Ahmed Chemori

List of Publications by Year
in descending order

116	1,423	361413	454955
papers	citations	20 h-index	30 g-index

119	119	119	904
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Trajectory tracking for autonomous underwater vehicle: An adaptive approach. Ocean Engineering, 2019, 172, 511-522.	4.3	84
2	Adaptive disturbance observer for trajectory tracking control of underwater vehicles. Ocean Engineering, 2020, 200, 107080.	4.3	72
3	<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si0055.gif" overflow="scroll"><mml:msub><mml:mrow><mml:mi mathvariant="script">L</mml:mi></mml:mrow><mml:mrow><mml:mn>1</mml:mn></mml:mrow></mml:msub></mml:math> Adaptive depth and pitch control of an underwater vehicle with real-time experiments. Ocean Engineering, 2015, 98, 66-77.	2.8	60
4	Saturation based nonlinear PID control for underwater vehicles: Design, stability analysis and experiments. Mechatronics, 2019, 61, 96-105.	3.3	58
5	Dual-Space Control of Extremely Fast Parallel Manipulators: Payload Changes and the 100G Experiment. IEEE Transactions on Control Systems Technology, 2015, 23, 1520-1535.	5.2	48
6	Dual-space adaptive control of redundantly actuated cable-driven parallel robots. , 2013, , .		47
7	Saturation based nonlinear depth and yaw control of underwater vehicles with stability analysis and real-time experiments. Mechatronics, 2017, 45, 49-59.	3.3	45
8	Virtual Submerged Floating Operational System for Robotic Manipulation. Complexity, 2018, 2018, 1-18.	1.6	32
9	Global Stabilization With Low Computational Cost of the Discrete-Time Chain of Integrators by Means of Bounded Controls. IEEE Transactions on Automatic Control, 2007, 52, 948-952.	5.7	30
10	Control of the Underactuated Inertia Wheel Inverted Pendulum for Stable Limit Cycle Generation. Advanced Robotics, 2009, 23, 1999-2014.	1.8	30
11	Self-generated limit cycle tracking of the underactuated inertia wheel inverted pendulum under IDA-PBC. Nonlinear Dynamics, 2017, 89, 2195-2226.	5.2	30
12	A new RISE-based adaptive control of PKMs: design, stability analysis and experiments. International Journal of Control, 2018, 91, 593-607.	1.9	29
13	A predictionâ€based nonlinear controller for stabilization of a nonâ€minimum phase PVTOL aircraft. International Journal of Robust and Nonlinear Control, 2008, 18, 876-889.	3.7	28
14	Observation-Based Nonlinear Proportionalâ€“Derivative Control for Robust Trajectory Tracking for Autonomous Underwater Vehicles. IEEE Journal of Oceanic Engineering, 2020, 45, 1190-1202.	3.8	28
15	A Nonlinear Model Predictive Control for the Position Tracking of Cable-Driven Parallel Robots. IEEE Transactions on Robotics, 2022, 38, 2597-2616.	10.3	25
16	Robust Adaptive Tracking Control of Underwater Vehicles: Design, Stability Analysis, and Experiments. IEEE/ASME Transactions on Mechatronics, 2021, 26, 897-907.	5.8	24
17	A dual model-free control of underactuated mechanical systems, application to the inertia wheel inverted pendulum. , 2012, , .		23
18	RISE-based adaptive control for EICoSI exoskeleton to assist knee joint mobility. Robotics and Autonomous Systems, 2020, 124, 103354.	5.1	23

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19	Nonlinear control of parallel manipulators for very high accelerations without velocity measurement: stability analysis and experiments on Par2 parallel manipulator. Robotica, 2016, 34, 43-70.	1.9	22
20	Motion Control of a Hovering Biomimetic Four-Fin Underwater Robot. IEEE Journal of Oceanic Engineering, 2019, 44, 54-71.	3.8	22
21	Robustness enhancement of IDA-PBC controller in stabilising the inertia wheel inverted pendulum: theory and real-time experiments. International Journal of Control, 2018, 91, 2657-2672.	1.9	21
22	Diver tracking in open waters: A lowâ€cost approach based on visual and acoustic sensor fusion. Journal of Field Robotics, 2021, 38, 494-508.	6.0	21
23	Control of a Planar Underactuated Biped on a Complete Walking Cycle. IEEE Transactions on Automatic Control, 2004, 49, 838-843.	5.7	20
24	From PD to Nonlinear Adaptive Depth-Control of a Tethered Autonomous Underwater Vehicle. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2013, 46, 743-748.	0.4	19
25	Adaptive RBFNN finite-time control of normal forms for underactuated mechanical systems. Nonlinear Dynamics, 2017, 90, 301-315.	5.2	19
26	A new solution for machining with RA-PKMs: Modelling, control and experiments. Mechanism and Machine Theory, 2020, 150, 103864.	4.5	18
27	Real-Time Experimental Comparison of Two Depth Control Schemes for Underwater Vehicles. International Journal of Advanced Robotic Systems, 2015, 12, 13.	2.1	17
28	A nonlinear controller based on saturation functions with variable parameters to stabilize an AUV. International Journal of Naval Architecture and Ocean Engineering, 2019, 11, 211-224.	2.3	17
29	Model Predictive Control of Large-Dimension Cable-Driven Parallel Robots. Mechanisms and Machine Science, 2019, , 221-232.	0.5	17
30	Redundancy Resolution Integrated Model Predictive Control of CDPRs: Concept, Implementation and Experiments. , 2020, , .		16
31	A New Adaptive RISE Feedforward Approach based on Associative Memory Neural Networks for the Control of PKMs. Journal of Intelligent and Robotic Systems: Theory and Applications, 2020, 100, 827-847.	3.4	15
32	On Robust Mechanical Design of a PAR2 Delta-Like Parallel Kinematic Manipulator. Journal of Mechanisms and Robotics, 2022, 14, .	2.2	15
33	Extended Model-Based Feedforward Compensation in â„’1 Adaptive Control for Mechanical Manipulators: Design and Experiments. Frontiers in Robotics and AI, 2015, 2, .	3.2	14
34	Depth control of the biomimetic U-CAT turtle-like AUV with experiments in real operating conditions. , 2016, , .		14
35	Kinematic sensitivity analysis of manipulators using a novel dimensionless index. Robotics and Autonomous Systems, 2022, 150, 104021.	5.1	14
36	Nonlinear model predictive running control of Kangaroo robot: A one-leg planar underactuated hopping robot. , 2010, , .		13

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37	A new revised desired compensation adaptive control for enhanced tracking: application to RA-PKMs. Advanced Robotics, 2016, 30, 1199-1214.	1.8	13
38	A novel adaptive terminal sliding mode control for parallel manipulators: Design and real-time experiments. , 2017, , .		13
39	Motion control architecture of a 4-fin U-CAT AUV using DOF prioritization. , 2016, , .		12
40	A new time-varying feedback RISE control for second-order nonlinear MIMO systems: theory and experiments. International Journal of Control, 2021, 94, 2304-2317.	1.9	12
41	A novel application of multivariable ℒ<inf>1</inf> adaptive control: From design to real-time implementation on an underwater vehicle. , 2012, , .		11
42	Control of a planar five link under-actuated biped robot on a complete walking cycle. , 0, , .		10
43	Minimum energy oriented global stabilizing control of the PVTOL aircraft. International Journal of Control, 2007, 80, 430-442.	1.9	10
44	Human-like Balance Recovery Based on Numerical Model Predictive Control Strategy. IEEE Access, 2020, , 1-1.	4.2	10
45	From Non-model-Based to Model-Based Control of PKMs: A Comparative Study. Mechanisms and Machine Science, 2019, , 153-169.	0.5	10
46	Multi-step limit cycle generation for Rabbitâ€™s walking based on a nonlinear low dimensional predictive control scheme. Mechatronics, 2006, 16, 259-277.	3.3	9
47	Global discrete-time stabilization of the PVTOL aircraft based on fast predictive control. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2008, 41, 1747-1752.	0.4	9
48	Adaptive force feedback control for 3D compensation of physiological motion in beating heart surgery. , 2010, , .		9
49	Predictive control for the stabilization of a fast mechatronic system : from simulation to real-time experiments. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2013, 46, 237-242.	0.4	9
50	Stable limit cycle generation for underactuated mechanical systems, application: Inertia wheel inverted pendulum. , 2008, , .		8
51	Estimation-based disturbance rejection in control for limit cycle generation on inertia wheel inverted pendulum testbed. , 2009, , .		8
52	Dual-space adaptive control of redundantly actuated parallel manipulators for extremely fast operations with load changes. , 2012, , .		8
53	A novel RISE-based adaptive feedforward controller for redundantly actuated parallel manipulators. , 2014, , .		8
54	Augmented â^'1 adaptive control of an actuated knee joint exoskeleton: From design to real-time experiments. , 2016, , .		8

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55	From Hopf Bifurcation to Limit Cycles Control in Underactuated Mechanical Systems. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2017, 27, 1750104.	1.7	8
56	An Assistive Explicit Model Predictive Control Framework for a Knee Rehabilitation Exoskeleton. IEEE/ASME Transactions on Mechatronics, 2022, 27, 3636-3647.	5.8	8
57	A control architecture with stabilizer for 3D stable dynamic walking of SHERPA biped robot on compliant ground. , 2010, , .		7
58	Partial Human Data in Design of Human-Like Walking Control in Humanoid Robotics. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2012, 45, 485-490.	0.4	7
59	Optimal pattern generator for dynamic walking in humanoid robotics. , 2013, , .		7
60	Nonlinear PID and feedforward control of robotic manipulators. , 2014, , .		7
61	External disturbance rejection in IDA-PBC controller for underactuated mechanical systems: From theory to real time experiments. , 2014, , .		7
62	Fractional order model reference adaptive control for SCARA robot trajectory tracking. International Journal of Industrial and Systems Engineering, 2018, 30, 138.	0.2	7
63	Walking control strategy for a planar under-actuated biped robot based on optimal reference trajectories and partial feedback linearization. , 2004, , .		6
64	Nonlinear dual mode adaptive control of PAR2: a 2-dof planar parallel manipulator, with real-time experiments. , 2009, , .		6
65	A new extension of the Å‚1 adaptive controller to drastically reduce the tracking time lags. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2013, 46, 481-486.	0.4	6
66	Towards an Effective Robotic Device for Gait Rehabilitation of Children With Cerebral Palsy. , 2019, , .		6
67	A Fuzzy Sliding Mode Controller for Reducing Torques Applied to a Rehabilitation Robot. , 2020, , .		6
68	State feedback control of an underwater vehicle for wall following. , 2012, , .		5
69	The compass-like biped robot revisited: Nonlinear control of the disturbed passive dynamic walking. , 2015, , .		5
70	A New Fast NMPC Scheme for Parallel Kinematic Manipulators: Design and Real-Time Experiments. , 2019, , .		5
71	Intelligent Tuning of Augmented L_{1} Adaptive Control for Cerebral Palsy Kids Rehabilitation. , 2019, , .		5
72	RISE Feedback Control of Cable-Driven Parallel Robots: Design and Real-Time Experiments. IFAC-PapersOnLine, 2020, 53, 8519-8524.	0.9	5

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73	Adaptive RISE Feedback Control for Robotized Machining With PKMs: Design and Real-Time Experiments. IEEE Transactions on Control Systems Technology, 2023, 31, 39-54.	5.2	5
74	Limit cycle generation for a class of non-linear systems with jumps using a low dimensional predictive control. International Journal of Control, 2005, 78, 1206-1217.	1.9	4
75	Force feedback control for compensation of physiological motions in beating heart surgery with real-time experiments. , 2013, , .		4
76	Stabilization of inertia wheel inverted pendulum by model reference adaptive IDA-PBC: From simulation to real-time experiments. , 2015, , .		4
77	Actuator and Friction Dynamics Formulation in Control of PKMs: From Design to Real-Time Experiments. , 2018, , .		4
78	On Control Design for a Lower Limb Orthosis: A Comparative Study inÂDifferent Operating Conditions. Mechanisms and Machine Science, 2019, , 81-97.	0.5	4
79	An Intelligent Compensation Through B-Spline Neural Network for a Delta Parallel Robot. , 2019, , .		4
80	Reproducing Human Arm Strategy and Its Contribution to Balance Recovery Through Model Predictive Control. Frontiers in Neurorobotics, 2021, 15, 679570.	2.8	4
81	Observer-based robust integral of the sign of the error control of class I of underactuated mechanical systems: Theory and real-time experiments. Transactions of the Institute of Measurement and Control, 2022, 44, 339-352.	1.7	4
82	Inverse-model intelligent control of fin-actuated underwater robots based on drag force propulsion. Ocean Engineering, 2021, 239, 109883.	4.3	4
83	A dual model-free control of non-minimum phase systems for generation of stable limit cycles. , 2011, , .		3
84	Stability analysis of a new extended L<inf>1</inf> controller with experimental validation on an underwater vehicle. , 2013, , .		3
85	A prediction-based optimal gain selection in RISE feedback control for hard disk drive. , 2014, , .		3
86	A new extension of desired compensation adaptive control and its real-time application to redundantly actuated PKMs. , 2014, , .		3
87	Task-based whole-body control of humanoid robots with ZMP regulation, real-time application to a squat-like motion. , 2014, , .		3
88	Linear and nonlinear MPC for track following in the design of HDD servo systems. International Journal of Systems, Control and Communications, 2014, 6, 20.	0.3	3
89	Control of a perturbed under-actuated mechanical system. , 2015, , .		3
90	A Redundant Parallel Robotic Machining Tool: Design, Control and Real-Time Experiments. Studies in Systems, Decision and Control, 2019, , 39-79.	1.0	3

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91	$$L_1$$ Adaptive Control of a Lower Limb Exoskeleton Dedicated to Kidsâ€™ Rehabilitation. Studies in Systems, Decision and Control, 2020, , 107-129.	1.0	3
92	Disturbance Observer-Based Super-Twisting Control for the Inertia Wheel Inverted Pendulum. , 2020, , .		3
93	Excessive Transverse Coordinates for Orbital Stabilization of (Underactuated) Mechanical Systems. , 2020, , .		3
94	Effectiveness Evaluation of Arm Usage for Human Quiet Standing Balance Recovery through Nonlinear Model Predictive Control. , 2020, , .		3
95	A Novel Model-Based Robust Super-Twisting Sliding Mode Control of PKMs: Design and Real-Time Experiments. , 2021, , .		3
96	A control law for human like walking biped robot SHERPA based on a control and a ballistic phase - application on the cart-table model. , 2008, , .		2
97	A discrete-time control strategy for dynamic walking of a planar under-actuated biped robot. , 2009, , .		2
98	Model predictive tracking control for a head-positioning in a Hard-Disk-Drive. , 2013, , .		2
99	Track following control using nonlinear model predictive control in hard disk drives. , 2013, , .		2
100	RISE feedback control for a R/W head track following in hard disc drives. , 2014, , .		2
101	ℒ<inf>1</inf> adaptive control of parallel kinematic manipulators: Design and real-time experiments. , 2015, , .		2
102	Control of complex robotic systems: Challenges, design and experiments. , 2017, , .		2
103	A New Time-Varying Feedback RISE Control of PKMs: Theory and Application. , 2019, , .		2
104	Stabilization of the Inertia Wheel Inverted Pendulum by Advanced IDA-PBC Based Controllers: Comparative Study and Real-Time Experiments. , 2020, , .		2
105	An experimental comparison of state observers for the control of a parallel manipulator without velocity measurements. , 2010, , .		1
106	A nonlinear PID stabilizer with spherical projection for Humanoids: From concept to real-time experiments. , 2014, , .		1
107	FEEDFORWARD INERTIAL ACTUATION FOR ROLL STABILIZATION OF AN UNDERACTUATED UNDERWATER VEHICLE. International Journal of Robotics and Automation, 2015, 30, .	0.1	1
108	A Novel LQR-Based Cascaded Control Scheme of a Powered Knee Joint Orthosis for Rehabilitation. , 2021, , .		1

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109	Some control-related issues in mini-robotics for endoluminal surgery. , 2009, 2009, 6850-5.		0
110	Continuous closed form trajectories generation and control of redundantly actuated parallel kinematic manipulators. , 2014, , .		0
111	Optimal Pattern Generator for Dynamic Walking in humanoid Robotics. , 2016, , 115-140.		0
112	Control of Redundantly Actuated PKMs for Closed-Shape Trajectories Tracking with Real-Time Experiments. , 2017, , 17-34.		0
113	RISE Feedback with NN Feedforward Control of a Servo-Positioning System for Track Following in HDD. , 2017, , 219-240.		0
114	Dynamic Modeling and Identification of an Heterogeneously Actuated Underwater Manipulator Arm. , 2018, , .		0
115	Fractional Order Model Reference Adaptive Control for SCARA Robot Trajectory Tracking. International Journal of Industrial and Systems Engineering, 2018, 30, 1.	0.2	0
116	A New Hybrid Kinematic/Dynamic Whole-Body Control for Humanoid Robots with Real-Time Experiments. International Journal of Humanoid Robotics, 2021, 18, .	1.1	0