

A frequency modulation in the phase-lock loop

Land, Raul Tallinna Tehnikaülikooli Toimetised 1990 / lk. 19-26

A lock-in distortion analyser

Land, Raul; Min, Mart; Männama, Vello; Parve, Toomas 9th International Symposium on Electrical Instruments in Industry, September 8-9, 1997, Glasgow, Scotland : proceedings 1997 / p. 149-152

A sampling multichannel bioimpedance analyzer for tissue monitoring

Min, Mart; Land, Raul; Märten, 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

Acceleration data acquisition and processing system for structural health monitoring

Herranen, Henrik; Kuusik, Alar; Saar, Tõnis; Reidla, Marko; Land, Raul; Märten, Olev; Majak, Jüri 2014 IEEE International Workshop On Metrology For Aerospace : May 29-30, 2014, Benevento, Italy : proceedings 2014 / p. 244-248 : ill

Acoustic forward model for guided wave propagation and scattering in a pipe bend

Rasgado Moreno, Carlos Omar; Rist, Marek; Land, Raul; Ratassepp, Madis Sensors 2022 / art. 486

<https://doi.org/10.3390/s22020486> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Acoustic spectrum analysis of genuine and counterfeit euro coins

Gavrijaševa, Alina; Märten, Olev; Land, Raul Elektronika ir elektrotehnika = Electronics and electrical engineering 2015 / p. 54-57 : ill

Adaptively undersampled image processing for fast multiline laser detection

Mölder, Ago; Märten, Olev; Saar, Tõnis; Land, Raul 2013 IEEE 8th International Symposium on Intelligent Signal Processing (WISP 2013) : proceedings 2013 / p. 60-64 : ill [CD-ROM]

Adaptive-rate inductive impedance based coin validation

Märten, Olev; Land, Raul; Gavrijaševa, Alina; Mölder, Ago 2011 IEEE 7th International Symposium on Intelligent Signal Processing (WISP) : Floriana, Malta, September 19-21, 2011 : proceedings 2011 / p. 122-125: ill

An ASIC for multifrequency bioimpedance analysis

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

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>

Binary signals in impedance spectroscopy

Min, Mart; Ojarand, Jaan; Märten, Olev; Paavle, Toivo; Land, Raul; Annus, Paul; Rist, Marek; Reidla, Marko; Parve, Toomas Conference proceedings : ... Annual International Conference of the IEEE Engineering in Medicine and Biology Society. IEEE Engineering in Medicine and Biology Society. Conference 2012 / p. 134-137 : ill

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 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

Bioimpedance spectro-tomography system using binary multifrequency excitation [Online resource]

Min, Mart; Lehti-Polajärvi, 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>

Broadband excitation for short-time impedance spectroscopy

Min, Mart; Pliquett, Uwe; Nacke, T.; Barthel, A.; **Annus, Paul; Land, Raul** Physiological measurement 2008 / 6, p. S185-S192 : ill

Broadband spectroscopy of a dynamic impedance

Min, Mart; Land, Raul; Paavle, Toivo; Parve, Toomas; Annus, Paul Journal of physics : conference series 2010 / 1, p. 012109

Broadband spectroscopy of dynamic impedances with short chirp pulses

Min, Mart; Land, Raul; Paavle, Toivo; Parve, Toomas; Annus, Paul; Trebbels, Dennis Physiological measurement 2011 / p. 945-958 : ill

Chip design for microfluidic bioimpedance measurement

Giannitsis, Athanasios; Cahill, Brian; **Land, Raul;** Gastrock, Gunter; Pliquett, Uwe; Nacke, T.; **Min, Mart;** Beckmann, Dieter Tagungsband : Technische Systeme für die Lebenswissenschaften : 14.Heiligenstädter Kolloquium : Heiligenstadt (Germany), 22.9-24.9.2008 2008 / p. 423-432

Chirp pulse excitation in the impedance spectroscopy of dynamic subjects - signal modelling in time and frequency domain

Min, Mart; Land, Raul; Annus, Paul; Ojarand, Jaan Lecture notes on impedance spectroscopy : measurement, modeling and applications. Vol. 1 2011 / p. 79-82 <https://www.taylorfrancis.com/chapters/edit/10.1201/b11339-17/chirp-pulse-excitation-impedance-spectroscopy-dynamic-subjects%E2%80%94signal-modelling-time-frequency-domain-min-land-annus-ojarand>

Chirp signals in impedance spectroscopy

Min, Mart; Märten, Olev; 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. 72

Chirp-based piezo-impedance measurement

Saar, Tõnis; Reidla, Marko; Märten, Olev; Land, Raul; Min, Mart; Herranen, Henrik Proceedings : WISP'2013, 8th IEEE International Symposium on Intelligent Signal Processing 2013 / [4] p. : ill

Coin recognition using line scan camera

Gavrijaševa, Alina; Märten, Olev; Land, Raul; Reidla, Marko 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. 161-164 : ill

Comparative characteristics of diffusion-welded high-voltage stacks and connected in series Schottky diodes

Sleptšuk, Natalja; Korolkov, Oleg; Land, Raul; Toompuu, Jana; Annus, Paul; Rang, Toomas 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. 39-42 : ill http://www.ester.ee/record=b2150914*est

Comparative investigation of the graphene-on-silicon carbide and CVD graphene as a basis for biosensor application

Sleptšuk, Natalja; Lebedev, Alexander A.; Elisayev, Ilya; **Korolkov, Oleg; Toompuu, Jana; Land, Raul; Mikli, Valdek;** Zubov, Alexander; **Rang, Toomas** Modern Materials and Manufacturing 2019 : 12th International DAAAM Baltic Conference and 27th International Baltic Conference BALTMATTRIB 2019. Selected, peer reviewed papers from the conference Modern Materials and Manufacturing 2019 (MMM 2019), April 24-26, 2019, Tallinn, Estonia 2019 / p. 185-190 : ill https://www.ester.ee/record=b5235278*est <https://www.scientific.net/KEM.799.185> <https://doi.org/10.4028/www.scientific.net/KEM.799.185> Conference proceeding at Scopus Article at Scopus

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 rectangular wave excitations in broad band impedance spectroscopy for microfluidic applications

Min, Mart; Giannitsis, Athanasios; **Land, Raul;** Cahill, Brian; Pliquett, Uwe; Nacke, T.; Frense, Dieter; Gastrock, Gunter; Beckmann, Dieter World Congress on Medical Physics and Biomedical Engineering : September 7-12, 2009, Munich, Germany 2009 / p. 85-88 https://link.springer.com/chapter/10.1007/978-3-642-03885-3_24

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 WOS](#)

Constant phase element response of impedance spectra of high vacuum evaporated CuIn3Se5 photoabsorber layers [Electronic resource]

Laes, Kristjan; Bereznev, Sergei; Land, Raul; Öpik, Andres International Materials Research Congress IMRC XIX, Cancun, Mexico – August 2010, Symposium 15 – Photovoltaics, Solar energy materials and technologies : abstracts 2010 / p. 21 [CD-ROM]

Contactless sensing of the conductivity of aqueous droplets in segmented flow

Cahill, Brian; Land, Raul; Nacke, T.; Min, Mart; Beckmann, Dieter Sensors and actuators B : chemical 2011 / p. 286-293 : ill <https://www.sciencedirect.com/science/article/abs/pii/S0925400511006368>

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; Märtens, 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>

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

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

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

Digital multichannel bioimpedance analyser : signal processing approaches

Ronk, Ants; Annus, Paul; Kuusik, Alar; Land, Raul; Märtens, Olev Proceedings of the 3rd European Medical & Biological Engineering Conference EMBEC'05 : November 20-25, 2005, Prague, Czech Republic 2005 / [4] p

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

Annus, Paul; Kuusik, Alar; Land, Raul; Märtens, 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>

Distributed data acquisition and handling in automotive control systems

Land, Raul BEC'96 : the 5th Biennial Baltic Electronics Conference, October 7-11, 1996, Tallinn, Estonia : proceedings 1996 / p. 101-104

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

Eddy current corrosion measurement of steel

Märtens, Olev; Land, Raul; Min, Mart; Rist, Marek; Ferenets, Marju; Käsper, Andres International Workshop on Impedance Spectroscopy : IWIS 2016 : September 26-28, 2016, Technische Universität Chemnitz, Germany : abstract book 2016 / p. 40-41 : ill

Eddy current corrosion measurement of steel

Märtens, Olev; Land, Raul; Min, Mart; Rist, Marek; Ferenets, Marju; Käsper, Andres Impedance spectroscopy : advanced applications : battery research, bioimpedance, system design 2018 / p. 125-134 : ill <https://doi.org/10.1515/9783110558920-012>

Eddy current validation of Euro-coins

Gordon, Rauno; Märtens, Olev; Land, Raul; Min, Mart; Rist, Marek; Gavrijaševa, Alina; Pokatilov, Andrei; Kolyshkin, Andrei Lecture notes on impedance spectroscopy : measurement, modeling and applications. Vol. 3 2012 / p. 47-63 : ill

Effective algorithms for dynamic quality tests of A/D converters using step-wise approximated multi-cycle sine wave

Land, Raul Proceedings of the 6th European Workshop on ACD Modelling and Testing : 13-14 Sept., 2001 : Lisbon, Portugal 2001 / p. 96-100

Electrochemical impedance spectroscopy analysis of immunoglobulin G in patients with gastric cancer

Sergejev, Kirill; Land, Raul; Klaamas, Kersti; Kurtenkov, Oleg 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. 189-192 : ill

Electrowetting as a tool for droplet actuation : electrode design and simulation

Giannitsis, Athanasios; Cahill, Brian; **Land, Raul;** Gastrock, G.; Pliquet, Uwe; Nacke, T.; **Min, Mart;** Beckmann, Dieter Tagungsband : Technische Systeme für die Lebenswissenschaften : 14. Heiligenstädter Kolloquium : Heiligenstadt (Germany), 22.9-24.9.2008 2008 / p. 433-442

Energy efficient pulses for deep brain stimulation

Gordon, Rauno; Min, Mart; Land, Raul International Workshop on Impedance Spectroscopy : IWIS 2016 : September 26-28, 2016, Technische Universität Chemnitz, Germany : abstract book 2016 / p. 19-20 : ill

An energy efficient wearable tissue monitor

Annus, A.; **Kuusik, Alar; Land, Raul; Haldre, Eero; Min, Mart; Parve, Toomas; Poola, Gustav** 13th International Conference on Electrical Bioimpedance and 8th Conference on Electrical Impedance Tomography 2007 : ICEBI2007 : August 29th - September 2nd 2007, Graz, Austria 2007 / p. 240-243 https://link.springer.com/chapter/10.1007/978-3-540-73841-1_64

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>

Experimental modal analysis of maritime composite panel

Gavrijaševa, Alina; Märten, Olev; Land, Raul; Saar, Tõnis; Herranen, Henrik; Majak, Jüri; Reidla, Marko; **Kuusik, Alar** 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. 143-146 : ill http://www.ester.ee/record=b2150914*est

Extraction of the variable width laser line

Mölder, Ago; Märten, Olev; Saar, Tõnis; Land, Raul 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. 157-160 : ill

Fast impedance spectroscopy of piezosensors for structural health monitoring

Märten, Olev; Saar, Tõnis; Min, Mart; Land, Raul; Reidla, Marko Elektronika ir elektrotehnika = Electronics and electrical engineering 2010 / 7, p. 31-34 : ill

Fast precise eddy current measurement of metals

Märten, Olev; Land, Raul; Min, Mart; Rist, Marek; Annus, Paul; Pokatilov, Andrei 2018 IEEE International Instrumentation and Measurement Technology Conference (I2MTC 2018) : proceedings 2018 / 5 p. : ill <https://doi.org/10.1109/I2MTC.2018.8409781>

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

Feasibility study : a DM3730-based data acquisition and processing solution

Mölder, Ago; Reidla, Marko; Märten, Olev; Land, Raul EDERC 2012 : proceedings of the 5th European DSP in Education & Research Conference : 13-14 September 2012, Amsterdam, The Netherlands 2012 / p. 58-61

Frequency-optimized rectangular pulses for deep brain stimulation

Gordon, Rauno; Min, Mart; Land, Raul International journal of bioelectromagnetism 2015 / p. 13-19 : ill

Frequency-optimized rectangular pulses for deep brain stimulation

Gordon, Rauno; Min, Mart; Land, Raul The 10th International Conference on Bioelectromagnetism : proceedings 2015 / [2] p. : ill

Front-end electronics for impedimetric microfluidic devices

Ojarand, Jaan; Giannitsis, Athanasios; **Min, Mart; Land, Raul** Bioelectronics, Biomedical, and Bioinspired Systems V; and Nanotechnology V : 18-20 April 2011, Prague, Czech Republic 2011 / p. 80680R-1 - 80680R-15 : ill

High voltage diffusion welded stacks on the basis of SiC Schottky diodes

Korolkov, Oleg; Sleptšuk, Natalja; Annus, Paul; Land, Raul; Rang, Toomas ICSRM 2015 : program guide 2015 / p. 73

High-accuracy eddy current measurements of metals

Märten, Olev; Land, Raul; Rist, Marek; Pokatilov, Andrei 2014 IEEE International Workshop On Metrology For Aerospace : May 29-30, 2014, Benevento, Italy : proceedings 2014 / p. 155-160 : ill

High-voltage diffusion welded stacks on the basis of SiC Schottky diodes

Korolkov, Oleg; Sleptšuk, Natalja; Annus, Paul; Land, Raul; Rang, Toomas Silicon carbide and related materials 2015 (ICSRM 2015) : selected, peer reviewed papers from the 16th International Conference on Silicon Carbide and Related Materials, October 4-9, 2015, Giardini Naxos, Italy 2016 / p. 790-794 : ill <http://dx.doi.org/10.4028/www.scientific.net/MSF.858.790>

How many frequencies to use in electrical bioimpedance measurement?

Ojarand, Jaan; Land, Raul; Min, Mart; Rist, Marek International Workshop on Impedance Spectroscopy : IWIS 2016 : September 26-28, 2016, Technische Universität Chemnitz, Germany : abstract book 2016 / p. 24-25 : ill

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>

Impedance measurement solution based on the high time resolution DSP

Märtens, Olev; Land, Raul; Min, Mart; Annus, Paul; Rist, Marek 2020 IEEE International Instrumentation and Measurement Technology Conference (I2MTC 2020), May 25-29, 2020, Dubrovnik, Croatia : proceedings 2020 <https://doi.org/10.1109/I2MTC43012.2020.9128843>

Improved impedance analyzer with binary excitation signals

Märtens, Olev; Land, Raul; Min, Mart; Annus, Paul; Rist, Marek; Reidla, Marko 2015 IEEE 9th International Symposium on Intelligent Signal Processing (WISP 2015) : Siena, Italy, 15-17 May 2015 : [proceedings] 2015 / p. 25-29 : ill

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

Improvements in design of spectra of multisine and binary excitation signals for multi-frequency bioimpedance measurement

Land, Raul; Cahill, Brian; Parve, Toomas; Annus, Paul; Min, Mart 33rd Annual International Conference of the IEEE Engineering in Medicine and Biology Society : EMBS : Boston, Massachusetts USA, August 30 - September 3, 2011 2011 / p. 4038-4041 : ill

Improving coplanar electrodes for moving water droplets

Giannitsis, Athanasios; Cahill, Brian; Pliquet, Uwe; Gastrock, Gunter; **Land, Raul; Nacke, T.; Min, Mart; Beckmann, Dieter** Proceedings of the 1st European Conference on Microfluidics - Microfluidics 2008 : Bologna, Italy December 10-12, 2008 2008 / [10] p

Induction brazing of cermets to steel and eddy current testing of joint quality

Laansoo, Andres; Kübarsepp, Jakob; Surženkov, Andrei; Land, Raul; Märtens, Olev; Viljus, Mart Welding in the World 2020 / p. 563-571 <https://doi.org/10.1007/s40194-020-00854-x> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

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-sleptuk-a-raul-land-a-jana-toompuu-a-alexander-lebedev-b-valery-davydov-b-ilya-eliseyev-b.pdf>

Laser line detection with sub-pixel accuracy

Mölder, Ago; Märtens, Olev; Saar, Tõnis; Land, Raul Elektronika ir elektrotehnika = Electronics and electrical engineering 2014 / p. 132-135 : ill

Laser scanner calibration dependency on the line detection method

Mölder, Ago; Märtens, Olev; Saar, Tõnis; Land, Raul Elektronika ir elektrotehnika = Electronics and electrical engineering 2015 / p. 66-69 : ill <http://dx.doi.org/10.5755/j01.eee.21.6.13765>

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

Priidel, Eiko; Annus, Paul; Metshein, Margus; Land, Raul; Märtens, 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

Magnetic induction sensor for the respiration monitoring

Ojarand, Jaan; Pille, Siim; **Min, Mart; Land, Raul; Oleitšuk, J.** The 10th International Conference on Bioelectromagnetism : proceedings 2015 / [4] p. : ill

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

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

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; Märtens, 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](#)

Mixed signal testing at the Electronics Testlab, TTU

Land, Raul Electronics Design and Test : international user forum : compendium of papers : Tallinn Technical University, 11. October 2000, Estonia 2000 / [3] p. : ill

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/>

A modular 6LoWPAN-based wireless sensor body area network for health-monitoring applications

Le Moullec, Yannick; Lecat, Yoann; Annus, Paul; Land, Raul; Kuusik, Alar; Reidla, Marko; Hollstein, Thomas; Reinsalu, Uljana; Tammemäe, Kalle; Ruberg, Priit APSIPA ASC 2014 : Asia-Pacific Signal and Information Processing Association Annual Summit and Conference 2014 : December 9-12, 2014, Siem Reap, city of Angkor Wat, Cambodia 2014 / [4] p. : ill

Modular system for fast impedance spectrum analysis of biomedical objects

Rist, Marek; Reidla, Marko; Märtens, 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; Märtens, 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

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

Märtens, 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>

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

New synchronous measurement technique for intracardiac impedance analysis

Kuusik, Alar; Land, Raul; Min, Mart; Parve, Toomas International journal of bioelectromagnetism 2003 / 1, Advances in Electrocardiology : proceedings of the XXX International Congress of Electrocardiology : ICE2003 : June 11-14, 2003, Helsinki, Finland, p. 23-24

Nonlinear chirp pulse excitation for the fast impedance spectroscopy

Ojarand, Jaan; Annus, Paul; **Land, Raul; Parve, Toomas; Min, Mart** Elektronika ir elektrotehnika = Electronics and electrical engineering 2010 / 4, p. 73-76 : ill

Nonuniform sampling and demodulation for wideband multi-frequency bioimpedance measurements

Min, Mart; Bilinskis, Ivars; Artyukh, Y.; Annus, Paul; Land, Raul; Märtens, Olev Proceedings of the "2007 Workshop on digital

Notes on applicability of the impedance spectroscopy for characterization of materials and substances

Annus, Paul; Land, Raul; Min, Mart; Reidla, Marko; Rist, Marek I2MTC 2016 : 2016 IEEE International Instrumentation and Measurement Technology Conference : May 23-26, 2016, Taipei International Convention Center, Taipei, Taiwan : proceedings 2016 / p. 1052-1057 : ill <https://doi.org/10.1109/I2MTC.2016.7520513>

Number of effective bits for smart sensor as ADC with non-electrical input

Land, Raul Proceedings of the 10th IMEKO TC-4 International Symposium on Development in Digital Measuring Instrumentation and 3rd Workshop on ADC Modelling and Testing, 17-18 Sept. 1998, Naples, Italy. Vol. 1 1998 / p. 434-438

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; Märten, Olev Journal of sensors 2023 / art. 5710835 <https://doi.org/10.1155/2023/5710835>

Optimization of electrowetting electrodes : analysis of the leakage current characteristics of various dielectric layers

Cahill, Brian; Giannitsis, Athanasios; Land, Raul; Min, Mart 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. 79-82 : ill

Phase and frequency stability of PLL systems

Land, Raul Automation, simulation & measurement : ASM'91 : 3rd biennial conference, Tallinn, October 7-11, 1991. Section A. Section M / Tallinn Technical University 1992 / p. 100-107: ill

Phase-increment sampling in chirp signal based impedance measurements

Märten, Olev; Min, Mart; Land, Raul; Ojarand, Jaan; Rist, Marek Sampling Theory and Applications 2017 : 12th International Conference : Tallinn, Estonia, July 3-7 : program and abstracts 2017 / p. 65

Phase-increment sampling in chirp signal based impedance measurements [Electronic resource]

Märten, Olev; Min, Mart; Land, Raul; Ojarand, Jaan; Rist, Marek 2017 International Conference on Sampling Theory and Applications (SampTA) : 12th International Conference : Tallinn, Estonia, July 3-7 : [abstracts] 2017 / p. 66. [USB]

Phase-increment sampling in chirp signal based impedance measurements [Online resource]

Märten, Olev; Min, Mart; Land, Raul; Ojarand, Jaan; Rist, Marek 2017 International Conference on Sampling Theory and Applications (SampTA) : 12th International Conference : Tallinn, Estonia, July 3-7 : [proceedings] 2017 / p. 604-608 : ill <https://doi.org/10.1109/SAMPTA.2017.8024393>

Piccolo-stick and pcb-coil based simple coin validator

Reidla, Marko; Märten, Olev; Land, Raul; Rist, Marek EDERC 2012 : proceedings of the 5th European DSP in Education & Research Conference : 13-14 September 2012, Amsterdam, The Netherlands 2012 / p. 81-84 <https://ieeexplore.ieee.org/document/6532230>

Piecewise linearly approximated sine wave for dynamic quality tests of A/D converters

Land, Raul Proceedings of the Estonian Academy of Sciences. Engineering 2000 / 2, p. 113-119 : ill https://artiklid.elnet.ee/record=b1004041*est

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

Märten, 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>

Precise eddy current measurements : improving accuracy of determining of electrical conductivity of metal plates

Märten, Olev; Land, Raul; Gordon, Rauno; Min, Mart; Rist, Marek; Pokatilov, Andrei Lecture notes on impedance spectroscopy : measurement, modeling and applications. Vol. 4 2014 / p. 109-115 : ill

Process instrumentation for impedance spectroscopy - a modular concept

Nacke, T.; Land, Raul; Barthel, A. 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. 235-238

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

QUADRA impedance spectroscopy devices for dynamic measurements of bio-objects

Rist, Marek; Reidla, Marko; Märten, Olev; Min, Mart; Annus, Paul; Land, Raul; Parve, Toomas 34th Annual International IEEE EMBS Conference : August 28 - September 1, 2012, Hilton Bayfront Hotel in San Diego, California, USA : abstracts 2012 / p. 557 : ill

Quantization of the response signal differences for the electrical bioimpedance measurement

Annus, Paul; Land, Raul; Priidel, Eiko; Metshein, Margus; Min, Mart; Märten, 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

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

Reversible electrowetting on silanized silicon nitride

Cahill, Brian; Giannitsis, Athanasios; **Land, Raul**; Gastrock, Gunter; Pliquett, Uwe; Frense, Dieter; **Min, Mart**; Beckmann, Dieter Sensors and actuators B. Chemical 2010 / p. 380-386 : ill

Scalable impedance spectroscopy : comparative study of sinusoidal and rectangular chirp excitations

Min, Mart; Parve, Toomas; Land, Raul; Annus, Paul Lecture notes on impedance spectroscopy : measurement, modeling and applications. Vol. 2 2012 / p. 33-38

Sensor-location-specific joint acquisition of peripheral artery bioimpedance and photoplethysmogram for wearable applications

Metshein, Margus; Abdullayev, Anar; Gautier, Antoine; Larras, Benoit; Frappe, Antoine; Cardiff, Barry; **Annus, Paul; Land, Raul; Märten, Olev** Sensors 2023 / art. 7111 <https://doi.org/10.3390/s23167111>

SiC JBS diode symmetrical voltage doubler represented as the diffusion-welded stack

Korolkov, Oleg; Land, Raul; Toompuu, Jana; Sleptšuk, Natalja; Rang, Toomas Silicon carbide and related materials 2017 : ICSCRM 2017 : selected, peer reviewed papers from the 2017 International Conference on Silicon Carbide and related materials, September 17-22, 2017, Washington, DC, USA 2018 / p. 862-865 : ill <https://doi.org/10.4028/www.scientific.net/MSF.924.862> [Conference Proceedings at Scopus](#) [Article at Scopus](#)

SIC schottky diode rectifier bridge represented as the diffusion-welded stack

Korolkov, Oleg; Kozlovski, Vitali V.; Lebedev, Alexander A.; **Land, Raul; Sleptšuk, Natalja; Toompuu, Jana; Rang, Toomas** Silicon Carbide and Related Materials 2016 : selected, peer reviewed papers from the 11th European Conference on Silicon Carbide and Related Materials 2016 (ECSCRM 2016), September 25-29, 2016, Halkidiki, Greece 2017 / p. 697-700 : ill <https://doi.org/10.4028/www.scientific.net/MSF.897.697>

SIC schottky diode rectifier bridge represented as the diffusion-welded stack

Korolkov, Oleg; Land, Raul; Sleptšuk, Natalja; Toompuu, Jana; Rang, Toomas 11th European Conference on Silicon Carbide and Related Materials : September 25-29, 2016, Porto Carras Grand Resort, Halkidiki, Greece : [poster session] 2016 / p. 42

Signals in bioimpedance measurement : different waveforms for different tasks

Min, Mart; Pliquett, 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 acoustical signature based coin validation

Märten, Olev; Gavrijaševa, Alina; Land, Raul; Min, Mart 2015 IEEE 9th International Symposium on Intelligent Signal Processing (WISP 2015) : Siena, Italy, 15-17 May 2015 : [proceedings] 2015 / p. 120-123 : ill

Simple signals for system identification

Annus, Paul; Land, Raul; Min, Mart; Ojarand, Jaan Fourier transform - signal processing 2012 / p. 257-276 : 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

Some errors during impedance measurement

Annus, Paul; Land, Raul; 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. 90

Some observations on impedance and Ferranti effect

Land, Raul; Min, Mart; Annus, Paul The 10th International Conference on Bioelectromagnetism : proceedings 2015 / [2] p. : ill

Spectral properties of the phase-locked harmonic analyzer

Min, Mart; Land, Raul XXIII General Assembly URSI : abstracts, Prague, 28. Aug.- 05. Sept., 1990. Vol. 2 1990 / p. 334

Step-wise approximated multi-cycle sine wave for dynamic tests of AD converters

Land, Raul XVI IMEKO World Congress : IMEKO2000 : proceedings of the 5th Workshop on ADC Modelling and Testing (EWADC'2000) : Vienna, Austria, Sept. 25-28, 2000 / p. 217-220

Study of electrode locations for joint acquisition of impedance- and electro-cardiography signals

Metshein, Margus; Gautier, Antoine; Larras, Benoit; Frappe, Antoine; John, Deepu; Cardiff, Barry; Annus, Paul; Land, Raul; Märtens, Olev 2021 43rd Annual International Conference of the IEEE Engineering in Medicine & Biology Society (EMBC) Oct 31 - Nov 4, 2021 : virtual conference 2021 / p. 7264-7267 : ill <https://doi.org/10.1109/EMBC46164.2021.9629504> [Conference Proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Sünkroonmuundustehnika faasitundliku spektraalanalüüsi vahendina : magistritöö

Land, Raul 1992 https://www.ester.ee/record=b2630379*est

Synchronous approximation and processing of sampled data signals

Land, Raul 2002 https://www.ester.ee/record=b1688698*est

The class of test signals for dynamic testing of AD converters

Land, Raul The 7th Biennial Conference on Electronics and Microsystem Technology "Baltic Electronics Conference" : BEC 2000 : October 8 - 11, 2000, Tallinn, Estonia : conference proceedings 2000 / p. 127-128 : ill

The impedance spectroscopy of CuIn3Se5 photoabsorber films prepared by high vacuum evaporation technique

Laes, Kristjan; Bereznev, Sergei; Land, Raul; Tverjanovich, Andrey; Volobujeva, Olga; Traksmas, Rainer; Raadik, Taavi; Öpik, Andres Energy procedia 2010 / 1, p. 119-131 : ill

The measurement and tuning of SiC diode voltage doubler represented as diffusion-welded stack [Online resource]

Toompuu, Jana; Sleptšuk, Natalja; Land, Raul; Korolkov, Oleg; Rang, Toomas BEC 2018 : 2018 16th Biennial Baltic Electronics Conference (BEC) : proceedings of the 16th Biennial Baltic Electronics Conference, October 8-10, 2018 / 4 p.: ill <https://doi.org/10.1109/BEC.2018.8600963>

The realization of the synchronous signal conditioning and demodulating system

Land, Raul BEC : Baltic Electronics Conference : proceedings of the 4th Biennial Conference, October 9-14, 1994, Tallinn (Estonia). 1 1994 / p. 151-158: ill

Time-frequency impedance spectroscopy : excitation considerations

Land, Raul; Annus, Paul; Min, Mart Proceedings of the 15th IMEKO TC4 International Symposium on Novelties in Electrical Measurements and Instrumentations : Iasi, Romania, September 18-22, 2007. 1 2007 / p. 328-331

TMS320F2811-based multi-frequency multi-channel bio-impedance measurement device

Märtens, Olev; Min, Mart; Land, Raul; Liimets, Aivar; Trampärk, Harri; Annus, Paul EDERS 2008 : 3rd European DES Education & Research Symposium : proceedings : Tel Aviv, Israel, 18th June 2008 / p. 179-183. [CD-ROM]

TMS320F28069-based impedance spectroscopy with binary excitation

Rist, Marek; Reidla, Marko; Min, Mart; Parve, Toomas; Märtens, Olev; Land, Raul EDERC 2012 : proceedings of the 5th European DSP in Education & Research Conference : 13-14 September 2012, Amsterdam, The Netherlands 2012 / p. 217-220 <https://ieeexplore.ieee.org/document/6532258>

TMS320F28335-based high-accuracy complex network analyzer instrument

Reidla, Marko; Märtens, Olev; Land, Raul EDERC 2012 : proceedings of the 5th European DSP in Education & Research Conference : 13-14 September 2012, Amsterdam, The Netherlands 2012 / p. 44-47 <https://ieeexplore.ieee.org/abstract/document/6532222>

Two methods for estimating the signal-to-noise ratio of distance sensors

Breitenbach, Arvid; **Land, Raul** BEC'98 : the 6th Biennial Conference on Electronics and Microsystems Technology, October 7-9, 1998, Tallinn, Estonia : proceedings 1998 / p. 117-120: ill

Variation of cardiac and respiratory waveform on human thorax in the case of inductive coupling

Metshein, Margus; Annus, Paul; Land, Raul; Krivošei, Andrei; Ojarand, Jaan; Aabloo, Alvo; 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. 671-674 : ill https://doi.org/10.1007/978-981-10-5122-7_168

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

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>

Астатическая система ФАП с цифровым интегратором

Land, Raul; Min, Mart Моделирование и управление в системах технической кибернетики 1987 / с. 37-42

Вопросы разработки измерительного канала векторвольтметров дискретного действия

Parve, Toomas; Land, Raul; Lipping, Kalle Синхронные измерительные преобразователи 1984 / с. 17-27

Вопросы спектрального анализа с помощью синхронного преобразователя дискретного действия

Land, Raul Анализ и синтез сложных систем и цепей с помощью ЭВМ 1988 / с. 57-62

Динамический синтез следящих систем третьего порядка

Land, Raul; Mehik, Allan; Min, Mart XXV студенческая научно-техническая конференция вузов Прибалтийских республик, Белорусской ССР и Молдавской ССР, 21-23 апреля 1981 года : тезисы докладов. Том 2, Автоматика. Энергетика. Механика. Химия 1981 / с. 41-42 https://www.ester.ee/record=b1322629*est

Переходные процессы в неавтономной системе ФАП третьего порядка

Land, Raul; Min, Mart Анализ и синтез сложных систем и цепей с помощью ЭВМ 1986 / с. 71-80

Применение адаптивных синхронных преобразователей в НИС

Land, Raul; Lipping, Kalle Измер. информац. системы ИИС-91, Санкт-Петербург, ноябрь 26-28, 1991 1991 / с. 1

Фазостабильный опорный канал квадратурного анализатора

Land, Raul Тезисы докладов всесоюзной научно-технической конференции "Современные проблемы фазоизмерительной техники и ее применения" : 18-22 сент. 1989 г 1989 / с. 20

Электротехника и автоматика

Bachverk, Aleksander; Min, Mart; Parve, Toomas; Land, Raul; Lipping, Kalle; Võrno, Toivo; Logunov, Gennadi; Rüstern, Ennu; Peterson, Jaak; Trumm, Tõnu; Trampärk, H.; Sillamaa, Hanno 1984 https://www.ester.ee/record=b1356648*est

Электротехника и автоматика

Mägi, Harri; Rüstern, Ennu; Aarna, Olav; Kiitam, Andres; Land, Raul; Min, Mart; Ronk, Ants; Parve, Toomas; Rang, Toomas; Mahhitko, V.P.; Šendrik, M.G.; Tamm, Boris, inform. 1986 https://www.ester.ee/record=b1296468*est

Электротехника и автоматика

Laansoo, Ants; Aarna, Olav; Metsanurm, Margus; Teder, Toomas; Kiitam, Andres; Saks, Eva; Land, Raul; Min, Mart; Rimmel, Ülo; Ronk, Ants; Rang, Toomas 1987 https://www.ester.ee/record=b1221893*est

Электротехника и автоматика

Pikkov, Otto; Uutma, Toomas; Seppel, Simmu; Umbleja, Uko; Väljamäe, Gunnar; Gordon, Boris; Proode, Ülo; Raiend, Kullo; Aarna, Olav; Metsanurm, Margus; Land, Raul; Lipping, Kalle; Ronk, Ants; Saar, R. 1988 https://www.ester.ee/record=b1288214*est