

Ilkka KJ Korhonen

List of Publications by Year in descending order

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115
papers

4,715
citations

147801

31
h-index

114465

63
g-index

119
all docs

119
docs citations

119
times ranked

5691
citing authors

#	ARTICLE	IF	CITATIONS
1	Frequency of Self-Weighing and Weight Change: Cohort Study With 10,000 Smart Scale Users. Journal of Medical Internet Research, 2021, 23, e25529.	4.3	13
2	Applications of Optical Cardiovascular Monitoring. , 2021, , 487-517.		3
3	Comparison of Heart Rate Monitoring Accuracy between Chest Strap and Vest during Physical Training and Implications on Training Decisions. Sensors, 2021, 21, 8411.	3.8	10
4	Ectopic Beat Detection from Wrist Optical Signals for Sinus Rhythm and Atrial Fibrillation Subjects. IFMBE Proceedings, 2020, , 150-158.	0.3	5
5	Atrial Fibrillation Detection from Wrist Photoplethysmography Data Using Artificial Neural Networks. IFMBE Proceedings, 2019, , 399-404.	0.3	2
6	Health timeline: an insight-based study of a timeline visualization of clinical data. BMC Medical Informatics and Decision Making, 2019, 19, 170.	3.0	15
7	Exploring Associations Between the Self-Reported Values, Well-Being, and Health Behaviors of Finnish Citizens: Cross-Sectional Analysis of More Than 100,000 Web-Survey Responses. JMIR Mental Health, 2019, 6, e12170.	3.3	8
8	Detection of beat-to-beat intervals from wrist photoplethysmography in patients with sinus rhythm and atrial fibrillation after surgery. , 2018, , .		8
9	The Accuracy of Atrial Fibrillation Detection from Wrist Photoplethysmography. A Study on Post-Operative Patients. , 2018, 2018, 1-4.		11
10	An Activity Recognition Framework Deploying the Random Forest Classifier and A Single Optical Heart Rate Monitoring and Triaxial Accelerometer Wrist-Band. Sensors, 2018, 18, 613.	3.8	52
11	Monitoring of heart rate and inter-beat intervals with wrist plethysmography in patients with atrial fibrillation. Physiological Measurement, 2018, 39, 065007.	2.1	44
12	Human Activity Recognition Using A Single Optical Heart Rate Monitoring Wristband Equipped with Triaxial Accelerometer. IFMBE Proceedings, 2018, , 587-590.	0.3	7
13	Evaluation of the accuracy and reliability for photoplethysmography based heart rate and beat-to-beat detection during daily activities. IFMBE Proceedings, 2018, , 145-148.	0.3	30
14	Acute Effect of Alcohol Intake on Cardiovascular Autonomic Regulation During the First Hours of Sleep in a Large Real-World Sample of Finnish Employees: Observational Study. JMIR Mental Health, 2018, 5, e23.	3.3	20
15	Physical Activity. Medicine and Science in Sports and Exercise, 2017, 49, 474-481.	0.4	40
16	Estimating Heart Rate, Energy Expenditure, and Physical Performance With a Wrist Photoplethysmographic Device During Running. JMIR MHealth and UHealth, 2017, 5, e97.	3.7	25
17	Procedures for Evaluating the Adequacy of Anesthesia. Critical Reviews in Biomedical Engineering, 2017, 45, 187-218.	0.9	3
18	Seasonal weight variation patterns in seven countries located in northern and southern hemispheres. , 2016, 2016, 2475-2478.		12

#	ARTICLE	IF	CITATIONS
19	Implementation and user testing of a system for visualizing continuous health data and events. , 2016, , .		2
20	Towards 24/7 continuous heart rate monitoring. , 2016, 2016, 186-189.		6
21	W2E-â€œWellness Warehouse Engine for Semantic Interoperability of Consumer Health Data. IEEE Journal of Biomedical and Health Informatics, 2016, 20, 1632-1639.	6.3	9
22	Wearable Monitoring of Physical Functioning and Disability Changes, Circadian Rhythms and Sleep Patterns in Nursing Home Residents. IEEE Journal of Biomedical and Health Informatics, 2016, 20, 856-864.	6.3	35
23	ASSOCIATION BETWEEN CONTINUOUS WEARABLE ACTIVITY MONITORING AND SELF-REPORTED FUNCTIONING IN ASSISTED LIVING FACILITY AND NURSING HOME RESIDENTS. Journal of Frailty & Aging,the, 2016, 5, 1-8.	1.3	5
24	The use of crowdsourcing for dietary self-monitoring: crowdsourced ratings of food pictures are comparable to ratings by trained observers. Journal of the American Medical Informatics Association: JAMIA, 2015, 22, e112-e119.	4.4	23
25	Evaluation of accuracy and reliability of PulseOn optical heart rate monitoring device. , 2015, 2015, 430-3.		39
26	Outlier detection in weight time series of connected scales. , 2015, , .		13
27	Evaluation of the beat-to-beat detection accuracy of PulseOn wearable optical heart rate monitor. , 2015, 2015, 8099-102.		71
28	Exploratory analysis of associations between individual lifestyles and heart rate variability -based recovery during sleep. , 2015, 2015, 2339-42.		8
29	Time-series modeling of long-term weight self-monitoring data. , 2015, 2015, 1616-20.		4
30	Behavioral Informatics and Computational Modeling in Support of Proactive Health Management and Care. IEEE Transactions on Biomedical Engineering, 2015, 62, 2763-2775.	4.2	40
31	Building new computational models to support health behavior change and maintenance: new opportunities in behavioral research. Translational Behavioral Medicine, 2015, 5, 335-346.	2.4	185
32	Are Breaks in Daily Self-Weighing Associated with Weight Gain?. PLoS ONE, 2014, 9, e113164.	2.5	37
33	Evaluation of wearable consumer heart rate monitors based on photoplethysmography. , 2014, 2014, 3670-3.		94
34	Objectively measured physical activity in Finnish employees: a cross-sectional study. BMJ Open, 2014, 4, e005927.	1.9	23
35	Weight Rhythms: Weight Increases during Weekends and Decreases during Weekdays. Obesity Facts, 2014, 7, 36-47.	3.4	51
36	W2E — Wellness Warehouse Engine for semantic interoperability of consumer health data. , 2014, , .		3

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37	Health coaching in Finland — A market study. , 2014, , .		0
38	Habit change as a learning process: Design framework for mobile interventions. , 2014, , .		2
39	Comparative assessment of sleep quality estimates using home monitoring technology. , 2014, 2014, 4979-82.		16
40	Application of Optical Heart Rate Monitoring. , 2014, , 105-129.		28
41	Factors Related to Sustained Use of a Free Mobile App for Dietary Self-Monitoring With Photography and Peer Feedback: Retrospective Cohort Study. Journal of Medical Internet Research, 2014, 16, e109.	4.3	117
42	Learning healthy habits with a mobile self-intervention. , 2014, , .		4
43	Moving the Science of Behavioral Change into the 21st Century: Part 2. IEEE Pulse, 2013, 4, 32-33.	0.3	9
44	Personal Health Technologies in Employee Health Promotion: Usage Activity, Usefulness, and Health-Related Outcomes in a 1-Year Randomized Controlled Trial. JMIR MHealth and UHealth, 2013, 1, e16.	3.7	75
45	Feasibility of a Personal Health Technology-Based Psychological Intervention for Men with Stress and Mood Problems: Randomized Controlled Pilot Trial. JMIR Research Protocols, 2013, 2, e1.	1.0	60
46	Estimating Older Peopleâ€™s Physical Functioning with Automated Health Monitoring Technologies at Home: Feature Correlations and Multivariate Analysis. Lecture Notes in Computer Science, 2012, , 94-104.	1.3	1
47	Connections of Daytime Napping and Vigilance Measures to Activity Behaviour and Physical Functioning. , 2011, , .		1
48	Empowering Citizens for Well-being and Chronic Disease Management With Wellness Diary. IEEE Transactions on Information Technology in Biomedicine, 2010, 14, 456-463.	3.2	75
49	Use of a mobile phone diary for observing weight management and related behaviours. Journal of Telemedicine and Telecare, 2010, 16, 260-264.	2.7	47
50	Personal health systems - Opportunities and barriers for adoption. , 2010, 2010, 5272.		0
51	Facilitation of Goal-Setting and Follow-Up in an Internet Intervention for Health and Wellness. Lecture Notes in Computer Science, 2010, , 238-249.	1.3	5
52	Auditory Event-Related Potentials, Bispectral Index, and Entropy for the Discrimination of Different Levels of Sedation in Intensive Care Unit Patients. Anesthesia and Analgesia, 2009, 109, 807-816.	2.2	32
53	Compliance and technical feasibility of long-term health monitoring with wearable and ambient technologies. Journal of Telemedicine and Telecare, 2009, 15, 302-309.	2.7	55
54	Relationship of Psychological and Physiological Variables in Long-Term Self-Monitored Data During Work Ability Rehabilitation Program. IEEE Transactions on Information Technology in Biomedicine, 2009, 13, 141-151.	3.2	29

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55	Photoplethysmography and nociception. Acta Anaesthesiologica Scandinavica, 2009, 53, 975-985.	1.6	88
56	Intra- and inter-individual variation of BIS-index [®] and Entropy [®] during controlled sedation with midazolam/remifentanil and dexmedetomidine/remifentanil in healthy volunteers: an interventional study. Critical Care, 2009, 13, R20.	5.8	27
57	A concept to empower self-management of psychophysiological wellbeing: Preliminary user study experiences. , 2009, 2009, 312-5.		2
58	Personal health promotion through personalized health technologies — Nuadu experience. , 2009, 2009, 316-9.		10
59	Service and business model for technology enabled and home-based cardiac rehabilitation programs. , 2009, 2009, 303-7.		5
60	Short-term relaxation responses to a voice-guided mobile phone relaxation application and self-guided relaxation. , 2009, , .		3
61	A home-based care model for outpatient cardiac rehabilitation based on mobile technologies. , 2009, , .		22
62	P4Well concept to empower self-management of psychophysiological wellbeing and load recovery. , 2009, , .		8
63	Detection of Daily Activities and Sports With Wearable Sensors in Controlled and Uncontrolled Conditions. IEEE Transactions on Information Technology in Biomedicine, 2008, 12, 20-26.	3.2	593
64	Mobile Diary for Wellness Managementâ€™Results on Usage and Usability in Two User Studies. IEEE Transactions on Information Technology in Biomedicine, 2008, 12, 501-512.	3.2	121
65	Physiological state characterization by clustering heart rate, heart rate variability and movement activity information. , 2008, 2008, 1749-52.		1
66	A concept for personal wellness management based on activity monitoring. , 2008, , .		3
67	Entropy and bispectral index for assessment of sedation, analgesia and the effects of unpleasant stimuli in critically ill patients: an observational study. Critical Care, 2008, 12, R119.	5.8	34
68	Nuadu Concept for personal management of lifestyle related health risks. , 2008, 2008, 5846-50.		5
69	A Concept for Personal Wellness Management Based on Activity Monitoring. , 2008, , .		2
70	Heart rate variability does not discriminate between different levels of haemodynamic responsiveness during surgical anaesthesia â€™. British Journal of Anaesthesia, 2007, 98, 728-736.	3.4	41
71	A Concept for ICT Assisted Health Promotion in the Occupational Healthcare. Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2007, 2007, 1786-9.	0.5	9
72	Personal health systems - need, market place and challenges to their wide scale adoption. Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2007, 2007, 6153-4.	0.5	2

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73	Evaluation of Technology-Based Service Scenarios for Supporting Independent Living. Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2007, 2007, 4041-4.	0.5	7
74	Long-Term Subjective and Objective Sleep Analysis of Total Sleep Time and Sleep Quality in Real Life Settings. Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2007, 2007, 5202-5.	0.5	13
75	Assessment of surgical stress during general anaesthesia. British Journal of Anaesthesia, 2007, 98, 447-455.	3.4	241
76	Tetanic stimulus of ulnar nerve as a predictor of heart rate response to skin incision in propofol+remifentanyl anaesthesia. British Journal of Anaesthesia, 2007, 99, 509-513.	3.4	35
77	UbiComp 2006 Workshops, Part 2. IEEE Pervasive Computing, 2007, 6, 109-112.	1.3	0
78	Application of Near Field Communication for Health Monitoring in Daily Life. , 2006, 2006, 3246-9.		61
79	Diurnal and weekly rhythms of health-related variables in home recordings for two months. Physiology and Behavior, 2006, 87, 650-658.	2.1	27
80	The Effects of Dexmedetomidine/Remifentanyl and Midazolam/Remifentanyl on Auditory-Evoked Potentials and Electroencephalogram at Light-to-Moderate Sedation Levels in Healthy Subjects. Anesthesia and Analgesia, 2006, 103, 1163-1169.	2.2	25
81	Bridging the physical and virtual worlds by local connectivity-based physical selection. Personal and Ubiquitous Computing, 2006, 10, 333-344.	2.8	53
82	Activity Classification Using Realistic Data From Wearable Sensors. IEEE Transactions on Information Technology in Biomedicine, 2006, 10, 119-128.	3.2	597
83	Stimulation induced variability of pulse plethysmography does not discriminate responsiveness to intubation. British Journal of Anaesthesia, 2006, 96, 323-329.	3.4	23
84	Novel multiparameter approach for measurement of nociception at skin incision during general anaesthesia. British Journal of Anaesthesia, 2006, 96, 367-376.	3.4	81
85	Application of Near Field Communication for Health Monitoring in Daily Life. Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2006, , .	0.5	4
86	Mobile and personal health and wellness management systems. , 2006, , 105-134.		7
87	EEG spectral entropy, heart rate, photoplethysmography and motor responses to skin incision during sevoflurane anaesthesia. Acta Anaesthesiologica Scandinavica, 2005, 49, 284-292.	1.6	102
88	Circadian activity rhythm in demented and non-demented nursing home residents measured by telemetric actigraphy. Journal of Sleep Research, 2005, 14, 61-68.	3.2	72
89	Recovery of N100 component of auditory event-related potentials and EEG after cardiac arrest during propofol sedation. British Journal of Anaesthesia, 2005, 94, 626-629.	3.4	4
90	Long-Term Self-Monitoring of Weight: A Case Study. Cognitive Behaviour Therapy, 2005, 34, 108-114.	3.5	9

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91	Guest Editorial Introduction to the Special Section on Pervasive Healthcare. IEEE Transactions on Information Technology in Biomedicine, 2004, 8, 229-234.	3.2	70
92	The effect of interruption to propofol sedation on auditory event-related potentials and electroencephalogram in intensive care patients. Critical Care, 2004, 8, R483.	5.8	16
93	Measuring Depth of Sedation with Auditory Evoked Potentials During Controlled Infusion of Propofol and Remifentanyl in Healthy Volunteers. Anesthesia and Analgesia, 2004, 99, 1728-1736.	2.2	21
94	N100 Auditory Potential and Electroencephalogram Discriminate Propofol-Induced Sedation Levels. Journal of Clinical Monitoring and Computing, 2003, 18, 163-170.	1.6	4
95	Health monitoring in the home of the future. IEEE Engineering in Medicine and Biology Magazine, 2003, 22, 66-73.	0.8	384
96	Automatic sleep-wake and nap analysis with a new wrist worn online activity monitoring device vivago WristCare. Sleep, 2003, 26, 86-90.	1.1	38
97	Assessment of postoperative sedation level with spectral EEG parameters. Clinical Neurophysiology, 2002, 113, 1633-1639.	1.5	10
98	Estimation of frequency shift in cardiovascular variability signals. Medical and Biological Engineering and Computing, 2001, 39, 465-470.	2.8	3
99	TERVA: System for Long-Term Monitoring of Wellness at Home. Telemedicine Journal and E-Health, 2001, 7, 61-72.	2.8	13
100	Technical description of the IBIS Data Library. Computer Methods and Programs in Biomedicine, 2000, 63, 175-186.	4.7	11
101	Detection of artifacts in monitored trends in intensive care. Computer Methods and Programs in Biomedicine, 2000, 63, 203-209.	4.7	29
102	Quantification of haemodynamic response to auditory stimulus in intensive care. Computer Methods and Programs in Biomedicine, 2000, 63, 211-218.	4.7	3
103	Single sweep analysis of event related auditory potentials for the monitoring of sedation in cardiac surgery patients. Computer Methods and Programs in Biomedicine, 2000, 63, 219-227.	4.7	17
104	Warming of insufflation gas during laparoscopic hysterectomy: effect on body temperature and the autonomic nervous system. Acta Anaesthesiologica Scandinavica, 1999, 43, 974-978.	1.6	26
105	Wide-band spectral analysis of blood pressure and RR interval variability in borderline and mild hypertension. Clinical Physiology, 1999, 19, 490-496.	0.7	3
106	Circadian profile of low-frequency oscillations in blood pressure and heart rate in hypertension. American Journal of Hypertension, 1999, 12, 874-881.	2.0	20
107	Frequency Shift in Baroregulatory Oscillation in Borderline Hypertensive Subjects. American Journal of Hypertension, 1997, 10, 500-504.	2.0	10
108	Postural sway and stepping response among working population: reproducibility, long-term stability, and associations with symptoms of the low back. Clinical Biomechanics, 1997, 12, 429-437.	1.2	56

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109	Multivariate autoregressive model with immediate transfer paths for assessment of interactions between cardiopulmonary variability signals. <i>Medical and Biological Engineering and Computing</i> , 1996, 34, 199-206.	2.8	9
110	Linear multivariate models for physiological signal analysis: theory. <i>Computer Methods and Programs in Biomedicine</i> , 1996, 51, 85-94.	4.7	14
111	Linear multivariate models for physiological signal analysis: applications. <i>Computer Methods and Programs in Biomedicine</i> , 1996, 51, 121-130.	4.7	12
112	Multivariate autoregressive modelling combined with transephalic electrical impedance: method to relate neonatal systemic circulation and respiration to cerebral circulation. <i>Medical and Biological Engineering and Computing</i> , 1995, 33, 458-463.	2.8	7
113	Characterization of thin films and their structures in surface plasmon resonance measurements. <i>Optical Engineering</i> , 1995, 34, 2581.	1.0	23
114	Short-term variability of blood pressure and heart rate in borderline and mildly hypertensive subjects.. <i>Hypertension</i> , 1994, 23, 18-24.	2.7	57
115	IEEE EMBS Technical Committee on Wearable Biomedical Sensors & Systems: Position Paper. , 0, , .		8