self-balancing vehicle for personal transport. , 2010, , .		14
117	Robot limbo: Optimized planning and control for dynamically stable robots under vertical obstacles. , 2010, , .		20
118	WIPs real-time control using RIBTC. , 2010, , .		0
119	Fuzzy control based on LMI approach and fuzzy interpretation of the rider input for two wheeled balancing human transporter. , 2010, , .		15
120	Stabilization of a rapid four-wheeled mobile platform using the ZMP stabilization method. , 2010, , .		7
121	Direct adaptive fuzzy-basis-function-network motion control for self-balancing two-wheeled transporters. , 2010, , .		1
122	The Development of Self-Balancing Controller for One-Wheeled Vehicles. Engineering, 2010, 02, 212-219.	0.4	26
123	Intelligent adaptive motion control using fuzzy basis function networks for self-balancing two-wheeled transporters. , 2010, , .		7
124	Open Physical Models in Control Engineering Education. International Journal of Electrical Engineering and Education, 2010, 47, 448-459.	0.4	3
125	Fuzzy control of a two-wheel balancing robot using DSPIC. , 2010, , .		12
126	Motion control of an autonomous vehicle based on wheeled inverted pendulum using neural-adaptive implicit control. , 2010, , .		5

#	ARTICLE	IF	CITATIONS
127	H∞ robust control of Self-Balancing Two-Wheeled Robot. , 2010, , .		11
128	A PID backstepping controller for two-wheeled self-balancing robot. , 2010, , .		27
129	The Design and Implementation of a Wheeled Inverted Pendulum Using an Adaptive Output Recurrent Cerebellar Model Articulation Controller. IEEE Transactions on Industrial Electronics, 2010, 57, 1814-1822.	5.2	74
130	Adaptive Motion/Force Control of Mobile Under-Actuated Manipulators With Dynamics Uncertainties by Dynamic Coupling and Output Feedback. IEEE Transactions on Control Systems Technology, 2010, 18, 1068-1079.	3.2	53
131	The Kinematics Model of a Two-Wheeled Self-Balancing Autonomous Mobile Robot and Its Simulation. , 2010, , .		24
132	Two wheels mobile robot using optimal regulator control. , 2010, , .		3
133	Performance enhancement of a statically unstable Two Wheeled Mobile Robot traversing on an uneven surface. , 2010, , .		11
134	Trajectory tracking of a self-balancing two-wheeled robot using backstepping sliding-mode control and fuzzy basis function networks. , 2010, , .		11
135	Sliding-Mode Velocity Control of Mobile-Wheeled Inverted-Pendulum Systems. IEEE Transactions on Robotics, 2010, 26, 750-758.	7.3	201
136	Adaptive Neural Network Control of a Self-Balancing Two-Wheeled Scooter. IEEE Transactions on Industrial Electronics, 2010, 57, 1420-1428.	5.2	193
137	Vibration Suppression of Two-Wheel Mobile Manipulator Using Resonance-Ratio-Control-Based Null-Space Control. IEEE Transactions on Industrial Electronics, 2010, 57, 4137-4146.	5.2	53
138	Path following of a class of non-holonomic mobile robot with underactuated vehicle body. IET Control Theory and Applications, 2010, 4, 1898-1904.	1.2	33
139	On-line NNAC for Two-Wheeled Self-Balancing Robot Based on Feedback-Error-Learning. , 2010, , .		6
140	Self-sustaining control of two-wheel mobile manipulator using sliding mode control. , 2010, , .		18
141	Linearized two-loop posture and speed control of an electric unicycle. , 2010, , .		1
142	Centrifugal force compensation of a two-wheeled balancing robot. , 2010, , .		10
143	Modeling and control of a novel narrow vehicle. , 2010, , .		5
144	Dynamic adaptive equilibrium control for a self-stabilizing robot. , 2010, , .		6

#	ARTICLE	IF	CITATIONS
145	A planar electric vehicle with differential steering and a plantar command. , 2011, , .		2
146	Implementation and control of balancing line tracer robot using vision. , 2011, , .		0
147	The fuzzy controller designing of the self-balancing robot. , 2011, , .		5
148	Multigait soft robot. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 20400-20403.	3.3	1,750
149	Development of real-time control system for single-wheeled inverted pendulum platform. , 2011, , .		2
150	A mobile robot platform based on spring loaded casters for physical interaction. , 2011, , .		3
151	Lyapunov method for the controlling of the two wheels inverted pendulum. , 2011, , .		0
152	Application of fuzzy control for self-balancing two-wheel vehicle. , 2011, , .		2
153	Using of bond graph for mechatronics systems. , 2011, , .		1
154	Pendulum-balanced autonomous unicycle: Conceptual design and dynamics model. , 2011, , .		8
155	Multi input single output closed loop identification of two wheel inverted pendulum mobile robot. , 2011, , .		16
156	Exponential stability and spectral analysis of the pendulum system under position and delayed position feedbacks. International Journal of Control, 2011, 84, 904-915.	1.2	21
157	Modeling and implementation of two-wheel self-balancing robot equipped with supporting arms. , 2011, , .		13
158	Design of fuzzy logic controller for two-wheeled self-balancing robot. , 2011, , .		21
159	An adaptive control of two wheel inverted pendulum robot based on particle swarm optimization. , 2011, , .		0
160	LQR controller of one wheel robot stabilized by reaction wheel principle. , 2011, , .		5
161	Performance Comparison between Fuzzy Logic Controller (FLC) and PID Controller for a Highly Nonlinear Two-Wheels Balancing Robot. , 2011, , .		21
162	Computer-aided system design for educational purposes: An autonomous Self-balancing two-wheeled inverted pendulum robot. , 2011, , .		0

#	ARTICLE	IF	CITATIONS
163	Intelligent adaptive trajectory tracking using fuzzy basis function networks for self-balancing two-wheeled mobile robots. , 2011, , .		0
164	Dynamic Modeling and Analysis of a Two-Wheeled Inverted Pendulum Robot. , 2011, , .		19
165	Design and Implementation of Fuzzy Control on a Two-Wheel Inverted Pendulum. IEEE Transactions on Industrial Electronics, 2011, 58, 2988-3001.	5.2	162
166	Robust Stabilization of a Class of Underactuated Mechanical Systems Using Time Scaling and Lyapunov Redesign. IEEE Transactions on Industrial Electronics, 2011, 58, 4299-4313.	5.2	82
167	FPGA Control of a Mobile Inverted Pendulum Robot. Journal of the Institute of Engineering, 2011, 8, 188-196.	0.3	1
168	Stabilization of a Mobile Inverted Pendulum with IDA-PBC and Experimental Verification. Journal of System Design and Dynamics, 2011, 5, 1605-1623.	0.3	3
169	Modelling and control of a flexible two-wheeled self-balancing mobile robot. International Journal of Systems, Control and Communications, 2011, 3, 330.	0.2	2
170	TRAJECTORY TRACKING OF TWO WHEELS MOBILE ROBOT USING SLIDING MODE CONTROL. , 2011, , .		0
171	Stabilization of a Mobile Inverted Pendulum with IDA-PBC and Experimental Verification. Nippon Kikai Gakkai Ronbunshu, C Hen/Transactions of the Japan Society of Mechanical Engineers, Part C, 2011, 77, 1850-1865.	0.2	1
172	Smooth Control the Coaxial Self-Balance Robot under Impact Disturbances. International Journal of Advanced Robotic Systems, 2011, 8, 17.	1.3	1
173	Adaptive fuzzy output feedback motion/force control for wheeled inverted pendulums. IET Control Theory and Applications, 2011, 5, 1176-1188.	1.2	26
174	Velocity control realisation for a self-balancing transporter. IET Control Theory and Applications, 2011, 5, 1551-1560.	1.2	8
175	An autonomous dynamic balance of an electrical bicycle in motion using variable structure under-actuated control. Asian Journal of Control, 2011, 13, 240-254.	1.9	13
176	Adaptive Robust Self-Balancing and Steering of a Two-Wheeled Human Transportation Vehicle. Journal of Intelligent and Robotic Systems: Theory and Applications, 2011, 62, 103-123.	2.0	47
177	A Modular Fuzzy Control Approach for Two-Wheeled Wheelchair. Journal of Intelligent and Robotic Systems: Theory and Applications, 2011, 64, 401-426.	2.0	43
178	Robust intelligent backstepping tracking control for wheeled inverted pendulum. Soft Computing, 2011, 15, 2029-2040.	2.1	12
179	Design and parametric control of co-axes driven two-wheeled balancing robot. Microsystem Technologies, 2011, 17, 1215-1224.	1.2	2
180	Bionic autonomous learning control of a two-wheeled self-balancing flexible robot. Journal of Control Theory and Applications, 2011, 9, 521-528.	0.8	8

#	ARTICLE	IF	CITATIONS
181	Intelligent backstepping control for wheeled inverted pendulum. Expert Systems With Applications, 2011, 38, 3364-3371.	4.4	27
182	Real-time control of a wheeled inverted pendulum based on an intelligent model free controller. Mechatronics, 2011, 21, 523-533.	2.0	28
183	The mono-wheel robot with dynamic stabilisation. Robotics and Autonomous Systems, 2011, 59, 611-619.	3.0	16
184	Transformation control to an inverted pendulum mode of a mobile robot with wheel-arms using partial linearization. , 2011, , .		3
185	Switchblade: An agile treaded rover. , 2011, , .		6
186	Stability region estimation of statically unstable two wheeled mobile robots. , 2011, , .		2
187	Dynamic model of vehicle with two coaxial parallel wheels. , 2011, , .		1
188	Vibration suppression for uprising control of two-wheel driven wheelchair. , 2011, , .		2
189	A coaxial couple wheeled robot with Tâ€š fuzzy equilibrium control. Industrial Robot, 2011, 38, 292-300.	1.2	16
190	Modeling of selfâ€š motion for a twoâ€š wheeled inverted pendulum. Industrial Robot, 2011, 38, 76-85.	1.2	10
191	The balance of flexible two-wheeled robot. , 2011, , .		0
192	Effect of Limiting Wheel Slip on Two-Wheeled Robots in Low Traction Environments. Lecture Notes in Computer Science, 2012, , 417-426.	1.0	3
193	BMP: A self-balancing mobile platform. , 2012, , .		2
194	Modeling and control for UW-Car in rough terrain. , 2012, , .		1
195	Development of a stair traversing two wheeled robot. , 2012, , .		5
196	Dynamic model of three wheeled narrow tilting vehicle and corresponding experiment verification. , 2012, , .		4
197	Design and Implementation of the Control System for Two-Wheeled Self-Balancing Vehicles. Advanced Materials Research, 0, 588-589, 1606-1610.	0.3	1
198	The Effect of Terrain Inclination on Performance and the Stability Region of Two-Wheeled Mobile Robots. International Journal of Advanced Robotic Systems, 2012, 9, 218.	1.3	20

#	ARTICLE	IF	CITATIONS
199	Energy Shaping Nonlinear Acceleration Control for a Mobile Inverted Pendulum Utilizing Instability. Nippon Kikai Gakkai Ronbunshu, C Hen/Transactions of the Japan Society of Mechanical Engineers, Part C, 2012, 78, 1097-1108.	0.2	0
200	Energy Shaping Nonlinear Acceleration Control for a Mobile Inverted Pendulum with a Center of Gravity Moving Mechanism Utilizing Instability. Nippon Kikai Gakkai Ronbunshu, C Hen/Transactions of the Japan Society of Mechanical Engineers, Part C, 2012, 78, 3469-3482.	0.2	2
201	Dynamic model and balancing control for two-wheeled self-balancing mobile robot on the slopes. , 2012, , .		15
202	Development of a coaxial self-balancing robot based on sliding mode control. , 2012, , .		6
203	Dynamics and motion control of an underactuated two-wheeled mobile robot. , 2012, , .		4
204	Synthesized design of a fuzzy logic controller for an underactuated unicycle. Fuzzy Sets and Systems, 2012, 207, 77-93.	1.6	26
205	Advanced Control of the Mono Axial Vehicle with Variable Parameters. Procedia Engineering, 2012, 48, 592-598.	1.2	0
206	Dynamic model of three wheeled Narrow Tilting Vehicle and optimal tilt controller design. , 2012, , .		3
207	A model matching for the stabilization of the two Wheels Inverted Pendulum. , 2012, , .		0
208	Analysis and Design of Robust Feedback Control Systems for a Nonlinear Two-Wheel Inverted Pendulum System. , 2012, , .		3
209	Neural-Adaptive Output Feedback Control of a Class of Transportation Vehicles Based on Wheeled Inverted Pendulum Models. IEEE Transactions on Control Systems Technology, 2012, 20, 1583-1591.	3.2	106
210	Kinematic parameter calibration of two-wheeled robot. , 2012, , .		0
211	Implementation of human conveyance vehicle using model-free AORCMAC control strategy. , 2012, , .		0
212	The inverted pendulum: A fundamental benchmark in control theory and robotics. , 2012, , .		61
213	Design and Development of Mamdani-Like Fuzzy Control Algorithm for a Wheeled Human-Conveyance Vehicle Control. IEEE Transactions on Industrial Electronics, 2012, 59, 4774-4783.	5.2	37
214	Implementation and Closed Loop Identification of a Two Wheeled Inverted Pendulum Mobile Robot. , 2012, , .		8
215	Roll control of a novel single line play robot by controlling air pressure of ducted fans. , 2012, , .		0
216	A Monoball Robot Based on LEGO Mindstorms [Focus on Education]. IEEE Control Systems, 2012, 32, 71-83.	1.0	21

#	ARTICLE	IF	CITATIONS
217	Design and real-time implementation of a fuzzy logic control system for a two-wheeled robot. , 2012, , .		3
218	Nonlinear Dynamics of Inverted Pendulum Driven by Airflow. Journal of Computational and Nonlinear Dynamics, 2012, 7, .	0.7	3
219	Performance comparison between Sliding Mode Controller SMC and Proportional-Integral-Derivative PID controller for a highly nonlinear two-wheeled balancing robot. , 2012, , .		2
220	Estimation of inclination angle for balancing robots based on physical model. , 2012, , .		0
221	Design of a Wheeled Inverted Pendulum as a platform for learning based control. , 2012, , .		2
222	Design of optimized cascade fuzzy controller based on differential evolution: Simulation studies and practical insights. Engineering Applications of Artificial Intelligence, 2012, 25, 520-532.	4.3	47
223	Balancing and navigation control of a mobile inverted pendulum robot using sensor fusion of low cost sensors. Mechatronics, 2012, 22, 95-105.	2.0	72
224	Takagi-Sugeno fuzzy modeling of a two-wheeled inverted pendulum robot. Journal of Intelligent and Fuzzy Systems, 2013, 25, 535-546.	0.8	18
225	Model predictive control for a two wheeled self balancing robot. , 2013, , .		14
226	Design and control of a two-wheel self-balancing robot using the arduino microcontroller board. , 2013, , .		69
227	Conditions for slip- and separation-free rolling of a uniaxial wheeled transport platform on a rough underlying surface. Mechanics of Solids, 2013, 48, 19-30.	0.3	1
228	Modeling and Velocity Control for a Novel Narrow Vehicle Based on Mobile Wheeled Inverted Pendulum. IEEE Transactions on Control Systems Technology, 2013, 21, 1607-1617.	3.2	101
229	Balancing control of a single-wheel inverted pendulum system using air blowers: Evolution of Mechatronics capstone design. Mechatronics, 2013, 23, 926-932.	2.0	19
230	Transformation Control to an Inverted Pendulum for a Mobile Robot With Wheel-Arms Using Partial Linearization and Polytopic Model Set. IEEE Transactions on Robotics, 2013, 29, 774-783.	7.3	17
231	Controller design for two-wheeled self-balancing vehicles using feedback linearisation technique. International Journal of Vehicle Systems Modelling and Testing, 2013, 8, 38.	0.1	5
232	Two types of coaxial self-balancing robots. Journal of Central South University, 2013, 20, 2981-2990.	1.2	7
233	Adaptive control of wheeled inverted pendulum mobile robot using fuzzy disturbance observer. , 2013, , .		0
234	Acceleration based reactive torque control. , 2013, , .		0

#	ARTICLE	IF	CITATIONS
235	Steering and dynamic performance of a new configuration of a wheelchair on two wheels in various indoor and outdoor environments. , 2013, , .		1
236	A model reference adaptive control strategy for a self-balancing chair. , 2013, , .		0
237	Design and implementation of a PID control system for a coaxial two-wheeled mobile robot. , 2013, , .		3
238	Real-time control to hold upright equilibrium of a two-wheeled auto-balancing vehicle. , 2013, , .		1
239	Analytical design of a robust motion controller for a two-wheeled wheelchair system. , 2013, , .		2
240	Adaptive Control. , 2013, , 99-126.		0
242	Trajectory Planning and Optimized Adaptive Control for a Class of Wheeled Inverted Pendulum Vehicle Models. IEEE Transactions on Cybernetics, 2013, 43, 24-36.	6.2	192
243	Design and Implementation of a Takagi-Sugeno-Type Fuzzy Logic Controller on a Two-Wheeled Mobile Robot. IEEE Transactions on Industrial Electronics, 2013, 60, 5717-5728.	5.2	93
244	Adaptive robust motion control using fuzzy wavelet neural networks for uncertain electric two-wheeled robotic vehicles. , 2013, , .		3
245	Nonlinear control design for a two-wheeled balancing robot. , 2013, , .		3
246	Extracting motion data from video using optical flow with physically-based constraints. International Journal of Control, Automation and Systems, 2013, 11, 48-57.	1.6	2
247	Hybrid under-actuated control for autonomous dynamic balance of a running electrical bicycle including motor dynamics and in the presence of huge uncertainty. JVC/Journal of Vibration and Control, 2013, 19, 56-74.	1.5	1
248	Review of modelling and control of two-wheeled robots. Annual Reviews in Control, 2013, 37, 89-103.	4.4	172
250	Mathematical model and control strategy of a two-wheeled self-balancing robot. , 2013, , .		16
251	Simulation and control of a two-wheeled self-balancing robot. , 2013, , .		31
252	Tilt measurement based on an Accelerometer, a Gyro and a Kalman Filter to control a self-balancing vehicle. , 2013, , .		6
253	Integrated modeling and analysis of an extendable double-link two-wheeled mobile robot. , 2013, , .		3
254	Design and implementation of the balance of two-wheeled robots. , 2013, , .		8

#	ARTICLE	IF	CITATIONS
255	Stabilized supervising control of a two Wheel Mobile Manipulator. , 2013, , .		6
256	Dynamic step traverse of a two-wheeled mobile robot. International Journal of Mechatronics and Manufacturing Systems, 2013, 6, 3.	0.1	3
257	Network-based H _∞ fuzzy control for a self-balancing two-wheeled inverted pendulum. , 2013, , .		1
258	Lyapunov function-based non-linear control for two-wheeled mobile robots. International Journal of Biomechanics and Biomedical Robotics, 2013, 2, 172.	0.1	3
259	The Design of Real-Time Control System Based on Single-Inverted Pendulum. Advanced Materials Research, 2013, 850-851, 553-556.	0.3	0
260	Dynamic response characteristics of a two-wheeled inverted-pendulum transporter. , 2013, , .		11
261	Design and control of a two-wheeled robotic walker for balance enhancement. , 2013, 2013, 6650448.		7
262	Direct Adaptive Fuzzy-Wavelet-Neural-Network Control for Electric Two-Wheeled Robotic Vehicles. , 2013, , .		2
263	Design and implementation of a Kalman state estimator for balancing of uniaxial vehicles for goods transport. , 2013, , .		3
264	Velocity control of mobile wheeled inverted pendulum. International Journal of Modelling, Identification and Control, 2013, 19, 43.	0.2	5
265	Towards Port-Hamiltonian Approach for Modeling and Control of Two-wheeled Wheelchair. IOP Conference Series: Materials Science and Engineering, 2013, 53, 012074.	0.3	0
266	The Inverted Pendulum Benchmark in Nonlinear Control Theory: A Survey. International Journal of Advanced Robotic Systems, 2013, 10, 233.	1.3	103
267	Line Tracking Control of a Two-Wheeled Mobile Robot Using Visual Feedback. International Journal of Advanced Robotic Systems, 2013, 10, 177.	1.3	20
268	Development of the portable two-wheeled inverted pendulum type personal vehicle. , 2014, , .		3
269	Design and implementation of a robust fuzzy controller for a rotary inverted pendulum using the Takagi-Sugeno descriptor representation. , 2014, , .		11
270	Step-crossing control of two-wheeled transporter based on Takagi-Sugeno approach: Comparison between state and descriptor form. , 2014, , .		0
271	On the dynamic model of a two-wheeled inverted pendulum robot. , 2014, , .		1
272	On the control of a two-wheeled balancing path-following robot. , 2014, , .		0

#	ARTICLE	IF	CITATIONS
273	Terminal Sliding Mode Control of Mobile Wheeled Inverted Pendulum System with Nonlinear Disturbance Observer. <i>Mathematical Problems in Engineering</i> , 2014, 2014, 1-8.	0.6	17
274	Design of cluster geometries for clusterwheel IP robots: Obstacle size and controllability. , 2014, , .		0
275	Design and experimental evaluation of a state feedback controller for two wheeled balancing robot. , 2014, , .		4
276	Modeling and LQR control of a multi-DOF two-wheeled robot. , 2014, , .		0
277	Instrumentation and wireless control for the self-balancing mobile robot on two wheels. , 2014, , .		2
278	A multi-DOF two wheeled inverted pendulum robot climbing on a slope. , 2014, , .		8
279	Design and control of a multi-DOF two wheeled inverted pendulum robot. , 2014, , .		1
280	Real-time validation of a novel two-wheeled robot with a dynamically moving payload. , 2014, , .		0
281	Research on the Visual Self-Stabilization System of the Automated Guided Vehicle (AGV). <i>Applied Mechanics and Materials</i> , 2014, 577, 452-456.	0.2	2
282	Dynamic model and balance control of two-wheeled robot with non-holonomic constraints. , 2014, , .		2
283	PID and LQR Control for Two-Wheeled Vehicles with Hand Sensors. <i>Applied Mechanics and Materials</i> , 2014, 665, 619-622.	0.2	0
284	Adaptive sliding-mode control for two-wheeled inverted pendulum vehicle based on zero-dynamics theory. <i>Nonlinear Dynamics</i> , 2014, 76, 459-471.	2.7	35
285	Design and Implementation of Integral Sliding-Mode Control on an Underactuated Two-Wheeled Mobile Robot. <i>IEEE Transactions on Industrial Electronics</i> , 2014, 61, 3671-3681.	5.2	269
286	Neural Network-Based Motion Control of an Underactuated Wheeled Inverted Pendulum Model. <i>IEEE Transactions on Neural Networks and Learning Systems</i> , 2014, 25, 2004-2016.	7.2	256
287	Sliding-Mode Velocity Control of a Two-Wheeled Self-Balancing Vehicle. <i>Asian Journal of Control</i> , 2014, 16, 1880-1890.	1.9	5
288	Control of a two-wheeled self-balancing robot with support vector regression method. , 2014, , .		4
289	LQR controller design for two-wheeled robot with a movable seat. , 2014, , .		1
290	Line tracking control of a two-wheel balancing mobile robot: Experimental studies. , 2014, , .		1

#	ARTICLE	IF	CITATIONS
291	Dynamic balance and motion control for wheeled inverted pendulum vehicle via hierarchical sliding mode approach. Proceedings of the Institution of Mechanical Engineers Part I: Journal of Systems and Control Engineering, 2014, 228, 351-358.	0.7	13
292	Stabilisation and manoeuvre of electrically powered pedestrian controlled uniaxial vehicles for goods transport. , 2014, , .		2
293	Switching Dynamic Modeling and Driving Stability Analysis of Three-Wheeled Narrow Tilting Vehicle. IEEE/ASME Transactions on Mechatronics, 2014, 19, 1309-1322.	3.7	24
294	Ultrasonic sensor based two-wheeled self-balancing robot obstacle avoidance control system. , 2014, , .		15
295	A Novel Electric Vehicle for Smart Indoor Mobility. IEEE Transactions on Intelligent Transportation Systems, 2014, 15, 1429-1440.	4.7	5
296	Swing-up and Stabilization of the Rotational Inverted Pendulum Using PD and Fuzzy-PD Controllers. Procedia Technology, 2014, 12, 57-64.	1.1	21
297	Balance Control System Using Microcontrollers for a Rotational Inverted Pendulum. Procedia Technology, 2014, 12, 11-19.	1.1	4
298	Position Stabilization and Waypoint Tracking Control of Mobile Inverted Pendulum Robot. IEEE Transactions on Control Systems Technology, 2014, 22, 2360-2367.	3.2	21
299	Design and implementation of a new sliding mode controller on an underactuated wheeled inverted pendulum. Journal of the Franklin Institute, 2014, 351, 2261-2282.	1.9	51
300	Swing-Up and Stability Control of Wheeled Acrobot (WAcrobot). Automatika, 2014, 55, 32-40.	1.2	8
301	Adaptive Backstepping Self-balancing Control of a Two-wheel Electric Scooter. International Journal of Advanced Robotic Systems, 2014, 11, 165.	1.3	18
302	Balancing a Legged Robot Using State-Dependent Riccati Equation Control. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2014, 47, 2177-2182.	0.4	17
303	Impact of dynamically moving payload on two wheeled robot stability. , 2014, , .		1
304	LMI-based robust constrained model predictive control of two-wheeled inverted pendulum. , 2015, , .		4
305	A Lyapunov controller for self-balancing two-wheeled vehicles. Robotica, 2015, 33, 225-239.	1.3	13
306	Nonlinear Autonomous Control of a Two-Wheeled Inverted Pendulum Mobile Robot Based on Sliding Mode. , 2015, , .		9
307	Dynamic modeling of a two-wheeled inverted pendulum balancing mobile robot. International Journal of Control, Automation and Systems, 2015, 13, 926-933.	1.6	51
308	Nonlinear control of mobile inverted pendulum. Robotics and Autonomous Systems, 2015, 70, 145-155.	3.0	38

#	ARTICLE	IF	CITATIONS
309	An improved computing model for a two-wheeled self-balancing vehicle's state determination. , 2015, , .		2
310	Straight driving control for electric tiller considering human driving input. , 2015, , .		3
311	Sensorless position and velocity estimation of two wheeled inverted pendulum mobile robot. , 2015, , .		0
312	Development and Implementation of a Wheeled Inverted Pendulum Vehicle Using Adaptive Neural Control with Extreme Learning Machines. Cognitive Computation, 2015, 7, 740-752.	3.6	7
313	Design of Model Predictive Control of two-wheeled inverted pendulum robot. , 2015, , .		7
314	Gyrostabilized two wheeled inverted pendulum robot. , 2015, , .		2
315	Energy shaping for the robust stabilization of a wheeled inverted pendulum. IFAC-PapersOnLine, 2015, 48, 93-98.	0.5	3
316	Modeling of wheeled inverted pendulum systems. , 2015, , .		2
317	Dynamic modeling and construction of a two-wheeled mobile manipulator, part I: Self-balancing. , 2015, , .		3
318	Dynamic Motion Planning and Adaptive Tracking Control for a Class of Two-Wheeled Autonomous Vehicle With an Underactuated Pendular Suspension. Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME, 2015, 137, .	0.9	5
319	Sliding-Mode Control for Transformation to an Inverted Pendulum Mode of a Mobile Robot With Wheel-Arms. IEEE Transactions on Industrial Electronics, 2015, 62, 4257-4266.	5.2	48
320	Reduced equations of motion for a wheeled inverted pendulum. IFAC-PapersOnLine, 2015, 48, 328-333.	0.5	5
321	A two-wheeled inverted pendulum robot with friction compensation. Mechatronics, 2015, 30, 116-125.	2.0	52
322	Energy shaping non-linear acceleration control for a pendulum-type mobility and experimental verification. Vehicle System Dynamics, 2015, 53, 179-196.	2.2	0
323	Adaptive backstepping controller with Kalman state estimator for stabilisation and manoeuvre of pedestrian controlled uniaxial transport vehicles. , 2015, , .		0
324	Position and speed control of a low-cost two-wheeled, self-balancing inverted pendulum vehicle. , 2015, , .		3
325	A New Stabilization Algorithm for a Two-Wheeled Mobile Robot Aided by Reaction Wheel. Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME, 2015, 137, .	0.9	22
326	Design for Control of Wheeled Inverted Pendulum Platforms. Journal of Mechanisms and Robotics, 2015, 7, .	1.5	22

#	ARTICLE	IF	CITATIONS
327	Dynamic gesture recognition based on improved DTW algorithm. , 2015, , .		12
328	Combining Two Control Techniques for the Fast Movement of a Two-Wheel Mobile Robot. International Journal of Humanoid Robotics, 2015, 12, 1550020.	0.6	4
329	Neural network control for balancing performance of a single-wheel transportation vehicle. , 2015, , .		2
330	Realization of stabilization using feed-forward and feedback controller composition method for a mobile robot. International Journal of Control, Automation and Systems, 2015, 13, 1201-1211.	1.6	6
331	Parameter Design of Disturbance Observer for a Robust Control of Two-Wheeled Wheelchair System. Journal of Intelligent and Robotic Systems: Theory and Applications, 2015, 77, 135-148.	2.0	4
332	Zero-dynamics-based adaptive sliding mode control for a wheeled inverted pendulum with parametric friction and uncertain dynamics compensation. Transactions of the Institute of Measurement and Control, 2015, 37, 91-99.	1.1	6
333	Adaptive fuzzy backstepping controller design for uncertain underactuated robotic systems. Nonlinear Dynamics, 2015, 79, 1457-1468.	2.7	38
334	Adaptive backstepping control of wheeled inverted pendulums models. Nonlinear Dynamics, 2015, 79, 501-511.	2.7	96
335	INTELLIGENT CONTROLLERS FOR VELOCITY TRACKING OF TWO WHEELED INVERTED PENDULUM MOBILE ROBOT. Jurnal Teknologi (Sciences and Engineering), 2016, 78, .	0.3	1
336	A Dynamics-Based Hazard Analysis of Inverted-Pendulum Human Transporters Using Data-Mined Information. ASCE-ASME Journal of Risk and Uncertainty in Engineering Systems, Part B: Mechanical Engineering, 2016, 2, .	0.7	2
337	Stabilizing controller design using fuzzy T-S model on two wheeled self-balancing vehicle. , 2016, , .		4
338	Unified swing up and upright position stabilizing controllers for inverted-pendulum on a cart. , 2016, , .		0
339	Balancing of two wheeled inverted pendulum using SOSMC and validation on LEGO EV3. , 2016, , .		5
340	Fault detection of two wheel inverted pendulum robot with center of gravity self-adjusting mechanism. , 2016, , .		2
341	Two-wheeled wheelchair stabilization control using fuzzy logic controller based particle swarm optimization. , 2016, , .		4
342	Two-wheeled wheelchair stabilization control using fuzzy logic controller based particle swarm optimization. , 2016, , .		1
343	Two-wheeled inverted pendulum path planning: An experimental validation. , 2016, , .		1
344	A new triple-stage stabilizing control method for two-wheeled inverted pendulum robots. , 2016, , .		1

#	ARTICLE	IF	CITATIONS
345	Energy Management of a Segway PT i2 Using Energetic Macroscopic Representation. , 2016, , .		0
346	Effect of intermittent feedback control on robustness of human-like postural control system. Scientific Reports, 2016, 6, 22446.	1.6	18
347	Zero dynamics stabilisation and adaptive trajectory tracking for WIP vehicles through feedback linearisation and LQR technique. International Journal of Control, 2016, 89, 2533-2542.	1.2	14
348	Engaging students in control systems using a balancing robot in a mechatronics course. , 2016, , .		3
349	Intelligent PID control for two-wheeled inverted pendulums. , 2016, , .		6
350	An optimal fuzzy controller stabilizing the rod and controlling the position of single wheeled inverted pendulums. , 2016, , .		3
351	Energy shaping for position and speed control of a wheeled inverted pendulum in reduced space. Automatica, 2016, 74, 222-229.	3.0	18
352	Design and Visio control of Two-Wheeled Inverted Pendulum Mobile Robot. , 2016, , .		0
353	Design of interval type-2 fuzzy logic controller for mobile wheeled inverted pendulum. , 2016, , .		6
354	Study on control design of a two-wheeled self-balancing robot based on ADRC. , 2016, , .		8
355	Modeling and Decoupling Control for Two-Wheeled Self-Balancing Robot. , 2016, , .		7
356	Straight-driving and turning compound control of the self-balancing two-wheeled robot. , 2016, , .		0
357	Active disturbance rejection control based on adaptive differential evolution for two-wheeled self-balancing robot. , 2016, , .		9
358	Nonlinear dynamics modeling and simulation of two-wheeled self-balancing vehicle. International Journal of Advanced Robotic Systems, 2016, 13, 172988141667372.	1.3	9
359	Regionally Growing Random Trees: A synergistic motion planning and control algorithm for dynamic systems. , 2016, , .		2
360	Kinematic Analysis of a Two-Wheeled Self-Balancing Mobile Robot. Lecture Notes in Electrical Engineering, 2016, , 87-93.	0.3	2
361	Generalized dynamic model and control of ambiguous mono axial vehicle robot. International Journal of Advanced Robotic Systems, 2016, 13, 172988141665817.	1.3	10
362	Fuzzy-based trajectory-tracking control for WIP vehicles with coupled dynamics behaviors. , 2016, , .		1

#	ARTICLE	IF	CITATIONS
363	Stabilization of mobile inverted pendulum using fuzzy PID controllers. , 2016, , .		4
364	ANN-Based Control of a Wheeled Inverted Pendulum System Using an Extended DBD Learning Algorithm. International Journal of Advanced Robotic Systems, 2016, 13, 99.	1.3	2
365	Control of a two-wheel robotic vehicle for personal transportation. Robotica, 2016, 34, 1186-1208.	1.3	11
366	Simultaneous balancing and trajectory tracking control for two-wheeled inverted pendulum vehicles: A composite control approach. Neurocomputing, 2016, 191, 44-54.	3.5	24
367	Indirect adaptive fuzzy control for a nonholonomic/underactuated wheeled inverted pendulum vehicle based on a data-driven trajectory planner. Fuzzy Sets and Systems, 2016, 290, 158-177.	1.6	46
368	Discrete-time Modified State Observer Implementation on a Two Wheeled Inverted Pendulum Robot. , 2016, , .		0
370	A modified dynamical formulation for two-wheeled self-balancing robots. Nonlinear Dynamics, 2016, 83, 217-230.	2.7	27
371	Balancing a wheeled inverted pendulum with a single accelerometer in the presence of time delay. JVC/Journal of Vibration and Control, 2017, 23, 604-614.	1.5	33
372	Cascaded control for balancing an inverted pendulum on a flying quadrotor. Robotica, 2017, 35, 1263-1279.	1.3	17
373	Adaptive control of two-wheeled mobile balance robot capable to adapt different surfaces using a novel artificial neural networkâ€based real-time switching dynamic controller. International Journal of Advanced Robotic Systems, 2017, 14, 172988141770089.	1.3	19
374	Control of the angular orientation of the platform of a uniaxial wheeled module moving without slippage over an underlying surface. Journal of Computer and Systems Sciences International, 2017, 56, 146-156.	0.2	3
375	Fuzzy-logic control of an inverted pendulum on a cart. Computers and Electrical Engineering, 2017, 61, 31-47.	3.0	77
376	Design and implementation of fuzzy-PD controller based on relation models: A cross-entropy optimization approach. European Physical Journal: Special Topics, 2017, 226, 2393-2406.	1.2	11
377	A Robotic Walker Based on a Two-Wheeled Inverted Pendulum. Journal of Intelligent and Robotic Systems: Theory and Applications, 2017, 86, 17-34.	2.0	14
378	Robust hybrid control for swinging-up and balancing an inverted pendulum attached to a UAV. , 2017, , .		1
379	Design of an underactuated self balancing robot using linear quadratic regulator and integral sliding mode controller. , 2017, , .		11
380	Mathematical Modelling and Quadratic Optimal Tuning Based PID Scheme for an Inverted Pendulum-Cart System. Communications in Computer and Information Science, 2017, , 191-202.	0.4	2
381	A novel hierarchical sliding mode control strategy for a two-wheeled self-balancing vehicle. , 2017, , .		2

#	ARTICLE	IF	CITATIONS
382	Advanced control methods for two-wheeled mobile robots. , 2017, , .		2
383	Modeling of Two-Wheeled Self-Balancing Robot Driven by DC Gearmotors. International Journal of Applied Mechanics and Engineering, 2017, 22, 739-747.	0.3	15
384	Control system for a self-balancing robot. , 2017, , .		7
385	A method to coordinate balance and speed control of a two-wheeled robot. , 2017, , .		2
386	Visio control of two-wheeled mobile robot based on color and texture attributes. , 2017, , .		0
387	Symmetries in the wheeled inverted pendulum mechanism. Nonlinear Dynamics, 2017, 90, 391-403.	2.7	5
388	Stabilizing a rotary inverted pendulum based on Lyapunov stability theorem. , 2017, , .		4
389	Optimal control of inverted pendulum system using PID controller, LQR and MPC. IOP Conference Series: Materials Science and Engineering, 2017, 263, 052007.	0.3	17
390	A variable gain controller using pole placement method with changing rider's weight. , 2017, , .		0
391	Horizontal stabilization of the two-degree-of-freedom platform of a uniaxial wheeled module tracking a given trajectory over an underlying surface. Journal of Computer and Systems Sciences International, 2017, 56, 471-482.	0.2	3
392	Intelligent control for a dynamically stable two-wheel mobile manipulator. , 2017, , .		3
393	PSO-based fuzzy control of a self-balancing two-wheeled robot. , 2017, , .		6
394	Adaptive PSO-LS-wavelet H ∞ control for two-wheeled self-balancing scooter. International Journal of Control, Automation and Systems, 2017, 15, 2126-2137.	1.6	8
395	Perfect tracking control using a phase plane for a wheeled inverted pendulum under hardware constraints. , 2017, , .		4
396	Stabilizing Two-wheeled robot using linear quadratic regulator and states estimation. , 2017, , .		9
397	Fuzzy logic controller for two wheeled EV3 LEGO robot. , 2017, , .		9
398	A torque-controlled humanoid robot riding on a two-wheeled mobile platform. , 2017, , .		6
399	Unmanned two wheeled bot using feedback linearization. , 2017, , .		3

#	ARTICLE	IF	CITATIONS
400	Design of agile two-wheeled robot with machine vision. , 2017, , .		2
401	CDC and Union based near real time ETL. , 2017, , .		1
402	Stabilizing a Rotary Inverted Pendulum Based on Logarithmic Lyapunov Function. Journal of Control Science and Engineering, 2017, 2017, 1-11.	0.8	7
403	A Low Cost Multi Sensorial Data Fusion for High Speed Obstacle Avoidance Using 3-D Point Clouds and Image Processing in Self Balancing Robots. , 2017, , .		0
404	A Low Cost Multi Sensorial Data Fusion for High Speed Obstacle Avoidance Using 3-D Point Clouds and Image Processing in Self Balancing Robots. , 2017, , .		1
405	Stabilization of Mobile Inverted Pendulum Using Fractional Order PID Controllers. , 2017, , .		3
406	Building embedded quasi-time-optimal controller for two-wheeled self-balancing robot. MATEC Web of Conferences, 2017, 132, 02005.	0.1	5
407	Development of a microcontroller-based adaptive fuzzy controller for a two-wheeled self-balancing robot. Microsystem Technologies, 2018, 24, 3677-3687.	1.2	14
408	An Efficient Model Predictive Control for Trajectory Tracking of Wheeled Inverted Pendulum Vehicles with Various Physical Constraints. International Journal of Control, Automation and Systems, 2018, 16, 265-274.	1.6	31
409	Nonlinear reduced dynamics modelling and simulation of two-wheeled self-balancing mobile robot: SEGWAY system. Systems Science and Control Engineering, 2018, 6, 1-11.	1.8	10
410	Transportation control of cooperative double-wheel inverted pendulum robots adopting Udwadia-control approach. Nonlinear Dynamics, 2018, 91, 2789-2802.	2.7	24
411	Quantitative measure for nonlinear unstable systems based on the region of attraction and its application to designing parameter optimization “ inverted pendulum example. Advanced Robotics, 2018, 32, 399-410.	1.1	4
412	Balancing Control of a Mobile Manipulator with Two Wheels by an Acceleration-Based Disturbance Observer. International Journal of Humanoid Robotics, 2018, 15, 1850005.	0.6	9
413	Optimizing step climbing by two connected wheeled inverted pendulum robots. Procedia Manufacturing, 2018, 21, 236-242.	1.9	3
414	Online algorithm for controlling an inverted pendulum system under uncertainty in design parameters and initial conditions using Monte-Carlo simulation. , 2018, , .		4
415	MPC motion planning-based sliding mode control for underactuated WPS vehicle via Olfati transformation. IET Control Theory and Applications, 2018, 12, 495-503.	1.2	10
416	Constrained Adaptive Robust Trajectory Tracking for WIP Vehicles Using Model Predictive Control and Extended State Observer. IEEE Transactions on Systems, Man, and Cybernetics: Systems, 2018, 48, 733-742.	5.9	44
417	Interval Type-2 Fuzzy Logic Modeling and Control of a Mobile Two-Wheeled Inverted Pendulum. IEEE Transactions on Fuzzy Systems, 2018, 26, 2030-2038.	6.5	137

#	ARTICLE	IF	CITATIONS
418	Linear motor driven double inverted pendulum: A novel mechanical design as a testbed for control algorithms. Simulation Modelling Practice and Theory, 2018, 81, 31-50.	2.2	18
419	A Review of Intelligent Control Algorithms Applied to Robot Motion Control. , 2018, , .		4
420	Indicatory Horizontal Stabilization of the Platform with Two Degrees of Freedom of a Uniaxial Wheel Module at Its Displacements on a Nonhorizontal, Uneven Surface. Journal of Computer and Systems Sciences International, 2018, 57, 801-812.	0.2	0
421	A method for attitude control of telescopes making use of an inverted pendulum. IOP Conference Series: Materials Science and Engineering, 2018, 468, 012036.	0.3	1
422	Stability Control of Mobile Inverted Pendulum Through an Added Movable Mechanism. , 2018, , .		2
423	Control System Design, Analysis & Implementation of Two Wheeled Self Balancing Robot (TWSBR). , 2018, , .		8
424	Stabilization Control of Triple Pendulum on a Cart. , 2018, , .		6
425	The Design of a Two-wheeled Mobile Platform with Face Following Functionality. , 2018, , .		0
426	YAFT: A Fuzzy Logic based Real Time Two-Wheeled Inverted Pendulum Robot. , 2018, , .		2
427	Structure-preserving discrete-time optimal maneuvers of a wheeled inverted pendulum. IFAC-PapersOnLine, 2018, 51, 149-154.	0.5	3
428	Modelling and Stability Analysis of a TWMM Using Kalman Filter and PID Controller. , 2018, , .		0
429	A Model Predictive Control Approach to Inverted Pendulum System Based on RBF-ARX Model. , 2018, , .		3
430	Adaptive finite-time backstepping control for a two-wheeled mobile manipulator. Journal of Mechanical Science and Technology, 2018, 32, 5897-5906.	0.7	5
431	Research of Two-Wheeled Self-Balanced Robot's Disturbance Rejection Control on Uneven Pavement. , 2018, , .		2
432	Adaptive Control for x Inverted Pendulum Utilizing Gain Scheduling Approach. , 2018, , .		2
433	Development and analysis of DAYANI arc contour intelligent technique for navigation of two-wheeled mobile robot. Industrial Robot, 2018, 45, 688-702.	1.2	7
434	Wheeled Inverted Pendulum Control and Slip Dynamics. , 2018, , .		2
435	Modelling and Experimental Analysis Two-Wheeled Self Balance Robot Using PID Controller. Lecture Notes in Computer Science, 2018, , 683-698.	1.0	10

#	ARTICLE	IF	CITATIONS
436	Control strategy for reducing energy consumption in a two wheel self-balancing vehicle. , 2018, , .		1
437	A nonlinear optimal control approach for autonomous motorcycles. , 2018, , .		2
438	A Personal Assistant Robot Using Raspberry Pi. , 2018, , .		4
439	A Sample Aggregation Approach to Experiences Replay of Dyna-Q Learning. IEEE Access, 2018, 6, 37173-37184.	2.6	5
440	Backstepping control design for two-wheeled self balancing robot. , 2018, , .		0
441	Open-Closed-Loop PD Iterative Learning Control with a Variable Forgetting Factor for a Two-Wheeled Self-Balancing Mobile Robot. Complexity, 2019, 2019, 1-11.	0.9	6
442	Variable Speed Control Moment Gyroscope in an Inverted Pendulum. Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME, 2019, 141, .	0.9	6
443	High gain controller with state feedback for two wheeled self-balancing robot. , 2019, , .		1
444	A Modular 3D-Printed Inverted Pendulum. Lecture Notes in Computer Science, 2019, , 413-424.	1.0	3
445	Fuzzy and PD Control for Satisfied Motion of a Mobile Inverted Pendulum Robot. , 2019, , .		0
446	Cascaded LQ and Field-Oriented Control of a Mobile Inverse Pendulum (Segway) with Permanent Magnet Synchronous Machines. , 2019, , .		0
447	Motion Trajectory Planning of Biped Robots. , 2019, , .		1
448	Hierarchical optimization for Whole-Body Control of Wheeled Inverted Pendulum Humanoids. , 2019, , .		19
449	Model Reference Adaptive Control of a Two-Wheeled Mobile Robot. , 2019, , .		2
450	An adaptive observer for two wheeled self-balancing robot with a varying center of mass. , 2019, , .		2
451	Autonomous, reconfigurable mobile vehicle with rapid control prototyping functionality. IFAC-PapersOnLine, 2019, 52, 13-18.	0.5	4
452	Modelling patient dynamics and controller impact analysis for a novel self-stabilizing patient transport aid. IFAC-PapersOnLine, 2019, 51, 208-213.	0.5	4
453	A hybrid fuzzy-molecular controller enhanced with evolutionary algorithms: A case study in a one-leg mechanism. Journal of the Franklin Institute, 2019, 356, 9432-9450.	1.9	1

#	ARTICLE	IF	CITATIONS
454	Design and Implementation of Self-balancing and Navigation Robot Based on ROS System. , 2019, , .		1
455	RBF-ARX model-based fast robust MPC approach to an inverted pendulum. ISA Transactions, 2019, 93, 255-267.	3.1	11
456	Stabilization and Optimization of Design Parameters for Control of Inverted Pendulum. Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME, 2019, 141, .	0.9	6
457	Stabilization of Two-wheeled Wheelchair with Movable Payload Based Interval Type-2 Fuzzy Logic Controller. Lecture Notes in Electrical Engineering, 2019, , 137-149.	0.3	1
458	Model Decoupling and Control of the Wheeled Humanoid Robot Moving in Sagittal Plane. , 2019, , .		21
459	Nonlinear Two-Wheeled Self-Balancing Robot Control Using LQR and LQG Controllers. , 2019, , .		4
460	Self-balancing and Velocity Control of Two-Wheeled Mobile Robot Based on LQR Sliding Mode. , 2019, , .		0
461	A Self-Balanced Essboard-like Mobile Robot “Essbot”. , 2019, , .		1
462	Control of the Two-wheeled Inverted Pendulum (TWIP) Robot Moving on the Continuous Uneven Ground. , 2019, , .		2
463	Experiments of inverted pendulum as a vertical reference of a telescope. Journal of Physics: Conference Series, 2019, 1301, 012013.	0.3	0
464	PID controller for a differential drive robot balancing system. Journal of Physics: Conference Series, 2019, 1402, 044021.	0.3	1
465	Conceptual Design Algorithm of a Two-Wheeled Inverted Pendulum Mobile Robot for Educational Purposes. Mechanics of Solids, 2019, 54, 614-621.	0.3	1
466	Robust State Observers for Two Wheeled Inverted Pendulum under wheel-slip. , 2019, , .		1
467	A Study on the Interpretability of a Fuzzy System to Control an Inverted Pendulum. , 2019, , .		5
468	Two-wheeled Self balancing robot Modeling and Control using Artificial Neural Networks (ANN). , 2019, , .		3
469	Reduced order modelling based control of two wheeled mobile robot. Journal of Intelligent Manufacturing, 2019, 30, 1057-1067.	4.4	21
470	A trajectory planning and tracking control approach for obstacle avoidance of wheeled inverted pendulum vehicles. International Journal of Control, 2020, 93, 1735-1744.	1.2	11
471	Anti Slip Balancing Control for Wheeled Inverted Pendulum Vehicles. IEEE Transactions on Control Systems Technology, 2020, 28, 1042-1049.	3.2	13

#	ARTICLE	IF	CITATIONS
472	Multibody dynamics for human-like locomotion. , 2020, , 51-81.		0
473	Adaptive Nonlinear Control Algorithm for a Self-Balancing Robot. IEEE Access, 2020, 8, 3751-3760.	2.6	12
474	Design and study of a pneumatically actuated inverted pendulum system controlled using a programmable logic controller. Proceedings of the Institution of Mechanical Engineers Part I: Journal of Systems and Control Engineering, 2020, 234, 860-871.	0.7	0
475	Extending Riemmanian Motion Policies to a Class of Underactuated Wheeled-Inverted-Pendulum Robots. , 2020, , .		9
476	Online optimization based model predictive control on two wheel Segway system. Materials Today: Proceedings, 2020, 33, 3846-3853.	0.9	4
477	A memristor-based hybrid analog-digital computing platform for mobile robotics. Science Robotics, 2020, 5, .	9.9	28
478	Linear and angular position control of a custom built stepper motor driven self-balancing robot. , 2020, , .		1
479	Ad-hoc Modeling and Simulation Mechanism of a Self-balancing Robot for Testing L1 Adaptive Control. , 2020, , .		0
480	Design and Implementation of Two-Wheeled Self-Balancing Vehicle Based on Load Sensors. , 2020, , .		3
481	Inverted Pendulum Nonlinear Controllers Using Two Reaction Wheels: Design and Implementation. IEEE Access, 2020, 8, 74922-74932.	2.6	15
482	Models of Two-Wheeled Mobile Robots with Experimental Validation. , 2020, , .		3
483	Implementation of an Autonomous Self-Balancing Robot Using Cascaded PID Strategy. , 2020, , .		3
484	Fuzzy control of self-balancing robots: A control laboratory project. Computer Applications in Engineering Education, 2020, 28, 512-535.	2.2	22
485	Adaptive Observer-Based Output Feedback Control for Two-Wheeled Self-Balancing Robot. Mathematical Problems in Engineering, 2020, 2020, 1-16.	0.6	3
486	Robust hierarchical sliding mode control of a two-wheeled self-balancing vehicle using perturbation estimation. Mechanical Systems and Signal Processing, 2020, 139, 106584.	4.4	43
487	A modelling and predictive control approach to linear two-stage inverted pendulum based on RBF-ARX model. International Journal of Control, 2021, 94, 351-369.	1.2	6
488	Optimal control of a two-wheeled self-balancing robot by reinforcement learning. International Journal of Robust and Nonlinear Control, 2021, 31, 1885-1904.	2.1	19
489	Control of the two-wheeled inverted pendulum (TWIP) robot in presence of model uncertainty and motion restriction. Industrial Robot, 2021, 48, 29-44.	1.2	3

#	ARTICLE	IF	CITATIONS
490	Time-Optimal Point Stabilization Control for WIP Vehicles Using Quasi-Convex Optimization and B-Spline Adaptive Interpolation Techniques. IEEE Transactions on Systems, Man, and Cybernetics: Systems, 2021, 51, 3293-3303.	5.9	6
491	Design of control laws for rotary inverted pendulum based on LQR and Lyapunov function. IOP Conference Series: Materials Science and Engineering, 2021, 1029, 012021.	0.3	5
492	Balance Stability Augmentation for Wheel-Legged Biped Robot Through Arm Acceleration Control. IEEE Access, 2021, 9, 54022-54031.	2.6	13
493	Digital Development Process for the Drive System of a Balanced Two-Wheel Scooter. Vehicles, 2021, 3, 33-60.	1.7	3
494	Adaptive Observer-Based Sliding Mode Control for a Two-Wheeled Self-Balancing Robot under Terrain Inclination and Disturbances. Mathematical Problems in Engineering, 2021, 2021, 1-15.	0.6	6
495	Towards Robust Wheel-Legged Biped Robot System: Combining Feedforward and Feedback Control. , 2021, , .		4
496	Design and Implementation of a Remotely Controlled Two-Wheel Self-Balancing Robot. IOP Conference Series: Materials Science and Engineering, 2021, 1067, 012132.	0.3	4
497	Kinematic Modeling, Analysis, and Verification of an Essboard-Like Robot. IEEE/ASME Transactions on Mechatronics, 2021, 26, 864-875.	3.7	3
498	Motion control of a two-wheeled inverted pendulum with uncertain rolling resistance and angle constraint based on slow-fast dynamics. Nonlinear Dynamics, 2021, 104, 2185-2199.	2.7	2
499	Sliding Balance Control of a Point-Foot Biped Robot Based on a Dual-Objective Convergent Equation. Applied Sciences (Switzerland), 2021, 11, 4016.	1.3	2
500	Proportional control moment gyroscope for two-wheeled self-balancing robot. JVC/Journal of Vibration and Control, 2022, 28, 2310-2318.	1.5	9
501	Udwadia-Kalaba Equation Based Adaptive Robust Control for Two-wheeled Inverted Pendulum System: Underactuation and Uncertainty. International Journal of Control, Automation and Systems, 2021, 19, 2420-2430.	1.6	2
502	Two-Wheeled Self-Balancing Robot. , 2021, , .		4
503	Fast Two-Wheeled Balancing Robot. , 2021, , .		0
504	Adaptive neural sliding mode control for two wheel self balancing robot. International Journal of Dynamics and Control, 2022, 10, 771-784.	1.5	5
505	Implementation of Nonlinear Optimal Control of Two-wheel Robot with Extended Kalman Filter. , 2021, , .		1
506	Robust compound control for wheeled inverted pendulum in an uncertain and disturbed environment. Engineering Science and Technology, an International Journal, 2021, 28, 101024-101024.	2.0	0
507	Self-balancing based on Active Disturbance Rejection Controller for the Two-In-Wheeled Electric Vehicle, Experimental results. Mechatronics, 2021, 76, 102552.	2.0	11

#	ARTICLE	IF	CITATIONS
508	A computationally intelligent neural network-based nonlinear autoregressive exogenous balancing approach for real-time processing in industrial applications using big data. <i>Concurrency Computation Practice and Experience</i> , 2021, 33, e6382.	1.4	0
509	LQR based Optimal Passive Fault-Tolerant Nonlinear Fractional-Order PID. , 2021, , .		0
510	Almost Globally Asymptotically Stable Switched PD Control for a Spherical Pendulum. , 2021, , .		1
511	Multibody Dynamics Modeling and Control of Wheelchair Balancing System. , 2021, , .		2
512	Constraint-following servo control for an underactuated mobile robot under hard constraints. <i>Proceedings of the Institution of Mechanical Engineers Part I: Journal of Systems and Control Engineering</i> , 2022, 236, 26-38.	0.7	3
513	Decoupled Multi-Loop Robust Control for a Walk-Assistance Robot Employing a Two-Wheeled Inverted Pendulum. <i>Machines</i> , 2021, 9, 205.	1.2	1
514	Design and Real-Time Implementation of a nonlinear regulation controller for the RMP-100 Segway TWIP. <i>Mechatronics</i> , 2021, 79, 102668.	2.0	3
515	Model Based Design of a Self-balancing Vehicle: A Mechatronic System Design Case Study. , 2014, , 869-876.		1
517	The Flexible Two-Wheeled Self-balancing Robot Based on Hopfield. <i>Lecture Notes in Computer Science</i> , 2009, , 1196-1204.	1.0	3
518	Structure-Preserving Constrained Optimal Trajectory Planning of a Wheeled Inverted Pendulum. <i>IEEE Transactions on Robotics</i> , 2020, 36, 910-923.	7.3	13
519	Design and Fabrication of I-Cycle. <i>International Journal of Electronics and Electrical Engineering</i> , 2015, 3, .	0.2	3
520	Controllers comparison to balancing and trajectory tracking a two wheeled mobile robot. <i>International Robotics & Automation Journal</i> , 2019, 5, 28-31.	0.3	2
521	Stability Improvement of Two Wheel Driven Mobile Manipulator Using Nonlinear PD Controller. <i>IEEJ Transactions on Industry Applications</i> , 2008, 128, 1149-1156.	0.1	3
522	Modelling and Control of a Single-Wheel Inverted Pendulum by Using Adams and Matlab. <i>International Journal of Applied Mathematics Electronics and Computers</i> , 0, , 326-326.	0.6	6
523	Design of Two-Wheeled Self-Balancing Robot Based on Sensor Fusion Algorithm. <i>International Journal of Automation Technology</i> , 2014, 8, 216-221.	0.5	6
524	Motion Control of a Wheeled Inverted Pendulum Using Equivalent-Input-Disturbance Approach. <i>Journal of Advanced Computational Intelligence and Intelligent Informatics</i> , 2015, 19, 293-300.	0.5	2
526	Motor Learning Based on the Cooperation of Cerebellum and Basal Ganglia for a Self-Balancing Two-Wheeled Robot. <i>Intelligent Control and Automation</i> , 2011, 02, 214-225.	1.0	2
527	SDRE Based Nonlinear Optimal Control of a Two-Wheeled Balancing Robot. <i>Journal of Institute of Control, Robotics and Systems</i> , 2011, 17, 1037-1043.	0.1	13

#	ARTICLE	IF	CITATIONS
528	Balancing Control of a Unicycle Robot using Ducted Fans. Journal of Institute of Control, Robotics and Systems, 2014, 20, 895-899.	0.1	5
529	Fuzzy Logic Application to a Two-wheel Mobile Robot for Balancing Control Performance. International Journal of Fuzzy Logic and Intelligent Systems, 2012, 12, 154-161.	0.6	27
530	Dynamic Modeling of a Wheeled Inverted Pendulum for Inclined Road and Changing Its Center of Gravity. Journal of Korean Institute of Intelligent Systems, 2012, 22, 69-74.	0.0	8
531	Implementation of a Fuzzy Control System for Two-Wheeled Inverted Pendulum Robot based on Artificial Neural Network. The Journal of the Korean Institute of Information and Communication Engineering, 2013, 17, 8-14.	0.1	3
532	Movement Control of Two-wheeled Inverted Pendulum Robots Considering Robustness. Transactions of the Society of Instrument and Control Engineers, 2008, 44, 721-728.	0.1	3
533	Configuration Transformation of the Wheel-Legged Robot Using Inverse Dynamics Control. , 2021, , .		3
534	Balancing inverted pendulum cart on inclines using accelerometers. ASME Letters in Dynamic Systems and Control, 0, , 1-6.	0.4	0
536	ROBUST POSTURE CONTROL OF A MOBILEWHEELED PENDULUM MOVING ON AN INCLINED PLANE. , 2006, , .		1
538	An Analysis of the Chromosome Generated by a Genetic Algorithm Used to Create a Controller for a Mobile Inverted Pendulum. Studies in Computational Intelligence, 2007, , 145-152.	0.7	3
539	An Efficient Horizontal Maintenance Technique for the Mobile Inverted Pendulum. Journal of Control Automation and Systems Engineering, 2007, 13, 656-663.	0.1	7
541	Research of Dynamic Model and Control Ling of Flexible Two-Wheel Upright Self-balance Humanoid Robot. Lecture Notes in Computer Science, 2008, , 1050-1059.	1.0	0
542	Gentle Robotic Handling Using Acceleration Compensation. , 0, , .		0
543	On modelling and control design for self-balanced two-wheel vehicle. Vietnam Journal of Mechanics, 2008, 30, .	0.2	0
544	Stabilization Control of Two-Wheels Driven Mobile Manipulator by Ground Reaction Torque Feedback. IEEJ Transactions on Industry Applications, 2009, 129, 874-880.	0.1	2
545	Design of Optimized Fuzzy PD Cascade Controller Based on Parallel Genetic Algorithms. Journal of Korean Institute of Intelligent Systems, 2009, 19, 329-336.	0.0	1
546	Rising and Landing Motion Control Using Null Space Control for Coaxial Two-Wheel Driven Mobile Manipulator. IEEJ Transactions on Industry Applications, 2010, 130, 1161-1168.	0.1	0
547	ROBUST CONTROL FOR COAXIAL TWO-WHEELED ELECTRIC VEHICLE. Journal of Marine Science and Technology, 2020, 18, .	0.1	7
548	Dynamic Modeling and Analysis of Flexible Two-Wheeled Balancing Robot. Jiqiren/Robot, 2010, 32, 138-144.	0.4	2

#	ARTICLE	IF	CITATIONS
549	A Control of Mobile Inverted Pendulum using Single Accelerometer. Journal of Institute of Control, Robotics and Systems, 2010, 16, 440-445.	0.1	17
550	Flexible Two-wheeled Self-balancing Robot Control Based on Hopfield Neural Network. Jiqiren/Robot, 2010, 32, 405-413.	0.4	2
551	Experimental Studies of Controller Design for a Car-like Balancing Robot with a Variable Mass. Journal of Korean Institute of Intelligent Systems, 2010, 20, 469-475.	0.0	15
552	Pose Control of Mobile Inverted Pendulum using Gyro-Accelerometer. Journal of the Korea Society of Computer and Information, 2010, 15, 129-136.	0.0	0
553	A Mixed H ₂ /H _∞ State Feedback Controller Based on LMI Scheme for a Wheeled Inverted Pendulum running on the Inclined Road. Journal of Korean Institute of Intelligent Systems, 2010, 20, 617-623.	0.0	7
554	Neural Network Control of a Two Wheeled Mobile Inverted Pendulum System with Two Arms. Journal of Korean Institute of Intelligent Systems, 2010, 20, 652-658.	0.0	1
556	Transformation Control to an Inverted Pendulum Mode of a Mobile Robot with Wheel-arms Using Partial Linearization. Journal of the Robotics Society of Japan, 2011, 29, 554-561.	0.0	0
557	Model Based Control System Design of Two Wheeled Inverted Pendulum Robot. The Transactions of the Korean Institute of Power Electronics, 2011, 16, 162-172.	0.1	0
558	Optimal ARS Control of an Inverted Pendulum Robot for Climbing Ability Improvement. The Journal of Korea Robotics Society, 2011, 6, 108-117.	0.2	1
559	A Controller Based on Velocity Estimator for a Wheeled Inverted Pendulum Running on the Inclined Road. Journal of Korean Institute of Intelligent Systems, 2011, 21, 283-289.	0.0	4
560	Human-Friendly Robots for Entertainment and Education. , 2012, , 130-153.		2
561	A Derivation of the Equilibrium Point for a Controller of a Wheeled Inverted Pendulum Running on an Inclined Road. Journal of the Korean Society for Precision Engineering, 2012, 29, 72-78.	0.1	1
563	A Derivation of the Equilibrium Point for a Controller of a Wheeled Inverted Pendulum with Changing Its Center of Gravity. Journal of Institute of Control, Robotics and Systems, 2012, 18, 496-501.	0.1	6
565	Robust Adaptive Neural Network Control for Wheeled Inverted Pendulum with Input Saturation. Lecture Notes in Computer Science, 2013, , 45-52.	1.0	0
566	Balance Control of a Variable Centroid Inverted Pendulum Robot. Advances in Intelligent Systems and Computing, 2013, , 201-208.	0.5	0
567	Tracking Control of Wheeled Inverted Pendulum Robot Based on the Time-state Control Form. Transactions of the Society of Instrument and Control Engineers, 2013, 49, 936-943.	0.1	1
568	Design and Implementation of a Step-Traversing Two-Wheeled Robot. Advances in Mechatronics and Mechanical Engineering, 2013, , 102-113.	1.0	0
569	Modelling and Control of Two-Wheeled Vehicle with Extendable Intermediate Body on an Inclined Surface. , 2013, , .		0

#	ARTICLE	IF	CITATIONS
570	A Development of the Self-Standable Mobile Robot Based on a Wheeled Inverted Pendulum Mechanism. Journal of the Korean Society for Precision Engineering, 2013, 30, 171-176.	0.1	1
571	Tilt Angle Estimation of Plane with a Pair of Accelerometers and a Gyroscope. Transactions of the Korean Society for Noise and Vibration Engineering, 2013, 23, 966-972.	0.1	0
572	Inverted Pendulum-type Personal Mobility Considering Human Vibration Sensitivity. International Journal of Advanced Computer Science and Applications, 2014, 5, .	0.5	0
573	Implementation and Balancing Control of A Single-wheel Mobile Robot Using Air Power. Transactions of the Korean Institute of Electrical Engineers, 2014, 63, 139-144.	0.1	1
574	Modeling and Control of a New Narrow Vehicle. , 2014, , 1-43.		1
575	Design of a Two-wheeled Balancing Mobile Platform with Tilting Motion. Journal of Institute of Control, Robotics and Systems, 2014, 20, 87-93.	0.1	2
576	Realization of an Inverted Pendulum Robot Using Nonlinear Control for Heading and Steering Velocities. Advances in Intelligent Systems and Computing, 2014, , 119-129.	0.5	0
577	Motion Planning Technique of Wheeled Inverted Pendulum Using Phase Plane under Hardware Constraints. Transactions of the Society of Instrument and Control Engineers, 2014, 50, 455-460.	0.1	0
578	Implementation and Balancing Control of a Robotic Vehicle for Entertainment. Journal of Institute of Control, Robotics and Systems, 2014, 20, 736-740.	0.1	4
579	PERFORMANCE OF A TWO WHEELED ROBOT WITH EXTENDABLE INTERMEDIATE BODY ON IRREGULAR TERRAINS. , 2014, , .		0
580	Steering System in a Self-Balancing Electric Scooter. Journal of Institute of Control, Robotics and Systems, 2014, 20, 942-949.	0.1	2
581	Implementation of Mamdani fuzzy control on a multi-DOF two-wheel inverted pendulum robot. Discrete and Continuous Dynamical Systems - Series S, 2015, 8, 1251-1266.	0.6	2
582	Modeling and Design of a New Type of Self-Balancing Obstacle Vehicle. , 0, , .		3
583	The study on Design and Algorithm of Robot Control System. , 0, , .		0
584	Hybrid PD and adaptive backstepping control for self-balancing two-wheel electric scooter. Journal of Computer Science and Cybernetics, 2015, 30, .	0.1	0
585	Study of a Two-wheel Mobile Robot with Linear Workspace Extension Structures. Journal of Institute of Control, Robotics and Systems, 2015, 21, 342-348.	0.1	1
586	Experimental Studies on Bouncing and Driving Control of a Robotic Vehicle for Entertainment and Transportation. Journal of Korean Institute of Intelligent Systems, 2015, 25, 266-271.	0.0	1
587	Case Study of Various Parameters by Applying Swing Up Control for Inverted Pendulum. Indonesian Journal of Electrical Engineering and Informatics, 2015, 3, .	0.3	2

#	ARTICLE	IF	CITATIONS
588	Robust Control Design for a Two-Wheeled Inverted Pendulum Mobile Robot. Journal of Korean Institute of Intelligent Systems, 2016, 26, 16-22.	0.0	0
589	Experimental Studies of a Time-delayed Controller for Balancing Control of a Two-wheel Mobile Robot. Journal of Korean Institute of Intelligent Systems, 2016, 26, 23-29.	0.0	0
590	Model-Based Rolling Motion Control of an One-wheeled Robot Considering the Pitching Motion of a Gyroscopic Effect. Transactions of the Korean Institute of Electrical Engineers, 2016, 65, 335-341.	0.1	3
591	A MULTI-DOF TWO-WHEEL INVERTED PENDULUM ROBOT ON THE UNEVEN TERRAIN. , 2016, , 523-530.		0
592	A Two-Wheeled, Self-Balancing Electric Vehicle Used As an Environmentally Friendly Individual Means of Transport. IOP Conference Series: Materials Science and Engineering, 2016, 148, 012003.	0.3	0
593	Stability Analysis and Verification of self-balancing control system. , 2017, , .		3
594	Analytical Description of Dc Motor with Determination of Rotor Damping Constant (\hat{I}) Of 12v Dc Motor. The International Journal of Engineering & Science, 2017, 06, 37-42.	0.2	1
595	Design and Equilibrium Control of a Force-Balanced One-Leg Mechanism. Lecture Notes in Computer Science, 2018, , 276-290.	1.0	3
596	Inverted Pendulum on a Cart Pneumatically Actuated by Means of Digital Valves. Mechanisms and Machine Science, 2019, , 436-444.	0.3	1
597	Design and Implementation of a Step-Traversing Two-Wheeled Robot. , 2019, , 164-179.		0
598	Ä°ki tekerlekli ve tek kollu robotik platformun kayan kipli denetimi ve parametre optimizasyonu. DÄœMF MÄ¼hendislik Dergisi, 2019, 10, 591-601.	0.2	0
599	Control descentralizado basado en eventos para el consenso de mÄ±ltiples robots tipo pÄ±ndulo invertido en el esquema lÄ±der-seguidor. RIAI - Revista Iberoamericana De Automatica E Informatica Industrial, 2019, 16, 435.	0.6	3
600	Development of a Control System on a Transformable Robot with Two Forms for Traveling. Journal of the Robotics Society of Japan, 2020, 38, 861-871.	0.0	0
602	Stability analysis of a pneumatically actuated inverted pendulum. E3S Web of Conferences, 2020, 197, 07008.	0.2	0
604	Fault-Tolerant Design of a Balanced Two-Wheel Scooter. Advances in Intelligent Systems and Computing, 2020, , 1399-1410.	0.5	2
605	Human-Friendly Robots for Entertainment and Education. , 0, , 594-616.		0
607	A hybrid personal vehicle designed and developed as an alternative to traditional transport. IOP Conference Series: Earth and Environmental Science, 2020, 578, 012042.	0.2	0
608	Modeling and Developing Control Strategies for the Spherical Inverted Pendulum. Lecture Notes in Mechanical Engineering, 2021, , 132-150.	0.3	0

#	ARTICLE	IF	CITATIONS
609	Reduced order modelling and balancing control of bicycle robot. FME Transactions, 2021, 49, 919-934.	0.7	3
610	Balancing a Segway robot using LQR controller based on genetic and bacteria foraging optimization algorithms. Telkomnika (Telecommunication Computing Electronics and Control), 2020, 18, 2642.	0.6	3
611	Optimal Control of a Two-Wheeled Self-Balancing Robot by Reinforcement Q-learning. , 2020, , .		5
612	A New Dynamic Model of a Two-Wheeled Two-Flexible-Beam Inverted Pendulum Robot. , 2020, , .		0
613	Goal-Oriented Obstacle Avoidance by Two-Wheeled Self Balancing Robot. Smart Innovation, Systems and Technologies, 2022, , 345-360.	0.5	2
614	Design of a Self Balancing Vehicle as a Test Rig for Safety Control Strategies Investigations. ASME Journal of Autonomous Vehicles and Systems, 0, , 1-9.	0.6	0
615	Design of Two-Wheeled Self-Balancing Vehicle Based on Fixed-time Observer. , 2021, , .		1
616	Loop-Shaping \hat{a} , \hat{b} ; Control of an Aeropendulum Model. International Journal of Applied Mechanics and Engineering, 2021, 26, 1-16.	0.3	1
617	Clonal selection algorithm based control for two-wheeled self-balancing mobile robot. Simulation Modelling Practice and Theory, 2022, 118, 102552.	2.2	9
618	Model Predictive Control Using Dynamic Model Decomposition Applied to Two-Wheeled Inverted Pendulum Mobile Robot. , 2022, , .		0
619	Design of self-balancing vehicle based on cascade PID control system. , 2022, , .		1
620	Investigation of the usability of robots in mining operations. European Journal of Science and Technology, 0, , .	0.5	0
621	Adaptive Double Fuzzy Anti-Integral Saturation PID Control for Self-balancing Robot with Reaction Wheel [*] . , 2022, , .		0
622	Dynamics and transformation control of a wheeled inverted pendulum mobile robot*. , 2022, , .		1
623	Oscillation Control of Two-Wheeled Robot using a Gyrostabilizer. Gazi Āœniversitesi Fen Bilimleri Dergisi, 2022, 10, 547-557.	0.2	2
624	A New Augmented L_1 Adaptive Control for Wheel-Legged Robots: Design and Experiments. , 2022, , .		1
625	Hardware development and control of a motorized rollator as an extension for exoskeletons. Automatisierungstechnik, 2022, 70, 1017-1027.	0.4	0
626	Gain scheduling for state space control of a dual-mode inverted pendulum. , 2022, , .		2

#	ARTICLE	IF	CITATIONS
627	Koopman operators and Extended dynamic mode decomposition for the inverted pendulum. , 2022, , .		1
628	Study of switching a pendulum robot to a balancing robot. , 2022, , .		0
629	Adaptive Motion Control of a Terrain-Adaptive Self-Balancing Leg-Wheeled Mobile Robot over Rough Terrain. , 2022, , .		2
630	Differences in Driver Behavior between Manual and Automatic Turning of an Inverted Pendulum Vehicle. Sensors, 2022, 22, 9931.	2.1	0
632	Interval Type-2 Fuzzy Logic Control of Mobile Wheeled Inverted Pendulums. Research on Intelligent Manufacturing, 2023, , 79-95.	0.2	2
633	Algorithms and Methods for Fault-tolerant Control and Design of a Self-balanced Scooter. Studies in Systems, Decision and Control, 2023, , 333-342.	0.8	0
635	Conceptual Mechatronics Design and Prototyping of Autonomous Inverted Pendulum-System applied on Two-Wheeled Mobile Robot. , 2023, , .		0
636	Analytical and Experimental Approach for Modeling, Simulation and Validation of Two-Wheeled Self-Balancing Robot. , 2023, , .		0
637	Algorithmic Design of Block Backstepping Motion and Stabilization Control for Segway Mobile Robot. Studies in Computational Intelligence, 2023, , 557-607.	0.7	1
639	PSO-Super Twisting SMC for Balancing the TWIP using LEGO EV3 Model. , 2023, , .		0
643	Vehicle Controlling System for Traffic Law Enforcement using Internet of Things. , 2023, , .		0
650	Impact of Fading Channel Imposed Correlated Packet Drops on State Estimation in a Networked Control System: An Experimental Study Based on SDRs. , 2023, , .		0
651	Off-Policy Reinforcement Learning for Optimal Control of a Two Wheeled Self Balancing Robot. , 2023, , .		0