Per-Olof Gutman

List of Publications by Year
in descending order

65 papers	**1,660** citations	394286 **19** h-index
66 all docs	**66** docs citations	**66** times ranked

302012 **39** g-index

953 citing authors

#	Article	IF	Citations
1	Controlling mechanical systems with backlash—a survey. Automatica, 2002, 38, 1633-1649.	3.0	394
2	A new design of constrained controllers for linear systems. IEEE Transactions on Automatic Control, 1985, 30, 22-33.	3.6	316
3	New models for backlash and gear play. International Journal of Adaptive Control and Signal Processing, 1997, 11, 49-63.	2.3	140
4	Implicit improved vertex control for uncertain, time-varying linear discrete-time systems with state and control constraints. Automatica, 2013, 49, 2754-2759.	3.0	61
5	Model reference adaptive control of state delayed system with actuator failures. International Journal of Control, 2005, 78, 186-195.	1.2	45
6	Robust Adaptive Output-Feedback Tracking for a Class of Nonlinear Time-Delayed Plants. IEEE Transactions on Automatic Control, 2010, 55, 2418-2424.	3.6	44
7	Optimal Steady-State Control for Isolated Traffic Intersections. IEEE Transactions on Automatic Control, 2010, 55, 2612-2617.	3.6	43
8	Output feedback model reference adaptive control for multi-input–multi-output plants with state delay. Systems and Control Letters, 2005, 54, 961-972.	1.3	38
9	A linear programming regulator applied to hydroelectric reservoir level control. Automatica, 1986, 22, 533-541.	3.0	37
10	Hamilton–Jacobi–Bellman formalism for optimal climate control of greenhouse crop. Automatica, 2009, 45, 1227-1231.	3.0	37
11	Output-feedback co-ordinated decentralized adaptive tracking: The case of MIMO subsystems with delayed interconnections. International Journal of Adaptive Control and Signal Processing, 2005, 19, 639-660.	2.3	28
12	Optimal traffic control synthesis for an isolated intersection. Control Engineering Practice, 2011, 19, 900-911.	3.2	27
13	Digital QFT Design for the Benchmark Problem. European Journal of Control, 1995, 1, 97-103.	1.6	26
14	Adaptive output-feedback tracking: The case of MIMO plants with unknown, time-varying state delay. Systems and Control Letters, 2009, 58, 62-68.	1.3	23
15	Nonlinear controller tuning based on a sequence of identifications of linearized time-varying models. Control Engineering Practice, 2009, 17, 311-321.	3.2	22
16	Asymptotic sliding mode control approach to adaptive distributed tracking problem for multi-agent nonlinear delayed systems. International Journal of Control, 2012, 85, 1671-1682.	1.2	22
17	Optimal control of crop spacing in a plant factory. Automatica, 2000, 36, 1665-1668.	3.0	21
18	Dominant parameter selection in the marginally identifiable case. Mathematics and Computers in Simulation, 2004, 65, 127-136.	2.4	21

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19	Robust Output-Feedback Model Reference Adaptive Control of SISO Plants With Multiple Uncertain, Time-Varying State Delays. IEEE Transactions on Automatic Control, 2008, 53, 2414-2419.	3.6	21
20	A model for the global optimization of water prices and usage for the case of spatially distributed sources and consumers. Mathematics and Computers in Simulation, 2001, 56, 347-356.	2.4	18
21	Coordinated decentralized sliding mode MRAC with control cost optimization for a class of nonlinear systems. Journal of the Franklin Institute, 2012, 349, 1364-1379.	1.9	16
22	A non-linear optimal greenhouse control problem with heating and ventilation. Optimal Control Applications and Methods, 1996, 17, 157-169.	1.3	15
23	Tube model reference adaptive control. Automatica, 2013, 49, 1012-1018.	3.0	15
24	An algorithm for the adaptation of a robust controller to reduced plant uncertainty. Automatica, 1990, 26, 709-720.	3.0	14
25	Robust and adaptive control: fidelity or an open relationship?. Systems and Control Letters, 2003, 49, 9-19.	1.3	13
26	Discrete dynamic optimization of N-stages control for isolated signalized intersections. Control Engineering Practice, 2013, 21, 1553-1563.	3.2	13
27	Optimal Design of an â€œEnergy Towerâ€•Power Plant. IEEE Transactions on Energy Conversion, 2008, 23, 215-225.	3.7	12
28	Constrained optimal steady-state control for isolated traffic intersections. Control Theory and Technology, 2014, 12, 84-94.	1.0	12
29	Onâ€•line parameter interval estimation using recursive least squares. International Journal of Adaptive Control and Signal Processing, 1994, 8, 61-72.	2.3	11
30	Robust feedback stabilization of an unmanned motorcycle. Control Engineering Practice, 2010, 18, 970-978.	3.2	11
31	Classification of fruits by a boltzmann perceptron neural network. Automatica, 1992, 28, 961-968.	3.0	10
32	On the botanic model of plant growth with intermediate vegetativeâ€"reproductive stage. Theoretical Population Biology, 2005, 68, 147-156.	0.5	10
33	Robust adaptive tracking with an additional plant identifier for a class of nonlinear systems. Journal of the Franklin Institute, 2010, 347, 974-987.	1.9	10
34	Decentralized continuous MRAC with local asymptotic sliding modes of nonlinear delayed interconnected systems. Journal of the Franklin Institute, 2014, 351, 2076-2088.	1.9	9
35	Fast model predictive control for linear periodic systems with state and control constraints. International Journal of Robust and Nonlinear Control, 2017, 27, 3703-3726.	2.1	9
36	On Energy-Optimal and Time-Optimal Precise Displacement of Rigid Body with Friction. Journal of Optimization Theory and Applications, 2017, 172, 466-480.	0.8	7

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37	Modelling and Control of a Virtual Skydiver. IFAC-PapersOnLine, 2017, 50, 369-374.	0.5	7
38	Explicit improved vertex control for uncertain, time-varying linear discrete-time systems with state and control constraints. International Journal of Robust and Nonlinear Control, 2016, 26, 2652-2667.	2.1	6
39	Automatic tuning of the window size in the Box Car Back Slope data compression algorithm. Journal of Process Control, 2004, 14, 431-439.	1.7	5
40	Identification of a nonlinear dynamic biological model using the dominant parameter selection method. Journal of the Franklin Institute, 2010, 347, 1001-1014.	1.9	5
41	Robust adaptive-sliding mode tracking of state delayed nonlinear plants with actuator failures. International Journal of Robust and Nonlinear Control, 2011, 21, 2009-2026.	2.1	5
42	Quasi-linear analytical approach to stick-slip friction in the frequency domain. International Journal of Robust and Nonlinear Control, 2014, 24, 2891-2908.	2.1	5
43	Closed-form Sinusoidal-input Describing Function for the Exact Backlash Model. IFAC-PapersOnLine, 2016, 49, 422-427.	0.5	5
44	Improving the estimation of Lake Kinneret's heat balance and surface fluxes using the Kalman Filter algorithm. Limnology and Oceanography: Methods, 2017, 15, 467-479.	1.0	5
45	Combined time and energy optimal trajectory planning with quadratic drag for mixed discrete-continuous task planning. Optimization, 2019, 68, 125-143.	1.0	5
46	Interpolation based predictive control by ellipsoidal invariant sets. IFAC Journal of Systems and Control, 2020, 12, 100084.	1.1	5
47	Modelling and prediction of bending stiffness for paper board manufacturing. Journal of Process Control, 1998, 8, 229-237.	1.7	4
48	Model predictive control for constrained uncertain, time-varying systems. IFAC-PapersOnLine, 2015, 48, 930-935.	0.5	4
49	A new view of anti-windup design for uncertain linear systems in the frequency domain. International Journal of Robust and Nonlinear Control, 2016, 26, 2116-2135.	2.1	4
50	Evaluation of Experiments for Estimation of Dynamical Crop Model Parameters. Bulletin of Mathematical Biology, 2007, 69, 1603-1614.	0.9	3
51	Improvements on Interpolation Techniques based on Linear Programming for Constrained Control * *The first author acknowledges gratefully the support from the Technion – Israel Institute of Technology, in co-operation with General Motors Company under project GAC1761. The second and fifth authors acknowledge gratefully the support from the Spanish government under project DPI2013-47100-C2-1-P (including FEDER co-funding) and an FPU grant (FPU12/01026).. IFAC-PapersOnLine, 2017, 50, 1403-1408	0.5	3
52	Actuation Strategy of a Virtual Skydiver Derived by Reinforcement Learning. IFAC-PapersOnLine, 2020, 53, 1569-1574.	0.5	3
53	Time Optimal Control for a Non-Linear Planar Vehicle Subject to Disturbances. IFAC-PapersOnLine, 2021, 54, 611-616.	0.5	3
54	On the modified Minkowski functional minimization controller for uncertain systems with input and state constraints. IFAC Journal of Systems and Control, 2018, 4, 17-24.	1.1	2

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55	Time-Energy Optimal Control of a Non-Linear Surface Vehicle Subject to Disturbances. IFAC-PapersOnLine, 2021, 54, 48-53.	0.5	2
56	Classification by varying features with an erring sensor. Automatica, 1994, 30, 1943-1948.	3.0	1
57	Optimal monitoring and management of a water storage. Environmental Monitoring and Assessment, 2008, 138, 93-100.	1.3	1
58	Multivariable output feedback robust adaptive tracking control design for a class of delayed systems. International Journal of Systems Science, 2015, 46, 429-437.	3.7	1
59	Optimal Rigid Body Precise Displacement - Minimization of Electrical Energy. IFAC-PapersOnLine, 2017, 50, 753-757.	0.5	1
60	Evaluation of an Interpolated Controller in an Industrial Photobioreactor. IEEE Access, 2021, 9, 24406-24415.	2.6	1
61	Minimum Mixed Timeâ€"Energy Trajectory Planning of a Nonlinear Vehicle Subject to 2D Disturbances. Journal of Optimization Theory and Applications, 2022, 192, 725-757.	0.8	1
62	On smooth optimal control determination. Automatica, 2004, 40, 2175-2180.	3.0	0
63	Long time missions and the fuel-optimal attitude maneuvering in a swinging mode. Mathematical Programming, 2009, 120, 49-66.	1.6	0
64	MRAC of systems subject to actuator nonlinearities and unknown time-varying state delays: tube reference approachâˆ—âˆ—This work was supported by the BSF under Grant 2010126.. IFAC-PapersOnLine, 2015, 48, 1062-1067.	0.5	0
65	Comment on â€œGuidance Laws Based on Optimal Feedback Linearization Pseudocontrol with Time-to-Go Estimationâ€. Journal of Guidance, Control, and Dynamics, 2018, 41, 576-576.	1.6	0