Santosh Devasia

List of Publications by Year in Descending Order

76 papers	2,620 citations	21 h-index	50 g-index
85 ext. papers	3,136 ext. citations	3.5 avg, IF	5.43 L-index

#	Paper	IF	Citations
76	MIMO ILC using complex-kernel regression and application to Precision SEA robots. *Automatica*, **2021**, 127, 109550	5.7	0
75	Accelerated-Gradient-Based Flexible-Object Transport With Decentralized Robot Teams. *IEEE Robotics and Automation Letters*, **2021**, 6, 151-158	4.2	3
74	Faster response in bounded-update-rate, discrete-time linear networks using delayed self-reinforcement. *International Journal of Control*, **2021**, 94, 1286-1296	1.5	3
73	Rapid Transitions With Robust Accelerated Delayed-Self-Reinforcement for Consensus-Based Networks. *IEEE Transactions on Control Systems Technology*, **2021**, 29, 2115-2128	4.8	0
72	A scheduling method for multi-robot assembly of aircraft structures with soft task precedence constraints. *Robotics and Computer-Integrated Manufacturing*, **2021**, 71, 102154	9.2	2
71	Faster Confined Space Manufacturing Teleoperation Through Dynamic Autonomy With Task Dynamics Imitation Learning. *IEEE Robotics and Automation Letters*, **2020**, 5, 2357-2364	4.2	3
70	A Review of Manufacturing Process Control. *Journal of Manufacturing Science and Engineering, Transactions of the ASME*, **2020**, 142,	3.3	4
69	Cohesive networks using delayed self reinforcement. *Automatica*, **2020**, 112, 108699	5.7	3
68	Accelerated Consensus for Multi-Agent Networks through Delayed Self Reinforcement **2019**,		5
67	An Efficient Scheduling Algorithm for Multi-Robot Task Allocation in Assembling Aircraft Structures. *IEEE Robotics and Automation Letters*, **2019**, 4, 3844-3851	4.2	13
66	Context-Specific Separable Gesture Selection For Control of a Robotic Manufacturing Assistant. *IFAC-PapersOnLine*, **2019**, 51, 89-96	0.7	1
65	Rapid Information Transfer in Swarms Under Update-Rate-Bounds Using Delayed Self-Reinforcement. *Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME*, **2019**, 141,	1.6	6
64	. *IEEE Transactions on Control Systems Technology*, **2019**, 27, 516-526	4.8	10
63	Faster Response Discrete-Time Networks under Update-Rate Limits **2019**,		2
62	Preliminary Investigation of Symmetry Learning Control for Powered Ankle-Foot Prostheses **2019**,		6
61	Toward Ergonomic Risk Prediction via Segmentation of Indoor Object Manipulation Actions Using Spatiotemporal Convolutional Networks. *IEEE Robotics and Automation Letters*, **2019**, 4, 3153-3160	4.2	6
60	Cohesive Velocity Transitions in Robotic Platoons Using Nesterov-type Accelerated Delayed Self Reinforcement (A-DSR) **2019**,		2

59	Data-Inferred Personalized Human-Robot Models for Iterative Collaborative Output Tracking. *Journal of Intelligent and Robotic Systems: Theory and Applications*, **2018**, 91, 137-153	2.9	5
58	. *IEEE/ASME Transactions on Mechatronics*, **2018**, 23, 2186-2195	5.5	3
57	Boundary Control of Embedded Heaters for Uniform Bondline Temperatures During Composite Joining. *Journal of Manufacturing Science and Engineering, Transactions of the ASME*, **2018**, 140,	3.3	2
56	Nonlinear Models for Magnet Placement in Individually Actuated Magnetic Cilia Devices. *Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME*, **2018**, 140,	1.6	1
55	Kernel-Based Human-Dynamics Inversion for Precision Robot Motion-Primitives **2018**,		2
54	Managing Off-Nominal Events in Shared Teleoperation with Learned Task Compliance **2018**,		1
53	Iterative Control for Networked Heterogeneous Multi-Agent Systems With Uncertainties. *IEEE Transactions on Automatic Control*, **2017**, 62, 431-437	5.9	12
52	Inferring Intent for Novice Human-in-the-Loop Iterative Learning Control. *IEEE Transactions on Control Systems Technology*, **2017**, 25, 1698-1710	4.8	9
51	Embedded resistive heating in composite scarf repairs. *Journal of Composite Materials*, **2017**, 51, 2575-2583	2.3	3
50	Individually Controllable Magnetic Cilia: Mixing Application. *Journal of Medical Devices, Transactions of the ASME*, **2017**, 11,	1.3	7
49	Low-cost assistive robot for mirror therapy rehabilitation **2017**,		2
48	How to Train Your Robot?. *Mechanical Engineering*, **2017**, 139, S19-S23	0.9	
47	Inverse control for inferring intent in novice human-in-the-loop iterative learning **2016**,		4
46	Iterative learning control for human-robot collaborative output tracking **2016**,		4
45	. *IEEE Transactions on Human-Machine Systems*, **2016**, 46, 510-521	4.1	14
44	Bondline Temperature Control for Joining Composites With an Embedded Heater. *Journal of Manufacturing Science and Engineering, Transactions of the ASME*, **2016**, 138,	3.3	6
43	Output-Boundary Regulation Using Event-Based Feedforward for Nonminimum-Phase Systems. *IEEE Transactions on Control Systems Technology*, **2016**, 24, 265-275	4.8	6
42	Iterative learning control with time-partitioned update for collaborative output tracking. *Automatica*, **2016**, 69, 258-264	5.7	19

41	Scalable Low-Cost Unmanned-Aerial-Vehicle Traffic Network. *Journal of Air Transportation*, **2016**, 24, 74-83	0.6	6
40	Stability of Velocity Control for a Piezoelectric Stepper. *IEEE/ASME Transactions on Mechatronics*, **2015**, 20, 910-923	5.5	6
39	Nonlinear Passive Cam-Based Springs for Powered Ankle Prostheses. *Journal of Medical Devices, Transactions of the ASME*, **2015**, 9,	1.3	31
38	Resistive embedded heating for homogeneous curing of adhesively bonded joints. *International Journal of Adhesion and Adhesives*, **2015**, 57, 34-39	3.4	19
37	On-Demand Conflict Resolution Procedures for Air-Traffic Intersections. *IEEE Transactions on Intelligent Transportation Systems*, **2014**, 15, 1538-1549	6.1	9
36	Iterative Control of Piezoactuator for Evaluating Biomimetic, Cilia-Based Micromixing. *IEEE/ASME Transactions on Mechatronics*, **2013**, 18, 944-953	5.5	11
35	Provably Safe Conflict Resolution With Bounded Turn Rate for Air Traffic Control. *IEEE Transactions on Control Systems Technology*, **2013**, 21, 2280-2289	4.8	5
34	On-demand Conflict Resolution Procedures for Air Traffic intersections **2013**,		1
33	Decoupled Conflict-Resolution Procedures for Decentralized Air Traffic Control. *IEEE Transactions on Intelligent Transportation Systems*, **2011**, 12, 422-437	6.1	22
32	Nonlinear minimum-time control with pre- and post-actuation. *Automatica*, **2011**, 47, 1379-1387	5.7	27
31	Flow-capacity-maintaining, decentralized, conflict resolution with aircraft turn dynamics **2011**,		3
30	Lorentz violation in high-energy ions. *European Physical Journal C*, **2010**, 69, 343-346	4.2	3
29	Characterization of mixing performance for bio-mimetic silicone cilia. *Microfluidics and Nanofluidics*, **2010**, 9, 645-655	2.8	37
28	Minimum-Time/Energy, Output Transitions for Dual-Stage Systems. *Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME*, **2009**, 131,	1.6	6
27	A Review of Feedforward Control Approaches in Nanopositioning for High-Speed SPM. *Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME*, **2009**, 131,	1.6	251
26	Rapid AFM imaging of large soft samples in liquid with small forces. *Asian Journal of Control*, **2009**, 11, 154-165	1.7	3
25	Bio-mimetic silicone cilia for microfluidic manipulation. *Lab on A Chip*, **2009**, 9, 1561-6	7.2	73
24	Conditions for Image-Based Identification of SPM-Nanopositioner Dynamics. *IEEE/ASME Transactions on Mechatronics*, **2009**, 14, 405-413	5.5	9

23	Optimal Output Transitions for Dual-Stage Systems. *IEEE Transactions on Control Systems Technology*, **2008**, 16, 869-881	4.8	21
22	High-bandwidth control of a piezoelectric nanopositioning stage in the presence of plant uncertainties. *Nanotechnology*, **2008**, 19, 125503	3.4	91
21	AFM imaging of large soft samples in liquid medium using iterative inverse feedforward control **2008**,		2
20	Feedback-Linearized Inverse Feedforward for Creep, Hysteresis, and Vibration Compensation in AFM Piezoactuators. *IEEE Transactions on Control Systems Technology*, **2007**, 15, 927-935	4.8	278
19	A Survey of Control Issues in Nanopositioning. *IEEE Transactions on Control Systems Technology*, **2007**, 15, 802-823	4.8	723
18	Precision preview-based stable-inversion for nonlinear nonminimum-phase systems: The VTOL example. *Automatica*, **2007**, 43, 117-127	5.7	49
17	. *IEEE Transactions on Control Systems Technology*, **2007**, 15, 799-801	4.8	9
16	Design of Feedforward Input for Output-Settling Control With Dual-Stage Actuators. *IEEE/ASME Transactions on Mechatronics*, **2007**, 12, 670-679	5.5	11
15	Design of hysteresis-compensating iterative learning control for piezo-positioners: Application to atomic force microscopes. *Mechatronics*, **2006**, 16, 141-158	3	127
14	Precision tracking of driving wave forms for inertial reaction devices. *Review of Scientific Instruments*, **2005**, 76, 023701	1.7	16
13	Design and Control of Optimal Scan Trajectories: Scanning Tunneling Microscope Example. *Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME*, **2004**, 126, 187-197	1.6	26
12	Minimum-Energy Output Transitions for Linear Discrete-Time Systems: Flexible Structure Applications. *Journal of Guidance, Control, and Dynamics*, **2004**, 27, 572-585	2.1	1
11	Mechatronics education in the Department of Mechanical Engineering at the University of Utah. *Mechatronics*, **2003**, 13, 1-11	3	26
10	Optimal output-transitions for linear systems. *Automatica*, **2003**, 39, 181-192	5.7	70
9	Output Tracking for Actuator Deficient/Redundant Systems: Multiple Piezoactuator Example. *Journal of Guidance, Control, and Dynamics*, **2000**, 23, 370-373	2.1	24
8	A comparison of reduced-order modelling techniques for application in hyperthermia control and estimation. *International Journal of Hyperthermia*, **1998**, 14, 135-56	3.7	6
7	Hysteresis and Vibration Compensation for Piezoactuators. *Journal of Guidance, Control, and Dynamics*, **1998**, 21, 710-717	2.1	53
6	Exact-output tracking theory for systems with parameter jumps. *International Journal of Control*, **1997**, 67, 117-131	1.5	28

5	Output Tracking with Nonhyperbolic and Near Nonhyperbolic Internal Dynamics: Helicopter Hover Control. *Journal of Guidance, Control, and Dynamics*, **1997**, 20, 573-580	2.1	33
4	A different look at output tracking: control of a vtol aircraft. *Automatica*, **1996**, 32, 101-107	5.7	234
3	Inverse dynamics of articulated flexible structures: Simultaneous trajectory tracking and vibration reduction. *Journal of Dynamical and Control Systems*, **1994**, 4, 299-309		3
2	Inverse dynamics of spatial open-chain flexible manipulators with lumped and distributed actuators. *Journal of Field Robotics*, **1994**, 11, 327-338		5
1	Piezoelectric actuator design for vibration suppression - Placement and sizing. *Journal of Guidance, Control, and Dynamics*, **1993**, 16, 859-864	2.1	90