Toshimitsu Ushio

List of Publications by Citations

137 papers	718 citations	13 h-index	22 g-index
160 ext. papers	882 ext. citations	1.5 avg, IF	4.29 L-index

#	Paper	IF	Citations
137	Prediction-based control of chaos. *Physics Letters, Section A: General, Atomic and Solid State Physics*, **1999**, 264, 30-35	2.3	80
136	Chaotic synchronization and controlling chaos based on contraction mappings. *Physics Letters, Section A: General, Atomic and Solid State Physics*, **1995**, 198, 14-22	2.3	51
135	Effective computation of an Lm(G)-closed, controllable, and observable sublanguage arising in supervisory control. *Systems and Control Letters*, **2003**, 49, 191-200	2.4	37
134	Controlling chaos in a switched arrival system. *Systems and Control Letters*, **1995**, 26, 335-339	2.4	35
133	Delayed feedback control with nonlinear estimation in chaotic discrete-time systems. *Physics Letters, Section A: General, Atomic and Solid State Physics*, **1998**, 247, 112-118	2.3	32
132	Verification of Codiagnosability for Discrete Event Systems Modeled by Mealy Automata With Nondeterministic Output Functions. *IEEE Transactions on Automatic Control*, **2012**, 57, 798-804	5.9	31
131	Chaos in non-linear sampled-data control systems. *International Journal of Control*, **1983**, 38, 1023-1033	1.5	31
130	Adaptive Resource Allocation Control for Fair QoS Management. *IEEE Transactions on Computers*, **2007**, 56, 344-357	2.5	27
129	STABILIZATION OF UNSTABLE PERIODIC ORBITS OF CHAOTIC DISCRETE-TIME SYSTEMS USING PREDICTION-BASED FEEDBACK CONTROL. *International Journal of Bifurcation and Chaos in Applied Sciences and Engineering*, **2002**, 12, 439-446	2	23
128	Chaotic behavior in piecewise-linear sampled-data control systems. *International Journal of Non-Linear Mechanics*, **1985**, 20, 493-506	2.8	21
127	A New Class of Supervisors for Timed Discrete Event Systems Under Partial Observation. *Discrete Event Dynamic Systems: Theory and Applications*, **2006**, 16, 257-278	1	15
126	Decentralized state feedback control of discrete event systems. *Systems and Control Letters*, **1994**, 22, 369-375	2.4	15
125	DELAYED FEEDBACK CONTROL WITH A MINIMAL-ORDER OBSERVER FOR STABILIZATION OF CHAOTIC DISCRETE-TIME SYSTEMS. *International Journal of Bifurcation and Chaos in Applied Sciences and Engineering*, **2002**, 12, 1047-1055	2	13
124	Supervisory control of discrete event systems modeled by Mealy automata with nondeterministic output functions **2009**,		11
123	A modified normality condition for decentralized supervisory control of discrete event systems. *Automatica*, **2002**, 38, 185-189	5.7	11
122	Maximally permissive mutually and globally nonblocking supervision with application to switching control. *Automatica*, **2005**, 41, 1299-1312	5.7	11
121	Replicator dynamics with Pigovian subsidy and capitation tax. *Nonlinear Analysis: Theory, Methods & Applications*, **2009**, 71, e818-e826	1.3	10

120	Replicator Dynamics of Evolutionary Hypergames. *IEEE Transactions on Systems, Man and Cybernetics, Part A: Systems and Humans*, **2007**, 37, 132-138		10
119	Chaos communication using unknown input observers. *Electronics and Communications in Japan, Part III: Fundamental Electronic Science (English Translation of Denshi Tsushin Gakkai Ronbunshi)*, **2001**, 84, 21-27		10
118	Novel stability condition for delayed fractional-order composite systems based on vector Lyapunov function. *Nonlinear Dynamics*, **2020**, 99, 1253-1267	5	10
117	Controllability and control-invariance in discrete-event systems. *International Journal of Control*, **1989**, 50, 1507-1515	1.5	8
116	Design of user-interface without automation surprises for discrete event systems. *Control Engineering Practice*, **2006**, 14, 1249-1258	3.9	7
115	The formulation of the control of an expression pattern in a gene network by propositional calculus. *Journal of Theoretical Biology*, **2006**, 240, 443-50	2.3	7
114	Supervisory Control of Partially Observed Quantitative Discrete Event Systems for Fixed-Initial-Credit Energy Problem. *IEICE Transactions on Information and Systems*, **2017**, E100.D, 1166-1171	0.6	6
113	Dynamic Pinning Consensus Control of Multi-Agent Systems **2017**, 1, 340-345		6
112	A high-dimensional chaotic discrete-time neuron model and bursting phenomena. *Physics Letters, Section A: General, Atomic and Solid State Physics*, **2003**, 308, 41-46	2.3	6
111	Supervisory Control of a Class of Concurrent Discrete Event Systems Under Partial Observation. *Discrete Event Dynamic Systems: Theory and Applications*, **2005**, 15, 7-32	1	6
110	Decentralized control of chaos in nonlinear networks. *Physics Letters, Section A: General, Atomic and Solid State Physics*, **1995**, 198, 327-332	2.3	6
109	Feedback logic for discrete event systems with arbitrary control patterns. *International Journal of Control*, **1990**, 52, 159-174	1.5	6
108	Simple example of digital control systems with chaotic rounding errors. *International Journal of Control*, **1987**, 45, 17-31	1.5	6
107	Subsidy-Based Control of Heterogeneous Multiagent Systems Modeled by Replicator Dynamics. *IEEE Transactions on Automatic Control*, **2016**, 61, 3158-3163	5.9	5
106	Self-Triggered Predictive Control with Time-Dependent Activation Costs of Mixed Logical Dynamical Systems. *IEICE Transactions on Fundamentals of Electronics, Communications and Computer Sciences*, **2014**, E97.A, 476-483	0.4	5
105	Optimal Arbitration of Control Tasks by Job Skipping in Cyber-Physical Systems **2011**,		5
104	Potential Game Theoretic Approach to Power-Aware Mobile Sensor Coverage Problem. *IEICE Transactions on Fundamentals of Electronics, Communications and Computer Sciences*, **2011**, E94-A, 929-936	0.4	5
103	Reinforcement Learning of Control Policy for Linear Temporal Logic Specifications Using Limit-Deterministic Generalized Büchi Automata **2020**, 4, 761-766		4

102	Deadlock-free output feedback controller design based on approximately abstracted observers. *Nonlinear Analysis: Hybrid Systems*, **2018**, 30, 58-71	4.5	4
101	Learning an Optimal Control Policy for a Markov Decision Process Under Linear Temporal Logic Specifications **2015**,		4
100	Application of a consensus problem to fair multi-resource allocation in real-time systems **2008**,		4
99	Chaos induced by the generalized Euler method. *International Journal of Systems Science*, **1986**, 17, 669-678	2.3	4
98	Evolutionarily and Neutrally Stable Strategies in Multicriteria Games. *IEICE Transactions on Fundamentals of Electronics, Communications and Computer Sciences*, **2013**, E96.A, 814-820	0.4	4
97	Symbolic Design of Networked Control Systems with State Prediction. *IEICE Transactions on Information and Systems*, **2017**, E100.D, 1158-1165	0.6	4
96	Output Feedback Controller Design with Symbolic Observers for Cyber-physical Systems. *Electronic Proceedings in Theoretical Computer Science, EPTCS*,232, 37-51		4
95	Controllable Firing Sequences in Event-Driven Systems. *Transactions of the Society of Instrument and Control Engineers*, **1988**, 24, 156-161	0.1	4
94	Optimal Stabilizing Supervisor of Quantitative Discrete Event Systems under Partial Observation. *IEICE Transactions on Fundamentals of Electronics, Communications and Computer Sciences*, **2016**, E99.A, 475-482	0.4	4
93	Optimal Stabilizing Controller for the Region of Weak Attraction under the Influence of Disturbances. *IEICE Transactions on Information and Systems*, **2016**, E99.D, 1428-1435	0.6	4
92	Supervisory Control of Communicating Timed Discrete Event Systems for State Avoidance Problem **2020**, 4, 259-264		4
91	Application of reinforcement learning to adaptive control of connected vehicles. *Nonlinear Theory and Its Applications IEICE*, **2019**, 10, 443-454	0.6	3
90	On-Line Permissive Supervisory Control of Discrete Event Systems for scLTL Specifications **2020**, 4, 530-535		3
89	Learning Self-Triggered Controllers With Gaussian Processes. *IEEE Transactions on Cybernetics*, **2020**,	10.2	3
88	Voronoi coverage control with time-driven communication for mobile sensing networks with obstacles **2011**,		3
87	Nonlinear Phenomena in Hybrid Systems. *Ieice Ess Fundamentals Review*, **2007**, 1, 41-50	0.1	3
86	Control-invariance of hybrid systems with forcible events. *Automatica*, **2005**, 41, 669-675	5.7	3
85	Control of chaos in switched arrival systems with N buffers. *Electronics and Communications in Japan, Part III: Fundamental Electronic Science (English Translation of Denshi Tsushin Gakkai Ronbunshi)*, **2000**, 83, 81-86		3

84	Cell simplex degeneracy, Liapunov function and stability of simple cell mapping systems. *International Journal of Non-Linear Mechanics*, **1986**, 21, 183-195	2.8	3
83	Potential Game Based Distributed Control for Voronoi Coverage Problems with Obstacle Avoidance. *IEICE Transactions on Fundamentals of Electronics, Communications and Computer Sciences*, **2012**, E95.A, 1156-1163	0.4	3
82	A Control Method of Dynamic Selfish Routing Based on a State-Dependent Tax. *IEICE Transactions on Fundamentals of Electronics, Communications and Computer Sciences*, **2013**, E96.A, 1794-1802	0.4	3
81	Symbolic control of systems with dead times using symbolic smith predictors **2016**,		3
80	A Symbolic Approach to the Self-Triggered Design for Networked Control Systems **2019**, 3, 1050-1055		2
79	Dynamic event-triggered minimal-order observer for linear systems **2016**,		2
78	A Bisimulation-Based Design of User Interface With Alerts Avoiding Automation Surprises. *IEEE Transactions on Human-Machine Systems*, **2016**, 46, 317-323	4.1	2
77	On Stability of Consensus Control of Discrete-Time Multi-Agent Systems by Multiple Pinning Agents **2019**, 3, 1038-1043		2
76	Observer-based Similarity Output Feedback Control of Cyber-Physical Systems**This work was supported by JSPS KAKENHI No. 15K14007.. *IFAC-PapersOnLine*, **2015**, 48, 248-253	0.7	2
75	Decentralized diagnosis of discrete event systems modeled by Mealy automata with nondeterministic output functions **2010**,		2
74	A control method of selfish routing based on replicator dynamics with capitation tax and subsidy **2009**,		2
73	Detection of Automation Surprises in Discrete Event Systems Operated by Multiple Users **2006**,		2
72	ANALYSIS OF APERIODIC OSCILLATIONS IN A FLOW MODEL OF A SWITCHING SYSTEM. *International Journal of Bifurcation and Chaos in Applied Sciences and Engineering*, **2003**, 13, 981-994	2	2
71	Discrete-time Hogg□Huberman strategy with net bias. *Electronics and Communications in Japan, Part III: Fundamental Electronic Science (English Translation of Denshi Tsushin Gakkai Ronbunshi)*, **2000**, 83, 31-37		2
70	Controlling chaotic discrete-time systems via nonlinear feedback. *Electronics and Communications in Japan, Part III: Fundamental Electronic Science (English Translation of Denshi Tsushin Gakkai Ronbunshi)*, **1996**, 79, 34-42		2
69	Co-scheduling of Communication and Control of Multi-Hop Control Networks. *IEICE Transactions on Fundamentals of Electronics, Communications and Computer Sciences*, **2013**, E96.A, 878-885	0.4	2
68	Control of Timed Discrete Event Systems with Ticked Linear Temporal Logic Constraints. *IFAC-PapersOnLine*, **2020**, 53, 2143-2148	0.7	2
67	Application of deep reinforcement learning to networked control systems with uncertain network delays. *Nonlinear Theory and Its Applications IEICE*, **2020**, 11, 480-500	0.6	2

66	. *IEEE Access*, **2021**, 9, 148810-148820	3.5	2
65	Hierarchical Control of Concurrent Discrete Event Systems with Linear Temporal Logic Specifications. *IEICE Transactions on Fundamentals of Electronics, Communications and Computer Sciences*, **2018**, E101.A, 313-321	0.4	2
64	Optimal Digital Control with Uncertain Network Delay of Linear Systems Using Reinforcement Learning. *IEICE Transactions on Fundamentals of Electronics, Communications and Computer Sciences*, **2016**, E99.A, 454-461	0.4	2
63	Adaptive Arbitration of Fair QoS Based Resource Allocation in Multi-Tier Computing Systems. *IEICE Transactions on Fundamentals of Electronics, Communications and Computer Sciences*, **2010**, E93-A, 1678-1683	0.4	2
62	Game-Theoretic Approach to a Decision-Making Problem for Blockchain Mining **2021**, 5, 1783-1788		2
61	Decentralized Event-Triggered Control of Composite Systems Using M-Matrices. *IEICE Transactions on Fundamentals of Electronics, Communications and Computer Sciences*, **2018**, E101.A, 1156-1161	0.4	2
60	Event-triggered control for mitigating SIS spreading processes. *Annual Reviews in Control*, **2021**, 52, 479-479	1.3	2
59	Detection of Mode Confusion in Human-Machine System Model with Temporal Information on Operations.. *IFAC-PapersOnLine*, **2017**, 50, 9374-9379	0.7	1
58	RL-based optimal networked control considering network delay of discrete-time linear systems **2015**,		1
57	Distributed event-triggered output feedback control with cloud-assisted observer **2015**,		1
56	SMT-based scheduling of distributed mediator for web service composition **2015**,		1
55	Poster Abstract: Design of Modified Observer to Reduce State Estimation Error Caused by Job Skipping in Cyber-Physical Systems **2012**,		1
54	Game theoretic approach to the stabilization of heterogeneous multiagent systems using subsidy **2013**,		1
53	Effective Combination of Search Policy Based on Probability and Entropy for Heterogeneous Mobile Sensors **2013**,		1
52	CONTROL OF A CHAOTIC SWITCHED ARRIVAL SYSTEM WITH CONTROLLED INTERNAL CONNECTIONS. *International Journal of Bifurcation and Chaos in Applied Sciences and Engineering*, **2006**, 16, 701-707	2	1
51	CONTROL-INVARIANCE OF SAMPLEDDATA HYBRID SYSTEMS WITH PERIODICALLY CLOCKED EVENTS AND JITTER. *IFAC Postprint Volumes IPPV / International Federation of Automatic Control*, **2006**, 39, 417-422		1
50	PID congestion control in ATM with propagation delay. *Electronics and Communications in Japan*, **2004**, 87, 90-99		1
49	Scrambling method using chaotic discrete-time systems. *Electronics and Communications in Japan, Part III: Fundamental Electronic Science (English Translation of Denshi Tsushin Gakkai Ronbunshi)*, **2000**, 83, 38-43		1

48	Stabilization and blocking in state feedback control of discrete event systems. *Discrete Event Dynamic Systems: Theory and Applications*, **1995**, 5, 33-57	1	1
47	Supervisory control using augmented languages in discrete event systems. *Discrete Event Dynamic Systems: Theory and Applications*, **1994**, 4, 5-22	1	1
46	Controllability of predicates and languages in discrete-event systems. *International Journal of Systems Science*, **1992**, 23, 1777-1783	2.3	1
45	Chaotic Behavior in Pulse-Width Modulated Feedback Systems. *Transactions of the Society of Instrument and Control Engineers*, **1985**, 21, 539-545	0.1	1
44	Abstraction-Based Control Under Quantized Observation With Approximate Opacity Using Symbolic Control Barrier Functions **2021**, 1-1		1
43	Optimal Resource Allocation under Fair QoS in Multi-tier Server Systems. *Transactions of the Institute of Systems Control and Information Engineers*, **2010**, 23, 39-45	0.1	1
42	Control-Invariance of Sampled-Data Hybrid Systems with Periodically Clocked Events and Jitter **2006**, 417-422		1
41	Supervisory Control of Discrete Event Systems Modeled by Mealy Automata with Nondeterministic Output Functions. *Transactions of the Institute of Systems Control and Information Engineers*, **2009**, 22, 154-160	0.1	1
40	Temperature-aware Frequency Assignment for MP-SoC using Potential Games. *Transactions of the Institute of Systems Control and Information Engineers*, **2013**, 26, 147-155	0.1	1
39	A Bayesian Optimization Approach to Decentralized Event-Triggered Control. *IEICE Transactions on Fundamentals of Electronics, Communications and Computer Sciences*, **2021**, E104.A, 447-454	0.4	1
38	Abstraction-Based Symbolic Control Barrier Functions for Safety-Critical Embedded Systems **2022**, 6, 1436-1441		1
37	Stability analysis and control of decision-making of miners in blockchain. *IEICE Transactions on Fundamentals of Electronics, Communications and Computer Sciences*, **2021**,	0.4	1
36	Decentralized Supervisory Control of Discrete Event Systems Based on Reinforcement Learning. *IFAC Postprint Volumes IPPV / International Federation of Automatic Control*, **2004**, 37, 367-372		0
35	Anti-jamming mobile control using QoS-based reinforcement learning. *IEICE Communications Express*, **2019**, 8, 501-506	0.4	0
34	Application of Deep Reinforcement Learning to Control Problems. *The Brain & Neural Networks*, **2019**, 26, 135-144	0.1	0
33	Continuous deep Q-learning with a simulator for stabilization of uncertain discrete-time systems. *Nonlinear Theory and Its Applications IEICE*, **2021**, 12, 738-757	0.6	0
32	Modeling and Supervisory Control of Blockchain Forks. *IEICE Transactions on Fundamentals of Electronics, Communications and Computer Sciences*, **2021**, E104.A, 474-475	0.4	0
31	Development of parallel linked quadrotor for increment of flight freedom, attitude control and improvement of transient response. *Transactions of the JSME (in Japanese)*, **2017**, 83, 17-00207-17-00207	0.2	

30	Adaptive Assignment of Deadline and Clock Frequency in Real-Time Embedded Control Systems. *IEICE Transactions on Fundamentals of Electronics, Communications and Computer Sciences*, **2015**, E98.A, 323-330	0.4
29	Optimal Configuration for Multiversion Real-Time Systems Using Slack Based Schedulability. *IEICE Transactions on Fundamentals of Electronics, Communications and Computer Sciences*, **2010**, E93-A, 2709-2716	0.4
28	Power-aware optimization of CPU and frequency allocation based on fairness of QoS. *Systems and Computers in Japan*, **2007**, 38, 37-45	
27	Asymptotic stabilization and synchronization of parametric LCR resonant circuit using the characteristics of its coefficients. *Electrical Engineering in Japan (English Translation of Denki Gakkai Ronbunshi)*, **2006**, 154, 48-55	0.4
26	State feedback control of timed hybrid Petri nets. *Electronics and Communications in Japan, Part III: Fundamental Electronic Science (English Translation of Denshi Tsushin Gakkai Ronbunshi)*, **2003**, 86, 1-7	
25	COMPUTATION OF CLOSED, CONTROLLABLE, AND WEAKLY OBSERVABLE SUBLANGUAGES FOR TIMED DISCRETE EVENT SYSTEMS. *IFAC Postprint Volumes IPPV / International Federation of Automatic Control*, **2005**, 38, 139-144	
24	Strong Co-Observability for Decentralized Supervisory Control of Discrete Event Systems. *IFAC Postprint Volumes IPPV / International Federation of Automatic Control*, **2001**, 34, 127-132	
23	A Packet Routing Method Based on a Hogg-Huberman Strategy. *IFAC Postprint Volumes IPPV / International Federation of Automatic Control*, **1998**, 31, 757-762	
22	A packet routing method based on a Hogg-Huberman strategy. *Electronics and Communications in Japan*, **1999**, 82, 16-23	
21	Chaos coding with memory using many chaotic discrete-time systems. *Electronics and Communications in Japan, Part III: Fundamental Electronic Science (English Translation of Denshi Tsushin Gakkai Ronbunshi)*, **1999**, 82, 49-55	
20	Maximally permissive controllers for controlled time petri nets. *Electronics and Communications in Japan, Part III: Fundamental Electronic Science (English Translation of Denshi Tsushin Gakkai Ronbunshi)*, **1996**, 79, 1-8	
19	Synthesis of decentralized state feedbacks for large-scale discrete event systems. *Electronics and Communications in Japan, Part III: Fundamental Electronic Science (English Translation of Denshi Tsushin Gakkai Ronbunshi)*, **1994**, 77, 34-43	
18	On-Line Synthesis of Permissive Supervisors for Partially Observed Discrete Event Systems under scLTL Constraints. *IFAC-PapersOnLine*, **2020**, 53, 2130-2136	0.7
17	Design of Event-Triggered Controllers Using Gaussian Processes. *Transactions of the Institute of Systems Control and Information Engineers*, **2020**, 33, 219-228	0.1
16	Control of Discrete-Time Chaotic Systems with Policy-Based Deep Reinforcement Learning. *IEICE Transactions on Fundamentals of Electronics, Communications and Computer Sciences*, **2020**, E103.A, 885-892	0.4
15	Finite-Memory Supervisory Control of Discrete Event Systems for LTL[F] Specifications. *IEEE Transactions on Automatic Control*, **2021**, 1-1	5.9
14	Asymptotic Stabilization and Synchronization of Parametric LCR Resonant Circuit using Characteristics of its Coefficients. *IEEJ Transactions on Electronics, Information and Systems*, **2004**, 124, 1141-1147	0.1
13	Looking Back on My Research on Systems Engineering for 40 Years. *Ieice Ess Fundamentals Review*, **2018**, 11, 151-154	0.1

List of Publications

12	Learning in Two-Player Matrix Games by Policy Gradient Lagging Anchor. *IEICE Transactions on Fundamentals of Electronics, Communications and Computer Sciences*, **2019**, E102.A, 708-711	0.4
11	Effects of miners' location on blocks selection in blockchain. *IEICE Communications Express*, **2020**, 9, 610-615	0.4
10	Several Properties of State Feedbacks in Discrete Event Systems. *Transactions of the Society of Instrument and Control Engineers*, **1989**, 25, 552-557	0.1
9	Computation of the Supremal Controllable Sublanguage Using an Augmented Language. *Transactions of the Society of Instrument and Control Engineers*, **1992**, 28, 872-878	0.1
8	Command-Based Supervisory Control of Discrete Event Systems. *Transactions of the Society of Instrument and Control Engineers*, **1996**, 32, 429-431	0.1
7	Fault Diagnosis in Discrete Event Systems via State and Event Observations. *Transactions of the Society of Instrument and Control Engineers*, **1996**, 32, 750-757	0.1
6	Chaos and Robots. Control of Chaos.. *Journal of the Robotics Society of Japan*, **1997**, 15, 1114-1117	0.1
5	Diagnosis of Discrete Event Systems Modeled by Mealy Automata with Nondeterministic Output Functions. *Transactions of the Institute of Systems Control and Information Engineers*, **2010**, 23, 128-135	0.1
4	Hopf Bifurcations of a Quadrotor with a Tilting Frame. *IEICE Transactions on Fundamentals of Electronics, Communications and Computer Sciences*, **2021**, E104.A, 632-635	0.4
3	Hyper-Labeled Transition System and Its Application to Planning Under Linear Temporal Logic Constraints **2022**, 6, 2437-2442	
2	Dynamics of miners' decision making under taxation in blockchain. *Nonlinear Theory and Its Applications IEICE*, **2022**, 13, 233-238	0.6
1	Learning-Based Bounded Synthesis for Semi-MDPs With LTL Specifications **2022**, 6, 2557-2562	