

### **Aspects of using chirp excitation for estimation of bioimpedance spectrum**

**Paavle, Toivo; Min, Mart; Parve, Toomas** Fourier transform - signal processing 2012 / p. 237-256 : ill

### **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 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 2007 / p. 412-415

### **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

### **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>

### **Deviation extension problems and nonlinear effects in the phase locked loop frequency demodulators**

**Min, Mart; Männama, Vello; Paavle, Toivo** Proceedings of the Estonian Academy of Sciences. Engineering 2000 / 2, p. 120-134 : ill [https://artiklid.elnet.ee/record=b1004042\\*est](https://artiklid.elnet.ee/record=b1004042*est)

### **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 simulation of analog phase locked loops**

**Min, Mart; Paavle, Toivo; Kiive, Rein** Automation, simulation & measurement : ASM'91 : 3rd biennial conference, Tallinn, October 7-11, 1991. Section A. Section M / Tallinn Technical University 1992 / p. 135-150: ill

### **Discrete-level broadband excitation signals : binary/ternary chirps**

**Paavle, Toivo; Min, Mart** Elektronika ir elektrotehnika = Electronics and electrical engineering 2012 / p. 23-26 : ill

### **Hüvasti, halduskogud!**

**Paavle, Toivo** Eesti Päevaleht 1999 / 6. apr., lk. 6

### **Hüve kogu linnale : [kanalisatsiooni rajamisest]**

**Paavle, Toivo** Eesti Päevaleht 1999 / 27. sept., lk. 6

### **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

### **Kelle mure? : [Maardu-Miiduranna raudteeäärse ala ligipääsmatus võib õnnetuse korral saada saatuslikuks Merivälja ja Viimsi elukeskkonnale]**

**Paavle, Toivo** Postimees 2004 / 19. juuni, lk. 12

### **Kius ja/või kurjus**

**Paavle, Toivo** Eesti Päevaleht 1998 / 5. apr., lk. 4

### **Kodanik saab ametniku pärast karistada**

**Paavle, Toivo** Maaleht 1998 / 29. jaan., lk. 12 [https://artiklid.elnet.ee/record=b1753587\\*est](https://artiklid.elnet.ee/record=b1753587*est)

### **Kompromissivõimalus kruntide erastamisel**

**Paavle, Toivo** Eesti Päevaleht 1996 / 31. jaan. Ärileht, lk. 2 [https://artiklid.elnet.ee/record=b1842046\\*est](https://artiklid.elnet.ee/record=b1842046*est)

**Kruntide erastamisel tuleks järgida kolme printsiipi**

**Paavle, Toivo** Eesti Päevaleht 1996 / 10. apr. Ärileht, lk. 4

**Limitations in using additional delays for linearity improvement of phase-frequency detectors**

**Paavle, Toivo** Raadiotehnika 2001 : VIII rahvusvahelise telekommunikatsioonipäeva materjalid 2001 / lk. 115-120 : ill

**Linearity and stability analysis of a class of phase-frequency detectors**

**Männama, Vello; Paavle, Toivo** Iranian journal of electrical and computer engineering 2002 / 1, p. 51-53

**Linearity restrictions for a class of phase frequency detectors**

**Männama, Vello; Paavle, Toivo** Proceedings of the Estonian Academy of Sciences. Engineering 2001 / 4, p. 331-346 : ill

**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

**Magistripaberitega valveelektriku vaatevinkel : [intervjuu Toivo Paavlega]**

Sild, Ants; **Paavle, Toivo** Autoleht 2000 / nr. 10, 18. mai : fot

**Majaomanikud alustasid surveavaldusi**

**Paavle, Toivo** Postimees 1997 / 29. dets., lk. 10

**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

**Method of synchronous undersampling for complex bioimpedance measurement system**

**Min, Mart; Paavle, Toivo** Proceedings of European Conference on Circuit Theory and Design : ECCTD'03 : September 1-4, 2003, Cracow, Poland 2003 / p. 302-305

**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

**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

**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](https://link.springer.com/chapter/10.1007/978-3-642-23508-5_327)

**Muretud ametnikud : [linnaametnike palkadest]**

**Paavle, Toivo** Eesti Päevaleht 1998 / 8. dets., lk. 6

**On deviation restrictions in PLL frequency demodulators**

**Min, Mart; Männama, Vello; Paavle, Toivo** BEC'98 : the 6th Biennial Conference on Electronics and Microsystems Technology, October 7-9, 1998, Tallinn, Estonia : proceedings 1998 / p. 93-96 : ill

**Parametric optimization of the acquisition time of PLL frequency synthesizers**

**Paavle, Toivo** Telekommunikatsioon 2002 : IX rahvusvahelise telekommunikatsioonipäeva materjalid 2002 / lk. 24-30 : ill

**Parteitu ülistus parteile**

**Paavle, Toivo** Eesti Päevaleht 1998 / 16. apr., lk. 6

**Phase insensitivity in the charge pump phase locked loops**

**Paavle, Toivo** Elektroonika 2000 : VII rahvusvahelise telekommunikatsioonipäeva konverentsi ettekannete materjalid 2000 / p. 78-86 : ill

### **Phase-domain modeling of the PLL frequency synthesizers**

**Paavle, Toivo** BEC 2002 : proceedings of the 8th Biennial Baltic Electronics Conference : October 6-9, 2002, Tallinn, Estonia 2002 / p. 173-176 : ill

### **Phase-frequency detector modeling for the PLL applications**

**Männama, Vello; Paavle, Toivo** The 7th Biennial Conference on Electronics and Microsystem Technology "Baltic Electronics Conference" : BEC 2000 : October 8 - 11, 2000, Tallinn, Estonia : conference proceedings 2000 / p. 119-122 : ill

### **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 : ICEB/EIT 2004 : June 20-24, 2004, Gdansk, Poland. Vol. 2 2004 / p. 347-350

### **Pridurkade keskkonna igavikulisus : [privileegeritud ametnikkonnast]**

**Paavle, Toivo** KesKus 2001 / 3. märts, lk. 6 : portr

### **Raamatukogu likvideerimisest : [Merivälja raamatukogust]**

**Paavle, Toivo** Eesti Päevaleht 1998 / 3. nov., lk. 6

### **Rahvuslikud lootused ja tegelikkus**

**Paavle, Toivo** Eesti Päevaleht 1996 / 17. apr., lk. 2

### **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

### **Retangular-wave chirps for broadband measurement : spectra and energy**

**Paavle, Toivo; Min, Mart** BEC 2012 : 2012 13th Biennial Baltic Electronics Conference : proceedings of the 13th Biennial Baltic Electronics Conference : October 3-5, 2012, Tallinn, Estonia 2012 / p. 195-198 : ill

### **Settling time minimization in PLL frequency synthesizers**

**Min, Mart; Männama, Vello; Paavle, Toivo** ICCSC'02 : 1st IEEE International Conference on Circuits and Systems for Communications, 26-28 June, 2002, St.Petersburg, Russia : proceedings 2002 / p. 366-369 : ill

### **Short-time chirp excitation for wideband identification of dynamic objects**

**Paavle, Toivo** Estonian journal of engineering 2011 / 2, p. 169-179 : ill

### **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

### **Signal distortion and waveform conversion in a classical PLL**

**Min, Mart; Männama, Vello; Paavle, Toivo** Proceedings of the European Conference on Circuit Theory and Design ECCTD'99 : August 29-September 2, 1999, Stresa, Italy 1999 / p. 127-130

### **Signal distortion in the phase locked loop**

**Paavle, Toivo** Ringhääling '99 : VI Rahvusvahelise Telekommunikatsioonipäeva konverentsi ettekannete materjalid 1999 / lk. 95-98: ill

### **Simulation of the phase locked loops**

**Paavle, Toivo** Telekommunikatsioon '98 : rahvusvahelise telekommunikatsioonipäeva konverentsi ettekannete materjalid, 15. mai 1998 1998 / lk. 73-78: ill

### **Sooduserastamise vastaste põhimõtted on arusaamatud**

**Paavle, Toivo** Eesti Päevaleht 1996 / 17. jaan. Ärileht, lk. 3

### **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 level modeling of phase locked loops : behavioral analysis and parameterization**

**Paavle, Toivo** 2009 [https://www.eester.ee/record=b1809261\\*est](https://www.eester.ee/record=b1809261*est)

### **System level modeling of phase locked loops : behavioral analysis and parameterization**

**Paavle, Toivo** 2003 [https://www.ester.ee/record=b1809261\\*est](https://www.ester.ee/record=b1809261*est)

**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

**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

**Time-frequency analysis of biological matter using short-time chirp excitation**

**Min, Mart; Paavle, Toivo; Ojarand, Jaan** 2011 20th European Conference on Circuit Theory and Design (ECCTD) : Linköping, Sweden, August 29-31, 2011 : proceedings 2011 / p. 298-301 : ill

**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

**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>

**Viirusekandja mõtteid**

**Paavle, Toivo** Eesti Päevaleht 1998 / 5. mai, lk. 6

**Äri ärasolkimisest : [odavate noorperekodude rajamisest : vastukaja artiklile Eesti Päevalehes 28.06.2000]**

**Paavle, Toivo** Eesti Päevaleht 2000 / 10. juuli, lk. 6

**Ühele maksuparadiis, teisele põrgu : [maamaksust]**

**Paavle, Toivo** Eesti Päevaleht 1999 / 19. nov., lk. 6: ill

**Динамический синтез системы ФАП третьего порядка**

**Kiive, Rein; Min, Mart; Paavle, Toivo** Тезисы докладов республиканской научно-технической конференции, посвященной Дню радио. [1], Секция: Информационно-измерительная техника 1981 / с. 9-10 : ил [https://www.ester.ee/record=b1310782\\*est](https://www.ester.ee/record=b1310782*est)

**Моделирование детерминированной системы ФАПЧ на АВМ**

**Min, Mart; Paavle, Toivo** Труды по электротехнике и автоматике : сборник статей. 13 1975 / с. 67-71 : илл [https://www.ester.ee/record=b2190710\\*est](https://www.ester.ee/record=b2190710*est) <https://digikogu.taltech.ee/et/Item/ffbd63ed-06d6-4bbb-9468-118f743cc87f>

**Определение полосы затягивания системы ФАПЧ второго порядка**

**Min, Mart; Paavle, Toivo** Труды по электротехнике и автоматике : сборник статей. 13 1975 / с. 73-77 : илл [https://www.ester.ee/record=b2190710\\*est](https://www.ester.ee/record=b2190710*est) <https://digikogu.taltech.ee/et/Item/ffbd63ed-06d6-4bbb-9468-118f743cc87f>

**Труды по электротехнике и автоматике**

**Rüstern, Ennu; Sudnitsõn, Aleksander; Ubar, Raimund-Johannes; Grigorjeva, Ksenja; Plakk, Mari; Viilup, Agu; Plaks, Toomas; Gordon, Boris; Einer, Lauri; Väljamäe, Gunnar; Seppel, Simmu; Tilk, Johan; Uutma, Toomas; Kariler, R.; Min, Mart; Paavle, Toivo; Männama, Vello** 1979 [https://www.ester.ee/record=b1281890\\*est](https://www.ester.ee/record=b1281890*est)