

A sampling multichannel bioimpedance analyzer for tissue monitoring

Min, Mart; Land, Raul; Märtens, Olev; Parve, Toomas; Ronk, Ants Proc. of the 26. Annual International Conference of the IEEE EMBS : September 1-5, 2004, San Francisco, California, USA 2004 / p. 902-905

A virtual system for simultaneous multi-frequency measurement of electrical bioimpedance

Gordon, Rauno; Land, Raul; Min, Mart; Parve, Toomas; Salo, R.W. International journal of bioelectromagnetism 2005 / 2, Special issue : 2005 conference proceedings : Proceedings of the 5th International Conference on Bioelectromagnetism and 5th Conference on Noninvasive Functional Source Imaging BEMAMPNFSI 2005 : May 12-15, 2005, Minneapolis, Minnesota, USA, p. 243-246

Active electrodes for measuring the electrical bioimpedance

Metshein, Margus Info- ja kommunikatsioonitehnoloogia doktorikooli IKTDK seitsmenda aastakonverentsi artiklite kogumik : 15.-16. novembril 2013, Haapsalu 2013 / p. 57-60 : ill

An adaptive filtering system for separation of cardiac and respiratory components of bioimpedance signal

Krivošei, Andrei; Min, Mart; Parve, Toomas; Ronk, Ants 2006 IEEE International Workshop on Medical Measurement and Applications : Benevento, Italy, April 20-21, 2006 2006 / p. 10-15 <https://ieeexplore.ieee.org/document/1644448>

An adaptively tunable model of the cardiac signal for the bio-impedance signal decomposer (BISD)

Krivošei, Andrei; Kukk, Vello; Min, Mart MeMeA 2008 : IEEE International Workshop on Medical Measurements and Applications : 9-10 May 2008, Ottawa, Ontario, Canada 2008 / p. 49-52

Advantages and limitations of an approach to bioimpedance data acquisition and processing relying on fast low bit rate ADCs

Bilinskis, Ivars; Sudars, K.; Min, Mart; Annus, Paul BEC 2010 : 2010 12th Biennial Baltic Electronics Conference : proceedings of the 12th Biennial Baltic Electronics Conference : Tallinn University of Technology, October 4-6, 2010, Tallinn, Estonia 2010 / p. 245-248 : ill

Alternatives of measurement of electrical bioimpedance of the body with the aim to determine the cardiac and respiratory activity

Metshein, Margus BEC 2014 : 2014 14th Biennial Baltic Electronics Conference : proceedings of the 14th Biennial Baltic Electronics Conference : Tallinn University of Technology, October 6-8, 2014, Tallinn, Estonia 2014 / p. 197-200 : ill

An ASIC for multifrequency bioimpedance analysis

Min, Mart; Holmström, Nils; Järverud, Karin; Land, Raul; Märtens, Olev; Parve, Toomas Proceedings of the XI International Conference on Electrical Bio-impedance : June 17-21, 2001, Oslo, Norway 2001 / p. 251-254 : ill

An attempt to separating cardiac and respiratory components from EBI dataset through conventional filtering method

Mughal, Yar M. Info- ja kommunikatsioonitehnoloogia doktorikooli IKTDK seitsmenda aastakonverentsi artiklite kogumik : 15.-16. novembril 2013, Haapsalu 2013 / p. 61-64 : ill

An electrical bioimpedance analyzer for implantable medical devices

Min, Mart; Parve, Toomas Proceedings of the 22nd IEEE Instrumentation and Measurement Technologies Conference of the IEEE IMT IMTC 2005 : Ottawa, Ontario, Canada, 17-19 May, 2005. Vol. III 2005 / p. 1823-1828

An implantable analyzer of bioimpedance dynamics : mixed signal approach

Min, Mart; Parve, Toomas; Kukk, Vello; Kuhlberg, Aivo IEEE transactions on instrumentation and measurement 2002 / 4, p. 674-678

An implantable analyzer of bio-impedance dynamics : mixed signal approach

Min, Mart; Parve, Toomas; Kukk, Vello; Kuhlberg, Aivo IMTC/2001 : proceedings of the 18th IEEE Instrumentation and Measurement Technology Conference : Rediscovering Measurement in the Age of Informatics : Budapest, Hungary, 21-23 May, 2001. Volume 1 2001 / p. 38-43 : ill

An instrument for electrical bio-impedance based cardiac and respiratory monitoring

Eek, Andres; Härm, Härmo; Min, Mart; Parve, Toomas 10th Nordic-Baltic Conference on Biomedical Engineering. Satellite Symposium on Bioelectromagnetic and Biomechanic Measurements, June 13-15, 1996, Tallinn, Estonia 2011 / p. 29-30: ill

An instrument for measurement of vector parameters of electrical bio-impedance

Min, Mart; Parve, Toomas; Eek, Andres; Märtin, Hannes Proceedings of the IX International Conference on Electrical Bio-Impedance in conjunction with the European Community Concerted Action on Impedance Tomography : September 26-30, 1995, Heidelberg/Germany 1995 / p. 40-43

Analog front end components for bio-impedance measurement : current source design and implementation =

Bioimpedantsi mõõteseadme analoogosa komponendid : vooluallika disain ja realiseerimine

Kasemaa, Argo 2011 <https://digi.lib.ttu.ee/i/?590>

Analysis of instantaneous cardiac EBI signal variability over the heart cycle(s) : non-linear time-scale approach

Krivošei, Andrei; Min, Mart; Annus, Paul; Kõiv, Hip; Aabloo, Alvo; Uuetoa, Tiina EMBEC & NBC 2017 : joint conference of the European Medical and Biological Engineering Conference (EMBEC) and the Nordic-Baltic Conference on Biomedical Engineering and Medical Physics (NBC), Tampere, Finland, June 2017 2018 / p. 940-943 : ill https://doi.org/10.1007/978-981-10-5122-7_235

Application of artificial neural networks to model the interaction between T-cells and B-cells and their equivalent impedance of the linearized model

Giannoukos, Georgios; Min, Mart Journal of computational methods in sciences and engineering 2015 / p. 295-302
<http://dx.doi.org/10.3233/JCM-150544>

Applications of multi-resolution analysis for bioimpedance signal processing

Birjukov, Andrei Info- ja kommunikatsioonitehnoloogia doktorikooli IKTDK kolmanda aastakonverentsi artiklite kogumik : 25.-26. aprill 2008, Voore külalistemaja 2008 / p. 115-118 : ill

ASIC for bioimpedance measurement

Kuhlberg, Aivo Ringhääling '99 : VI Rahvusvahelise Telekommunikatsioonipäeva konverentsi ettekannete materjalid 1999 / lk. 84-89: ill

Assessing tissue hydration dynamics based on water/fat separated MRI

Karlsson, Markus; Indurain, Ainhoa; Romu, Tobias; Tunon, Patrik; Segelmark, Marten; **Uhlen, Nils Fredrik Arne;** Fernström, Anders; Dahlqvist Leinhard, Olof Journal of magnetic resonance imaging 2023 / p. 652-660 <https://doi.org/10.1002/jmri.28581>

Assessment of breathing parameters during running with a wearable bioimpedance device

Seppä, Ville-Pekka; Väisänen, Juho; Lahtinen, O.; Hyttinen, J. 4th European Conference of the International Federation for Medical and Biological Engineering : 23-27 November, 2008, Antwerp, Belgium. 9 2009 / p. 1088-1091

Automatic detection of real and imaginary parts of electrical impedance with single synchronous demodulation channel

Annus, Paul; Priidel, Eiko; Land, Raul; Metshein, Margus; Krivošei, Andrei; Min, Mart; Ratassepp, Madis; Märten, Olev 8th European Medical and Biological Engineering Conference : Proceedings of the EMBEC 2020, November 29 - December 3, 2020 Portorož, Slovenia 2021 / p. 151-157 https://doi.org/10.1007/978-3-030-64610-3_18 [Conference Proceedings at Scopus](#) [Article at Scopus](#)

Availability and variations of cardiac activity in the case of measuring the bioimpedance of wrist

Metshein, Margus; Annus, Paul; Land, Raul; Min, Mart; Aabloo, Alvo 2018 IEEE International Instrumentation and Measurement Technology Conference (I2MTC 2018) : proceedings 2018 / 5 p. : ill <https://doi.org/10.1109/I2MTC.2018.8409684>

Bioimpedance analysis of cardiac function using in-vivo experiments, measurements and stimulation

Gordon, Rauno; Haapalainen, A.; Kauppinen, P.; **Land, Raul** Proceedings of the 13th Nordic-Baltic Conference of BioMedical Engineering NBC'05 : June 13-17, 2005, Umea, Sweden 2005 / p. 309-310

Bioimpedance and spectroscopy

2021 <https://doi.org/10.1016/C2018-0-04440-0>

Bioimpedance based analysis of tissue oedema

Kink, Andres; **Min, Mart; Parve, Toomas; Rätsep, Indrek** Proceedings of the XII International Conference on Electrical Bioimpedance & the V Conference on Electrical Impedance Tomography : ICEB/EIT 2004 : June 20-24, 2004, Gdansk, Poland. Vol. 1 2004 / p. 29-32

Bioimpedance based control of rate limit in artificial cardiac pacing

Min, Mart; Kink, Andres; **Parve, Toomas; Rätsep, Indrek** Proceedings of the IASTED International Conference on Biomedical Engineering BioMED 2005 : February 16-18, 2005, Innsbruck, Austria 2005 / p. 679-703

Bioimpedance based fuzzy control of cardiac pacing

Min, Mart; Parve, Toomas Catalog of the exhibition "Information Society Technologies" (IST'98), 30 Nov. - 2 Dec. 1998, Vienna, Austria 1998 / [1] p

Bio-impedance FDM-modelling inside heart for application in implanted devices

Gordon, Rauno; Kuusik, Alar Proceedings of the 31st International Congress of Electrocardiology "Advances in Electrocardiology 2004" : 27 June - 1 July, 2004, Singapore 2005 / p. 778-782

Bioimpedance monitoring of tissue transplants

Min, Mart; Annus, Paul; Land, Raul; Paavle, Toivo; Haldre, Eero; Ruus, Rein Proceedings of the 24th IEEE Instrumentation and Measurement Technology Conference IMTC 2007 : Warsaw, Poland, May 1-3, 2007 2007 / [4] p

Bioimpedance monitoring with improved accuracy using three-level stimulus

Paavle, Toivo; Annus, Paul; Kuusik, Alar; Land, Raul; Min, Mart Proceedings of European Conference on Circuit Theory and Design 2007 (ECCTD'07) : Seville, Spain, August 26-30, 2007 / p. 412-415

Bioimpedance sensing - a viable alternative for tonometry in non-invasive assessment of central aortic pressure
Min, Mart; Annus, Paul; Kõiv, Hip; Krivošei, Andrei; Uettoa, Tiina; Lamp, Jürgen 2017 IEEE International Symposium on Medical Measurements and Applications (MeMeA) : May 7-10, 2017, Rochester, MN, USA : proceedings papers 2017 / p. 373-378 : ill
<https://doi.org/10.1109/MeMeA.2017.7985905>

Bioimpedance sensors : instrumentation, models, and applications
Naranjo-Hernández, David; Reina-Tosina, Javier; Buendía, Rubén; **Min, Mart** Journal of Sensors 2019 / art. 5078209
<https://doi.org/10.1155/2019/5078209> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Bio-impedance signal decomposer : enhanced accuracy and reduced latency solution
Krivošei, Andrei Estonian journal of engineering 2011 / 3, p. 201-219 : ill

Bio-impedance signal decomposer (BISD) as an adaptive signal model based separator of cardiac and respiratory components
Krivošei, Andrei; Kukk, Vello; Birjukov, Andrei 13th International Conference on Electrical Bioimpedance and 8th Conference on Electrical Impedance Tomography 2007 : ICEBIT2007 : August 29th - September 2nd 2007, Graz, Austria 2007 / p. 209-212
https://link.springer.com/chapter/10.1007/978-3-540-73841-1_56

Bio-Impedance Signal Decomposer (BISD) as an adaptive signal model based separator of cardiac and respiratory components
Krivošei, Andrei; Kukk, Vello; Birjukov, Andrei Info- ja kommunikatsioonitehnoloogia doktorikooli IKTDK kolmanda aastakonverentsi artiklite kogumik : 25.-26. aprill 2008, Voore külalistemaja 2008 / p. 29-32 : ill

A bio-impedance signal simulator (BISS) for research and training purposes
Muhammad, Yar; Le Moullec, Yannick; Annus, Paul; Krivošei, Andrei 2015 26th Irish Signals and Systems Conference (ISSC) : Institute of Technology Carlow, Ireland, June 24-25, 2015 / [4] p. : ill <https://doi.org/10.1109/ISSC.2015.7163746>

A bio-impedance signal synthesiser (BISS) for testing of an adaptive filtering system
Krivošei, Andrei BEC 2006 : 2006 International Baltic Electronics Conference : Tallinn University of Technology, October 2-4, 2006, Tallinn, Estonia : proceedings of the 10th Biennial Baltic Electronics Conference 2006 / p. 225-228 : ill

Bioimpedance spectro-tomography system using binary multifrequency excitation [Online resource]
Min, Mart; Lehti-Polojärvi, M.; Hyttinen, Jari; Rist, Marek; Land, Raul; Annus, Paul International journal of bioelectromagnetism Proceedings of the 11th International Conference on Bioelectromagnetism : 23-25 May 2018, Aachen, Germany 2018 / p. 76-79 : ill
<http://www.ijbem.org/> <https://publications.rwth-aachen.de/record/723893/files/723893.pdf>

Bioimpedantsi mõõtmisel põhinev südamerütmuri juhtimine : [valdkondliku arutelu ettekanne]
Min, Mart Tallinna Tehnikaülikooli kaheksakümnes aastapäev 2000 / lk. 80-82 : ill

Biopsy needle including bioimpedance probe with optimized sensitivity distribution
Mäki, Sanna; Kari, Juho; Ahonen, Petri; Elomaa, Timo; **Annus, Paul; Kronström, Kai** The 10th International Conference on Bioelectromagnetism : proceedings 2015 / [4] p. : ill

Biopsy needle including bioimpedance probe with optimized sensitivity distribution
Halonen, Sanna; Kari, Juho; Ahonen, Petri; Elomaa, Timo; **Annus, Paul; Kronström, Kai** International journal of bioelectromagnetism 2015 / p. 26-30 : ill

Comparative measurement of cardiac cycle by means of different sensors
Priidel, Eiko; Land, Raul; Sinivee, Veljo; Annus, Paul; Min, Mart 2017 Electronics : proceedings of the 21st International Conference : June 19th-21st, 2017, Palanga, Lithuania 2017 / [5] p. : ill <https://doi.org/10.1109/ELECTRONICS.2017.7995221>

Comparison of excitation signals and methods for a wideband bioimpedance measurement
Ojarand, Jaan; Rist, Marek; Min, Mart I2MTC 2016 : 2016 IEEE International Instrumentation and Measurement Technology Conference : May 23-26, 2016, Taipei International Convention Center, Taipei, Taiwan : proceedings 2016 / p. 1291-1296 : ill
<https://doi.org/10.1109/I2MTC.2016.7520555>

Comparison of spectrally sparse excitation signals for fast bioimpedance spectroscopy : in the context of cytometry
Ojarand, Jaan; Land, Raul; Min, Mart MeMeA 2012 IEEE International Symposium on Medical Measurements and Applications : proceedings : May 18-19, 2012, Budapest, Hungary 2012 / 5 p. : ill <https://ieeexplore.ieee.org/document/6226631>

Comparison of the carbon nanofiber-/fiber- and silicone-based electrodes for bioimpedance measurements
Kõiv, Hip; Pesti, Ksenija; Min, Mart; Land, Raul; Must, Indrek IEEE transactions on instrumentation and measurement 2020 / p. 1455-1463 <https://doi.org/10.1109/TIM.2019.2962297> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at](#)

Computer aided method for measurement of reflection and impedance characteristics of RF devices

Asovič, P.L.; Zhukov, S.A.; Ivanyuhin V.I. Automation, simulation & measurement : ASM'91 : 3rd biennial conference, Tallinn, October 7-11, 1991. Section A. Section M / Tallinn Technical University 1992 / p. 122-127: ill

Computer modelling of intracardiac electrical bioimpedance

Gordon, Rauno; Kuusik, Alar Proceedings of the 31. International Congress on Electrocardiology : June 27-July 1, 2004, Kyoto, Japan 2004 / [4] p

Computer-simulation of impedance vector dynamics of intra-cardiac 4-electrode bio-impedance measurement

Gordon, Rauno; Rätsep, Indrek; Kink, Andres BEC 2008 : 2008 International Biennial Baltic Electronics Conference : proceedings of the 11th Biennial Baltic Electronics Conference : Tallinn University of Technology : October 6-8, 2008, Tallinn, Estonia 2008 / p. 257-260 : ill

Controllable limiter of signal amplitudes for bioimpedance measurements

Ojarand, Jaan; Min, Mart EMBEC & NBC 2017 : joint conference of the European Medical and Biological Engineering Conference (EMBEC) and the Nordic-Baltic Conference on Biomedical Engineering and Medical Physics (NBC), Tampere, Finland, June 2017 2018 / p. 920-923 : ill https://doi.org/10.1007/978-981-10-5122-7_230

Correlation between electrical bioimpedance and pressure waveform in radial artery and in mechanical pulsating pipe system

Metshein, Margus; Annus, Paul; Land, Raul; Rist, Marek; Min, Mart; Märten, Olev 2020 IEEE International Instrumentation and Measurement Technology Conference (I2MTC 2020), May 25-29, 2020, Dubrovnik, Croatia : proceedings 2020 <https://doi.org/10.1109/I2MTC43012.2020.9128972>

Crest factor optimization of the multisine waveform for bioimpedance spectroscopy

Ojarand, Jaan; Min, Mart; Annus, Paul Physiological measurement 2014 / p. 1019-1033 : ill

Current mode signal processing in lock-in instruments for bioimpedance measurement

Min, Mart; Parve, Toomas Proceedings of the 1st International Conference on Bioelectromagnetism (ICBEM'96, Tampere, Finland, June 9-13, 1996) 1996 / p. 167-168

Current source considerations for broadband bioimpedance spectroscopy

Annus, Paul; Min, Mart; Rist, Marek; Ojarand, Jaan; Land, Raul Lecture notes on impedance spectroscopy : measurement, modeling and applications. Vol. 2 2012 / p. 63-73

Decomposing of cardiac and respiratory signals from electrical bio-impedance data using filtering method

Mughal, Yar M. The International Conference on Health Informatics : ICHI 2013, Vilamoura, Portugal on 7-9 November, 2013 2014 / p. 252-255 : ill

Decomposition method of an electrical bio-impedance signal into cardiac and respiratory components

Krivošei, Andrei; Kuk, Vello; Min, Mart Physiological measurement 2008 / 6, p. S15-S25 : ill <https://pubmed.ncbi.nlm.nih.gov/18544800/>

Decomposition of the EBI signal into components using two channel cross-compensating singular spectrum analysis

Krivošei, Andrei; Min, Mart; Annus, Paul; Butsenko, Maksim 2018 IEEE International Symposium on Medical Measurements and Applications (MeMeA 2018) : proceedings : Rome, Italy, June 11-13, 2018 2018 / 5 p. : ill

Decomposition of the electrical bio-impedance signal : a signal model based method for separation of the cardiac and respiratory components

Krivošei, Andrei 2010 <https://www.amazon.com/Decomposition-electrical-bio-impedance-signal-respiratory/dp/3838372220>

Derivation of Bioimpedance Model Data Utilizing a Compact Analyzer and Two Capacitive Electrodes : A Forearm Example

Ojarand, Jaan; Priidel, Eiko; Min, Mart IEEE Transactions on Biomedical Circuits and Systems 2022 / p. 891-901 <https://doi.org/10.1109/TBCAS.2022.3206666> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Design concepts of lock-in signal converters for measurement of dynamic electrical bioimpedance

Parve, Toomas; Holmström, Nils; Land, Raul; Min, Mart; Noren, Kjell Proceedings of the 2nd European Medical & Biological Engineering Conference : EMBEC'02, December 4-8, 2002, Vienna, Austria. 2 2002 / p. 1456-1457

Design of a digitally controlled resistance and capacitance device for testing of the bio-impedance measurement systems

Birjukov, Andrei Info- ja kommunikatsioonitehnoloogia doktorikooli IKTDK teise aastakonverentsi artiklite kogumik : 11.-12. mai 2007, Viinistu kunstimuuseum 2007 / lk. 149-152 : ill

Design of bioimpedance measurement system using direct carrier compensation

Annus, Paul; Lamp, Jürgen; **Min, Mart; Paavle, Toivo** Proceedings of the European Conference on Circuit Theory and Design : ECCTD'05 : Cork, Ireland, Aug. 29 - Sept. 02, 2005. Vol. III 2005 / p. 23-26 <https://ieeexplore.ieee.org/document/1523051>

Detection of changes in tissue state with the aid of electromagnetic interaction = Koe seisundi muutuste detekteerimine elektromagnetilise vastastikmõju abil

Priidel, Eiko 2022 <https://doi.org/10.23658/taltech.51/2022> <https://digikogu.taltech.ee/et/Item/c0a10f6b-6b53-45d9-a031-7e5c409946d2>
https://www.ester.ee/record=b5511742*est

Developing e-learning functionalities on electrical bioimpedance for the biomedical electronics course

Gordon, Rauno; Min, Mart; Parve, Toomas BEC 2012 : 2012 13th Biennial Baltic Electronics Conference : proceedings of the 13th Biennial Baltic Electronics Conference : October 3-5, 2012, Tallinn, Estonia 2012 / p. 327-330 : ill

Development and analysis of carbon-based dry-contact electrodes for bioimpedance measurements = Süsinikmaterjalil põhinevate kuivkontakt-elektroodide arendus ja analüüs bioimpedantsi mõõtmiseks

Kõiv, Hip 2023 <https://doi.org/10.23658/taltech.1/2023> <https://digikogu.taltech.ee/et/Item/f2775738-652e-4b4e-ba34-7a61fab78867>
https://www.ester.ee/record=b5528441*est

Development of a bio-impedance signal simulator on the basis of the regression based model of the cardiac and respiratory impedance signals

Muhammad, Yar; Le Moulec, Yannick; Annus, Paul; Min, Mart 16th Nordic-Baltic Conference on Biomedical Engineering : 16. NBC & 10. MTD 2014 Joint Conferences, October 14-16, 2014, Gothenburg, Sweden 2015 / p. 92-95 : ill

Device and method for monitoring bioimpedance of tissue transplants

Annus, Paul; Haldre, Eero; Kuusik, Alar; Land, Raul; Min, Mart; Paavle, Toivo; Parve, Toomas Info- ja kommunikatsioonitehnoloogia doktorikooli IKTDK teise aastakonverentsi artiklite kogumik : 11.-12. mai 2007, Viinistu kunstimuuseum 2007 / lk. 140-143 : ill

A device for measuring the electrical bioimpedance with variety of electrode placements for monitoring the breathing and heart rate

Metshein, Margus 2015 26th Irish Signals and Systems Conference (ISSC) : Institute of Technology Carlow, Ireland, June 24-25, 2015 2015 / [4] p. : ill <http://dx.doi.org/10.1109/ISSC.2015.7163748>

Difference sampling in bio-impedance measurement

Annus, Paul; Rist, Marek; Reidla, Marko; Min, Mart Book of abstracts : 16th International Conference on Electrical Bio-Impedance : 17th Conference on Electrical Impedance Tomography : ICEBI and EIT Stockholm, 19-23 June 2016 2016 / p. 67

A digital multichannel bioimpedance analyser : signal processing task and its solution

Annus, Paul; Kuusik, Alar; Land, Raul; Märten, Olev; Ronk, Ants Proc. of the IEEE Instrumentation and Measurement Technology Conference : IMTC 2006 : Sorrento, Italy, April 24-27, 2006 2006 / p. 1405-1409 <https://doi.org/10.1109/IMTC.2006.328596>

Digital post-processing of the bio-impedance signal

Märten, Olev; Martin, Hannes; Min, Mart; Parve, Toomas; Ronk, Ants Proceedings of X International Conference on Electrical Bio-Impedance : ICEBI'98 : 5-9 April 1998, Barcelona 1998 / p. 445-448

Digitally controlled reference impedance device for test and calibration of the bio-impedance measurement system (BIMS) in a networked environment

Birjukov, Andrei; Krivošei, Andrei; Parve, Toomas 13th International Conference on Electrical Bioimpedance and 8th Conference on Electrical Impedance Tomography 2007 : ICEBI2007 : August 29th - September 2nd 2007, Graz, Austria 2007 / p. 276-279
https://link.springer.com/chapter/10.1007/978-3-540-73841-1_73

DSP-based device for multi-frequency bio-impedance measurement

Märten, Olev Medical & biological engineering & computing 1999 / Suppl. 1, Proceedings of the 11th Nordic-Baltic Conference on Biomedical Engineering : NBCBME'99 : June 6-10, 1999, Tallinn, Estonia, p. 165-170

A DSP-based EBI, ECG and PPG measurement platform

Abdullayev, Anar; Rist, Marek; Märten, Olev; Metshein, Margus; Larras, Benoit; Frappe, Antoine; Gautier, Antoine; Min, Mart; John, Deepu; Cardiff, Barry; Krivosei, Andrei; Annus, Paul IEEE transactions on instrumentation and measurement 2023 / art. 2007808, 8 p <https://doi.org/10.1109/TIM.2023.3320771>

Dynamic electrical impedance measurement methods

Giannoukos, Georgios; Min, Mart Engineering Technology, Engineering Education and Engineering Management : 2014 International Conference on Engineering Technology, Engineering Education and Engineering Management (ETEEEM 2014), Guangzhou, China, 15-16 November 2014 2015 / p. 379-383 : ill <http://dx.doi.org/10.1201/b18566-91>

Dynamic reference for evaluation of bioimpedance spectroscopy devices

Rist, Marek; Min, Mart BEC 2016 : 2016 15th Biennial Baltic Electronics Conference : proceedings of the 15th Biennial Baltic Electronics Conference : Tallinn University of Technology, October 3-5, 2016, Tallinn, Estonia 2016 / p. 107-110 : ill
http://www.estet.ee/record=b2150914*est

Dynamic volume measurement of right ventricle using impedance spectroscopy and multi electrode intraventricular catheter

Kink, Andres; Rist, Marek; Land, Raul; Kõiv, Hip; Min, Mart International Workshop on Impedance Spectroscopy : IWIS 2016 : September 26-28, 2016, Technische Universität Chemnitz, Germany : abstract book 2016 / p. 26-27 : ill

Eesti teadlase leiutatud sensor võib olla abiks hingamisraskustega inimeste ravil [Võrguväljaanne]

Loite, Sander novaator.err.ee 2020 / video [Eesti teadlase leiutatud sensor võib olla abiks hingamisraskustega inimeste ravil](#)

Efficient excitation signals for the fast impedance spectroscopy

Ojarand, Jaan; Min, Mart Elektronika ir elektrotehnika = Electronics and electrical engineering 2014 / p. 144-149 : ill

Electric impedance measurement of tissue phantom materials for development of medical diagnostic systems

Kõiv, Hip; Gordon, Rauno; Pesti, Ksenija International Workshop on Impedance Spectroscopy 2014 : September 24-26 2014, Chemnitz, Germany 2014 / [2] p. : ill

Electric impedance measurement of tissue phantom materials for development of medical diagnostic systems

Kõiv, Hip; Pesti, Ksenija; Gordon, Rauno Progress reports on impedance spectroscopy : measurements, modeling, and application 2017 / p. 131-137 : ill <https://doi.org/10.1515/9783110449822-013>

Electrical bioimpedance based monitoring of cardiac and respiratory activity : positioning of capacitive electrodes for wearable human monitoring device

Metshein, Margus; Parve, Toomas International journal of bioelectromagnetism 2015 / p. 64-74 : ill

Electrical bio-impedance based non-invasive method for the central aortic blood pressure waveform estimation

Krivošei, Andrei; Min, Mart; Uuetoa, Hasso; Lamp, Jürgen; Annus, Paul BEC 2014 : 2014 14th Biennial Baltic Electronics Conference : proceedings of the 14th Biennial Baltic Electronics Conference : Tallinn University of Technology, October 6-8, 2014, Tallinn, Estonia 2014 / p. 181-184 : ill

Electrical bio-impedance measurement in a rate-adaptive pacemaker

Eek, Andres; Min, Mart; Parve, Toomas Matavimai = Measurements 1996 / 1/2, p. 21-24: ill

Electrochemical impedance spectroscopy

El-Azazy, Marwa; **Min, Mart; Annus, Paul** Intechopen 2020 <https://www.intechopen.com/books/10054>
<https://doi.org/10.5772/intechopen.92333>

Electrode optimization for bioimpedance based central aortic blood pressure estimation

Metshein, Margus; Kõiv, Hip; Annus, Paul; Min, Mart World Congress on Medical Physics and Biomedical Engineering 2018 : June 3-8, 2018, Prague, Czech Republic (Vol. 2) 2018 / p. 497-501 https://doi.org/10.1007/978-981-10-9038-7_92 [Conference Proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Electrode placement configuration variations with the aim of monitoring the rate of breathing and pulse by the means of electrical bioimpedance

Metshein, Margus Doctoral School in Information and Communication Technology : proceedings of doctoral session of BEC 2014 : October 6-8 2014, Laulasmaa 2014 / p. 7-10 : ill

Electrode placement strategies for the measurement of radial artery bioimpedance : simulations and experiments

Pesti, Ksenija; Metshein, Margus; Annus, Paul; Kõiv, Hip; Min, Mart IEEE transactions on instrumentation and measurement 2021 / 10 p. : ill <https://doi.org/10.1109/TIM.2020.3011784> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Elektrilise bioimpedantsi mõõtmistest ravimuda mõju hindamiseks inimese nahale

Metshein, Margus Tervisedenduse ja Rehabilitatsiooni Kompetentsikeskuse ravimuda valdkonna toimetised. 2 2019 / lk. 82-96 : ill
https://terekk.ee/wp-content/uploads/Toimetised-II-parand_t%C3%A4isresolutsiooniline.pdf

Elektrilisel bioimpedantsil põhinev sensor jälgib kopsude ja südame tööd

Mente et Manu 2021 / lk. 30-31 : portr [Mente et Manu 2/2021](#)

Elektroonikainstituudi teadlaste leiutis aitab jälgida südame-veresoonkonna tervist

Härmat, Karin Mente et Manu 2021 / lk. 47 [Mente et Manu 1/2021](#) https://www.estet.ee/record=b1242496*est

Eluskudede elektriline bioimpedants : kongressist kongressini ja laiemaltki

Min, Mart Tallinna Tehnikaülikooli aastaraamat 2003 2004 / lk. 297-301 : ill. (Kongressimuljeid)

Energy-efficient pulses for deep brain stimulation

Gordon, Rauno; Min, Mart; Land, Raul Impedance spectroscopy : advanced applications : battery research, bioimpedance, system design 2018 / p. 153-160 : ill <https://doi.org/10.1515/9783110558920-015>

Enhanced optimization of the wideband excitation signal for a bioimpedance measurement

Ojarand, Jaan; Rist, Marek; Min, Mart 2015 IEEE International Instrumentation and Measurement Technology Conference (I2MTC 2015) : May 11-14, 2015, Pisa, Italy : proceedings 2015 / p. 1801-1806 : ill <http://dx.doi.org/10.1109/I2MTC.2015.7151554>

Estimating the transfer function between the CAP and radial EBI cardiac periods : use of PCA for dominating spectral features analysis

Krivošei, Andrei; Uuetoa, Hasso; Min, Mart; Lamp, Jürgen; Annus, Paul; Uuetoa, Tiina International journal of bioelectromagnetism 2015 / p. 31-35 : ill

Excitation current source for bioimpedance measurement applications : analysis and design

Annus, Paul; Krivošei, Andrei; Min, Mart; Parve, Toomas I2MTC 2008 : IEEE International Instrumentation and Measurement Technology Conference : May 12-15, 2008, Victoria, Canada 2008 / p. 848-853 : ill

Fat prediction in minced meat with low-cost BIA spectrometer

Objartel, Mart; Tamm, Martti; Kraft, Kadri; Annus, Paul; Land, Raul Book of abstracts : 16th International Conference on Electrical Bio-Impedance : 17th Conference on Electrical Impedance Tomography : ICEBI and EIT Stockholm, 19-23 June 2016 2016 / p. 38

Fundamentals, recent advances, and future challenges in bioimpedance devices for healthcare applications

Naranjo-Hernandez, David; Reina-Tosina, Javier; Min, Mart Journal of sensors 2019 / art. 9210258, 42 p. : ill
<https://doi.org/10.1155/2019/9210258> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Füsioloogiliste signaalide süsteem sagedusadaptiivse südamestimulaatori tüürimiseks : magistritöö

Lass, Jaanus 1996 https://www.ester.ee/record=b2687125*est

Hankel matrix based algorithm for cardiac pulse wave base and peak lines Correction

Krivošei, Andrei; Min, Mart; Annus, Paul; Märten, Olev; Metshein, Margus; Lotamõis, Kristina; Rist, Marek IEEE International Workshop on Medical Measurement and Applications (MEMEA) 2022 / 6 p <https://doi.org/10.1109/MeMeA54994.2022.9856564>

Hardware imitation of the varying bioelectrical impedance for testing the device for measurement of the impedance of human trunk by using a JFET

Metshein, Margus 21st 2016 International Conference on Applied Electronics : Pilsen, 6-7 September 2016 2016 / p. 173-176 : ill
<https://doi.org/10.1109/AE.2016.7577267>

Heart bioimpedance 3D FDM modelling with anisotropic tissue properties

Gordon, Rauno BEC 2004 : proceedings of the 9th Biennial Baltic Electronics Conference : October 3-6, 2004, Tallinn, Estonia 2004 / p. 175-178 : ill

Heartwork analysis using bioimpedance method

Gordon, Rauno Telekommunikatsioon 2002 : IX rahvusvahelise telekommunikatsioonipäeva materjalid 2002 / lk. 8-14 : ill

High speed data preprocessing for bioimpedance measurements : architectural exploration

Ellervee, Peeter; Annus, Paul; Min, Mart The 27th NORCHIP Conference : Trondheim, Norway, November 2009 2009 / [4] p
<https://ieeexplore.ieee.org/document/5397838>

How many frequencies to use in electrical bioimpedance measurements

Ojarand, Jaan; Land, Raul; Min, Mart; Rist, Marek Impedance spectroscopy : advanced applications : battery research, bioimpedance, system design 2018 / p. 161-168 : ill <http://doi.org/10.1515/9783110558920-016>

Impedants : elektroonikute ideelaegas ja varakamber aastakümneteks

Min, Mart Teadusmõte Eestis (X). Tehnikateadused. 3 : [artiklikogumik] 2019 / lk. 130-144 : ill., fot
https://www.ester.ee/record=b5208765*est

Implementation of multisine signal generator for a bioimpedance measurement device

Gorev, Maksim; Pesonen, Vadim; Ellervee, Peeter BEC 2012 : 2012 13th Biennial Baltic Electronics Conference : proceedings of the 13th Biennial Baltic Electronics Conference : October 3-5, 2012, Tallinn, Estonia 2012 / p. 275-278 : ill

Improved extraction of information in bioimpedance measurements

Min, Mart; Paavle, Toivo XVth International Conference on Electrical Bio-Impedance (ICEBI) and XIVth Conference on Electrical Impedance Tomography (EIT) : 22-25 April 2013, Heilbad Heiligenstadt : abstracts 2013 / p. 78 : ill

Improvement of lock-in electrical bio-impedance analyzer for implantable medical devices

Min, Mart; Parve, Toomas IEEE transactions on instrumentation and measurement 2007 / 3, p. 968-974

Improvement of lock-in signal converters for application in electrical bio-impedance measurement

Parve, Toomas 2000 http://www.ester.ee/record=b1707856*est

Improvement of lock-in signal processing for applications in measurement of electrical bioimpedance

Parve, Toomas; Land, Raul Proceedings of the Estonian Academy of Sciences. Engineering 2004 / 3, p. 185-197

Improvement of switching lock-in signal conversion in bioimpedance analysers

Parve, Toomas; Land, Raul; Min, Mart; Poola, Gustav BEC 2004 : proceedings of the 9th Biennial Baltic Electronics Conference : October 3-6, 2004, Tallinn, Estonia 2004 / p. 179-182 : ill

Intra-cardiac bioimpedance field variability with breathing

Gordon, Rauno; Väisänen, Juho; Hyttinen, Jari 13th International Conference on Electrical Bioimpedance and 8th Conference on Electrical Impedance Tomography 2007 : ICEBI2007 : August 29th - September 2nd 2007, Graz, Austria 2007 / p. 20-23
https://link.springer.com/chapter/10.1007/978-3-540-73841-1_8

Intracardiac electrical bioimpedance as a basis for controlling of pacing rate limits

Kink, Andres; Salo, Rodney; **Min, Mart; Parve, Toomas; Rätsep, Indrek** Proceedings of the 28th Annual International Conference of the IEEE Engineering in Medicine and Biology Society : New York, 30.08-3.09.2006 2006 / p. 6308-6311

Investigation of cost-effective carbon nanofiber/carbon fiber and silicone polymer composite material for wearable bioimpedance device

Kõiv, Hip; Pesti, Ksenija; Min, Mart; Land, Raul 2019 IEEE Sensors Applications Symposium (SAS 2019), Sophia Antipolis, France, 11-13 March, 2019 : proceedings 2019 / 6 p <https://doi.org/10.1109/SAS.2019.8706026>

Investigation of the graphene-on-silicon-carbide and CVD graphene as a basis for bioimpedance sensor applications : poster

Sleptšuk, Natalja; Land, Raul; Toompuu, Jana; Lebedev, Alexander A.; Davydov, Valery; Eliseyev, Ilya; Kalinina, Evgenia; **Korolkov, Oleg; Rang, Toomas** ePosters 2018 / 1 p.: ill <https://cdn.technologynetworks.com/ep/pdfs/natalja-sleptsuk-a-raul-land-a-jana-toompuu-a-alexander-lebedev-b-valery-davydov-b-ilya-eliseyev-b.pdf>

Kas tunned end hästi? Või on sind hetk tagasi tabanud tervisehäire? Seda ei ütle tulevikus esimesena arst, vaid kõikvõimalikud meditsiini- ja keskkonnaandurid [Võrguväljaanne]

digi.geenius.ee 2022 "[Kas tunned end hästi? Või on sind hetk tagasi tabanud tervisehäire? Seda ei ütle tulevikus esimesena arst, vaid kõikvõimalikud meditsiini- ja keskkonnaandurid](https://digi.geenius.ee/2022/05/10/kas-tunned-end-hasti-voi-on-sind-hetk-tagasi-tabanud-tervisehaire-seda-ei-utle-tulevikus-esimesena-arst-vaid-koikvomalikud-meditsiini-ja-keskkonnaandurid/)"

Limitation of signal amplitudes in bioimpedance spectroscopy

Ojarand, Jaan; Rist, Marek; Min, Mart Book of abstracts : 16th International Conference on Electrical Bio-Impedance : 17th Conference on Electrical Impedance Tomography : ICEBI and EIT Stockholm, 19-23 June 2016 2016 / p. 68

Lock-in integration for detection of tiny bioimpedance variations [Online resource]

Priidel, Eiko; Annus, Paul; Metshein, Margus; Land, Raul; Märten, Olev; Min, Mart BEC 2018 : 2018 16th Biennial Baltic Electronics Conference (BEC) : proceedings of the 16th Biennial Baltic Electronics Conference, October 8-10, 2018 2018 / 4 p. : ill
<https://doi.org/10.1109/BEC.2018.8600965>

Lock-in measurement of bio-impedance variations

Min, Mart; Märten, Olev; Parve, Toomas Measurement 2000 / 1, p. 21-28

Lock-in measurement of the hand-hand bio-impedance

Min, Mart; Haldre, H.; Härm, Härm; Märten, Olev; Märten, Hannes; Parve, Toomas; Ronk, Ants 8th International IMEKO Conference on Measurement in Clinical Medicine Biomedical Measurement and Instrumentation & 12th International Symposium on Biomedical Engineering, Dubrovnik, Croatia, September 16-19, 1998 : proceedings 1998 / p. 2.49-2.52

Low-energy chirps for bioimpedance measurement

Paavle, Toivo; Min, Mart; Trebbels, Dennis 34th International Conference on Telecommunications and Signal Processing (TSP) : Budapest, Hungary, August 18-20, 2011 : [proceedings] 2011 / p. 398-402 : ill

Mart Min, elektroonikaprofessor ja leiutaja 80!

Märten, Olev Postimees 2023 / lk. 13

Mathematical and physical modelling of dynamic electrical impedance = Dünaamilise impedantsi matemaatiline ja füüsikaline modelleerimine

Giannoukos, Georgios 2016 <https://digi.lib.ttu.ee/ii/?5654> https://www.ester.ee/record=b4579206*est

Mathematical and physical modelling of the dynamic electrical impedance both of a healthy neuron and one affected by

Parkinson's disease

Giannoukos, Georgios Advances in applied information science : proceedings of the 12th WSEAS International Conference on Applied Informatics and Communications (AIC '12) : proceedings of the 5th WSEAS International Conference on Biomedical Electronics and Biomedical Informatics (BEBI '12) : Istanbul, Turkey, August 21-23, 2012 2012 / p. 79-84 : ill
https://www.researchgate.net/publication/264128963_Mathematical_and_Physical_Modelling_of_the_Dynamic_Electrical_Impedance_of_a_Neuron

Mathematical and physical modelling of the dynamic electrical impedance of a neuron

Giannoukos, Georgios; Min, Mart International journal of circuits, systems and signal processing 2012 / p. 359-366 : ill
https://www.researchgate.net/publication/264128963_Mathematical_and_Physical_Modelling_of_the_Dynamic_Electrical_Impedance_of_a_Neuron

Mathematical and physical modelling of the dynamic electrical impedance of a tooth

Giannoukos, Georgios; Min, Mart Proceedings of the International Conference on Numerical Analysis and Applied Mathematics 2014 (ICNAAM-2014) : Rhodes, Greece, 22-28 September 2014 2015 / p. 850002-1 - 850002-4 <http://dx.doi.org/10.1063/1.4913057>

Mathematical modelling of the dynamic electrical impedance of a parallel RC circuit using a Wien bridge oscillator

Giannoukos, Georgios; Min, Mart Journal of computational methods in sciences and engineering 2015 / p. 287-293
<http://dx.doi.org/10.3233/JCM-150543>

Measurement of intracardiac bioimpedance in rate adaptive pacemakers

Kuusik, Alar; Land, Raul; Min, Mart; Parve, Toomas; Poola, Gustav Proceedings of the 31st International Congress of Electrocardiology "Advances in Electrocardiology 2004" : 27 June - 1 July, 2004, Singapore 2005 / p. 738-742

Measurement of intracardiac bioimpedance in rate adaptive pacemakers

Kuusik, Alar; Land, Raul; Min, Mart; Parve, Toomas; Poola, Gustav Proceedings of the 31. International Congress on Electrocardiology : June 27-July 1, 2004, Kyoto, Japan 2004 / [4] p

Method for synchronous sampling in multifrequency bioimpedance measurements

Min, Mart; Parve, Toomas; Annus, Paul; Paavle, Toivo Proceedings of the 23rd IEEE Instrumentation and Measurement Technology Conference (IMTC/06) : Sorrento, Italy, 24-27 April, 2006 2006 / p. 1699-1703

A method of intra-ventricular bioimpedance spectroscopy to estimate the dynamic volume of right ventricle

Kink, Andres; Rist, Marek; Land, Raul; Kõiv, Hip; Min, Mart Impedance spectroscopy : advanced applications : battery research, bioimpedance, system design 2018 / p. 169-176 : ill <https://doi.org/10.1515/9783110558920-017>

Methods for detection of bioimpedance variations in resource constrained environments

Priidel, Eiko; Annus, Paul; Krivošei, Andrei; Rist, Marek; Land, Raul; Min, Mart; Märten, Olev Sensors 2020 / art. 1363, 16 p. : ill <https://doi.org/10.3390/s20051363> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Methods of multi-frequency bioimpedance measurement in implantable and wearable devices

Min, Mart; Parve, Toomas; Poola, Gustav Proceedings of the 3rd European Medical & Biological Engineering Conference EMBEC'05 : November 20-25, 2005, Prague, Czech Republic 2005 / [4] p

Model based method for adaptive decomposition of the thoracic bio-impedance variations into cardiac and respiratory components = Mudelipõhine meetod torso bioimpedantsi muutuste adaptiivseks dekompositsiooniks südametegevuse ja hingamise komponentideks

Krivošei, Andrei 2009 https://www.ester.ee/record=b2508758*est

Modeling in the bioimpedance measurement techniques using general-purpose software

Paavle, Toivo BEC 2006 : 2006 International Baltic Electronics Conference : Tallinn University of Technology, October 2-4, 2006, Tallinn, Estonia : proceedings of the 10th Biennial Baltic Electronics Conference 2006 / p. 209-212 : ill

Modeling of the PLL-based bioimpedance measurement system

Paavle, Toivo; Min, Mart BEC 2004 : proceedings of the 9th Biennial Baltic Electronics Conference : October 3-6, 2004, Tallinn, Estonia 2004 / p. 183-186 : ill

Modeling the dynamics of lung tissue with pulsating blood-flow in pulmonary arteries for bioimpedance simulation

Gordon, Rauno; Annus, Paul International Workshop on Impedance Spectroscopy : IWIS 2013 : abstract book : September 25-27, 2013, Chemnitz University of Technology, Germany 2013 / p. 94-65 : ill

Modelling and simulation of arterial blood pulsation via bioimpedance = Arteriaalse verepulsatsiooni modelleerimine ja simuleerimine bioimpedantsi kaudu

Pesti, Ksenija 2021 https://www.ester.ee/record=b5436843*est <https://digikogu.taltech.ee/et/Item/7fe2bc87-aa1a-4214-9971-fc938313bd28>
<https://doi.org/10.23658/taltech.34/2021>

Modelling of cardiac dynamics and intracardiac bioimpedance = Südame dünaamika ja südamesisese bioimpedantsi

modelleerimine

Gordon, Rauno 2007 <https://digi.lib.ttu.ee/i/?147>

Modelling of dynamic electrical bioimpedance and measurements safety

Giannoukos, Georgios; Min, Mart AASRI procedia 2014 / p. 12-18 : ill

Modelling, design and test of a bioimpedance measurement system with carrier compensation

Annus, Paul; Lamp, Jürgen; Min, Mart; Paavle, Toivo Proceedings of the 46th RTU Scientific Conference : Riga, Latvia, 13-14 October, 2005 2005 / p. 22-25

Modification of pulse wave signals in electrical bioimpedance analyzer for implantable medical devices

Min, Mart; Kink, Andres; Land, Raul; Parve, Toomas; Rätsep, Indrek Proceedings of the 26. Annual International Conference of the IEEE EMBS : September 1-5, 2004, San Francisco, California, USA 2004 / p. 2263-2266
<https://pubmed.ncbi.nlm.nih.gov/17272178/>

Modular system for fast impedance spectrum analysis of biomedical objects

Rist, Marek; Reidla, Marko; Märten, Olev; Land, Raul; Min, Mart; Parve, Toomas; Annus, Paul XVth International Conference on Electrical Bio-Impedance (ICEBI) and XIVth Conference on Electrical Impedance Tomography (EIT) : 22-25 April 2013, Heilbad Heiligenstadt : abstracts 2013 / p. 151 : ill

Modular system for spectral analysis of time-variant impedances

Rist, Marek; Reidla, Marko; Land, Raul; Parve, Toomas; Märten, Olev; Annus, Paul; Ojarand, Jaan; Min, Mart 6th European Conference of the International Federation for Medical and Biological Engineering : MBEC 2014, 7-11 September 2014, Dubrovnik, Croatia 2015 / p. 858-861 : ill

Multichannel bioimpedance spectroscopy : instrumentation methods and design principles = Paljukanaliline bioimpedantsspektroskoopia : mõõtemetodid ja disaini printsiibid

Annus, Paul 2009 http://www.ester.ee/record=b2557759*est

Multi-frequency and multi-channel bio-impedance measurement solution [Electronic resource]

Märten, Olev; Min, Mart; Land, Raul; Annus, Paul Proceedings of 7th Nordic Signal Processing Symposium (NORSIG 2006) : Reykjavik, Iceland, June 7-9, 2006 2006 / [4] p. [CD-ROM] <https://ieeexplore.ieee.org/document/4052217>

Multi-frequency bioimpedance measurement : undersampling approach

Märten, Olev; Min, Mart Proceedings of the 6th Nordic Signal Processing Symposium : NorSig 2004 : June 9-11, 2004, Espoo, Finland 2004 / p. 145-148

Multifrequency vector impedance measurement: undersampled DFT with noise pre-filtering

Märten, Olev; Min, Mart BEC 2006 : 2006 International Baltic Electronics Conference : Tallinn University of Technology, October 2-4, 2006, Tallinn, Estonia : proceedings of the 10th Biennial Baltic Electronics Conference 2006 / p. 217-220 : ill

Multisine and binary multifrequency waveforms in impedance spectrum measurement : a comparative study

Annus, Paul; Min, Mart; Ojarand, Jaan; Paavle, Toivo; Land, Raul; Ellervee, Peeter; Parve, Toomas 5th European Conference of the International Federation for Medical and Biological Engineering : 14-18 September 2011, Budapest, Hungary 2012 / p. 1265-1268 https://link.springer.com/chapter/10.1007/978-3-642-23508-5_327

Multisine signal generation method for a bioimpedance measurement device

Gorev, Maksim; Pesonen, Vadim; Ellervee, Peeter Proceedings of the 2012 IEEE 15th International Symposium on Design and Diagnostics of Electronic Circuits & Systems (DDECS) : April 18-20, 2012 Tallinn, Estonia 2012 / p. 111-114 : ill

Noninvasive measuring of breathing and pulse of a human by the means of electrical bioimpedance

Metshein, Margus Proceedings of the 8th Annual Conference of the Estonian National Doctoral School in Information and Communication Technologies : December 5-6, 2014, Rakvere 2014 / p. 75-78 : ill

Observations concerning the results of capacitive monitoring of breathing and heart rate by the means of electrical bioimpedance

Metshein, Margus The 10th International Conference on Bioelectromagnetism : proceedings 2015 / [4] p. : ill

On the possibility of detecting the electrical bioimpedance of human body by using non-contact electrodes in capacitive connection

Metshein, Margus; Gordon, Rauno BEC 2016 : 2016 15th Biennial Baltic Electronics Conference : proceedings of the 15th Biennial Baltic Electronics Conference : Tallinn University of Technology, October 3-5, 2016, Tallinn, Estonia 2016 / p. 171-174 : ill
http://www.ester.ee/record=b2150914*est

On the selection of excitation signals for the fast spectroscopy of electrical bioimpedance

Ojarand, Jaan; Min, Mart Journal of electrical bioimpedance 2018 / p. 133-141 : ill <https://doi.org/10.2478/joeb-2018-0018> Journal

On-Desk Model-Based Study for Evaluating the Effect of Squeezing the Arteries in the Forearm on the Bioimpedance and Pressure of Blood

Metshein, Margus; Annus, Paul; Land, Raul; Rist, Marek; Min, Mart; Lotamõis, Kristina; **Märtens, Olev** Journal of sensors 2023 / art. 5710835 <https://doi.org/10.1155/2023/5710835>

One bio-medical multisine measurement task: solution principles

Ronk, Ants; Min, Mart BEC 2004 : proceedings of the 9th Biennial Baltic Electronics Conference : October 3-6, 2004, Tallinn, Estonia 2004 / p. 199-200 : ill

Optimisation of multisine waveform for bio-impedance spectroscopy

Ojarand, Jaan; **Annus, Paul; Min, Mart** XVth International Conference on Electrical Bio-Impedance (ICEBI) and XIVth Conference on Electrical Impedance Tomography (EIT) : 22-25 April 2013, Heilbad Heiligenstadt : abstracts 2013 / p. 79 : ill

Optimized waveforms for synchronous signal processing

Annus, Paul; Min, Mart; Ojarand, Jaan Info- ja kommunikatsioonitehnoloogia doktorikooli IKTDK kolmanda aastakonverentsi artiklite kogumik : 25.-26. aprill 2008, Voore külalistemaja 2008 / p. 51-54 : ill

Our Journal is entering into its second decade

Min, Mart Journal of electrical bioimpedance 2019 / p. 1 <https://doi.org/10.2478/joeb-2019-0001> [Journal metrics at Scopus](#) [Article at Scopus](#)

A parametric framework for modelling of bioelectrical signals

Muhammad, Yar 2016 <http://dx.doi.org/10.1007/978-981-287-969-1>

A parametric framework for modelling of bioelectrical signals = Parameetiline raamistik bioelektriliste signaalide modelleerimiseks

Muhammad, Yar 2015 http://www.eester.ee/record=b4473232*est

A parametric framework for the development of bioelectrical applications : application to a bio-impedance signal simulator

Muhammad, Yar; Annus, Paul; Le Moullec, Yannick; Rang, Toomas Proceedings of the Estonian Academy of Sciences 2016 / p. 345-357 : ill <https://doi.org/10.3176/proc.2016.4.03>

PLL-based extraction of the cardiac component from the bio-impedance signal

Märtens, Olev; Min, Mart; Annus, Paul; Land, Raul; Krivošei, Andrei; Metshein, Margus 2018 IEEE International Instrumentation and Measurement Technology Conference (I2MTC 2018) : proceedings 2018 / 6 p. : ill <https://doi.org/10.1109/I2MTC.2018.8409848>

PLL-based measurement of bioimpedance using undersampling

Min, Mart; Paavle, Toivo Proceedings of the XII International Conference on Electrical Bioimpedance & the V Conference on Electrical Impedance Tomography : ICEBI/EIT 2004 : June 20-24, 2004, Gdansk, Poland. Vol. 2 2004 / p. 347-350

Principles for the design of impedance spectroscopy devices for identification of dynamic bio-systems = Dünaamiliste biosüsteemide impedantspektroskoopia seadmete disaini printsiibid

Rist, Marek 2018 <https://digi.lib.ttu.ee/i/29260>

Prof Mart Min : tehnoloogia teeb tervemaks ja rikkamaks

Min, Mart Director. Inseneria 2019 / lk. 18-24 : fot http://www.eester.ee/record=b2336521*est

PWM based lock-in bioimpedance measurement unit for implantable medical devices

Kuhlberg, Aivo; Land, Raul; Min, Mart; Parve, Toomas Proceedings of the XVII IMEKO World Congress : June 22-27, 2003, Dubrovnik, Croatia 2003 / p. 1710-1713 : ill

Quantization of the response signal differences for the electrical bioimpedance measurement

Annus, Paul; Land, Raul; Priidel, Eiko; Metshein, Margus; Min, Mart; Märtens, Olev EMBEC & NBC 2017 : joint conference of the European Medical and Biological Engineering Conference (EMBEC) and the Nordic-Baltic Conference on Biomedical Engineering and Medical Physics (NBC), Tampere, Finland, June 2017 2018 / p. 290-293 : ill https://doi.org/10.1007/978-981-10-5122-7_73

Realization and evaluation of the device for measuring the impedance of human body for detecting the respiratory and heart rate

Metshein, Margus; Parve, Toomas; Annus, Paul; Rist, Marek; Min, Mart Elektronika ir elektrotehnika = Electronics and electrical engineering 2017 / p. 36-42 : ill <http://dx.doi.org/10.5755/j01.eie.23.3.18330>

Reconfigurable data acquisition unit for bioimpedance measurements

Pesonen, Vadim; Gorev, Maksim; Annus, Paul; Min, Mart; Ellervee, Peeter BEC 2010 : 2010 12th Biennial Baltic Electronics Conference : proceedings of the 12th Biennial Baltic Electronics Conference : Tallinn University of Technology, October 4-6, 2010, Tallinn, Estonia 2010 / p. 257-260 : ill

Rectangular wave excitation in wideband bioimpedance spectroscopy

Min, Mart; Paavle, Toivo; Annus, Paul; Land, Raul IEEE International Workshop on Medical Measurements and Applications : MeMeA2009 : Cetraro, Italy, May 29-30, 2009 2009 / p. 268-271

Regression based model of the impedance cardiac and respiratory signals for the development of a bio-impedance signal simulator

Mughal, Yar M; Annus, Paul Doctoral School in Information and Communication Technology : proceedings of doctoral session of BEC 2014 : October 6-8 2014, Laulasmaa 2014 / p. 15-18 : ill

Reprogrammable data acquisition unit to reduce aliasing effect in bioimpedance measurements

Pesonen, Vadim; Gorev, Maksim; Annus, Paul; Min, Mart; Ellervee, Peeter The 7th Annual FPGA World Conference, Copenhagen, Denmark, 6 September 2010 2010 / [6] p.: ill

Robust algorithm for the augmentation index estimation of the CAP using low order derivatives [Electronic resource]

Krivošei, Andrei; Min, Mart; Lamp, Jürgen; Annus, Paul MeMeA 2014 : IEEE International Symposium on Medical Measurements and Applications : June 11-12, 2014, ISCTE, University of Lisbon, Lisbon, Portugal : proceedings 2014 / p. 279-282 : ill. [CD-ROM]

Separation of cardiac and respiratory components from the electrical bio-impedance signal using PCA and fast ICA

Mughal, Yar M.; Krivošei, Andrei; Annus, Paul International Conference on Control Engineering & Information Technology (CEIT'13), Sousse, Tunisia, June 04-07, 2013 : [proceedings] 2013 / [4] p

Short-time chirp excitations for using in wideband characterization of objects: an overview

Paavle, Toivo; Min, Mart; Ojarand, Jaan; Parve, Toomas BEC 2010 : 2010 12th Biennial Baltic Electronics Conference : proceedings of the 12th Biennial Baltic Electronics Conference : Tallinn University of Technology, October 4-6, 2010, Tallinn, Estonia 2010 / p. 253-256 : ill

Signals in bioimpedance measurement : different waveforms for different tasks

Min, Mart; Pliquet, Uwe; Nacke, T.; Barthel, A.; Annus, Paul; Land, Raul 13th International Conference on Electrical Bioimpedance and 8th Conference on Electrical Impedance Tomography 2007 : ICEBI2007 : August 29th - September 2nd 2007, Graz, Austria 2007 / p. 181-184
https://www.researchgate.net/publication/226357858_Signals_in_bioimpedance_measurement_Different_waveforms_for_different_tasks

Simple and efficient excitation signals for fast impedance spectroscopy

Ojarand, Jaan; Min, Mart Elektronika ir elektrotehnika = Electronics and electrical engineering 2013 / p. 49-52 : ill

Simplified DFT with sorted accumulation of input samples

Märtens, Olev BEC 2008 : 2008 International Biennial Baltic Electronics Conference : proceedings of the 11th Biennial Baltic Electronics Conference : Tallinn University of Technology : October 6-8, 2008, Tallinn, Estonia 2008 / p. 329-332 : ill

Simplified signal processing for impedance spectroscopy with spectrally sparse sequences

Annus, Paul; Land, Raul; Reidla, Marko; Ojarand, Jaan; Mughal, Yar M.; Min, Mart XVth International Conference on Electrical Bio-Impedance (ICEBI) and XIVth Conference on Electrical Impedance Tomography (EIT) : 22-25 April 2013, Heilbad Heiligenstadt : abstracts 2013 / p. 76

Simulation of intra-cardiac complex impedance signals for developing simple bio-impedance models for cardio-dynamics

Gordon, Rauno BEC 2006 : 2006 International Baltic Electronics Conference : Tallinn University of Technology, October 2-4, 2006, Tallinn, Estonia : proceedings of the 10th Biennial Baltic Electronics Conference 2006 / p. 213-216 : ill

Simultaneous multi-frequency bioimpedance measurement applying synchronised uniform or non-uniform sampling

Ronk, Ants; Min, Mart; Parve, Toomas 13th International Conference on Electrical Bioimpedance and 8th Conference on Electrical Impedance Tomography 2007 : ICEBI2007 : August 29th - September 2nd 2007, Graz, Austria 2007 / p. 185-189

Sparse reconstruction method for separating cardiac and respiratory components from electrical bioimpedance measurements

Butsenko, Maksim; Märtens, Olev; Krivošei, Andrei; Le Moullec, Yannick Elektronika ir elektrotehnika = Electronics and electrical engineering 2018 / p. 57-61 : ill <https://doi.org/10.5755/j01.eie.24.5.21844> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Synchronous primary signal processing for MIMO bio-impedance measurement on several frequencies

Ronk, Ants; Toomessoo, Jüri BEC 2008 : 2008 International Biennial Baltic Electronics Conference : proceedings of the 11th Biennial Baltic Electronics Conference : Tallinn University of Technology : October 6-8, 2008, Tallinn, Estonia 2008 / p. 313-316 : ill

Synchronous sampling and demodulation in an instrument for multifrequency bioimpedance measurement

Min, Mart; Parve, Toomas; Ronk, Ants; Annus, Paul; Paavle, Toivo IEEE transactions on instrumentation and measurement 2007 / 4, p. 1365-1372 : ill <https://ieeexplore.ieee.org/document/4277035>

System for bioimpedance signal simulation from pulsating blood flow in tissues

Gordon, Rauno; Pesti, Ksenija International workshop on impedance spectroscopy 2012 / p. 22-23 : ill

System for bioimpedance signal simulation from pulsating blood flow in tissues

Gordon, Rauno; Pesti, Ksenija Lecture notes on impedance spectroscopy : measurement, modeling and applications. Vol. 4 2014 / p. 51-58 : ill

Teaduselt ühiskonnale : mis on spektroskoopia : vastab professor Mart Min

Min, Mart KesKus 2013 / lk. 44 : ill

The testing of the bioimpedance measurement ASIC

Sillakivi, Peeter Telekommunikatsioon 2002 : IX rahvusvahelise telekommunikatsioonipäeva materjalid 2002 / lk. 15-20 : ill

Theoretical development and computer simulation of a bioimpedance measurement system

Paavle, Toivo Proceedings of the Estonian Academy of Sciences. Engineering 2004 / 3, p. 198-208

Thoracic bioimpedance as a basis for pacing control

Min, Mart; Parve, Toomas; Kink, Andres Electrical bioimpedance methods : applications to medicine and biotechnology 1999 / p. 155-166 (invited): ill

Time-domain manipulating of short-time chirps

Paavle, Toivo; Min, Mart BEC 2014 : 2014 14th Biennial Baltic Electronics Conference : proceedings of the 14th Biennial Baltic Electronics Conference : Tallinn University of Technology, October 6-8, 2014, Tallinn, Estonia 2014 / p. 129-132 : ill

Towards a wearable device for capacitive monitoring of electrical bioimpedance of human body

Metshein, Margus; Parve, Toomas The 10th International Conference on Bioelectromagnetism : proceedings 2015 / [2] p. : ill

TTÜ elektroonikainsenerid ütlevad sõna sekka ka meditsiinalal : [TTÜ elektroonikainstituudi eestvedamisel on esitatud taotlus TTÜ leiutise "Meetod ja seade elektrilise bioimpedantsi mõõtmiseks" kaitsmiseks patendina]

Äripäev 2003 / lk. 1 : fot (Kliendileht Tehnoloogia)

Using neural networks to model self-immune disease in terms of the alterations of the dynamic electrical impedance

Giannoukos, Georgios; Min, Mart Proceedings of the International Conference on Numerical Analysis and Applied Mathematics 2014 (ICNAAM-2014) : Rhodes, Greece, 22-28 September 2014 2015 / p. 850001-1 - 850001-4 <http://dx.doi.org/10.1063/1.4913056>

Using of chirp excitation for bioimpedance estimation : theoretical aspects and modeling

Paavle, Toivo; Min, Mart; Parve, Toomas BEC 2008 : 2008 International Biennial Baltic Electronics Conference : proceedings of the 11th Biennial Baltic Electronics Conference : Tallinn University of Technology : October 6-8, 2008, Tallinn, Estonia 2008 / p. 325-328 : ill

Validation of simulations of eddy current methods with measurements on phantom materials for biomedical engineering R&D

Pesti, Ksenija; Kõiv, Hip; Gordon, Rauno The 10th International Conference on Bioelectromagnetism : proceedings 2015 / [4] p. : ill

Validation of simulations of eddy current methods with measurements on phantom materials for biomedical engineering R&D

Pesti, Ksenija; Kõiv, Hip; Gordon, Rauno International journal of bioelectromagnetism 2015 / p. 57-63 : ill

Wearable data acquisition system of multimodal physiological signals for personal health care

Annus, Paul; Samiepour, Ali; Rist, Marek; Ruiso, Indrek; Krivošei, Andrei; Land, Raul; Parve, Toomas; Min, Mart pHealth 2013 : proceedings of the 10th International Conference on Wearable Micro and Nano Technologies for Personalized Health : June 26-28, 2013, Tallinn, Estonia 2013 / p. 107-112 : ill

Wearable solutions for monitoring cardiorespiratory activity = Kehal kantavad vahendid kardiorespiatoorse aktiivsuse jälgimiseks

Metshein, Margus 2018 <https://digi.lib.ttu.ee/i/?9961>

Wearable system for non-invasive and continuous monitoring central aortic pressure curve and augmentation index

Krivošei, Andrei; Lamp, Jürgen; Min, Mart; Uuetoa, Tiina; Uuetoa, Hasso; Annus, Paul pHealth 2013 : proceedings of the 10th

**Wideband excitation signals for fast impedance spectroscopy of biological objects = Lairiba ergutussignaalid
bioloogiliste objektide kiiretoimelise bioimpedants-spektroskoopia jaoks**
Ojarand, Jaan 2012 https://www.ester.ee/record=b2896512*est

Wideband object identification with rectangular wave chirp excitation
Paavle, Toivo; Min, Mart; Annus, Paul; Birjukov, Andrei; Land, Raul; Parve, Toomas ECCTD'09 : European Conference on
Circuit Theory and Design 2009 : Antalya, Turkey, August 23-27, 2009 2009 / p. 421-424 <https://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=5275007>

Virtual heart : modelling of cardiac dynamics and intracardiac bioimpedance
Gordon, Rauno 2011 <https://www.amazon.com/Virtual-Heart-Modelling-Intracardiac-Bioimpedance/dp/3838370643>

Ühendriikide patent TTÜ leiutisele : ["Meetod ja seade elektrilise bioimpedantsi mõõtmiseks"]
Nõges, Krõõt Mente et Manu 2010 / lk. 2