

# Fl Lewis

## List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

139  
papers

7,251  
citations

41  
h-index

83  
g-index

161  
ext. papers

9,232  
ext. citations

4.6  
avg, IF

5.91  
L-index

#	Paper	IF	Citations
139	Optimal Tracking Control of Uncertain Systems <b>2016</b> , 165-186		3
138	Neural Networks in Feedback Control Systems <b>2015</b> , 1-52		3
137	Stochastic Optimal Design for Unknown Linear Discrete-Time System Zero-Sum Games in Input-Output form Under Communication Constraints. <i>Asian Journal of Control</i> , <b>2014</b> , 16, 1263-1276	1.7	8
136	A novel actor-critic identifier architecture for approximate optimal control of uncertain nonlinear systems. <i>Automatica</i> , <b>2013</b> , 49, 82-92	5.7	283
135	Stochastic optimal control of unknown linear networked control system in the presence of random delays and packet losses. <i>Automatica</i> , <b>2012</b> , 48, 1017-1030	5.7	129
134	Online solution of nonlinear two-player zero-sum games using synchronous policy iteration. <i>International Journal of Robust and Nonlinear Control</i> , <b>2012</b> , 22, 1460-1483	3.6	106
133	Online solution of nonlinear two-player zero-sum games using synchronous policy iteration <b>2010</b> ,		16
132	Optimal adaptive control for unknown systems using output feedback by reinforcement learning methods <b>2010</b> ,		11
131	. <i>IEEE Transactions on Industrial Electronics</i> , <b>2010</b> , 57, 784-792	8.9	48
130	Adaptive optimal control for continuous-time linear systems based on policy iteration. <i>Automatica</i> , <b>2009</b> , 45, 477-484	5.7	444
129	Discrete adaptive neural network disturbance feedforward compensation for non-linear disturbances in servo-control applications. <i>International Journal of Control</i> , <b>2009</b> , 82, 721-740	1.5	9
128	Feedforward control based on neural networks for disturbance rejection in hard disk drives. <i>IET Control Theory and Applications</i> , <b>2009</b> , 3, 411-418	2.5	10
127	ROBUST NEURAL NETWORK CONTROL OF RIGID LINK FLEXIBLE-JOINT ROBOTS. <i>Asian Journal of Control</i> , <b>2008</b> , 1, 188-197	1.7	10
126	NONLINEAR NETWORK STRUCTURES FOR FEEDBACK CONTROL. <i>Asian Journal of Control</i> , <b>2008</b> , 1, 205-228	2.8	86
125	Robust Adaptive Control of Robots Using Neural Network: Global Stability. <i>Asian Journal of Control</i> , <b>2008</b> , 3, 111-121	1.7	9
124	Discrete-time nonlinear HJB solution using approximate dynamic programming: convergence proof. <i>IEEE Transactions on Systems, Man, and Cybernetics</i> , <b>2008</b> , 38, 943-9		592
123	Adaptive optimal control algorithm for continuous-time nonlinear systems based on policy iteration <b>2008</b> ,		26

122	Neurodynamic Programming and Zero-Sum Games for Constrained Control Systems. <i>IEEE Transactions on Neural Networks</i> , <b>2008</b> , 19, 1243-1252		117
121	Matrix-based scheduling and control of a mobile sensor network. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , <b>2008</b> , 41, 10415-10420		1
120	Policy iteration for continuous-time systems with unknown internal dynamics <b>2007</b> ,		9
119	Matrix-based discrete event control of automated material handling systems <b>2006</b> ,		1
118	Controller for swing-up and balance of single inverted pendulum using SDRE-based solution <b>2005</b> ,		5
117	Control of a MEMS optical switch <b>2004</b> ,		21
116	Hamilton-Jacobi-Isaacs formulation for constrained input nonlinear systems <b>2004</b> ,		9
115	Platoon-stable adaptive controller design <b>2004</b> ,		3
114	Neural network frequency control for thermal power systems <b>2004</b> ,		3
113	Two-time scale fuzzy logic controller of flexible link robot arm. <i>Fuzzy Sets and Systems</i> , <b>2003</b> , 139, 125-149	37	45
112	Neural-network predictive control for nonlinear dynamic systems with time-delay. <i>IEEE Transactions on Neural Networks</i> , <b>2003</b> , 14, 377-89		152
111	Design and implementation of industrial neural network controller using backstepping. <i>IEEE Transactions on Industrial Electronics</i> , <b>2003</b> , 50, 193-201	8.9	48
110	A Hamilton-Jacobi setup for constrained neural network control <b>2003</b> ,		5
109	Internet-based educational control systems lab using NetMeeting. <i>IEEE Transactions on Education</i> , <b>2002</b> , 45, 145-151	2.1	48
108	Fuzzy controller for flexible-link robot arm by reduced-order techniques. <i>IET Control Theory and Applications</i> , <b>2002</b> , 149, 177-187		18
107	Neural-network approximation of piecewise continuous functions: application to friction compensation. <i>IEEE Transactions on Neural Networks</i> , <b>2002</b> , 13, 745-51		104
106	An implementation of the matrix-based supervisory controller of flexible manufacturing systems. <i>IEEE Transactions on Control Systems Technology</i> , <b>2002</b> , 10, 709-716	4.8	15
105	Intelligent material handling: development and implementation of a matrix-based discrete-event controller. <i>IEEE Transactions on Industrial Electronics</i> , <b>2001</b> , 48, 1087-1097	8.9	30

104	Adaptive fuzzy logic control of discrete-time dynamical systems. <i>Automatica</i> , <b>2000</b> , 36, 229-241	5.7	54
103	Computational complexity of determining resource loops in re-entrant flow lines. <i>IEEE Transactions on Systems, Man and Cybernetics, Part A: Systems and Humans</i> , <b>2000</b> , 30, 222-229		1
102	Robust backstepping control of nonlinear systems using neural networks. <i>IEEE Transactions on Systems, Man and Cybernetics, Part A: Systems and Humans</i> , <b>2000</b> , 30, 753-766		270
101	Robust backstepping control of induction motors using neural networks. <i>IEEE Transactions on Neural Networks</i> , <b>2000</b> , 11, 1178-87		112
100	Active suspension control of ground vehicle based on a full-vehicle model <b>2000</b> ,		46
99	Optimal design of CMAC neural-network controller for robot manipulators. <i>IEEE Transactions on Systems, Man and Cybernetics, Part C: Applications and Reviews</i> , <b>2000</b> , 30, 22-31		127
98	Deadzone compensation in motion control systems using neural networks. <i>IEEE Transactions on Automatic Control</i> , <b>2000</b> , 45, 602-613	5.9	247
97	Reinforcement adaptive learning neural-net-based friction compensation control for high speed and precision. <i>IEEE Transactions on Control Systems Technology</i> , <b>2000</b> , 8, 118-126	4.8	62
96	Matrix approach to deadlock-free dispatching in multi-class finite buffer flowlines. <i>IEEE Transactions on Automatic Control</i> , <b>2000</b> , 45, 2086-2090	5.9	23
95	Backstepping based fuzzy logic control of active vehicle suspension systems <b>2000</b> ,		9
94	Adaptive critic neural network for feedforward compensation <b>1999</b> ,		11
93	A note on Kalman filtering. <i>IEEE Transactions on Education</i> , <b>1999</b> , 42, 225-227	2.1	7
92	Neural network output feedback control of robot manipulators. <i>IEEE Transactions on Automation Science and Engineering</i> , <b>1999</b> , 15, 301-309		178
91	Deadzone compensation in motion control systems using adaptive fuzzy logic control. <i>IEEE Transactions on Control Systems Technology</i> , <b>1999</b> , 7, 731-742	4.8	129
90	Deadzone compensation in discrete time using adaptive fuzzy logic. <i>IEEE Transactions on Fuzzy Systems</i> , <b>1999</b> , 7, 697-707	8.3	30
89	New matrix formulation for supervisory controller design in practical flexible manufacturing system <b>1999</b> ,		3
88	Hybrid control for a class of underactuated mechanical systems. <i>IEEE Transactions on Systems, Man and Cybernetics, Part A: Systems and Humans</i> , <b>1999</b> , 29, 649-654		43
87	Feedback Linearization using CMAC Neural Networks. <i>Automatica</i> , <b>1998</b> , 34, 547-557	5.7	25

86	Control of a nonholonomic mobile robot using neural networks. <i>IEEE Transactions on Neural Networks</i> , <b>1998</b> , 9, 589-600		428
85	Implementation of a neural network tracking controller for a single flexible link: comparison with PD and PID controllers. <i>IEEE Transactions on Industrial Electronics</i> , <b>1998</b> , 45, 307-318	8.9	52
84	Robust neural-network control of rigid-link electrically driven robots. <i>IEEE Transactions on Neural Networks</i> , <b>1998</b> , 9, 581-8		88
83	Direct-reinforcement-adaptive-learning neural network control for nonlinear systems <b>1997</b> ,		7
82	Teaching Discrete Event Control of Manufacturing Systems. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , <b>1997</b> , 30, 261-266		
81	A new matrix model for discrete event systems: application to simulation. <i>IEEE Control Systems</i> , <b>1997</b> , 17, 62-71	2.9	42
80	A framework for hybrid control design. <i>IEEE Transactions on Systems, Man and Cybernetics, Part A: Systems and Humans</i> , <b>1997</b> , 27, 765-773		25
79	Neural Network Control of Robot Arms and Nonlinear Systems <b>1997</b> , 161-211		13
78	CMAC neural networks for control of nonlinear dynamical systems: Structure, stability and passivity. <i>Automatica</i> , <b>1997</b> , 33, 635-641	5.7	53
77	Neural network control of robot manipulators. <i>IEEE Intelligent Systems</i> , <b>1996</b> , 11, 64-75		60
76	. <i>IEEE Transactions on Automatic Control</i> , <b>1996</b> , 41, 1693-1699	5.9	88
75	Multilayer neural-net robot controller with guaranteed tracking performance. <i>IEEE Transactions on Neural Networks</i> , <b>1996</b> , 7, 388-99		689
74	Multilayer discrete-time neural-net controller with guaranteed performance. <i>IEEE Transactions on Neural Networks</i> , <b>1996</b> , 7, 107-30		110
73	Approximation-Based Neural Network and Fuzzy Logic Control. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , <b>1996</b> , 29, 5274-5279		3
72	Towards a paradigm for fuzzy logic control. <i>Automatica</i> , <b>1996</b> , 32, 167-181	5.7	54
71	Robust implicit self-tuning regulator: Convergence and stability. <i>Automatica</i> , <b>1996</b> , 32, 1629-1644	5.7	12
70	Identification of nonlinear dynamical systems using multilayered neural networks. <i>Automatica</i> , <b>1996</b> , 32, 1707-1712	5.7	87
69	Flow-shop scheduling design in an FMS matrix framework. <i>Control Engineering Practice</i> , <b>1995</b> , 3, 561-568	3.9	7

68	Neural net robot controller with guaranteed tracking performance. <i>IEEE Transactions on Neural Networks</i> , <b>1995</b> , 6, 703-15		383
67	Techniques in 2-D Implicit Systems. <i>Control and Dynamic Systems</i> , <b>1995</b> , 69, 89-131		4
66	Feedback linearization using neural networks. <i>Automatica</i> , <b>1995</b> , 31, 1659-1664	5.7	276
65	Hybrid Feedback Linearization/Fuzzy Logic Control of a Flexible Link Manipulator. <i>Journal of Intelligent and Fuzzy Systems</i> , <b>1994</b> , 2, 325-336	1.6	7
64	. <i>IEEE Transactions on Automatic Control</i> , <b>1993</b> , 38, 1115-1120	5.9	13
63	Dynamic Equations of a Manipulator With Rigid and Flexible Links: Derivation and Symbolic Computation <b>1993</b> ,		6
62	. <i>IEEE Transactions on Automatic Control</i> , <b>1992</b> , 37, 1509-1514	5.9	13
61	. <i>IEEE Transactions on Automatic Control</i> , <b>1992</b> , 37, 1431-1436	5.9	2
60	. <i>IEEE Transactions on Automatic Control</i> , <b>1992</b> , 37, 1425-1431	5.9	3
59	A review of 2-D implicit systems. <i>Automatica</i> , <b>1992</b> , 28, 345-354	5.7	51
58	A tutorial on the geometric analysis of linear time-invariant implicit systems. <i>Automatica</i> , <b>1992</b> , 28, 119-137		102
57	Robust eigenvalue assignment for generalized systems. <i>Automatica</i> , <b>1992</b> , 28, 1223-1228	5.7	16
56	A geometric approach to proportional-plus-derivative feedback using quotient and partitioned subspaces. <i>Automatica</i> , <b>1991</b> , 27, 349-369	5.7	9
55	. <i>IEEE Transactions on Automatic Control</i> , <b>1991</b> , 36, 1111-1116	5.9	33
54	Geometric design techniques for observers in singular systems. <i>Automatica</i> , <b>1990</b> , 26, 411-415	5.7	46
53	<b>1990</b> ,		2
52	. <i>IEEE Transactions on Automatic Control</i> , <b>1990</b> , 35, 506-511	5.9	28
51	. <i>IEEE Transactions on Automatic Control</i> , <b>1990</b> , 35, 1156-1160	5.9	40

50	. <i>IEEE Transactions on Automatic Control</i> , <b>1990</b> , 35, 1140-1144	5.9	11
49	. <i>IEEE Transactions on Automatic Control</i> , <b>1989</b> , 34, 1007-1012	5.9	11
48	. <i>IEEE Transactions on Automatic Control</i> , <b>1989</b> , 34, 450-455	5.9	40
47	Hamilton-Jacobi-Bellman optimal design of CMAC neural network controller for robot manipulators		1
46	Matrix approach to deadlock avoidance of dispatching in multi-class finite buffer reentrant flow lines		5
45	Neural network approximation of piecewise continuous functions: application to friction compensation		7
44	Direct-reinforcement-adaptive-learning fuzzy logic control for a class of nonlinear systems		2
43	Deadzone compensation in motion control systems using adaptive fuzzy logic control		2
42	Analysis of deadlocks and circular waits using a matrix model for discrete event systems		1
41	Neural network $H_{\infty}$ state feedback control with actuator saturation: the nonlinear benchmark problem		3
40	Robotic deployment for environmental sampling applications		4
39	Matrix Computational Framework for Discrete Event Control of Wireless Sensor Networks with Some Mobile Agents		1
38	Open vs. Closed-Loop Control of the MEMS Electrostatic Comb Drive		7
37	Data-Logging and Supervisory Control in Wireless Sensor Networks		2
36	Wireless sensor network for machine condition based maintenance		8
35	Multimodel neural networks identification and failure detection of nonlinear systems		9
34	Nearly optimal HJB solution for constrained input systems using a neural network least-squares approach		10
33	Backlash compensation in discrete time nonlinear systems using dynamic inversion by neural networks		6

32	Neural net backlash compensation with Hebbian tuning by dynamic inversion	2
31	Backlash compensation with filtered prediction in discrete time nonlinear systems by dynamic inversion using neural networks	5
30	Reinforcement adaptive learning neural network based friction compensation for high speed and precision	4
29	Deadzone compensation in nonlinear systems using neural networks	7
28	A fuzzy system compensator for backlash	14
27	New developments in neurocontrol	1
26	Deadzone compensation in discrete time using adaptive fuzzy logic	4
25	Backlash compensation in nonlinear systems using dynamic inversion by neural networks	12
24	Active suspension control using a novel strut and active filtered feedback: design and implementation	6
23	On adaptive critic architectures in feedback control	1
22	Robust adaptive control of robots using neural network: global tracking stability	18
21	A neural net controller for robots with Hebbian tuning and guaranteed tracking	2
20	Stabilization of a class of nonlinear systems with ill-defined relative degree	3
19	Function approximation by fuzzy systems	12
18	Discrete-time CMAC neural networks for control applications	5
17	Adaptive fuzzy logic control of discrete-time dynamical systems	9
16	Control of a nonholonomic mobile robot using neural networks	3
15	Control of a nonholonomic mobile robot: backstepping kinematics into dynamics	161



14	Motion planning and control for non-holonomic mobile robots	3
13	Control of unknown nonlinear dynamical systems using CMAC neural networks: structure, stability, and passivity	13
12	Nonlinear observer design using dynamic recurrent neural networks	13
11	Practical point stabilization of a nonholonomic mobile robot using neural networks	15
10	Adaptive-fuzzy logic control of robot manipulators	19
9	Output feedback control of rigid robots using dynamic neural networks	6
8	Design and stability analysis of adaptive-fuzzy controllers for a class of nonlinear systems	5
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5	Discrete-time neural net controller with guaranteed performance	9
4	A singular perturbation approach to stabilization of the internal dynamics of multilink flexible robots	4
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2	Robust control of a continuous stirred-tank reactor	3
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