

# Yeung Yam

## List of Publications by Year in descending order

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90  
papers

1,843  
citations

393982

19  
h-index

414034

32  
g-index

92  
all docs

92  
docs citations

92  
times ranked

1101  
citing authors

#	ARTICLE	IF	CITATIONS
1	Reduction of fuzzy rule base via singular value decomposition. IEEE Transactions on Fuzzy Systems, 1999, 7, 120-132.	6.5	218
2	Defending against distributed denial-of-service attacks with max-min fair server-centric router throttles. IEEE/ACM Transactions on Networking, 2005, 13, 29-42.	2.6	173
3	From differential equations to PDC controller design via numerical transformation. Computers in Industry, 2003, 51, 281-297.	5.7	133
4	Fuzzy approximation via grid point sampling and singular value decomposition. IEEE Transactions on Systems, Man, and Cybernetics, 1997, 27, 933-951.	5.5	99
5	Recent Advances in Surface Plasmon Resonance Imaging Sensors. Sensors, 2019, 19, 1266.	2.1	99
6	Creation and Evaluation of a Pretertiary Artificial Intelligence (AI) Curriculum. IEEE Transactions on Education, 2022, 65, 30-39.	2.0	72
7	Interpolation with function space representation of membership functions. IEEE Transactions on Fuzzy Systems, 2006, 14, 398-411.	6.5	66
8	Experimentation on MR fluid using a 2-axis wheel tool. Journal of Materials Processing Technology, 2009, 209, 5254-5261.	3.1	55
9	Definition of the HOSVD based canonical form of polytopic dynamic models. , 2006, , .		54
10	Fuzzy systems are universal approximators for a smooth function and its derivatives. International Journal of Intelligent Systems, 2000, 15, 565-574.	3.3	51
11	SVD-based complexity reduction to TS fuzzy models. IEEE Transactions on Industrial Electronics, 2002, 49, 433-443.	5.2	51
12	Complex recurrent neural network for computing the inverse and pseudo-inverse of the complex matrix. Applied Mathematics and Computation, 1998, 93, 195-205.	1.4	49
13	A Flexible Surgical Robotic System for Removal of Early-Stage Gastrointestinal Cancers by Endoscopic Submucosal Dissection. IEEE Transactions on Industrial Informatics, 2016, 12, 2365-2374.	7.2	46
14	Sliding Mode Control for Discrete-Time Systems With Markovian Packet Dropouts. IEEE Transactions on Cybernetics, 2017, 47, 3669-3679.	6.2	45
15	Singular value-based approximation with Takagi-Sugeno type fuzzy rule base. , 0, , .		39
16	SVD-based reduction to MISO TS models. IEEE Transactions on Industrial Electronics, 2003, 50, 232-242.	5.2	38
17	Complexity reduction of singleton based neuro-fuzzy algorithm. , 0, , .		34
18	Determination of Different Polytopic Models of the Prototypical Aeroelastic Wing Section by TP Model Transformation. Journal of Advanced Computational Intelligence and Intelligent Informatics, 2006, 10, 486-493.	0.5	32

#	ARTICLE	IF	CITATIONS
19	Case study of the TP-model transformation in the control of a complex dynamic model with structural nonlinearity. IEEE Transactions on Industrial Electronics, 2006, 53, 895-904.	5.2	29
20	Performance evaluation and optimization of human control strategy. Robotics and Autonomous Systems, 2002, 39, 19-36.	3.0	27
21	Complexity Reduction of a Generalised Rational Form. , 2000, , 135-159.		26
22	A phenomenographic approach on teacher conceptions of teaching Artificial Intelligence (AI) in K-12 schools. Education and Information Technologies, 2023, 28, 1041-1064.	3.5	26
23	Trade-off between approximation accuracy and complexity: TS controller design via HOSVD based complexity minimization. Studies in Fuzziness and Soft Computing, 2003, , 249-277.	0.6	24
24	CU-brick cable-driven robot for automated construction of complex brick structures: From simulation to hardware realisation. , 2018, , .		23
25	COMPLEXITY RELAXATION OF THE TENSOR PRODUCT MODEL TRANSFORMATION FOR HIGHER DIMENSIONAL PROBLEMS. Asian Journal of Control, 2007, 9, 195-200.	1.9	22
26	Brush Footprint Acquisition and Preliminary Analysis for Chinese Calligraphy using a Robot Drawing Platform. , 2006, , .		20
27	Model-Based ECG Denoising Using Empirical Mode Decomposition. , 2009, , .		20
28	Adaptation of TS Fuzzy Models Without Complexity Expansion: HOSVD-Based Approach. IEEE Transactions on Instrumentation and Measurement, 2005, 54, 52-60.	2.4	19
29	The Scales Project, a cross-national dataset on the interpretation of thermal perception scales. Scientific Data, 2019, 6, 289.	2.4	19
30	A vortex pump-based optically-transparent microfluidic platform for biotech and medical applications. Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine, 2007, 221, 129-141.	1.0	18
31	Stroke trajectory generation experiment for a robotic Chinese calligrapher using a geometric brush footprint model. , 2009, , .		18
32	Cartesian representation for fuzzy interpolation. , 0, , .		13
33	Complexity reduction of a rational general form. , 1999, , .		13
34	Different affine decomposition of the model of the prototypical aeroelastic wing section by TP model transformation. , 0, , .		13
35	Furuta Pendulum – A Tensor Product Model-Based Design Approach Case Study. , 2015, , .		12
36	Evolutionary Replication of Calligraphic Characters By A Robot Drawing Platform Using Experimentally Acquired Brush Footprint. , 2006, , .		11

#	ARTICLE	IF	CITATIONS
37	A Neural Network of Smooth Hinge Functions. IEEE Transactions on Neural Networks, 2010, 21, 1381-1395.	4.8	9
38	Design and Implementation of a Technique for Iterative Magnetorheological Jet Polishing. International Journal of Optomechatronics, 2014, 8, 195-205.	3.3	9
39	Singular Value-Based Fuzzy Reduction With Relaxed Normality Condition. Studies in Fuzziness and Soft Computing, 2003, , 325-352.	0.6	8
40	Two performance measures for evaluating human control strategy. , 0, , .		7
41	Vision System and Projective Rectification For A Robot Drawing Platform. , 0, , .		7
42	Decision making based on satellite images: optimal fuzzy clustering approach. , 0, , .		6
43	Genetic Algorithm-Based Brush Stroke Generation for Replication of Chinese Calligraphic Character. , 0, , .		6
44	A Sparse and Low-rank approach to efficient face alignment for photo-real talking head synthesis. , 2011, , .		6
45	Control Stability of TP Model Transformation Design via Probabilistic Error Bound of Plant Model. , 2013, , .		6
46	Why clustering in function approximation? Theoretical explanation. International Journal of Intelligent Systems, 2000, 15, 959-966.	3.3	5
47	HOSVD based computational complexity reduction of TS fuzzy models. , 0, , .		5
48	Derivation of an Improved Hodgkin-Huxley Model for Potassium Channel by Means of the Fokker-Planck Equation. Journal of Statistical Physics, 1997, 89, 997-1016.	0.5	4
49	Modeling and experimentation of a positioning system of SMA wires. , 2000, , .		4
50	GA-based Homography Transformation for Vision Rectification in Robot Drawing System. , 0, , .		4
51	Stabilizing controller by local linearization and SVD consolidation. , 0, , .		3
52	Singular value-based fuzzy rule interpolation. , 0, , .		3
53	Control of a SMA actuated artificial face via neuro-fuzzy techniques. , 0, , .		3
54	Preliminary study on vision-based pen-and-ink drawing by a robotic manipulator. , 2009, , .		3

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55	Structural analysis based stroke segmentation for Chinese characters. , 2009, , .		3
56	A Generalized ECG Dynamic Model with Asymmetric Gaussians and its Application in Model-Based ECG Denoising. , 2009, , .		3
57	Kronecker product approximation with multiple factor matrices via the tensor product algorithm. , 2016, , .		3
58	Extending Shannon's Theorem to a General Juggling Pattern. Studies in Applied Mathematics, 1998, 100, 53-66.	1.1	2
59	System identification and control synthesis for a benchmark problem. IEEE Transactions on Control Systems Technology, 1998, 6, 103-110.	3.2	2
60	A general extension of fuzzy SVD rule base reduction using arbitrary inference algorithm. , 0, , .		2
61	Multi-resolution techniques in the rules-based intelligent control systems: a universal approximation result. , 1999, , .		2
62	Extracting fuzzy sparse rules by Cartesian representation and clustering. , 0, , .		2
63	Representing membership functions as elements in function space. , 2001, , .		2
64	Construction of Central Pattern Generator Using Piecewise Affine Systems. , 2007, , .		2
65	Integrated identification/control synthesis with approximate fractional frequency weighting. , 0, , .		1
66	Optimization of human control strategy with simultaneously perturbed stochastic approximation. , 0, , .		1
67	Towards faster, smoother, and more compact fuzzy approximation, with an application to non-destructive evaluation of space shuttle's structural integrity. , 0, , .		1
68	SVD based reduction for subdivided rule bases. , 0, , .		1
69	Neural-fuzzy based control experiments on a shape memory alloy (SMA) positioning system. , 2001, , .		1
70	A scaled-down testbed for human driver modeling and evaluation. , 0, , .		1
71	Fuzzy controller/observer via grid point design and SVD consolidation. , 0, , .		1
72	Robust Stabilizing Controller by Grid Point Design and Composite SVD Consolidation. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2003, 36, 567-572.	0.4	1

#	ARTICLE	IF	CITATIONS
73	On application of grid point sampling and SVD consolidation approach. , 0, , .		1
74	Computational design and prototype development of optical prism for augmented reality projection. , 2012, , .		1
75	Topic Discovery via Convex Polytopic Model: A Case Study with Small Corpora. , 2018, , .		1
76	Special Issue on "TP model transformation based control design theories and applications" Asian Journal of Control, 2021, 23, 1237-1237.	1.9	1
77	Integrated identification/discrete $H^{\infty}$ synthesis for spacecraft pointing control. , 1993, , .		0
78	Performance-based fuzzy gain controller. , 0, , .		0
79	Two point training for complex plane transformation. , 0, , .		0
80	Singular value-based identification of fuzzy system. , 0, , .		0
81	Singular value-based reduction of fuzzy rule base with non-singleton support. , 1999, , .		0
82	A proposal for manipulating Nafion micro actuators using neural-fuzzy based control. , 0, , .		0
83	Fuzzy interpolation with Cartesian representation and extensibility functions. , 0, , .		0
84	Minimizing TS controller via HOSVD. , 0, , .		0
85	Adaption without rule base size expansion: HOSVD based approach. , 0, , .		0
86	A Mathematical Model For Potassium Channel Conductance in Hodgkin-Huxley Experiments. Proceedings of the American Control Conference, 2007, , .	0.0	0
87	Minimum LTI exact representation of multi-parameter-dependent systems. , 2016, , .		0
88	Simplification on a kinetic model network related to hydrogen peroxide metabolism in human erythrocytes. , 2016, , .		0
89	Parallel probabilistic swarm guidance by exploiting Kronecker product structures in discrete-time Markov chains. , 2017, , .		0
90	Geometrical Interpretation of Feasibility of the Lyapunov Inequalities and Controller Gain Minimization for a Class of Polytopic Systems. IFAC-PapersOnLine, 2017, 50, 5636-5641.	0.5	0