Kalyana Chakravarthy Veluvolu

List of Publications by Year
in descending order

120 papers	2,976 citations	136940 32 h-index	175241 52 g-index
122 all docs	**122** docs citations	**122** times ranked	**2847** citing authors

#	Article	IF	Citations
1	Physiological Tremor Filtering Without Phase Distortion for Robotic Microsurgery. IEEE Transactions on Automation Science and Engineering, 2022, 19, 497-509.	5.2	6
2	SSA with CWT and k-Means for Eye-Blink Artifact Removal from Single-Channel EEG Signals. Sensors, 2022, 22, 931.	3.8	17
3	ICA With CWT and <i>k</i>-means for Eye-Blink Artifact Removal From Fewer Channel EEG. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2022, 30, 1361-1373.	4.9	15
4	Multi-objective Evolutionary Algorithm based on Ensemble of Initializations for Overlapping Community Detection. , 2021, , .		0
5	Neural Network Based Robust Lateral Control for an Autonomous Vehicle. Electronics (Switzerland), 2021, 10, 510.	3.1	16
6	Higher Order Sliding Mode Observer-Based Sensor Fault Detection in DC Microgrid's Buck Converter. Energies, 2021, 14, 1586.	3.1	7
7	An Generational SDE based Indicator for Multi and Many-objective optimization. , 2021, , .		0
8	Robust Shared Lateral Control for Autonomous Vehicles. , 2021, , .		1
9	Eye-blink artifact removal from single channel EEG with k-means and SSA. Scientific Reports, 2021, 11, 11043.	3.3	30
10	Sliding mode approach for formation control of perturbed second-order autonomous unmanned systems. IFAC-PapersOnLine, 2021, 54, 168-173.	0.9	4
11	Differential Identification of Prodromal Stages of Alzheimer's Disease Using Tissue Probability Map (TPM) based Network. , 2021, , .		1
12	Fast and accurate online sequential learning of respiratory motion with random convolution nodes for radiotherapy applications. Applied Soft Computing Journal, 2020, 95, 106528.	7.2	4
13	Active Volume Control in Smart Phones Based on User Activity and Ambient Noise. Sensors, 2020, 20, 4117.	3.8	23
14	Analysis of Electric Motor Magnetic Core Loss under Axial Mechanical Stress. Sensors, 2020, 20, 6818.	3.8	2
15	EEG based Functional Connectivity Analysis of Alzheimer's Disease Subjects. , 2020, , .		0
16	Output-Constrained Robust Sliding Mode Based Nonlinear Active Suspension Control. IEEE Transactions on Industrial Electronics, 2020, 67, 10652-10662.	7.9	42
17	Identification of Dementia Related Brain Functional Networks with Minimum Spanning Trees. , 2020, , .		1
18	Classification of Dementia Associated Disorders Using EEG based Frequent Subgraph Technique. , 2020, , .		3

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19	Robust Sensors-Fault-Tolerance With Sliding Mode Estimation and Control for PMSM Drives. IEEE/ASME Transactions on Mechatronics, 2018, 23, 17-28.	5.8	112
20	Evolutionary Based ICA With Reference for EEG <inline-formula> <tex-math notation="LaTeX">mu </tex-math> </inline-formula> Rhythm Extraction. IEEE Access, 2018, 6, 19702-19713.	4.2	8
21	Sliding-Mode-Based Observer–Controller Structure for Fault-Resilient Control in DC Servomotors. IEEE Transactions on Industrial Electronics, 2018, 65, 918-929.	7.9	37
22	Multi-Step Prediction of Physiological Tremor With Random Quaternion Neurons for Surgical Robotics Applications. IEEE Access, 2018, 6, 42216-42226.	4.2	6
23	Multimodal chest surface motion data for respiratory and cardiovascular monitoring applications. Scientific Data, 2017, 4, 170052.	5.3	9
24	Multidimensional Modeling of Physiological Tremor for Active Compensation in Handheld Surgical Robotics. IEEE Transactions on Industrial Electronics, 2017, 64, 1645-1655.	7.9	22
25	IEEE <italic>Access</italic> Special Section Editorial: Recent Advances on Modelling, Optimization and Signal Processing Methods in Vehicle Dynamics and Crash-worthiness. IEEE Access, 2017, 5, 7517-7519.	4.2	0
26	Output Feedback Active Suspension Control With Higher Order Terminal Sliding Mode. IEEE Transactions on Industrial Electronics, 2017, 64, 1392-1403.	7.9	180
27	A robust voltage, speed and current sensors fault-tolerant control in PMSM drives. , 2017, , .		3
28	Sliding mode based incipient sensor fault-tolerant control for DC servomotor drives. , 2017, , .		0
29	Predictive local receptive fields based respiratory motion tracking for motion-adaptive radiotherapy. , 2017, 2017, 2859-2862.		0
30	Real-time physiological tremor estimation using recursive singular spectrum analysis. , 2017, 2017, 3202-3205.		2
31	Nondominated sorting based on sum of objectives. , 2017, , .		3
32	Time-Frequency Analysis of Non-Stationary Biological Signals with Sparse Linear Regression Based Fourier Linear Combiner. Sensors, 2017, 17, 1386.	3.8	13
33	Evolutionary Algorithm Based Feature Optimization for Multi-Channel EEG Classification. Frontiers in Neuroscience, 2017, 11, 28.	2.8	12
34	Particle Swarm Optimization with Ensemble of Inertia Weight Strategies. Lecture Notes in Computer Science, 2017, , 140-147.	1.3	5
35	Communication–computation tradeoff in distributed consensus optimization for MPC-based coordinated control under wireless communications. Journal of the Franklin Institute, 2017, 354, 3654-3677.	3.4	3
36	Adaptive sensor and actuator fault estimation for a class of uncertain Lipschitz nonlinear systems. International Journal of Adaptive Control and Signal Processing, 2016, 30, 271-283.	4.1	48

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37	Automatic annotation of peaks in seismocardiogram for systolic time intervals. , 2016, 2016, 2672-2675.		17
38	Modeling of physiological tremor with quaternion variant of extreme learning machines. , 2016, , .		1
39	Automatic Identification of Systolic Time Intervals in Seismocardiogram. Scientific Reports, 2016, 6, 37524.	3.3	54
40	Robust control of DC motor drives using higher-order integral terminal sliding mode. , 2016, , .		2
41	Rollover Index Estimation in the Presence of Sensor Faults, Unknown Inputs, and Uncertainties. IEEE Transactions on Intelligent Transportation Systems, 2016, 17, 2949-2959.	8.0	31
42	Ensemble framework based real-time respiratory motion prediction for adaptive radiotherapy applications. Medical Engineering and Physics, 2016, 38, 749-757.	1.7	9
43	Event-Related Functional Network Identification: Application to EEG Classification. IEEE Journal on Selected Topics in Signal Processing, 2016, 10, 1284-1294.	10.8	29
44	A Robust Observer-Based Sensor Fault-Tolerant Control for PMSM in Electric Vehicles. IEEE Transactions on Industrial Electronics, 2016, 63, 7671-7681.	7.9	328
45	Three-dimensional modeling of physiological tremor for hand-held surgical robotic instruments. , 2016, 2016, 3708-3711.		0
46	A Quaternion Weighted Fourier Linear Combiner for Modeling Physiological Tremor. IEEE Transactions on Biomedical Engineering, 2016, 63, 2336-2346.	4.2	38
47	Modeling 3D tremor signals with a quaternion weighted Fourier Linear Combiner. , 2015, , .		5
48	Differential Evolution with Population and Strategy Parameter Adaptation. Mathematical Problems in Engineering, 2015, 2015, 1-10.	1.1	14
49	Active Control of Nonlinear Suspension System Using Modified Adaptive Supertwisting Controller. Discrete Dynamics in Nature and Society, 2015, 2015, 1-10.	0.9	5
50	An adaptive modified super-twisting sliding mode controller: Applied to the active suspension system. , 2015, , .		0
51	Respiratory motion prediction using moving window based online training approach for LS-SVM. , 2015, , .		0
52	EEG classification of emotions using emotion-specific brain functional network. , 2015, 2015, 2896-9.		9
53	Fault detection based on higherâ€order sliding mode observer for a class of switched linear systems. IET Control Theory and Applications, 2015, 9, 2249-2256.	2.1	27
54	Performance comparison of sliding mode observers for back EMFs based speed estimation in PMSM. , 2015, , .		1

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55	Spatial filter and feature selection optimization based on EA for multi-channel EEG. , 2015, 2015, 2311-4.		1
56	Multistep Prediction of Physiological Tremor Based on Machine Learning for Robotics Assisted Microsurgery. IEEE Transactions on Cybernetics, 2015, 45, 328-339.	9.5	56
57	Human implicit intent recognition based on the phase synchrony of EEG signals. Pattern Recognition Letters, 2015, 66, 144-152.	4.2	24
58	Decoupled current control and sensor fault detection with second‑order sliding mode for induction motor. IET Control Theory and Applications, 2015, 9, 608-617.	2.1	40
59	Rotor Speed-Based Bearing Fault Diagnosis (RSB-BFD) Under Variable Speed and Constant Load. IEEE Transactions on Industrial Electronics, 2015, 62, 6486-6495.	7.9	81
60	Leader‑follower fixed‑time consensus for multi‑agent systems with unknown non‑linear inherent dynamics. IET Control Theory and Applications, 2015, 9, 2165-2170.	2.1	214
61	Estimation of side slip and road bank angle using high-gain observer and higher-order sliding mode observer. , 2015, , .		4
62	Second-order sliding mode based sensor fault-tolerant control of induction motor drives. , 2015, , .		0
63	Adaptive Super-Twisting Observer for Estimation of Random Road Excitation Profile in Automotive Suspension Systems. Scientific World Journal, The, 2014, 2014, 1-8.	2.1	12
64	Real-time prediction of respiratory motion traces for radiotherapy with ensemble learning. , 2014, 2014, 4204-7.		6
65	Robust fault-tolerant cruise control of electric vehicles based on second-order sliding mode observer. , 2014, , .		5
66	Higher-Order Sliding Mode Observer for Speed and Position Estimation in PMSM. Mathematical Problems in Engineering, 2014, 2014, 1-12.	1.1	13
67	Accommodation of actuator fault using local diagnosis and IMC-PID. International Journal of Control, Automation and Systems, 2014, 12, 1139-1149.	2.7	4
68	Hybrid sliding mode observer for switched linear systems with unknown inputs. Journal of the Franklin Institute, 2014, 351, 3987-4008.	3.4	47
69	Higher‑order sliding mode observer for estimation of tyre friction in ground vehicles. IET Control Theory and Applications, 2014, 8, 399-408.	2.1	52
70	Navigational/informational intent discrimination based on Phase Locking Value(PLV). , 2014, , .		0
71	Estimation of road profile for suspension systems using adaptive super-twisting observer. , 2014, , .		8
72	A Motion Planning Framework with Connectivity Management for Multiple Cooperative Robots. Journal of Intelligent and Robotic Systems: Theory and Applications, 2014, 75, 343-357.	3.4	8

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73	An induction motor sensor fault detection and isolation based on higher order sliding mode decoupled current controller. , 2014, , .		2
74	High-gain observer with sliding mode for nonlinear state estimation and fault reconstruction. Journal of the Franklin Institute, 2014, 351, 1995-2014.	3.4	65
75	Surface Chest Motion Decomposition for Cardiovascular Monitoring. Scientific Reports, 2014, 4, 5093.	3.3	65
76	Physiological Tremor Estimation With Autoregressive (AR) Model and Kalman Filter for Robotics Applications. IEEE Sensors Journal, 2013, 13, 4977-4985.	4.7	32
77	Performance Comparison of Spatial Filter with Multiple BMFLCs for BCI Applications. Lecture Notes in Computer Science, 2013, , 411-418.	1.3	1
78	Multistep Prediction of Physiological Tremor for Surgical Robotics Applications. IEEE Transactions on Biomedical Engineering, 2013, 60, 3074-3082.	4.2	42
79	Phase synchrony in subject-specific reactive band of EEG for classification of motor imagery tasks. , 2013, 2013, 2784-7.		19
80	Time-frequency analysis of band-limited EEG with BMFLC and Kalman filter for BCI applications. Journal of NeuroEngineering and Rehabilitation, 2013, 10, 109.	4.6	38
81	BMFLC with neural network and DE for better event classification. , 2013, , .		2
82	Multi-step tremor prediction autoregressive (AR) model and Kalman filter (KF) for surgical robotic applications. , 2013, , .		2
83	Online LS-SVM based multi-step prediction of physiological tremor for surgical robotics. , 2013, 2013, 6043-6.		6
84	Multi-step prediction of physiological tremor for robotics applications. , 2013, 2013, 5075-8.		3
85	Robust observer with higher-order sliding mode for sensorless speed estimation of a PMSM. , 2013, , .		4
86	A Hybrid Approach for Short-Term Forecasting of Wind Speed. Scientific World Journal, The, 2013, 2013, 1-8.	2.1	16
87	Phase Synchrony for Human Implicit Intent Differentiation. Lecture Notes in Computer Science, 2013, , 427-433.	1.3	1
88	ICA for Separation of Respiratory Motion and Heart Motion from Chest Surface Motion. Lecture Notes in Computer Science, 2013, , 592-599.	1.3	1
89	Adaptive estimation of EEG for subject-specific reactive band identification and improved ERD detection. Neuroscience Letters, 2012, 528, 137-142.	2.1	30
90	Adaptive estimation of EEG-rhythms for optimal band identification in BCI. Journal of Neuroscience Methods, 2012, 203, 163-172.	2.5	34

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91	Adaptive Estimation of EEG for Subject-Specific Reactive Band Identification and Improved ERD Detection. , 2012, , .		0
92	Lateral Scanning Linnik Interferometry for Large Field of View and Fast Scanning: Wafer Bump Inspection. International Journal of Optomechatronics, 2011, 5, 271-285.	6.6	3
93	Fault reconstruction and state estimation with sliding mode observers for Lipschitz non-linear systems. IET Control Theory and Applications, 2011, 5, 1255-1263.	2.1	51
94	Multiple sliding mode observers and unknown input estimations for Lipschitz nonlinear systems. International Journal of Robust and Nonlinear Control, 2011, 21, 1322-1340.	3.7	30
95	Sliding mode high-gain observers for a class of uncertain nonlinear systems. Applied Mathematics Letters, 2011, 24, 329-334.	2.7	35
96	Nonlinear sliding mode high-gain observers for fault estimation. International Journal of Systems Science, 2011, 42, 1065-1074.	5.5	69
97	Drift-Free Position Estimation of Periodic or Quasi-Periodic Motion Using Inertial Sensors. Sensors, 2011, 11, 5931-5951.	3.8	47
98	Estimation of Physiological Tremor from Accelerometers for Real-Time Applications. Sensors, 2011, 11, 3020-3036.	3.8	88
99	Double adaptive bandlimited multiple Fourier linear combiner for real-time estimation/filtering of physiological tremor. Biomedical Signal Processing and Control, 2010, 5, 37-44.	5.7	50
100	Estimation and filtering of physiological tremor for real-time compensation in surgical robotics applications. International Journal of Medical Robotics and Computer Assisted Surgery, 2010, 6, 334-342.	2.3	70
101	Nonlinear sliding mode observers for fault reconstruction and state estimations. , 2010, , .		1
102	Adaptive estimation of EEG-rhythms for event classification. , 2009, , .		0
103	Real-time estimation and prediction of periodic signals from attenuated and phase-shifted sensed signals. , 2009, , .		5
104	State and unknown input estimations for a special class of nonlinear uncertain systems. , 2009, , .		0
105	Physiological tremor sensing using only accelerometers for real-time compensation. , 2009, , .		12
106	Adaptive filtering of physiological tremor for real-time compensation. , 2009, , .		1
107	High gain observers with multiple sliding mode for state and unknown input estimations. , 2009, , .		5
108	Discrete-Time Sliding-Mode State and Unknown Input Estimations for Nonlinear Systems. IEEE Transactions on Industrial Electronics, 2009, 56, 3443-3452.	7.9	37

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109	High-Gain Observers With Sliding Mode for State and Unknown Input Estimations. IEEE Transactions on Industrial Electronics, 2009, 56, 3386-3393.	7.9	86
110	Estimating Displacement of Periodic Motion With Inertial Sensors. IEEE Sensors Journal, 2008, 8, 1385-1388.	4.7	57
111	Adaptive rate-dependent feedforward controller for hysteretic piezoelectric actuator. , 2008, , .		2
112	Nonlinear sliding mode observers for state and unknown input estimations. , 2007, , .		5
113	System to Assess Accuracy of Micromanipulation. Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2007, 2007, 5744-7.	0.5	6
114	Robust observer with sliding mode estimation for nonlinear uncertain systems. IET Control Theory and Applications, 2007, 1, 1533-1540.	2.1	62
115	Nonlinear Discrete-time Sliding Mode Observations with Application to a Three-phase Current Motor. , 2007, , .		0
116	Bandlimited Multiple Fourier Linear Combiner for Real-time Tremor Compensation. Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2007, 2007, 2847-50.	0.5	51
117	Robust discrete-time nonlinear sliding mode state estimation of uncertain nonlinear systems. International Journal of Robust and Nonlinear Control, 2007, 17, 803-828.	3.7	45
118	Observers with Multiple Sliding Modes for Uncertain Linear MIMO Systems. , 2006, , .		7
119	Discrete-time Observers with Multiple Sliding Modes for a Class of Nonlinear Uncertain Systems. , 2006, , .		2
120	Adaptive output control of nonlinear time-delayed systems with uncertain dead-zone input. , 2006, , .		5