

Hitay Ozbay

List of Publications by Year in descending order

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162
papers

2,238
citations

257357

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41
g-index

167
all docs

167
docs citations

167
times ranked

952
citing authors

#	ARTICLE	IF	CITATIONS
1	On the Design of AQM Supporting TCP Flows Using Robust Control Theory. IEEE Transactions on Automatic Control, 2004, 49, 1031-1036.	3.6	131
2	Complexity issues in robust stability of linear delay-differential systems. Mathematics of Control, Signals, and Systems, 1996, 9, 386-400.	1.4	109
3	Rate-based flow controllers for communication networks in the presence of uncertain time-varying multiple time-delays. Automatica, 2002, 38, 917-928.	3.0	107
4	H^{∞} optimal and suboptimal controllers for infinite dimensional SISO plants. IEEE Transactions on Automatic Control, 1995, 40, 751-755.	3.6	87
5	Stability Analysis of Switched Time Delay Systems. SIAM Journal on Control and Optimization, 2008, 47, 936-949.	1.1	87
6	PID controller design for fractional-order systems with time delays. Systems and Control Letters, 2012, 61, 18-23.	1.3	74
7	On the strong stabilization and stable H^{∞} -controller design problems for MIMO systems. Automatica, 2000, 36, 1675-1684.	3.0	66
8	On the synthesis of stable H^{∞} controllers. IEEE Transactions on Automatic Control, 1999, 44, 431-435.	3.6	60
9	A variable structure control approach to active queue management for TCP with ECN. IEEE Transactions on Control Systems Technology, 2005, 13, 203-215.	3.2	58
10	A Skew Toeplitz Approach to the H^{∞} Optimal Control of Multivariable Distributed Systems. SIAM Journal on Control and Optimization, 1990, 28, 653-670.	1.1	57
11	PID controller synthesis for a class of unstable MIMO plants with I/O delays. Automatica, 2007, 43, 135-142.	3.0	54
12	Frequency domain analysis and robust control design for an ideal flexible beam. Automatica, 1991, 27, 947-961.	3.0	49
13	On the complexity of purely complex $\hat{1}/4$ computation and related problems in multidimensional systems. IEEE Transactions on Automatic Control, 1998, 43, 409-414.	3.6	49
14	Design and trajectory tracking control of a piezoelectric nano-manipulator with actuator saturations. Mechanical Systems and Signal Processing, 2018, 111, 529-544.	4.4	49
15	A numerical method for stability windows and unstable root-locus calculation for linear fractional time-delay systems. Automatica, 2012, 48, 2824-2830.	3.0	45
16	Stability analysis of systems with distributed delays and application to hematopoietic cell maturation dynamics. , 2008, , .		41
17	Tutorial review H^{∞} optimal controller design for a class of distributed parameter systems. International Journal of Control, 1993, 58, 739-782.	1.2	40
18	Remarks on strong stabilization and stable H^{∞} controller design. IEEE Transactions on Automatic Control, 2005, 50, 2083-2087.	3.6	40

#	ARTICLE	IF	CITATIONS
19	Stability Analysis of Cell Dynamics in Leukemia. <i>Mathematical Modelling of Natural Phenomena</i> , 2012, 7, 203-234.	0.9	40
20	Low dimensional modelling and Dirichlet boundary controller design for Burgers equation. <i>International Journal of Control</i> , 2004, 77, 895-906.	1.2	38
21	Abstract model and controller design for an unstable aircraft. <i>Journal of Guidance, Control, and Dynamics</i> , 1992, 15, 498-508.	1.6	36
22	Mixed-sensitivity optimization for a class of unstable infinite-dimensional systems. <i>Linear Algebra and Its Applications</i> , 1993, 178, 43-83.	0.4	32
23	Experimental Study of Linear Closed-Loop Control of Subsonic Cavity Flow. <i>AIAA Journal</i> , 2006, 44, 929-938.	1.5	31
24	On switching controllers for a class of linear parameter varying systems. <i>Systems and Control Letters</i> , 2007, 56, 504-511.	1.3	31
25	Comparison of PI controllers designed for the delay model of TCP/AQM networks. <i>Computer Communications</i> , 2013, 36, 1225-1234.	3.1	30
26	H_2/H_∞ controller design for a two-dimensional thin airfoil flutter suppression. <i>Journal of Guidance, Control, and Dynamics</i> , 1994, 17, 722-728.	1.6	24
27	Sensitivity Minimization by Strongly Stabilizing Controllers for a Class of Unstable Time-Delay Systems. <i>IEEE Transactions on Automatic Control</i> , 2009, 54, 590-595.	3.6	24
28	Exploring Strategies for Closed-Loop Cavity Flow Control. , 2004, , .		23
29	Robust Antiwindup Compensation for High-Precision Tracking of a Piezoelectric Nanostage. <i>IEEE Transactions on Industrial Electronics</i> , 2016, 63, 6460-6470.	5.2	23
30	Dynamic output feedback stabilization of switched linear systems with delay via a trajectory based approach. <i>Automatica</i> , 2018, 93, 92-97.	3.0	22
31	Dwell time-based stabilisation of switched delay systems using free-weighting matrices. <i>International Journal of Control</i> , 2018, 91, 1-11.	1.2	22
32	Stability and Robustness Analysis for Switched Systems with Time-Varying Delays. <i>SIAM Journal on Control and Optimization</i> , 2018, 56, 158-182.	1.1	21
33	On the structure of suboptimal H_2 controllers in the sensitivity minimization problem for distributed stable plants. <i>Automatica</i> , 1991, 27, 293-305.	3.0	20
34	H_2 Optimal Repetitive Controller Design for Stable Plants. <i>Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME</i> , 1997, 119, 541-547.	0.9	20
35	Stable controller design for time-delay systems. <i>International Journal of Control</i> , 2008, 81, 546-556.	1.2	19
36	Robust flow control in data communication networks with multiple time delays. <i>International Journal of Robust and Nonlinear Control</i> , 2010, 20, 1529-1548.	2.1	19

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37	On the mixed sensitivity minimization for systems with infinitely many unstable modes. Systems and Control Letters, 2004, 53, 211-216.	1.3	18
38	Robust control design for a flexible beam using a distributed-parameter H^∞ -method. , 0, , .		17
39	A simpler formula for the singular values of a certain Hankel operator. Systems and Control Letters, 1990, 15, 381-390.	1.3	16
40	Control of Subsonic Cavity Flows by Neural Networks - Analytical Models and Experimental Validation. , 2005, , .		15
41	Dwell-time computation for stability of switched systems with time delays. IET Control Theory and Applications, 2013, 7, 1422-1428.	1.2	14
42	Stable controllers for robust stabilization of systems with infinitely many unstable poles. Systems and Control Letters, 2013, 62, 511-516.	1.3	14
43	Modeling and control of biological systems with multiple afferent and efferent transmission delays. Journal of Field Robotics, 2000, 17, 609-622.	0.7	13
44	Strong Stabilization of a Class of MIMO Systems. IEEE Transactions on Automatic Control, 2011, 56, 1445-1452.	3.6	13
45	Optimizing low-order controllers for haptic systems under delayed feedback. Control Engineering Practice, 2013, 21, 655-668.	3.2	13
46	Four-block problem: stable plants and rational weights. International Journal of Control, 1989, 50, 1013-1023.	1.2	11
47	Controller reduction in the two-block H^∞ -optimal design for distributed plants. International Journal of Control, 1991, 54, 1291-1308.	1.2	11
48	A Hamiltonian-based solution to the mixed sensitivity optimization problem for stable pseudorotational plants. Systems and Control Letters, 2005, 54, 1063-1068.	1.3	11
49	Stability analysis of switched time-delay systems. , 2008, , .		11
50	Sensitivity Reduction by Strongly Stabilizing Controllers for MIMO Distributed Parameter Systems. IEEE Transactions on Automatic Control, 2012, 57, 2089-2094.	3.6	11
51	Comments on "Solutions to the combined sensitivity and complementary sensitivity problem in control systems. IEEE Transactions on Automatic Control, 1998, 43, 724.	3.6	10
52	Reduced-order Model-based Feedback Controller Design for Subsonic Cavity Flows. , 2005, , .		10
53	Stable H^∞ Controller Design for Systems with Time Delays. Lecture Notes in Control and Information Sciences, 2010, , 105-113.	0.6	10
54	Design of a switched robust control scheme for drug delivery in blood pressure regulation. IFAC-PapersOnLine, 2016, 49, 252-257.	0.5	10

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55	H [∞] /sup \hat{z} / controllers for unstable distributed plants. , 0, , .		9
56	Switching Resilient PI Controllers for Active Queue Management of TCP Flows. , 2007, , .		9
57	On the rationalH \hat{z} controller design for infinite dimensional plants. International Journal of Robust and Nonlinear Control, 1996, 6, 383-397.	2.1	8
58	Point to point motion of skeletal systems with multiple transmission delays. , 1999, , .		8
59	Neural network-based modelling of subsonic cavity flows. International Journal of Systems Science, 2008, 39, 105-117.	3.7	8
60	Decentralised robust flow controller design for networks with multiple bottlenecks. International Journal of Control, 2009, 82, 95-116.	1.2	8
61	On the analysis of a dynamical model representing gene regulatory networks under negative feedback. International Journal of Robust and Nonlinear Control, 2014, 24, 1609-1627.	2.1	8
62	Variable structure control in active queue management for TCP with ECN. , 0, , .		7
63	Modeling of subsonic cavity flows by neural networks. , 0, , .		7
64	Infinite dimensional and reduced order observers for Burgers equation. International Journal of Control, 2005, 78, 864-874.	1.2	7
65	On Smith predictor-based controller design for systems with integral action and time delay. , 2013, , .		7
66	Switching robust controllers for automatic regulation of postoperative hypertension using vasodilator drug infusion rate**The first author is supported by the Higher Education Commission, Pakistan.. IFAC-PapersOnLine, 2015, 48, 224-229.	0.5	7
67	PID and low \hat{z} order controller design for guaranteed delay margin and pole placement. International Journal of Robust and Nonlinear Control, 0, , .	2.1	7
68	Analysis and Robust Control Techniques for an Ideal Flexible Beam. Control and Dynamic Systems, 1993, , 369-421.	0.1	7
69	On H [∞] /sup \hat{z} / optimal repetitive controllers. , 0, , .		6
70	Gap metric problem for MIMO delay systems: Parametrization of all suboptimal controllers. Automatica, 1995, 31, 931-940.	3.0	6
71	On the two-block H \hat{z} problem for a class of unstable distributed systems. Linear Algebra and Its Applications, 1996, 234, 227-244.	0.4	6
72	Reliable decentralised control of delayed MIMO plants. International Journal of Control, 2010, 83, 516-526.	1.2	6

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73	Sensitivity Reduction by Stable Controllers for MIMO Infinite Dimensional Systems via the Tangential Nevanlinna-Pick Interpolation. IEEE Transactions on Automatic Control, 2014, 59, 1099-1105.	3.6	6
74	On approximately optimal H_∞ / controllers for distributed systems. , 0, , .		5
75	<title>Guidelines for optimizing multilevel ECN using fluid-flow-based TCP model</title>. , 2002, , .		5
76	Tuning RED parameters in satellite networks using control theory. , 2003, , .		5
77	REMARKS ON H^∞ ; CONTROLLER DESIGN FOR SISO PLANTS WITH TIME DELAYS 1. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2006, 39, 644-649.	0.4	5
78	Parameterization of Suboptimal Solutions of the Nehari Problem for Infinite-Dimensional Systems. IEEE Transactions on Automatic Control, 2007, 52, 2369-2374.	3.6	5
79	Stability Conditions for a System Modeling Cell Dynamics in Leukemia. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2010, 43, 99-102.	0.4	5
80	A numerical method to find stability windows and unstable poles for linear neutral time-delay systems. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2010, 43, 183-188.	0.4	5
81	Stability of fractional neutral systems with multiple delays and poles asymptotic to the imaginary axis. , 2010, , .		5
82	Stability windows and unstable root-loci for linear fractional time-delay systems. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2011, 44, 12532-12537.	0.4	5
83	Analysis of a Gene Regulatory Network Model With Time Delay Using the Secant Condition. IEEE Life Sciences Letters, 2016, 2, 5-8.	1.2	5
84	HOPF CYCLES IN ONE-SECTOR OPTIMAL GROWTH MODELS WITH TIME DELAY. Macroeconomic Dynamics, 2017, 21, 1887-1901.	0.6	5
85	On Delay-Based Linear Models and Robust Control of Cavity Flows. Lecture Notes in Computational Science and Engineering, 2004, , 287-298.	0.1	5
86	On the optimal two block H_∞ compensators for distributed unstable plants. , 1992, , .		5
87	Controller design for natural and robotic systems with transmission delays. Journal of Field Robotics, 2002, 19, 231-244.	0.7	4
88	Multi Input Dynamical Modeling of Heat Flow With Uncertain Diffusivity Parameter. Mathematical and Computer Modelling of Dynamical Systems, 2003, 9, 437-450.	1.4	4
89	Decoupled PID Controller Synthesis for MIMO Plants with I/O Delays. , 2006, , .		4
90	Sensitivity minimization by stable controllers: An interpolation approach for suboptimal solutions. , 2007, , .		4

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91	Controller Implementation for a Class of Spatially-Varying Distributed Parameter Systems. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2008, 41, 7755-7760.	0.4	4
92	Computation of H_∞ controllers for infinite dimensional plants using numerical linear algebra. Numerical Linear Algebra With Applications, 2013, 20, 327-335.	0.9	4
93	Robust control of infinite dimensional systems. , 2013, , 1-1.		4
94	Independent Estimation of Input and Measurement Delays for a Hybrid Vertical Spring-Mass-Damper via Harmonic Transfer Functions. IFAC-PapersOnLine, 2015, 48, 298-303.	0.5	4
95	On Feedback Stabilization of Neutral Time Delay Systems with Infinitely Many Unstable Poles. IFAC-PapersOnLine, 2018, 51, 118-123.	0.5	4
96	On the real, rational, bounded, unit interpolation problem in \hat{z} and its applications to strong stabilization. Transactions of the Institute of Measurement and Control, 2019, 41, 476-483.	1.1	4
97	Controller redesign for delay margin improvement. Automatica, 2020, 113, 108790.	3.0	4
98	Analysis of Gene Regulatory Networks under Positive Feedback. Advances in Delays and Dynamics, 2014, , 127-140.	0.4	4
99	Strong stabilization of high order plants. Automatica, 2022, 140, 110256.	3.0	4
100	On L_1 optimal control. IEEE Transactions on Automatic Control, 1989, 34, 884-885.	3.6	3
101	Modeling and Feedback Control for Subsonic Cavity Flows: A Collaborative Approach. , 0, , .		3
102	Sensitivity Minimization by Stable Controllers for a Class of Unstable Time-Delay Systems. , 2006, , .		3
103	Seven tuning schemes for an ADALINE model to predict floor pressures in a subsonic cavity flow. Transactions of the Institute of Measurement and Control, 2009, 31, 97-112.	1.1	3
104	Low order controller design for systems with time delays. , 2011, , .		3
105	State feedback stabilization of switched systems with delay: Trajectory based approach. , 2017, , .		3
106	Design of robustly stabilizing low order, stable controllers for two-link underactuated planar robots. , 2017, , .		3
107	Predictive Antiwindup Compensation for Repetitive Control Supporting Nanoscanning. IEEE Transactions on Control Systems Technology, 2021, 29, 1807-1814.	3.2	3
108	A solution to the standard H_∞ problem for multivariable distributed systems. , 0, , .		2

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109	Effect of time delay in network traffic control. , 2001, , .		2
110	On the mixed sensitivity optimization problem for stable pseudorational plants. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2003, 36, 185-190.	0.4	2
111	A switching control approach to stabilization of parameter varying time delay systems. , 2009, , .		2
112	Stability Analysis of Switched Systems Using Lyapunov-Krasovskii Functionals. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2011, 44, 7492-7496.	0.4	2
113	Dwell time optimization in switching control of parameter varying time delay systems. , 2011, , .		2
114	Stability Analysis of a Dynamical Model Representing Gene Regulatory Networks. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2012, 45, 191-196.	0.4	2
115	A Secant Condition for Cyclic Systems with Time Delays and its Application to Gene Regulatory Networks. IFAC-PapersOnLine, 2015, 48, 171-176.	0.5	2
116	On Stable Controller Design For Robust Stabilization of Time Delay Systems. IFAC-PapersOnLine, 2015, 48, 404-409.	0.5	2
117	A Mathematical Model for Cholesterol Biosynthesis under Nicotine Exposure. IFAC-PapersOnLine, 2016, 49, 258-262.	0.5	2
118	Stability analysis of switched systems with time-varying discontinuous delays. , 2017, , .		2
119	Analysis of Blood Cell Production under Growth Factors Switching * *This work is supported by ALMA-project on the "Analysis of Acute Myeloid Leukemia", Paris-Saclay (France), also in part by the PHC Bosphore 2016 France-Turkey under project numbers 35634QM (France) and EEEAG-115E820	0.5	2
120	Dwell time-based stabilisation of switched linear delay systems using clock-dependent Lyapunov-Krasovskii functionals. International Journal of Control, 2020, 93, 1172-1179.	1.2	2
121	On input/output stabilization of singular integrodifferential systems. Applied Mathematics and Optimization, 1994, 30, 21-49.	0.8	1
122	Partial Disturbance Rejection with Internal Stability and H_∞ Norm Bound. SIAM Journal on Control and Optimization, 1998, 36, 180-192.	1.1	1
123	STABILITY ANALYSIS OF SWITCHED TIME-DELAY SYSTEMS. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2005, 38, 442-447.	0.4	1
124	H ₂ Filter Design for Vehicle Tracking Under Delayed and Noisy Measurements. , 2007, , .		1
125	Comparing PI Controllers for Delay Models of TCP/AQM Networks. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2010, 43, 76-83.	0.4	1
126	Tangential Nevanlinna-Pick interpolation for strong stabilization of MIMO distributed parameter systems. , 2012, , .		1

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127	On reduced order modeling of flexible structures from frequency response data. , 2014, , .		1
128	On dwell time minimization for switched delay systems: Free-weighting matrices method. , 2014, , .		1
129	Stable and Robust Controller Synthesis for Unstable Time Delay Systems via Interpolation and Approximation. IFAC-PapersOnLine, 2018, 51, 230-235.	0.5	1
130	Static output feedback stabilization of discrete time linear time invariant systems based on approximate dynamic programming. Transactions of the Institute of Measurement and Control, 2020, 42, 3168-3182.	1.1	1
131	Design of First Order Controllers for Unstable Infinite Dimensional Plants. Advances in Delays and Dynamics, 2014, , 17-30.	0.4	1
132	Integral Action Controllers for Systems with Time Delays. Lecture Notes in Control and Information Sciences, 2009, , 197-207.	0.6	1
133	Multi-objective controller design via optimal interpolation with an aircraft control application. , 0, , .		0
134	H [∞] Optimal Repetitive Control Design for Stable Plants. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 1996, 29, 1638-1643.	0.4	0
135	Remarks on strong stabilization and stable H [∞] controller design. , 2004, , .		0
136	Support vector networks for prediction of floor pressures in shallow cavity flows. , 2006, , .		0
137	Strong stabilization of MIMO systems with restricted zeros in the unstable region. , 2008, , .		0
138	Switched PD-like Controllers for First Order Unstable Systems with Time Delay. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2009, 42, 408-413.	0.4	0
139	Low-Order Controller Design for Haptic Systems under Delayed Feedback. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2012, 45, 43-48.	0.4	0
140	H [∞] -filter based target tracking under time delayed measurements. , 2012, , .		0
141	On the robust controller design for Hard Disk Drive servo systems with time delays. , 2013, , .		0
142	Numerical Computation of H [∞] Optimal Controllers for Time Delay Systems Using YALTA **This work is supported by the Scientific and Technological Research Council of Turkey (T ^Ü B ^İ TAK) under project EEEAG-115E820. IFAC-PapersOnLine, 2016, 49, 182-187.	0.5	0
143	On Dwell Time Minimization for Switched Delay Systems: Time-Scheduled Lyapunov Functions. IFAC-PapersOnLine, 2016, 49, 37-40.	0.5	0
144	Stability and Robustness Analysis of a Class of Cyclic Biological Systems. Advances in Delays and Dynamics, 2017, , 155-168.	0.4	0

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145	Extension of an Anti-windup Scheme for Systems with Time Delay and Integral Action. IFAC-PapersOnLine, 2018, 51, 13-18.	0.5	0
146	Robust track following in Hard Disk Drives with time delays: An infinite dimensional approach. ISA Transactions, 2019, 93, 280-289.	3.1	0
147	Controller Design for Plants With Internal Delayed Feedback. IEEE Transactions on Automatic Control, 2022, 67, 2648-2654.	3.6	0
148	Robust Control of Infinite-Dimensional Systems. , 2021, , 1948-1954.		0
149	Delay Margin Optimization for Systems with Internal Delayed Feedback. IFAC-PapersOnLine, 2021, 54, 753-757.	0.5	0
150	Support Vector Networks for Prediction of Floor Pressures in Shallow Cavity Flows. , 2006, , .		0
151	SOS Methods for Stability Analysis of Neutral Differential Systems. Lecture Notes in Control and Information Sciences, 2009, , 97-107.	0.6	0
152	Local Asymptotic Stability Conditions for the Positive Equilibrium of a System Modeling Cell Dynamics in Leukemia. Lecture Notes in Control and Information Sciences, 2012, , 187-197.	0.6	0
153	On the 1-block H^{∞} control problem for a class of MIMO distributed systems. , 1991, , .		0
154	On Fixed Order Controllers for Delay Systems: Discrete Time Case. , 1993, , .		0
155	Active Feedback Controller Design for a Thin Airfoil. , 1993, , .		0
156	On suboptimal H^{∞} controllers for unstable distributed plants. , 1993, , .		0
157	On the Computation of Suboptimal H^{∞} Controllers for Unstable Infinite Dimensional Systems. The IMA Volumes in Mathematics and Its Applications, 1995, , 105-128.	0.5	0
158	Basic Tools from Systems and Control Theory. Springer Briefs in Electrical and Computer Engineering, 2015, , 13-23.	0.3	0
159	Gene Regulatory Networks Under Negative Feedback. Springer Briefs in Electrical and Computer Engineering, 2015, , 53-72.	0.3	0
160	Gene Regulatory Networks Under Positive Feedback. Springer Briefs in Electrical and Computer Engineering, 2015, , 73-85.	0.3	0
161	Deterministic ODE-Based Model with Time Delay. Springer Briefs in Electrical and Computer Engineering, 2015, , 43-51.	0.3	0
162	Robust Control of Infinite-Dimensional Systems. , 2019, , 1-7.		0