

# Guy A. Dumont

## List of Publications by Citations

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322  
papers

5,425  
citations

38  
h-index

61  
g-index

356  
ext. papers

6,540  
ext. citations

3.4  
avg, IF

5.88  
L-index

#	Paper	IF	Citations
322	Wavelet-based motion artifact removal for functional near-infrared spectroscopy. <i>Physiological Measurement</i> , <b>2012</b> , 33, 259-70	2.9	275
321	Multiparameter respiratory rate estimation from the photoplethysmogram. <i>IEEE Transactions on Biomedical Engineering</i> , <b>2013</b> , 60, 1946-53	5	226
320	. <i>IEEE Journal on Selected Areas in Communications</i> , <b>2002</b> , 20, 997-1015	14.2	204
319	Automated real-time epileptic seizure detection in scalp EEG recordings using an algorithm based on wavelet packet transform. <i>IEEE Transactions on Biomedical Engineering</i> , <b>2010</b> , 57, 1639-51	5	137
318	Quantifying cortical activity during general anesthesia using wavelet analysis. <i>IEEE Transactions on Biomedical Engineering</i> , <b>2006</b> , 53, 617-32	5	123
317	Deterministic adaptive control based on Laguerre series representation. <i>International Journal of Control</i> , <b>1988</b> , 48, 2333-2359	1.5	123
316	. <i>IEEE Transactions on Automatic Control</i> , <b>1993</b> , 38, 934-938	5.9	109
315	Circadian variation of heart rate variability across sleep stages. <i>Sleep</i> , <b>2013</b> , 36, 1919-28	1.1	101
314	Predicting epileptic seizures in scalp EEG based on a variational Bayesian Gaussian mixture model of zero-crossing intervals. <i>IEEE Transactions on Biomedical Engineering</i> , <b>2013</b> , 60, 1401-13	5	98
313	Development of a screening tool for sleep disordered breathing in children using the phone Oximeter. <i>PLoS ONE</i> , <b>2014</b> , 9, e112959	3.7	77
312	Lagrangian methods for approximating the viability kernel in high-dimensional systems. <i>Automatica</i> , <b>2013</b> , 49, 2017-2029	5.7	73
311	Photoplethysmogram signal quality estimation using repeated Gaussian filters and cross-correlation. <i>Physiological Measurement</i> , <b>2012</b> , 33, 1617-29	2.9	71
310	A circadian rhythm in heart rate variability contributes to the increased cardiac sympathovagal response to awakening in the morning. <i>Chronobiology International</i> , <b>2012</b> , 29, 757-68	3.6	70
309	Estimating respiratory and heart rates from the correntropy spectral density of the photoplethysmogram. <i>PLoS ONE</i> , <b>2014</b> , 9, e86427	3.7	69
308	On PID controller tuning using orthonormal series identification. <i>Automatica</i> , <b>1988</b> , 24, 165-175	5.7	68
307	Circadian adaptation to night shift work influences sleep, performance, mood and the autonomic modulation of the heart. <i>PLoS ONE</i> , <b>2013</b> , 8, e70813	3.7	68
306	Design and Clinical Evaluation of Robust PID Control of Propofol Anesthesia in Children. <i>IEEE Transactions on Control Systems Technology</i> , <b>2014</b> , 22, 491-501	4.8	66

305	Individualized closed-loop control of propofol anesthesia: A preliminary study. <i>Biomedical Signal Processing and Control</i> , <b>2013</b> , 8, 500-508	4.9	63
304	Robust closed-loop control of induction and maintenance of propofol anesthesia in children. <i>Paediatric Anaesthesia</i> , <b>2013</b> , 23, 712-9	1.8	61
303	Closed-loop control of anesthesia: a primer for anesthesiologists. <i>Anesthesia and Analgesia</i> , <b>2013</b> , 117, 1130-8	3.9	60
302	Non-linear adaptive control via laguerre expansion of volterra kernels. <i>International Journal of Adaptive Control and Signal Processing</i> , <b>1993</b> , 7, 367-382	2.8	58
301	Introduction to Automated Drug Delivery in Clinical Anesthesia. <i>European Journal of Control</i> , <b>2005</b> , 11, 535-557	2.5	57
300	Development of mHealth applications for pre-eclampsia triage. <i>IEEE Journal of Biomedical and Health Informatics</i> , <b>2014</b> , 18, 1857-64	7.2	55
299	. <i>IEEE Transactions on Control Systems Technology</i> , <b>2003</b> , 11, 612-628	4.8	55
298	Constrained robust predictive controller for uncertain processes modeled by orthonormal series functions. <i>Automatica</i> , <b>2000</b> , 36, 563-571	5.7	52
297	Usability and Feasibility of PIERS on the Move: An mHealth App for Pre-Eclampsia Triage. <i>JMIR MHealth and UHealth</i> , <b>2015</b> , 3, e37	5.5	51
296	Laguerre-based adaptive control of pH in an industrial bleach plant extraction stage. <i>Automatica</i> , <b>1990</b> , 26, 781-787	5.7	50
295	An evaluation of a vibro-tactile display prototype for physiological monitoring. <i>Anesthesia and Analgesia</i> , <b>2005</b> , 101, 1719-1724	3.9	48
294	Design and evaluation of a low-cost smartphone pulse oximeter. <i>Sensors</i> , <b>2013</b> , 13, 16882-93	3.8	46
293	Cross-directional control on paper machines using gram polynomials. <i>Automatica</i> , <b>1996</b> , 32, 533-548	5.7	46
292	Improving the accuracy and efficiency of respiratory rate measurements in children using mobile devices. <i>PLoS ONE</i> , <b>2014</b> , 9, e99266	3.7	45
291	Adaptive pulse segmentation and artifact detection in photoplethysmography for mobile applications. <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>2012</b> , 2012, 3131-4	0.9	45
290	Assessment of a Mobile Game ("MobileKids Monster Manor") to Promote Physical Activity Among Children. <i>Games for Health Journal</i> , <b>2015</b> , 4, 149-58	4.2	43
289	Dynamic behavior of BIS, M-entropy and neuroSENSE brain function monitors. <i>Journal of Clinical Monitoring and Computing</i> , <b>2011</b> , 25, 81-7	2	43
288	Energy optimization in a pulp and paper mill cogeneration facility. <i>Applied Energy</i> , <b>2010</b> , 87, 3514-3525	10.7	40

287	Application of advanced control methods in the pulp and paper industry [A survey]. <i>Automatica</i> , <b>1986</b> , 22, 143-153	5-7	39
286	Adaptive change detection in heart rate trend monitoring in anesthetized children. <i>IEEE Transactions on Biomedical Engineering</i> , <b>2006</b> , 53, 2211-9	5	38
285	Comparison of an auto-tuned PID regulator and an adaptive predictive control system on an industrial bleach plant. <i>Automatica</i> , <b>1989</b> , 25, 33-40	5-7	38
284	Precordial vibrations provide noninvasive detection of early-stage hemorrhage. <i>Shock</i> , <b>2014</b> , 41, 91-6	3-4	37
283	Suspension yield stress and the dynamic response of agitated pulp chests. <i>Chemical Engineering Science</i> , <b>2005</b> , 60, 2399-2408	4-4	37
282	Robust closed-loop control of hypnosis with propofol using WAVCNS index as the controlled variable. <i>Biomedical Signal Processing and Control</i> , <b>2012</b> , 7, 517-524	4-9	35
281	Two-dimensional loop shaping. <i>Automatica</i> , <b>2003</b> , 39, 779-792	5-7	35
280	Quantification of the variability in response to propofol administration in children. <i>IEEE Transactions on Biomedical Engineering</i> , <b>2013</b> , 60, 2521-9	5	34
279	Usability testing of a prototype Phone Oximeter with healthcare providers in high- and low-medical resource environments. <i>Anaesthesia</i> , <b>2012</b> , 67, 957-67	6.6	33
278	Cavern formation in pulp suspensions using side-entering axial-flow impellers. <i>Chemical Engineering Science</i> , <b>2009</b> , 64, 509-519	4-4	33
277	A novel vibrotactile display to improve the performance of anesthesiologists in a simulated critical incident. <i>Anesthesia and Analgesia</i> , <b>2008</b> , 106, 1182-8, table of contents	3-9	33
276	. <i>IEEE Transactions on Automatic Control</i> , <b>1989</b> , 34, 560-563	5-9	33
275	Cascade control of hydraulically actuated manipulators. <i>Robotica</i> , <b>1990</b> , 8, 207-216	2-1	32
274	Self-tuning control of a chip refiner motor load. <i>Automatica</i> , <b>1982</b> , 18, 307-314	5-7	32
273	A direct dynamic dose-response model of propofol for individualized anesthesia care. <i>IEEE Transactions on Biomedical Engineering</i> , <b>2012</b> , 59, 571-8	5	31
272	Pulse rate variability compared with Heart Rate Variability in children with and without sleep disordered breathing. <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, 6563-6	0-9	29
271	Computing the viability kernel using maximal reachable sets <b>2012</b> ,		29
270	Time delay integrating systems: a challenge for process control industries. A practical solution. <i>Control Engineering Practice</i> , <b>2002</b> , 10, 1153-1161	3-9	29

269	Adaptive predictive control of systems with time-varying time delay. <i>International Journal of Adaptive Control and Signal Processing</i> , <b>1993</b> , 7, 91-101	2.8	29
268	Self-tuning control of a titanium dioxide kiln. <i>IEEE Transactions on Automatic Control</i> , <b>1978</b> , 23, 532-538	5.9	29
267	Design and Evaluation of a Closed-Loop Anesthesia System With Robust Control and Safety System. <i>Anesthesia and Analgesia</i> , <b>2018</b> , 127, 883-894	3.9	29
266	Analyzing the resting state functional connectivity in the human language system using near infrared spectroscopy. <i>Frontiers in Human Neuroscience</i> , <b>2013</b> , 7, 921	3.3	28
265	Closed-loop fluid resuscitation: robustness against weight and cardiac contractility variations. <i>Anesthesia and Analgesia</i> , <b>2013</b> , 117, 1110-8	3.9	28
264	Estimation of respiratory rate from photoplethysmographic imaging videos compared to pulse oximetry. <i>IEEE Journal of Biomedical and Health Informatics</i> , <b>2015</b> , 19, 1331-8	7.2	27
263	Design challenges for camera oximetry on a mobile phone. <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>2012</b> , 2012, 2448-51	0.9	27
262	An advanced LMI-based-LQR design for voltage control of grid-connected wind farm. <i>Electric Power Systems Research</i> , <b>2008</b> , 78, 539-546	3.5	27
261	. <i>Control Systems Magazine</i> , <b>1988</b> , 8, 38-43		27
260	Extracting Instantaneous Respiratory Rate From Multiple Photoplethysmogram Respiratory-Induced Variations. <i>Frontiers in Physiology</i> , <b>2018</b> , 9, 948	4.6	27
259	The effect of a target controlled infusion of propofol on predictability of recovery from anesthesia in children. <i>Paediatric Anaesthesia</i> , <b>2010</b> , 20, 56-62	1.8	25
258	Assessing the incremental value of blood oxygen saturation (SpO <sub>2</sub> ) in the miniPIERS (Pre-eclampsia Integrated Estimate of RiSk) Risk Prediction Model. <i>Journal of Obstetrics and Gynaecology Canada</i> , <b>2015</b> , 37, 16-24	1.3	24
257	Correlation of heart rate variability and circadian markers in humans. <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>2011</b> , 2011, 681-2	0.9	24
256	Dual adaptive control of chip refiner motor load. <i>Automatica</i> , <b>1995</b> , 31, 1169-1184	5.7	24
255	Slower administration of propofol preserves adequate respiration in children. <i>Paediatric Anaesthesia</i> , <b>2010</b> , 20, 1001-8	1.8	22
254	A wavelet approach to detecting electrocautery noise in the ECG. <i>IEEE Engineering in Medicine and Biology Magazine</i> , <b>2006</b> , 25, 76-82		22
253	Predictive optimal control for thermo-mechanical pulping processes with multi-stage low consistency refining. <i>Journal of Process Control</i> , <b>2013</b> , 23, 1001-1011	3.9	21
252	Myocardial contractility: a seismocardiography approach. <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>2012</b> , 2012, 3801-4	0.9	21

251	Closed-Loop Control of Anesthesia - A Review. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , <b>2012</b> , 45, 373-378		21
250	Steady-State Study of a Titanium Dioxide Rotary Kiln. <i>Industrial &amp; Engineering Chemistry Process Design and Development</i> , <b>1978</b> , 17, 107-114		21
249	Multi-model robust control of depth of hypnosis. <i>Biomedical Signal Processing and Control</i> , <b>2018</b> , 40, 443-453		20
248	Control and optimization strategies for thermo-mechanical pulping processes: Nonlinear model predictive control. <i>Journal of Process Control</i> , <b>2011</b> , 21, 519-528	3.9	19
247	An evaluation of a novel software tool for detecting changes in physiological monitoring. <i>Anesthesia and Analgesia</i> , <b>2009</b> , 108, 873-80	3.9	19
246	. <i>IEEE Transactions on Control Systems Technology</i> , <b>2018</b> , 26, 1758-1770	4.8	19
245	Scalable Safety-Preserving Robust Control Synthesis for Continuous-Time Linear Systems. <i>IEEE Transactions on Automatic Control</i> , <b>2015</b> , 60, 3065-3070	5.9	18
244	Patient and health care professional perspectives on using telehealth to deliver pulmonary rehabilitation. <i>Chronic Respiratory Disease</i> , <b>2018</b> , 15, 71-80	3	18
243	Seasonal Model Based Control of Processes with Recycle Dynamics. <i>Industrial &amp; Engineering Chemistry Research</i> , <b>2001</b> , 40, 1633-1640	3.9	18
242	The Community-Level Interventions for Pre-eclampsia (CLIP) cluster randomised trials in Mozambique, Pakistan, and India: an individual participant-level meta-analysis. <i>Lancet, The</i> , <b>2020</b> , 396, 553-563	4.0	17
241	Evaluation of cardiac modulation in children in response to apnea/hypopnea using the Phone Oximeter. <i>Physiological Measurement</i> , <b>2016</b> , 37, 187-202	2.9	16
240	Pulse oximetry recorded from the Phone Oximeter for detection of obstructive sleep apnea events with and without oxygen desaturation in children. <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>2017</b> , 2017, 7400-5	0.9	16
239	Changes in cardiac index and blood pressure on positioning children prone for scoliosis surgery. <i>Anaesthesia</i> , <b>2013</b> , 68, 742-6	6.6	16
238	Model-based human circadian phase estimation using a particle filter. <i>IEEE Transactions on Biomedical Engineering</i> , <b>2011</b> , 58, 1325-36	5	16
237	An entropy-based approach to predict seizures in temporal lobe epilepsy using scalp EEG. <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>2009</b> , 2009, 228-31	0.9	16
236	Measuring Flow Velocity in Pulp Suspension Mixing Using Ultrasonic Doppler Velocimetry. <i>Chemical Engineering Research and Design</i> , <b>2007</b> , 85, 591-597	5.5	16
235	Two-dimensional frequency analysis for unconstrained model predictive control of cross-directional processes. <i>Automatica</i> , <b>2004</b> , 40, 1891-1903	5.7	16
234	Respiratory rate and pulse oximetry derived information as predictors of hospital admission in young children in Bangladesh: a prospective observational study. <i>BMJ Open</i> , <b>2016</b> , 6, e011094	3	16

233	Evaluation of a Novel Mobile Exergame in a School-Based Environment. <i>Cyberpsychology, Behavior, and Social Networking</i> , <b>2016</b> , 19, 186-92	4.4	15
232	Oxygen saturation in children with and without obstructive sleep apnea using the phone-oximeter. <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, 2531-4	0.9	15
231	Closed-loop anesthetic drug concentration estimation using clinical-effect feedback. <i>IEEE Transactions on Biomedical Engineering</i> , <b>2011</b> , 58, 3-6	5	15
230	Variation in blood pressure as a guide to volume loading in children following cardiopulmonary bypass. <i>Journal of Clinical Monitoring and Computing</i> , <b>2007</b> , 21, 1-6	2	15
229	The Effect of Operating Conditions and Design Parameters on the Dynamic Behaviour of Agitated Pulp Stock Chests. <i>Canadian Journal of Chemical Engineering</i> , <b>2008</b> , 82, 154-161	2.3	15
228	. <i>IEEE Transactions on Control Systems Technology</i> , <b>1993</b> , 1, 101-113	4.8	15
227	Noninvasive Optical Monitoring of Bladder Filling to Capacity Using a Wireless Near Infrared Spectroscopy Device. <i>IEEE Transactions on Biomedical Circuits and Systems</i> , <b>2014</b> , 8, 325-33	5.1	14
226	. <i>IEEE Transactions on Systems, Man and Cybernetics, Part A: Systems and Humans</i> , <b>2012</b> , 42, 685-706		14
225	An evaluation of an expert system for detecting critical events during anesthesia in a human patient simulator: a prospective randomized controlled study. <i>Anesthesia and Analgesia</i> , <b>2013</b> , 117, 380-391	3.9	14
224	The continual reachability set and its computation using maximal reachability techniques <b>2011</b> ,		14
223	Detection of epileptic seizures in scalp electroencephalogram: an automated real-time wavelet-based approach. <i>Journal of Clinical Neurophysiology</i> , <b>2012</b> , 29, 1-16	2.2	14
222	Robust control of depth of anesthesia. <i>International Journal of Adaptive Control and Signal Processing</i> , <b>2008</b> , 23, n/a-n/a	2.8	14
221	Identification of channelling and recirculation parameters of agitated pulp stock chests. <i>Journal of Process Control</i> , <b>2005</b> , 15, 31-38	3.9	14
220	Adaptive-predictive control of kamyrdigester chip level. <i>AIChE Journal</i> , <b>1990</b> , 36, 1075-1086	3.6	14
219	A vibro-tactile display for clinical monitoring: real-time evaluation. <i>Anesthesia and Analgesia</i> , <b>2012</b> , 115, 588-94	3.9	14
218	A roadmap for the implementation of mHealth innovations for image-based diagnostic support in clinical and public-health settings: a focus on front-line health workers and health-system organizations. <i>Global Health Action</i> , <b>2017</b> , 10, 1340254	3	13
217	Monitoring nociception during general anesthesia with cardiorespiratory coherence. <i>Journal of Clinical Monitoring and Computing</i> , <b>2013</b> , 27, 551-60	2	13
216	Improving maternal and perinatal outcomes in the hypertensive disorders of pregnancy: a vision of a community-focused approach. <i>International Journal of Gynecology and Obstetrics</i> , <b>2012</b> , 119 Suppl 1, S30-4	4	13

215	Sensor fusion using a hybrid median filter for artifact removal in intraoperative heart rate monitoring. <i>Journal of Clinical Monitoring and Computing</i> , <b>2009</b> , 23, 75-83	2	13
214	Sugammadex administration results in arousal from intravenous anaesthesia: a clinical and electroencephalographic observation. <i>British Journal of Anaesthesia</i> , <b>2011</b> , 106, 914-6	5.4	13
213	. <i>IEEE Transactions on Control Systems Technology</i> , <b>2003</b> , 11, 289-309	4.8	13
212	. <i>IEEE Transactions on Control Systems Technology</i> , <b>1993</b> , 1, 230-237	4.8	13
211	Pediatric pulse oximetry-based OSA screening at different thresholds of the apnea-hypopnea index with an expression of uncertainty for inconclusive classifications. <i>Sleep Medicine</i> , <b>2019</b> , 60, 45-52	4.6	13
210	Identifying individual sleep apnea/hypoapnea epochs using smartphone-based pulse oximetry. <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>2016</b> , 2016, 3195-3198	0.9	12
209	Development and Internal Validation of a Predictive Model Including Pulse Oximetry for Hospitalization of Under-Five Children in Bangladesh. <i>PLoS ONE</i> , <b>2015</b> , 10, e0143213	3.7	12
208	Experience report <b>2013</b> ,		12
207	Scalp EEG acquisition in a low-noise environment: a quantitative assessment. <i>IEEE Transactions on Biomedical Engineering</i> , <b>2011</b> , 58,	5	12
206	Clinical evaluation of algorithms for context-sensitive physiological monitoring in children. <i>British Journal of Anaesthesia</i> , <b>2009</b> , 102, 686-91	5.4	12
205	Development and evaluation of multidimensional tactons for a wearable tactile display <b>2007</b> ,		12
204	Multi-input adaptive-predictive control of kamyr digester chip level. <i>Canadian Journal of Chemical Engineering</i> , <b>1991</b> , 69, 111-119	2.3	12
203	Optimizing Robust PID Control of Propofol Anesthesia for Children: Design and Clinical Evaluation. <i>IEEE Transactions on Biomedical Engineering</i> , <b>2019</b> , 66, 2918-2923	5	11
202	A Procedural Electroencephalogram Simulator for Evaluation of Anesthesia Monitors. <i>Anesthesia and Analgesia</i> , <b>2016</b> , 123, 1136-1140	3.9	11
201	The effect of off-wall clearance of a side-entering impeller on the mixing of pulp suspensions in a cylindrical stock chest. <i>Canadian Journal of Chemical Engineering</i> , <b>2011</b> , 89, 985-995	2.3	11
200	Adaptive control of delayed integrating systems: a PVC batch reactor. <i>IEEE Transactions on Control Systems Technology</i> , <b>2003</b> , 11, 390-398	4.8	11
199	Control of titanium dioxide kilns. <i>IEEE Transactions on Automatic Control</i> , <b>1978</b> , 23, 521-531	5.9	11
198	Optical Assessment of Spinal Cord Tissue Oxygenation Using a Miniaturized Near Infrared Spectroscopy Sensor. <i>Journal of Neurotrauma</i> , <b>2019</b> , 36, 3034-3043	5.4	10



197	An Explicit Reference Governor Scheme for Closed-Loop Anesthesia <b>2019</b> ,		10
196	Predicting temporal lobe epileptic seizures based on zero-crossing interval analysis in scalp EEG. <i>Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference, 2010</i> , 2010, 5537-40	0.9	10
195	Respiratory rate estimation using respiratory sinus arrhythmia from photoplethysmography. <i>Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference, 2011</i> , 2011, 1201-4	0.9	10
194	Individualized PID control of depth of anesthesia based on patient model identification during the induction phase of anesthesia <b>2011</b> ,		10
193	Wavelet transform cardiorespiratory coherence detects patient movement during general anesthesia. <i>Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference, 2011</i> , 2011, 6114-7	0.9	10
192	PATIENT VARIABILITY AND UNCERTAINTY QUANTIFICATION IN ANESTHESIA: PART I [PKPD MODELING AND IDENTIFICATION. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2006</i> , 39, 549-554		10
191	Adaptive GPC based on laguerre-filters modelling. <i>Automatica, 1994</i> , 30, 1913-1920	5.7	10
190	Self-tuning control of chip level in a Kamyr digester. <i>AICHE Journal, 1986</i> , 32, 65-74	3.6	10
189	A semi-adaptive control approach to closed-loop medication infusion. <i>International Journal of Adaptive Control and Signal Processing, 2017</i> , 31, 240-254	2.8	9
188	Medical mobile technologies - what is needed for a sustainable and scalable implementation on a global scale?. <i>Global Health Action, 2017</i> , 10, 1344046	3	9
187	Feedback control for clinicians. <i>Journal of Clinical Monitoring and Computing, 2014</i> , 28, 5-11	2	9
186	Two-stage vs mixed-effect approach to pharmacodynamic modeling of propofol in children using state entropy. <i>Paediatric Anaesthesia, 2011</i> , 21, 691-8	1.8	9
185	Improved neuromuscular blockade using a novel neuromuscular blockade advisory system: a randomized, controlled, clinical trial. <i>Anesthesia and Analgesia, 2008</i> , 107, 1609-17	3.9	9
184	An adaptive Cusum test based on a hidden semi-Markov model for change detection in non-invasive mean blood pressure trend. <i>Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2006</i> , 2006, 3395-8		9
183	A controller perturbation technique for transferring closed-loop stability between systems. <i>Automatica, 2003</i> , 39, 1783-1791	5.7	9
182	A synthesis method for automatic handling of inter-patient variability in closed-loop anesthesia <b>2016</b> ,		9
181	Extended habituating model predictive control of propofol and remifentanyl anesthesia. <i>Biomedical Signal Processing and Control, 2020</i> , 55, 101656	4.9	9
180	Impact of model plant mismatch on performance of control systems: An application to paper machine control. <i>Control Engineering Practice, 2015</i> , 43, 59-68	3.9	8

179	Moving beyond silos: How do we provide distributed personalized medicine to pregnant women everywhere at scale? Insights from PRE-EMPT. <i>International Journal of Gynecology and Obstetrics</i> , <b>2015</b> , 131 Suppl 1, S10-5	4	8
178	Closed-Loop Anesthesia in Children using a PID controller: A Pilot Study. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , <b>2012</b> , 45, 317-322		8
177	Wavelet based motion artifact removal for Functional Near Infrared Spectroscopy. <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>2010</b> , 2010, 5-8	0.9	8
176	Stability and convergence analyses of an adaptive GPC based on state-space modeling. <i>International Journal of Control</i> , <b>1995</b> , 61, 193-210	1.5	8
175	Non-invasive monitoring of spreading depression. <i>Neuroscience</i> , <b>2016</b> , 333, 1-12	3.9	8
174	How Uncertain Is Our Reference Standard for Respiratory Rate Measurement?. <i>American Journal of Respiratory and Critical Care Medicine</i> , <b>2019</b> , 199, 1036-1037	10.2	7
173	Feasibility of continuous sedation monitoring in critically ill intensive care unit patients using the NeuroSENSE WAV index. <i>Journal of Clinical Monitoring and Computing</i> , <b>2018</b> , 32, 1081-1091	2	7
172	A Multi-Week Assessment of a Mobile Exergame Intervention in an Elementary School. <i>Games for Health Journal</i> , <b>2018</b> , 7, 1-8	4.2	7
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169	A Formally-Verified Safety System for Closed-Loop Anesthesia. <i>IFAC-PapersOnLine</i> , <b>2017</b> , 50, 4424-4429	0.7	7
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165	Motion artifact removal from muscle NIR Spectroscopy measurements <b>2010</b> ,		7
164	Robust multiple model adaptive control using fuzzy fusion <b>2010</b> ,		7
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153	IEEE Transactions on control systems technology special issue on control of industrial spatially distributed processes. <i>IEEE Transactions on Control Systems Technology</i> , <b>2003</b> , 11, 609-611	4.8	6
152	Clinical anesthesia and control engineering: Terminology, concepts and issues <b>2003</b> ,		6
151	Estimation of residence time and channeling in agitated pulp chests. <i>Nordic Pulp and Paper Research Journal</i> , <b>2009</b> , 24, 66-71	1.1	6
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146	Modeling the User as an Observer to Determine Display Information Requirements <b>2013</b> ,		5
145	Simulated mid-ranging control of propofol and remifentanil using EEG-measured hypnotic depth of anesthesia <b>2012</b> ,		5
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133	Delay-incorporating observability and predictability analysis of safety-critical continuous-time systems. <i>IET Control Theory and Applications</i> , <b>2015</b> , 9, 1692-1699	2.5	4
132	Model-invariant safety-preserving control <b>2016</b> ,		4
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117	Closed-Loop Control of Total Intravenous Anesthesia During Significant Intraoperative Blood Loss: A Case Report. <i>A &amp; A Case Reports</i> , <b>2017</b> , 9, 239-243		3
116	Correntropy-Based Pulse Rate Variability Analysis in Children with Sleep Disordered Breathing. <i>Entropy</i> , <b>2017</b> , 19, 282	2.8	3
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111	Sensitivity of controller performance indices to model-plant mismatch: An application to paper machine control <b>2014</b> ,		3
110	Using machine-to-machine / Internet of Things communication to simplify medical device information exchange <b>2014</b> ,		3
109	Pharmacodynamic modeling of propofol-induced tidal volume depression in children. <i>Journal of Clinical Monitoring and Computing</i> , <b>2011</b> , 25, 275-84	2	3
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101	Automatic tuning of robust constrained cross-direction controllers. <i>International Journal of Adaptive Control and Signal Processing</i> , <b>2016</b> , 30, 1550-1567	2.8	3
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33	Identification of symmetric noncausal processes. <i>Automatica</i> , <b>2019</b> , 103, 515-530	5.7	0
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