Kai-Yew Lum

List of Publications by Year
in descending order

112	2,199	393982	288905
papers	citations	19	40
		h-index	g-index

114	114	114	1738
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Deep Learning for Landslide Recognition in Satellite Architecture. IEEE Access, 2020, 8, 143665-143678.	2.6	22
2	Identification of MIMO Hammerstein System Using Non-Stationary Separable Inputs. , 2020, , .		0
3	Using BEMD in CNN to Identify Landslide in Satellite Image. , 2019, , .		6
4	Design and experiment of data-driven modeling and flutter control of a prototype wing. Journal of Sound and Vibration, 2017, 398, 103-122.	2.1	9
5	Subsystem identification of reduced-order model for an aeroservo-elastic closed-loop system. , 2016, , .		0
6	Reduced-order modeling and flutter suppression control of an experimental wing. , 2016, , .		2
7	Flutter Suppression for a Prototype Wing - Numerical Modeling, Control Law Design, and Experimental Results. , 2016, , .		0
8	Aeroelastic responses identification of a high-aspect-ratio flexible wing model and its active flutter suppression strategy. , 2016, , .		5
9	Reduced order flutter modeling based on the Hammerstein model with μ-Markov structure and correlation identification method. , 2014, , .		5
10	Jump-Markov process estimation based on distributed Rao-Blackwellized particle filter. , 2014, , .		1
11	Servant robot navigation using gesture recognition and fuzzy logic sensor fusion. , 2014, , .		0
12	Simulation study of homography-based vision-aided inertial navigation for aerial vehicles. , 2014, , .		0
13	Automated image tracking based on the CAMSHIFT algorithm with adaboost and target trajectory and size estimation. , 2014, , .		1
14	Greetings from the general chairs and program chairs. , 2014, , .		0
15	Simultaneous localization and mapping based on particle filter for sparse environment. , 2014, , .		1
16	FUZZY-GREY REACHING LAW SLIDING MODE CONTROL FOR PHOTOVOLTAICS MAXIMUM POWER POINT TRACKING. Control and Intelligent Systems, 2014, 42, .	0.3	0
17	Consensus of multi‑agent systems with general linear dynamics via dynamic output feedback control. IET Control Theory and Applications, 2013, 7, 108-115.	1.2	52
18	Multiagent Information Fusion and Cooperative Control in Target Search. IEEE Transactions on Control Systems Technology, 2013, 21, 1223-1235.	3.2	119

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19	Targets tracking by UAVs in an urban area. , 2013, , .		1
20	Proportional Navigation With Delayed Line-of-Sight Rate. IEEE Transactions on Control Systems Technology, 2013, 21, 247-253.	3.2	26
21	Fuzzy grey sliding mode control for maximum power point tracking of photovoltaic systems. , 2013, , .		2
22	Investigation of the Rao-Blackwellized particle filter for two jump-Markov inertia measurement models. , 2013, , .		1
23	Flutter-Boundary Prediction Using System Identification-Based Reduced-Order Aeroelasticity Analysis. , 2012, , .		1
24	Comprehensive Nonlinear Modeling of a Miniature Unmanned Helicopter. Journal of the American Helicopter Society, 2012, 57, 1-13.	0.5	16
25	A Robust Real-Time Embedded Vision System on an Unmanned Rotorcraft for Ground Target Following. IEEE Transactions on Industrial Electronics, 2012, 59, 1038-1049.	5.2	94
26	FDI UIOs with multiple considerations for flight systems: An LMI approach. , 2012, , .		2
27	Fault Detection and Isolation of Nonlinear Systems: An Unknown Input Observer Approach With Sum-of-Squares Techniques. Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME, 2012, 134, .	0.9	4
28	A Correlation Least-Squares Method for Hammerstein Model Identification with ARX and Î¼-Markov Structures. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2011, 44, 11183-11189.	0.4	4
29	Modeling and Control of a Small-Scale Hybrid Aircraft. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2011, 44, 10385-10390.	0.4	5
30	A novel Hâˇž UIO design for actuator FDI in finite frequency domain. International Journal of Control, Automation and Systems, 2011, 9, 601-605.	1.6	3
31	GPS signal enhancement and attitude determination for a mini and low-cost unmanned aerial vehicle. Transactions of the Institute of Measurement and Control, 2011, 33, 665-682.	1.1	5
32	Editorial: Special issue on Measurement & Estimation for Unmanned Navigation. Transactions of the Institute of Measurement and Control, 2011, 33, 647-649.	1.1	0
33	A gain-varying UIO approach with adaptive threshold for FDI of nonlinear F16 systems. Journal of Control Theory and Applications, 2010, 8, 317-325.	0.8	10
34	Design and implementation of a leader-follower cooperative control system for unmanned helicopters. Journal of Control Theory and Applications, 2010, 8, 61-68.	0.8	62
35	Adaptive control allocation for non-linear systems with internal dynamics. IET Control Theory and Applications, 2010, 4, 909-922.	1.2	20
36	Application of passivity and cascade structure to robust control against loss of actuator effectiveness. International Journal of Robust and Nonlinear Control, 2010, 20, 673-693.	2.1	34

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37	Surveillance for a simply connected region: A one-center disk-covering problem. , 2010, , .		0
38	Extended blending techniques with applications in robust tracking control and fault-tolerant control. , 2010, , .		0
39	Observer-based nonlinear control allocation. , 2010, , .		1
40	Flight Control of VTOL Quadrotor Aircraft via Output Feedback. , 2010, , .		3
41	FDI of disturbed nonlinear systems: A nonlinear UIO approach with SOS techniques. , 2010, , .		0
42	A brief overview on miniature fixed-wing unmanned aerial vehicles. , 2010, , .		27
43	Flight control design with hierarchical dynamic inversion. , 2010, , .		6
44	Analysis of proportional-navigation guidance law with delayed line-of-sight rate. , 2010, , .		2
45	Hammerstein Model-Based Correlation UIO Method for Fault Detection of Nonlinear Flight Control Systems. , 2010, , .		0
46	Passive Actuators' Fault-Tolerant Control for Affine Nonlinear Systems. IEEE Transactions on Control Systems Technology, 2010, 18, 152-163.	3.2	196
47	Identification of a Hammerstein model for wing flutter analysis using CFD data and correlation method. , 2010, , .		3
48	A robust vision system on an unmanned helicopter for ground target seeking and following. , 2010, , .		3
49	Adaptive nonlinear control allocation of non-minimum phase uncertain systems. , 2009, , .		5
50	Fault detection and isolation for nonlinear F16 models using a gain-varying UIO approach. , 2009, , .		1
51	WLS-based partially decentralized adaptive control for coupled ARMAX multi-agent dynamical system. , 2009, , .		7
52	A H-infinity Fault Detection and Diagnosis Scheme for Discrete Nonlinear System Using Output Probability Density Estimation. , 2009, , .		1
53	Development of a vision-based ground target detection and tracking system for a small unmanned helicopter. Science in China Series F: Information Sciences, 2009, 52, 2201-2215.	1.1	19
54	Design and implementation of an autonomous flight control law for a UAV helicopter. Automatica, 2009, 45, 2333-2338.	3.0	134

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55	A novel UIO-based approach for fault detection and isolation in finite frequency domain. , 2009, , .		2
56	Nonlinear Control Allocation for Non-Minimum Phase Systems. IEEE Transactions on Control Systems Technology, 2009, 17, 394-404.	3.2	37
57	Online References Reshaping and Control Reallocation for Nonlinear Fault Tolerant Control. IEEE Transactions on Control Systems Technology, 2009, 17, 366-379.	3.2	56
58	Application of absolute stability theory to robust control against loss of actuator effectiveness. IET Control Theory and Applications, 2009, 3, 772-788.	1.2	35
59	Hybrid evolutionary algorithm with Hermite radial basis function interpolants for computationally expensive adjoint solvers. Computational Optimization and Applications, 2008, 39, 97-119.	0.9	59
60	Reduced-Order Based Flutter Analysis for Complex Aeroelastic Systems. , 2008, , .		8
61	Flight Control Design Using Hierarchical Dynamic Inversion and Quasi-steady States. , 2008, , .		6
62	Multidisciplinary Design of S-Shaped Intake. , 2008, , .		6
63	Comprehensive Nonlinear Modeling of an Unmanned-Aerial-Vehicle Helicopter. , 2008, , .		37
64	A fault detection and diagnosis scheme for discrete nonlinear system using output probability density estimation. , 2008, , .		1
65	Sliding Mode Guidance Law for Delayed LOS Rate Measurement. , 2008, , .		4
66	Joint aerodynamics and electromagnetics design of S-shaped intake using proper orthogonal decomposition method. , 2008, , .		0
67	A fault diagnosis scheme for time-varying fault using output probability density estimation. , 2008, , .		0
68	A leader-follower formation flight control scheme for UAV helicopters. , 2008, , .		19
69	Integrated-optimal design of airplane and flight control using genetic algorithms. , 2007, , .		1
70	Observer-based Fault Detection for Piecewise Linear Systems: Continuous-time Cases. Control Applications (CCA), Proceedings of the IEEE International Conference on, 2007, , .	0.0	4
71	PASSIVATION-BASED INTEGRATED GUIDANCE AND CONTROL OF UNDERACTUATED MARINE CRAFT. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2007, 40, 147-152.	0.4	0
72	Constrained Nonlinear Finite-Time Control Allocation. Proceedings of the American Control Conference, 2007, , .	0.0	21

#	ARTICLE	IF	CITATIONS
73	Analysis of PNG Laws with LOS Angular Rate Delay. , 2007, , .		6
74	Observer-based Fault Detection for Piecewise Linear Systems: Discrete-time Cases. Control Applications (CCA), Proceedings of the IEEE International Conference on, 2007, , .	0.0	6
75	Decentralized ï¿½strï¿½m-Wittenmark Self-Tuning Regulator of a Multi-agent Uncertain Coupled ARMAX System. , 2007, , .		7
76	Detectability in games of pursuit evasion with antagonizing players. , 2007, , .		1
77	Adaptive control for a discrete-time first-order nonlinear system with both parametric and non-parametric uncertainties. , 2007, , .		8
78	A SOS-based approach to residual generators for discrete-time polynomial nonlinear systems. , 2007, , .		2
79	Output trajectory tracking for the PVTOL aircraft through control allocation. Control Applications (CCA), Proceedings of the IEEE International Conference on, 2007, , .	0.0	5
80	Comments on "H_{infty} Filtering for Fuzzy Singularly Perturbed Systems With Pole Placement Constraints: An LMI Approach. IEEE Transactions on Signal Processing, 2007, 55, 716-717.	3.2	1
81	Combining Global and Local Surrogate Models to Accelerate Evolutionary Optimization. IEEE Transactions on Systems, Man and Cybernetics, Part C: Applications and Reviews, 2007, 37, 66-76.	3.3	319
82	Adaptive unknown input observer approach for aircraft actuator fault detection and isolation. International Journal of Adaptive Control and Signal Processing, 2007, 21, 31-48.	2.3	115
83	Comparisons among robust stability criteria for linear systems with affine parameter uncertainties. Automatica, 2007, 43, 491-498.	3.0	9
84	The Serret-Andoyer formalism in rigid-body dynamics: II. Geometry, stabilization, and control. Regular and Chaotic Dynamics, 2007, 12, 426-447.	0.3	7
85	S-Shaped Inlet Design Optimization Using the Adjoint Equation Method. , 2006, , .		5
86	Airfoil Optimization Design of Drag Minimization with Lift Constraint Using Adjoint Equation Method. , 2006, , .		5
87	Design and Implementation of a Fully Autonomous Flight Control System for a UAV Helicopter. , 2006, , .		6
88	Max-min surrogate-assisted evolutionary algorithm for robust design. IEEE Transactions on Evolutionary Computation, 2006, 10, 392-404.	7.5	174
89	Integration and Implementation of a Low-cost and Vision-based UAV Tracking System. , 2006, , .		7
90	ROBUST STABILITY ANALYSIS OF LINEAR SYSTEMS WITH AFFINE PARAMETER UNCERTAINTIES. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2005, 38, 535-540.	0.4	1

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91	Comments on "Quadratic stability and stabilization of dynamic interval systems". IEEE Transactions on Automatic Control, 2005, 50, 276-277.	3.6	6
92	Discussion on: New Energy-Based Nonlinear Controller for Hydraulic Piston Actuators. European Journal of Control, 2004, 10, 386-389.	1.6	0
93	CONSTRAINED OPTIMIZATION OF MULTILAYERED ANTI-REFLECTION COATINGS USING GENETIC ALGORITHMS. Advances in Natural Computation, 2004, , 603-622.	0.1	0
94	Infinite-Dimensional Linearization and Extended Adjoint Method for Nonlinear Homing Loop Analysis. , 2003, , .		2
95	A CFD and CSD Interaction Algorithm for Complex Configurations. , 2002, , .		1
96	Generalized Serret-Andoyer Transformation and Applications for the Controlled Rigid Body. Journal of Dynamical and Control Systems, 1999, 9, 39-66.	0.4	11
97	Adaptive Virtual Autobalancing for a Rigid Rotor With Unknown Mass Imbalance Supported by Magnetic Bearings. Journal of Vibration and Acoustics, Transactions of the ASME, 1998, 120, 557-570.	1.0	28
98	Adaptive autocentering control for an active magnetic bearing supporting a rotor with unknown mass imbalance. IEEE Transactions on Control Systems Technology, 1996, 4, 587-597.	3.2	138
99	Adaptive Autocentering Control for an Active Magnetic Bearing Supporting a Rotor with Unknown Mass Imbalance. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 1996, 29, 5351-5356.	0.4	12
100	Global stabilization of the spinning top with mass imbalance. Dynamical Systems, 1995, 10, 339-365.	0.7	28
101	Adaptive Virtual Autobalancing for a Magnetic Rotor With Unknown Mass Imbalance: Part II â€" Dynamic Balancing. , 1995, , .		1
102	Adaptive Virtual Autobalancing for a Magnetic Rotor With Unknown Mass Imbalance: Part I â€" Static Balancing. , 1995, , .		3
103	Adaptive virtual autobalancing for a magnetic rotor with unknown mass imbalance. , 0, , .		0
104	Global stabilization of the spinning top with mass imbalance. , 0, , .		0
105	Adaptive virtual autobalancing for a magnetic rotor with unknown dynamic imbalance. , 0, , .		2
106	A Serret-Andoyer transformation analysis for the controlled rigid body. , 0, , .		1
107	Parameter estimation of ARX/NARX model: a neural network based method. , 0, , .		10
108	Fault-tolerant flight tracking control with stuck faults. , 0, , .		31

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109	Global convergence of unconstrained and bound constrained surrogate-assisted evolutionary search in aerodynamic shape design. , 0, , .		14
110	Gain-scheduled flight control via state feedback. , 0, , .		7
111	An optimization approach to integrated aircraft-controller design. , 0, , .		3
112	Robust stability and performance analysis for parameter dependent systems using mixed multipliers. , 0, , .		0