## **Kay-Soon Low**

## List of Publications by Citations

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124<br/>papers2,451<br/>citations28<br/>h-index45<br/>g-index151<br/>ext. papers2,996<br/>ext. citations4.2<br/>avg, IF5.44<br/>L-index

#	Paper	IF	Citations
124	A Global Maximum Power Point Tracking Scheme Employing DIRECT Search Algorithm for Photovoltaic Systems. <i>IEEE Transactions on Industrial Electronics</i> , <b>2010</b> , 57, 3456-3467	8.9	232
123	Photovoltaic Model Identification Using Particle Swarm Optimization With Inverse Barrier Constraint. <i>IEEE Transactions on Power Electronics</i> , <b>2012</b> , 27, 3975-3983	7.2	188
122	Zero-phase odd-harmonic repetitive controller for a single-phase PWM inverter. <i>IEEE Transactions on Power Electronics</i> , <b>2006</b> , 21, 193-201	7.2	121
121	State-of-Charge Estimation of Lithium-Ion Battery Using Square Root Spherical Unscented Kalman Filter (Sqrt-UKFST) in Nanosatellite. <i>IEEE Transactions on Power Electronics</i> , <b>2015</b> , 30, 4774-4783	7.2	79
120	Wireless Sensing of Human Respiratory Parameters by Low-Power Ultrawideband Impulse Radio Radar. <i>IEEE Transactions on Instrumentation and Measurement</i> , <b>2011</b> , 60, 928-938	5.2	72
119	Cooperative Communications in Ultra-Wideband Wireless Body Area Networks: Channel Modeling and System Diversity Analysis. <i>IEEE Journal on Selected Areas in Communications</i> , <b>2009</b> , 27, 5-16	14.2	72
118	Optimizing the Localization of a Wireless Sensor Network in Real Time Based on a Low-Cost Microcontroller. <i>IEEE Transactions on Industrial Electronics</i> , <b>2011</b> , 58, 741-749	8.9	68
117	Model Predictive Control of Parallel-Connected Inverters for Uninterruptible Power Supplies. <i>IEEE Transactions on Industrial Electronics</i> , <b>2008</b> , 55, 2884-2893	8.9	61
116	Multichannel Pulse-Coupled-Neural-Network-Based Color Image Segmentation for Object Detection. <i>IEEE Transactions on Industrial Electronics</i> , <b>2012</b> , 59, 3299-3308	8.9	54
115	Periodic errors elimination in CVCF PWM DC/AC converter systems: repetitive control approach. <i>IET Control Theory and Applications</i> , <b>2000</b> , 147, 694-700		54
114	Real-Time Estimation of Sensor Nodes Position Using Particle Swarm Optimization With Log-Barrier Constraint. <i>IEEE Transactions on Instrumentation and Measurement</i> , <b>2011</b> , 60, 3619-3628	5.2	49
113	A Repetitive Model Predictive Control Approach for Precision Tracking of a Linear Motion System. <i>IEEE Transactions on Industrial Electronics</i> , <b>2009</b> , 56, 1955-1962	8.9	49
112	Assessment of Foot Trajectory for Human Gait Phase Detection Using Wireless Ultrasonic Sensor Network. <i>IEEE Transactions on Neural Systems and Rehabilitation Engineering</i> , <b>2016</b> , 24, 88-97	4.8	46
111	Low Sampling Rate Online Parameters Monitoring of DCDC Converters for Predictive-Maintenance Using Biogeography-Based Optimization. <i>IEEE Transactions on Power Electronics</i> , <b>2016</b> , 31, 2870-2879	7.2	44
110	Unrestrained Measurement of Arm Motion Based on a Wearable Wireless Sensor Network. <i>IEEE Transactions on Instrumentation and Measurement</i> , <b>2010</b> , 59, 1309-1317	5.2	44
109	Optimizing Photovoltaic Model for Different Cell Technologies Using a Generalized Multidimension Diode Model. <i>IEEE Transactions on Industrial Electronics</i> , <b>2015</b> , 62, 6371-6380	8.9	41
108	Fabrication and performance evaluation of a high temperature co-fired ceramic vaporizing liquid microthruster. <i>Journal of Micromechanics and Microengineering</i> , <b>2015</b> , 25, 015013	2	40

107	Sigma-Z-source inverters. <i>IET Power Electronics</i> , <b>2015</b> , 8, 715-723	2.2	39
106	Pulse Design for Time Reversal Method as Applied to Ultrawideband Microwave Breast Cancer Detection: A Two-Dimensional Analysis. <i>IEEE Transactions on Antennas and Propagation</i> , <b>2007</b> , 55, 194-	-20 <sup>49</sup>	37
105	Temperature dependent state-of-charge estimation of lithium ion battery using dual spherical unscented Kalman filter. <i>IET Power Electronics</i> , <b>2015</b> , 8, 2026-2033	2.2	36
104	Opportunistic routing for body area network <b>2011</b> ,		36
103	Robust model predictive control and observer for direct drive applications. <i>IEEE Transactions on Power Electronics</i> , <b>2000</b> , 15, 1018-1028	7.2	35
102	A novel approach to joint flexion/extension angles measurement based on wearable UWB radios. <i>IEEE Journal of Biomedical and Health Informatics</i> , <b>2014</b> , 18, 300-8	7.2	32
101	. IEEE Transactions on Aerospace and Electronic Systems, <b>2015</b> , 51, 1017-1028	3.7	31
100	UWB MICROWAVE IMAGING FOR BREAST CANCER DETECTION EXPERIMENTS WITH HETEROGENEOUS BREAST PHANTOMS. <i>Progress in Electromagnetics Research M</i> , <b>2011</b> , 16, 19-29	0.6	31
99	Advanced precision linear stage for industrial automation applications. <i>IEEE Transactions on Instrumentation and Measurement</i> , <b>2003</b> , 52, 785-789	5.2	30
98	A particle swarm optimization approach for the localization of a wireless sensor network 2008,		29
97	Adaptive routing for dynamic on-body wireless sensor networks. <i>IEEE Journal of Biomedical and Health Informatics</i> , <b>2015</b> , 19, 549-58	7.2	28
96	HOMOGENEOUS AND HETEROGENEOUS BREAST PHANTOMS FOR ULTRA-WIDEBAND MICROWAVE IMAGING APPLICATIONS. <i>Progress in Electromagnetics Research</i> , <b>2010</b> , 100, 397-415	3.8	27
95	A Geometric Filter Algorithm for Robust Device-Free Localization in Wireless Networks. <i>IEEE Transactions on Industrial Informatics</i> , <b>2016</b> , 12, 1670-1678	11.9	26
94	A Pulsed Neural Network With On-Chip Learning and Its Practical Applications. <i>IEEE Transactions on Industrial Electronics</i> , <b>2007</b> , 54, 34-42	8.9	26
93	Ambulatory measurement of three-dimensional foot displacement during treadmill walking using wearable wireless ultrasonic sensor network. <i>IEEE Journal of Biomedical and Health Informatics</i> , <b>2015</b> , 19, 446-52	7.2	25
92	Effect of lesion morphology on microwave signature in 2-D ultra-wideband breast imaging. <i>IEEE Transactions on Biomedical Engineering</i> , <b>2008</b> , 55, 2011-21	5	25
91	A 64\$,times,\$64 CMOS Image Sensor With On-Chip Moving Object Detection and Localization. <i>IEEE Transactions on Circuits and Systems for Video Technology</i> , <b>2012</b> , 22, 581-588	6.4	24
90	FREQUENCY DOMAIN SKIN ARTIFACT REMOVAL METHOD FOR ULTRA-WIDEBAND BREAST CANCER DETECTION. <i>Progress in Electromagnetics Research</i> , <b>2009</b> , 98, 299-314	3.8	23

89	A Multiobjective Genetic Algorithm for Optimizing the Performance of Hard Disk Drive Motion Control System. <i>IEEE Industrial Electronics Magazine</i> , <b>2007</b> , 54, 1716-1725	6.2	23
88	Time of Arrival Data Fusion Method for Two-Dimensional Ultrawideband Breast Cancer Detection. <i>IEEE Transactions on Antennas and Propagation</i> , <b>2007</b> , 55, 2852-2865	4.9	23
87	Multi-dimension diode photovoltaic (PV) model for different PV cell technologies 2014,		22
86	. IEEE Transactions on Aerospace and Electronic Systems, <b>2013</b> , 49, 1467-1475	3.7	21
85	A Factorized Quaternion Approach to Determine the Arm Motions Using Triaxial Accelerometers With Anatomical and Sensor Constraints. <i>IEEE Transactions on Instrumentation and Measurement</i> , <b>2012</b> , 61, 1793-1802	5.2	21
84	Breast Lesion Classification Using Ultrawideband Early Time Breast Lesion Response. <i>IEEE Transactions on Antennas and Propagation</i> , <b>2010</b> , 58, 2604-2613	4.9	20
83	Time-Reversal Ultrawideband Breast Imaging: Pulse Design Criteria Considering Multiple Tumors With Unknown Tissue Properties. <i>IEEE Transactions on Antennas and Propagation</i> , <b>2008</b> , 56, 3073-3077	4.9	19
82	Identity Verification Through Palm Vein and Crease Texture. <i>Lecture Notes in Computer Science</i> , <b>2005</b> , 546-553	0.9	19
81	A DSP-based single-phase AC power source. <i>IEEE Transactions on Industrial Electronics</i> , <b>1999</b> , 46, 936-94	<b>1</b> 8.9	18
80	Optimization of Sensor Node Locations in a Wireless Sensor Network 2008,		16
79	Observation of the Kinetic Inductance Limitation for the Fundamental Magnetic Resonance in Ultrasmall Gold v-Shape Split Ring Resonators. <i>Advanced Optical Materials</i> , <b>2016</b> , 4, 1047-1052	8.1	16
78	An Enhanced Geometric Filter Algorithm With Channel Diversity for Device-Free Localization. <i>IEEE Transactions on Instrumentation and Measurement</i> , <b>2016</b> , 65, 378-387	5.2	14
77	A DSP-based variable AC power source. <i>IEEE Transactions on Instrumentation and Measurement</i> , <b>1998</b> , 47, 992-996	5.2	14
76	Evaluating generalized predictive control for a brushless DC drive. <i>IEEE Transactions on Power Electronics</i> , <b>1998</b> , 13, 1191-1198	7.2	14
75	Development of an Electrostatic Calibration System for a Torsional Micronewton Thrust Stand. <i>IEEE Transactions on Instrumentation and Measurement</i> , <b>2015</b> , 64, 3467-3475	5.2	13
74	Estimation of spatial-temporal gait parameters using a low-cost ultrasonic motion analysis system. <i>Sensors</i> , <b>2014</b> , 14, 15434-57	3.8	13
73	Lower Extremity Joint Angle Tracking with Wireless Ultrasonic Sensors during a Squat Exercise. <i>Sensors</i> , <b>2015</b> , 15, 9610-27	3.8	12
72	A Time-Delay-Integration CMOS image sensor with pipelined charge transfer architecture <b>2012</b> ,		12

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71	Survey of Global-Positioning-System-Based Attitude Determination Algorithms. <i>Journal of Guidance, Control, and Dynamics</i> , <b>2017</b> , 40, 1321-1335	2.1	11	
7°	A High Dynamic Range CMOS Image Sensor With Dual-Exposure Charge Subtraction Scheme. <i>IEEE Sensors Journal</i> , <b>2015</b> , 15, 661-662	4	11	
69	Single-Switch Quasi-Resonant DCDC Converter for a Pulsed Plasma Thruster of Satellites. <i>IEEE Transactions on Power Electronics</i> , <b>2017</b> , 32, 4503-4513	7.2	11	
68	Wireless Sensor Network for Satellite Applications: A Survey and Case Study. <i>Unmanned Systems</i> , <b>2014</b> , 02, 261-277	3	11	
67	. IEEE Transactions on Aerospace and Electronic Systems, <b>2020</b> , 56, 2978-2989	3.7	11	
66	. IEEE Transactions on Aerospace and Electronic Systems, <b>2019</b> , 55, 17-30	3.7	10	
65	Ultra-Wideband Real-Time Dynamic Channel Characterization and System-Level Modeling for Radio Links in Body Area Networks. <i>IEEE Transactions on Microwave Theory and Techniques</i> , <b>2013</b> , 61, 2995-300	04.1	10	
64	3D depth camera based human posture detection and recognition Using PCNN circuits and learning-based hierarchical classifier <b>2012</b> ,		10	
63	Non-invasive respiration rate estimation using ultra-wideband distributed cognitive radar system. <i>Annual International Conference of the IEEE Engineering in Medicine and Biology Society</i> , <b>2006</b> , 2006, 920-	-3	9	
62	. IEEE Transactions on Aerospace and Electronic Systems, <b>2018</b> , 54, 2537-2546	3.7	8	
61	A star pattern recognition algorithm for satellite attitude determination 2012,		8	
60	A wearable wireless sensor network for human limbs monitoring 2009,		8	
59	Wireless Sensor Networks for Industrial Environments		8	
58	A digital control technique for a single-phase PWM inverter. <i>IEEE Transactions on Industrial Electronics</i> , <b>1998</b> , 45, 672-674	8.9	8	
57	A robust star identification algorithm with star shortlisting. Advances in Space Research, 2018, 61, 2647-	2660	7	
56	. IEEE Transactions on Aerospace and Electronic Systems, <b>2019</b> , 55, 689-705	3.7	7	
55	An Accurate 3D UWB Hyperbolic Localization in Indoor Multipath Environment Using Iterative Taylor-Series Estimation <b>2013</b> ,		7	
54	An Adaptive Integration Time CMOS Image Sensor With Multiple Readout Channels. <i>IEEE Sensors Journal</i> , <b>2013</b> , 13, 4931-4939	4	7	

53	Using wearable UWB radios to measure foot clearance during walking. <i>Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference</i> , <b>2013</b> , 2013, 5199-202	).9	5
52	UWB microwave breast cancer detection: generalized models and performance prediction. <i>Annual International Conference of the IEEE Engineering in Medicine and Biology Society</i> , <b>2006</b> , 2006, 2630-3		5
51	Repetitive Model Predictive Control of a Precision Linear Motor Drive 2007,		5
50	System design and development of VELOX-I nanosatellite 2015,		4
49	Real time runway detection in satellite images using multi-channel PCNN 2014,		4
48	Performance assessment on expanding SBAS service areas of GAGAN and MSAS to Singapore region <b>2014</b> ,		4
47	Distributed Model Predictive Control of satellite attitude using hybrid reaction wheels and magnetic actuators <b>2012</b> ,		4
46	Design of a radiation tolerant CMOS image sensor <b>2011</b> ,		4
45	A Virtual Instrument for the Testing and Performance Evaluation of a Microsatellite Power Supply System. <i>IEEE Transactions on Instrumentation and Measurement</i> , <b>2008</b> , 57, 1808-1815	.2	4
44	Localization in a Sparse Wireless Sensor Network Using Pedometer and Communication Ranging Measurements <b>2007</b> ,		4
43	Digital odd harmonic repetitive control of a single-phase PWM inverter		4
42	Digital Control of a Permanent Magnet Synchronous Motor Drive without Mechanical Sensors.  Electric Power Components and Systems, <b>2001</b> , 29, 459-477		4
41	A distributed transmission rate adjustment algorithm in heterogeneous CSMA/CA networks. <i>Sensors</i> , <b>2015</b> , 15, 7434-53	.8	3
40	Geometry-based algorithms for device-free localization with wireless sensor networks 2014,		3
39	State-of-charge estimation using particle swarm optimization with inverse barrier constraint in a nanosatellite <b>2015</b> ,		3
38	On-chip pulse based parallel neural circuits for object-tracking system. <i>Electronics Letters</i> , <b>2010</b> , 46, 614 1	.1	3
37	Maximum likelihood estimation of ground truth for air quality monitoring using vehicular sensor networks <b>2012</b> ,		3
36	A microprocessor based fully digital AC servo drive. <i>Microprocessors and Microsystems</i> , <b>1997</b> , 20, 429-4362	4	3

VELOX-II: Challenges of developing a 6U nanosatellite 2016, 35 3 2016, 34 A Pre-Processed Orbital Parameters Approach for Improving Cubesat Orbit Propagator and Attitude Determination. Transactions of the Japan Society for Aeronautical and Space Sciences, 2016, 0.8 2 33 59, 278-286 Evaluating the In-Orbit Performance of Power Management System for the VELOX-PII Satellite. Transactions of the Japan Society for Aeronautical and Space Sciences Aerospace Technology Japan, 0.3 **2016**, 14, Pf\_69-Pf\_75 Torsional thrust stand for characterization of microthrusters. IOP Conference Series: Materials 31 0.4 2 Science and Engineering, **2016**, 152, 012019 A new current-type magnetically coupled T-source inverter 2014, 30 2 An adaptive tuning algorithm for IEEE 802.15.4-based network control system 2014, 29 2 Measurement of knee flexion/extension angle using wearable UWB radios. Annual International 28 Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and 0.9 Biology Society Annual International Conference, 2013, 2013, 7213-6 An adaptive integration time CMOS image sensor with multiple readout channels for star trackers 2 27 2013, 26 Development and design challenges in VELOX-I nanosatellite 2015, A wearable wireless ultrasonic sensor network for human arm motion tracking. Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and 25 0.9 2 Biology Society Annual International Conference, 2014, 2014, 5960-3 Design and characterization of radiation-tolerant CMOS 4T Active Pixel Sensors 2014, 24 An overview of radar based ultra wideband breast cancer detection algorithms. International O 23 2 Journal of Ultra Wideband Communications and Systems, 2010, 1, 273 Probability Field Localization Algorithm for Wireless Sensor Network. *Industrial Electronics Society* 22 2 (IECON), Annual Conference of IEEE, 2006, Effect of lesion morphology on microwave signature in ultra-wideband breast imaging: a 21 2 preliminary two-dimensional investigation 2007, Improving classification accuracy in through-wall radar imaging using hybrid prony~s and singular 20 value decomposition method A high accuracy star tracker using running sequential angular match technique 2016, 19 2 Real-time estimation of satellites two-line elements via positioning data 2018, 18 2

17	On-Chip Genetic Algorithm Optimized Pulse Based RBF Neural Network for Unsupervised Clustering Problem. <i>Lecture Notes in Computer Science</i> , <b>2006</b> , 851-860	0.9	2
16	A single-switch high voltage quasi-resonant DC-DC converter for a pulsed plasma thruster <b>2015</b> ,		1
15	Modeling and state of charge estimation of a lithium ion battery using unscented Kalman filter in a nanosatellite <b>2014</b> ,		1
14	An accurate lossless current sensing approach for a DC-DC converter with online calibration <b>2014</b> ,		1
13	Ambulatory measurement of foot kinematics using wearable ultrasonic sensors. <i>Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference</i> , <b>2014</b> , 2014, 6282-5	0.9	1
12	Integrating active and passive received signal strength-based localization 2014,		1
11	A multiplier-less GA optimized pulsed neural network for satellite image analysis using a FPGA <b>2008</b> ,		1
10	Human respiration rate estimation using body-worn ultra-wideband radar 2007,		1
9	Cross-Coupled Contouring Control of a Rotary Based Biaxial Motion System 2006,		1
8	Time domain measurements for UWB on-body radio propagation 2007,		1
7	Optimization of a hard disk drive servo system using multiobjective genetic algorithm 2004,		1
6	Through-wall radar image reconstruction based on time-domain transient signals in the presence of no	ise	1
5	Capacitor Charging by Quasi-Resonant Approach for a Pulsed Plasma Thruster in Nano-Satellite. <i>IEEE Transactions on Plasma Science</i> , <b>2020</b> , 48, 1271-1278	1.3	O
4	Distributed Transmission Probability Control in Fading Channel with State Information.  International Journal of Distributed Sensor Networks, 2015, 11, 184629	1.7	
3	Local Displacement Transducer With Anderson Loop. <i>Geotechnical Testing Journal</i> , <b>2011</b> , 34, 103401	1.3	
2	Frequency Domain Breast Lesion Classification Using Ultra-Wideband Lesion Response <b>2014</b> , 241-256		
1	Gold and silver resonators and their optical properties. <i>International Journal of Nanotechnology</i> , <b>2016</b> , 13, 561	1.5	