

Kwang Suk Park

List of Publications by Year in descending order

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129
papers

3,502
citations

109137

35
h-index

161609

54
g-index

130
all docs

130
docs citations

130
times ranked

3756
citing authors

#	ARTICLE	IF	CITATIONS
1	ECG Recording on a Bed During Sleep Without Direct Skin-Contact. IEEE Transactions on Biomedical Engineering, 2007, 54, 718-725.	2.5	202
2	ECG measurement on a chair without conductive contact. IEEE Transactions on Biomedical Engineering, 2006, 53, 956-959.	2.5	190
3	A Smart Health Monitoring Chair for Nonintrusive Measurement of Biological Signals. IEEE Transactions on Information Technology in Biomedicine, 2012, 16, 150-158.	3.6	161
4	Automatic Classification of Tremor Severity in Parkinson's Disease Using a Wearable Device. Sensors, 2017, 17, 2067.	2.1	109
5	Flexible Capacitive Electrodes for Minimizing Motion Artifacts in Ambulatory Electrocardiograms. Sensors, 2014, 14, 14732-14743.	2.1	91
6	An amplitude-modulated visual stimulation for reducing eye fatigue in SSVEP-based brain-computer interfaces. Clinical Neurophysiology, 2014, 125, 1380-1391.	0.7	84
7	Nonconstrained Sleep Monitoring System and Algorithms Using Air-Mattress With Balancing Tube Method. IEEE Transactions on Information Technology in Biomedicine, 2010, 14, 147-156.	3.6	83
8	Estimation of Thermal Sensation Based on Wrist Skin Temperatures. Sensors, 2016, 16, 420.	2.1	83
9	Non-constrained monitoring of systolic blood pressure on a weighing scale. Physiological Measurement, 2009, 30, 679-693.	1.2	78
10	Real-time apnea-hypopnea event detection during sleep by convolutional neural networks. Computers in Biology and Medicine, 2018, 100, 123-131.	3.9	78
11	Eliciting dual-frequency SSVEP using a hybrid SSVEP-P300 BCI. Journal of Neuroscience Methods, 2016, 258, 104-113.	1.3	74
12	Monitoring physiological signals using nonintrusive sensors installed in daily life equipment. Biomedical Engineering Letters, 2011, 1, 11-20.	2.1	69
13	Nonintrusive Biological Signal Monitoring in a Car to Evaluate a Driver's Stress and Health State. Telemedicine Journal and E-Health, 2009, 15, 182-189.	1.6	68
14	Unconstrained Sleep Apnea Monitoring Using Polyvinylidene Fluoride Film-Based Sensor. IEEE Transactions on Biomedical Engineering, 2014, 61, 2125-2134.	2.5	65
15	Slow-wave sleep estimation on a load-cell-installed bed: a non-constrained method. Physiological Measurement, 2009, 30, 1163-1170.	1.2	63
16	CNT/PDMS-based canal-typed ear electrodes for inconspicuous EEG recording. Journal of Neural Engineering, 2014, 11, 046014.	1.8	63
17	A new approach for non-intrusive monitoring of blood pressure on a toilet seat. Physiological Measurement, 2006, 27, 203-211.	1.2	60
18	The effect of missing RR-interval data on heart rate variability analysis in the frequency domain. Physiological Measurement, 2009, 30, 1039-1050.	1.2	60

#	ARTICLE	IF	CITATIONS
19	A Novel Wearable Forehead EOG Measurement System for Human Computer Interfaces. Sensors, 2017, 17, 1485.	2.1	60
20	Nocturnal Awakening and Sleep Efficiency Estimation Using Unobtrusively Measured Ballistocardiogram. IEEE Transactions on Biomedical Engineering, 2014, 61, 131-138.	2.5	58
21	Tremor frequency characteristics in Parkinson's disease under resting-state and stress-state conditions. Journal of the Neurological Sciences, 2016, 362, 272-277.	0.3	54
22	Smart technologies toward sleep monitoring at home. Biomedical Engineering Letters, 2019, 9, 73-85.	2.1	54
23	An Investigation Into the Use of Geiger-Mode Solid-State Photomultipliers for Simultaneous PET and MRI Acquisition. IEEE Transactions on Nuclear Science, 2008, 55, 882-888.	1.2	52
24	The Application of Biosignal Feedback for Reducing Cybersickness from Exposure to a Virtual Environment. Presence: Teleoperators and Virtual Environments, 2008, 17, 1-16.	0.3	52
25	A Smartphone-Based Automatic Diagnosis System for Facial Nerve Palsy. Sensors, 2015, 15, 26756-26768.	2.1	50
26	Heart Rate Variability Monitoring during Sleep Based on Capacitively Coupled Textile Electrodes on a Bed. Sensors, 2015, 15, 11295-11311.	2.1	50
27	Thin and flexible active electrodes with shield for capacitive electrocardiogram measurement. Medical and Biological Engineering and Computing, 2010, 48, 447-457.	1.6	46
28	Heart rate variability analysis using a ballistocardiogram during Valsalva manoeuvre and post exercise. Physiological Measurement, 2011, 32, 1239-1264.	1.2	43
29	Conductive Polymer Foam Surface Improves the Performance of a Capacitive EEG Electrode. IEEE Transactions on Biomedical Engineering, 2012, 59, 3422-3431.	2.5	43
30	Physiological Signal Monitoring Bed for Infants Based on Load-Cell Sensors. Sensors, 2016, 16, 409.	2.1	43
31	Non-constraining sleep/wake monitoring system using bed actigraphy. Medical and Biological Engineering and Computing, 2007, 45, 107-114.	1.6	41
32	Effect of confounding factors on blood pressure estimation using pulse arrival time. Physiological Measurement, 2008, 29, 615-624.	1.2	39
33	Real-Time Automatic Apneic Event Detection Using Nocturnal Pulse Oximetry. IEEE Transactions on Biomedical Engineering, 2018, 65, 706-712.	2.5	39
34	Second Derivative of Photoplethysmography for Estimating Vascular Aging. , 2007, , .		38
35	Detection of apneic events from single channel nasal airflow using 2nd derivative method. Computer Methods and Programs in Biomedicine, 2008, 91, 199-207.	2.6	38
36	A capacitive, biocompatible and adhesive electrode for long-term and cap-free monitoring of EEG signals. Journal of Neural Engineering, 2013, 10, 036006.	1.8	36

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37	Common Mode Noise Cancellation for Electrically Non-Contact ECG Measurement System on a Chair. , 2005, 2005, 5881-3.		35
38	Intelligent system for drowsiness recognition based on ear canal electroencephalography with photoplethysmography and electrocardiography. Information Sciences, 2018, 453, 302-322.	4.0	34
39	Smart ECG Monitoring Patch with Built-in R-Peak Detection for Long-Term HRV Analysis. Annals of Biomedical Engineering, 2016, 44, 2292-2301.	1.3	32
40	Attention-Based LSTM for Non-Contact Sleep Stage Classification Using IR-UWB Radar. IEEE Journal of Biomedical and Health Informatics, 2021, 25, 3844-3853.	3.9	32
41	Concept Verification of Three-Layer DOI Detectors for Small Animal PET. IEEE Transactions on Nuclear Science, 2008, 55, 912-917.	1.2	31
42	Capacitive Measurement of ECG for Ubiquitous Healthcare. Annals of Biomedical Engineering, 2014, 42, 2218-2227.	1.3	30
43	Slow-Wave Sleep Estimation for Healthy Subjects and OSA Patients Using R-R Intervals. IEEE Journal of Biomedical and Health Informatics, 2018, 22, 119-128.	3.9	30
44	Apnea-Hypopnea Index Prediction Using Electrocardiogram Acquired During the Sleep-Onset Period. IEEE Transactions on Biomedical Engineering, 2017, 64, 295-301.	2.5	29
45	Localization of epileptogenic zones in F-18 FDG brain PET of patients with temporal lobe epilepsy using artificial neural network. IEEE Transactions on Medical Imaging, 2000, 19, 347-355.	5.4	28
46	REM sleep estimation based on autonomic dynamics using R-R intervals. Physiological Measurement, 2017, 38, 631-651.	1.2	28
47	Music and natural sounds in an auditory steady-state response based brain-computer interface to increase user acceptance. Computers in Biology and Medicine, 2017, 84, 45-52.	3.9	26
48	Photoplethysmogram Measurement Without Direct Skin-to-Sensor Contact Using an Adaptive Light Source Intensity Control. IEEE Transactions on Information Technology in Biomedicine, 2009, 13, 1085-1088.	3.6	25
49	REM sleep estimation only using respiratory dynamics. Physiological Measurement, 2009, 30, 1327-1340.	1.2	25
50	A study on the reproducibility of biometric authentication based on electroencephalogram (EEG). , 2013, , .		25
51	The relationship between HRV parameters and stressful driving situation in the real road. , 2007, , .		23
52	Validation of heart rate extraction through an iPhone accelerometer. , 2011, 2011, 5260-3.		22
53	Brain-computer interfaces using capacitive measurement of visual or auditory steady-state responses. Journal of Neural Engineering, 2013, 10, 024001.	1.8	22
54	Enhancing the Usability of Brain-Computer Interface Systems. Computational Intelligence and Neuroscience, 2019, 2019, 1-12.	1.1	22

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55	New predictors of sleep efficiency. <i>Chronobiology International</i> , 2017, 34, 93-104.	0.9	21
56	Segmentation of sperms using the strategic hough transform. <i>Annals of Biomedical Engineering</i> , 1997, 25, 294-302.	1.3	19
57	Reverseâ€curveâ€archâ€shaped dry EEG electrode for increased skinâ€electrode contact area on hairy scalps. <i>Electronics Letters</i> , 2015, 51, 1643-1645.	0.5	19
58	Proposition of novel classification approach and features for improved real-time arrhythmia monitoring. <i>Computers in Biology and Medicine</i> , 2016, 75, 190-202.	3.9	18
59	Heart rate variability changes in major depressive disorder during sleep: Fractal index correlates with BDI score during REM sleep. <i>Psychiatry Research</i> , 2019, 271, 291-298.	1.7	18
60	Long Short-Term Memory Networks for Unconstrained Sleep Stage Classification Using Polyvinylidene Fluoride Film Sensor. <i>IEEE Journal of Biomedical and Health Informatics</i> , 2020, 24, 3606-3615.	3.9	18
61	Hybrid CNN-LSTM Network for Real-Time Apnea-Hypopnea Event Detection Based on IR-UWB Radar. <i>IEEE Access</i> , 2022, 10, 17556-17564.	2.6	18
62	Sleep-Dependent Directional Coupling of Cardiorespiratory System in Patients With Obstructive Sleep Apnea. <i>IEEE Transactions on Biomedical Engineering</i> , 2018, 65, 2847-2854.	2.5	17
63	Polyvinylidene fluoride sensor-based method for unconstrained snoring detection. <i>Physiological Measurement</i> , 2015, 36, 1399-1414.	1.2	16
64	Sleep Period Time Estimation Based on Electrodermal Activity. <i>IEEE Journal of Biomedical and Health Informatics</i> , 2017, 21, 115-122.	3.9	16
65	Unconstrained Sleep Stage Estimation Based on Respiratory Dynamics and Body Movement. <i>Methods of Information in Medicine</i> , 2016, 55, 545-555.	0.7	15
66	Gait analysis for freezing detection in patients with movement disorder using three dimensional acceleration system. , 0, , .		14
67	Reconstruction of 12-lead ECG Using a Single-patch Device. <i>Methods of Information in Medicine</i> , 2017, 56, 319-327.	0.7	14
68	Estimation of Sleep Onset Latency Based on the Blood Pressure Regulatory Reflex Mechanism. <i>IEEE Journal of Biomedical and Health Informatics</i> , 2013, 17, 539-544.	3.9	13
69	Wakefulness evaluation during sleep for healthy subjects and OSA patients using a patch-type device. <i>Computer Methods and Programs in Biomedicine</i> , 2018, 155, 127-138.	2.6	13
70	Comparison of pre-amplifier topologies for use in brain-computer interface with capacitively-coupled EEG electrodes. <i>Biomedical Engineering Letters</i> , 2013, 3, 158-169.	2.1	12
71	Human Heart Rhythms Synchronize While Co-sleeping. <i>Frontiers in Physiology</i> , 2019, 10, 190.	1.3	12
72	Development of remote diagnosis system integrating digital telemetry for medicine. , 0, , .		11

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73	The association between obstructive sleep apnea during REM sleep and autonomic dysfunction as measured by heart rate variability. <i>Sleep and Breathing</i> , 2019, 23, 865-871.	0.9	11
74	REM Sleep Classification with Respiration Rates. , 2007, , .		10
75	Effect of Closed-Loop Vibration Stimulation on Heart Rhythm during Naps. <i>Sensors</i> , 2019, 19, 4136.	2.1	9
76	Multivariate Time-Frequency Analysis of Electrohysterogram for Classification of Term and Preterm Labor. <i>Journal of Electrical Engineering and Technology</i> , 2019, 14, 897-916.	1.2	9
77	ECG, EOG detection from helmet based system. , 2007, , .		8
78	The Effect of Short-term Bed-rest on Radial Pulse in Healthy Subjects. <i>JAMS Journal of Acupuncture and Meridian Studies</i> , 2014, 7, 133-139.	0.3	8
79	Pitch detection with average magnitude difference function using adaptive threshold algorithm for estimating shimmer and jitter. , 0, , .		7
80	Non-negative matrix factorization of dynamic images in nuclear medicine. , 0, , .		7
81	Effectiveness of thigh-to-thigh current path for the measurement of abdominal fat in bioelectrical impedance analysis. <i>Medical and Biological Engineering and Computing</i> , 2009, 47, 1265-1271.	1.6	7
82	Clinicians's Tendencies to Under-Rate Parkinsonian Tremors in the Less Affected Hand. <i>PLoS ONE</i> , 2015, 10, e0131703.	1.1	7
83	Electrocardiogram authentication method robust to dynamic morphological conditions. <i>IET Biometrics</i> , 2019, 8, 401-410.	1.6	7
84	Heart sounds measurement using PVDF film sensor and their comparison with RR intervals of ECG signals. , 2012, , .		6
85	Non-contact blink detection glasses utilising transparent conductive film for binary communication. <i>Electronics Letters</i> , 2015, 51, 382-384.	0.5	6
86	Comparison between Subjective Scoring and Computer-Based Asymmetry Assessment in Facial Nerve Palsy. <i>Journal of Audiology and Otology</i> , 2019, 23, 53-58.	0.2	6
87	Weak closed-loop vibrational stimulation improves the depth of slow-wave sleep and declarative memory consolidation. <i>Sleep</i> , 2021, 44, .	0.6	6
88	A home-based bedside monitoring system of ECG via bluetooth protocol. , 0, , .		5
89	Unobtrusive Photoplethysmographic Monitoring Under the Foot Sole while in a Standing Posture. <i>Sensors</i> , 2018, 18, 3239.	2.1	5
90	Ubiquitous healthcare monitoring. <i>Biomedical Engineering Letters</i> , 2019, 9, 1-2.	2.1	5

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91	Association of heart rate variability with REM sleep without atonia in idiopathic REM sleep behavior disorder. <i>Journal of Clinical Sleep Medicine</i> , 2021, 17, 461-469.	1.4	5
92	Indoor Activity Monitoring System Using an Accelerometer and Zigbee. , 2007, , .		4
93	Changes in physiological network connectivity of body system in narcolepsy during REM sleep. <i>Computers in Biology and Medicine</i> , 2021, 136, 104762.	3.9	4
94	Signal Quality Index Based on Template Cross-Correlation in Multimodal Biosignal Chair for Smart Healthcare. <i>Sensors</i> , 2021, 21, 7564.	2.1	4
95	Unconstrained Heart Rate Estimation System in Bed. , 2007, , .		3
96	Capacitive-Coupled ECG Measurement and Its Applications for Ubiquitous Healthcare. , 2007, , .		3
97	A new approach of unconstrained sleep monitoring and pulse arrival time extraction using PPG pillow and CC-ECG electrode system. , 2009, , .		3
98	Effect of sensor configurations on indirect-contact photoplethysmogram measurement system. , 2010, , .		3
99	Photoplethysmographic signals to predict the success of lumbar sympathetic blockade for lower extremity pain. <i>Journal of International Medical Research</i> , 2014, 42, 938-948.	0.4	3
100	Apnea-hypopnea index prediction through an assessment of autonomic influence on heart rate in wakefulness. <i>Physiology and Behavior</i> , 2017, 169, 9-15.	1.0	3
101	Three-dimensional reconstruction of rat brain from autoradiographic images using image registration by maximization of mutual information. , 0, , .		2
102	Mechanocardiogram Measured at the Back of Subjects Sitting in a Chair as a Non-intrusive Pre-ejection Period Measurement. , 2006, , .		2
103	Comparable parameter related to arterial stiffness in blood pressure estimation method. , 2008, , .		2
104	Investigations of capacitively-coupled EEG electrode for use in brain-computer interface. , 2012, , .		2
105	Measuring skin conductance over clothes. <i>Medical and Biological Engineering and Computing</i> , 2012, 50, 1155-1161.	1.6	2
106	Use of finite element analysis to optimize probe design for double sensor method-based thermometer. <i>Journal of Thermal Biology</i> , 2015, 52, 67-74.	1.1	2
107	Spatiotemporal Pixelization to Increase the Recognition Score of Characters for Retinal Prostheses. <i>Sensors</i> , 2017, 17, 2439.	2.1	2
108	Validation of non-invasive brain temperature estimation models during swine therapeutic hypothermia. <i>Physiological Measurement</i> , 2019, 40, 025004.	1.2	2

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109	A neural network classifier for the automatic interpretation of epileptogenic zones in F-18FDG brain PET. , 0, , .		1
110	Noise reduction of parametric images of myocardial blood flow by filtering $H/\text{sub } 2//\text{sup } 15/O$ dynamic PET images using wavelet transform. , 0, , .		1
111	Nonintrusive measurement of biological signals for ubiquitous healthcare. , 2009, 2009, 6573-5.		1
112	Ballistocardiography. , 2018, , 127-155.		1
113	Automatic Sleep stage Scoring Using Hybrid Neural Network and Rule-based Expert Reasoning. Journal of Korean Society of Medical Informatics, 2000, 6, 79.	0.3	1
114	Determination of metachronal wave direction and wavelength of beating ciliary cells from correlation map using digitized images. , 0, , .		0
115	Inter-channel parameters for the diagnosis of the laryngeal functions. , 0, , .		0
116	Segmentation by evolution for visualization of the lower extremity of the visible man. Journal of Digital Imaging, 2001, 14, 211-213.	1.6	0
117	New method in acoustic analysis for the diagnosis of the laryngeal functions. , 0, , .		0
118	Development of an unconstrained activity monitoring system. , 0, , .		0
119	A Multiparameter Wearable Workload Analysis System for Power Plant Operators. , 2006, , .		0
120	Verification of concepts for DOI determination in a three-layer small animal PET. , 2007, , .		0
121	A comparison of text reading speed using square and rectangular arrays for visual prosthesis. , 2009, , .		0
122	Estimation of sleep onset latency based on the correlation between blood pressure and heart beat interval. , 2012, , .		0
123	A Study on the Non-gaussian Properties of Sleep EEG. Journal of Korean Society of Medical Informatics, 1997, 3, 215.	0.3	0
124	Development of Home Health Monitoring System using Digital Telemetry. Journal of Korean Society of Medical Informatics, 1997, 3, 125.	0.3	0
125	Training Simulator Using Virtual Reality For Postural Balance Rehabilitation. Journal of Korean Society of Medical Informatics, 1998, 4, 123.	0.3	0
126	Independent component analysis for identification and minimization of EOG artifacts in EEG recordings. , 0, , .		0

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127	Noninvasive Versus Invasive Brain Temperature Measurement During Targeted Temperature Management: A Preclinical Study in a Swine Cardiac Arrest Model. Therapeutic Hypothermia and Temperature Management, 2022, , .	0.3	0
128	Unconstrained Heart Rate Estimation System in Bed. , 2007, , .		0
129	Capacitive-Coupled ECG Measurement and Its Applications for Ubiquitous Healthcare. , 2007, , .		0