A finite feedback linearization algorithm for nonlinear control systems
Kaldmäe, Arvo Proceedings of the 8th Annual Conference of the Estonian National Doctoral School in Information and Communication Technologies : December 5-6, 2014, Rakvere 2014 / p. 53-56

A neutral network based identification for complex non-linear systems
Vaarmann, Otu Proceedings of the 3rd International Conference on Applied Operational Research, 24-26 August 2011, Istanbul, Turkey 2011 / p. 39-46

A note on the relationship between single- and multi-experiment observability for discrete-time nonlinear control systems
Kaparin, Vadim; **Kotta, Ülle**; Shumsky, Alexey Ye.; Zhirabok, Alexey N. Proceedings of the Estonian Academy of Sciences 2011 / 3, p. 174-178

A novel Taylor series based approach for control computation in NN-ANARX structure based control of nonlinear systems
Belikov, Juri; **Vassiljeva, Kristina**; **Petlenkov, Eduard**; **Nõmm, Sven** Proceedings of the 27th Chinese Control Conference : July 16-18, 2008, Kunming, Yunnan, China. 2 2008 / p. 474-478 https://ieeexplore.ieee.org/document/4605837

A polynomial approach to a nonlinear model matching problem
Belikov, Juri; Halas, Miroslav; **Kotta, Ülle**; Moog, Claude Proceedings of the Estonian Academy of Sciences 2016 / p. 330-344 : ill https://doi.org/10.3176/proc.2016.4.02 https://artiklid.elnet.ee/record=b2808634*est

A transfer function approach to the realisation problem of nonlinear systems
Halas, Miroslav; **Kotta, Ülle** International journal of control 2012 / p. 320-331

Accessibility and system reduction of nonlinear time-delay control systems
Bartosiewicz, Zbigniew; **Kaldmäe, Arvo**; Kawano, Yu; **Kotta, Ülle**; Pawluszewicz, Ewa; **Simha, Ashutosh**; Wyrwas, Małgorzata IEEE Transactions on Automatic Control 2021 / p. 3781−3788 https://doi.org/10.1109/TAC.2020.3028566 Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

Accessibility conditions of MIMO nonlinear control systems on homogeneous time scales
Bartosiewicz, Zbigniew; **Kotta, Ülle**; **Tõnso, Maris**; Wyrwas, Małgorzata Mathematical control and related fields 2016 / p. 217-250 https://doi.org/10.3934/mcrf.2016002

Acessibility conditions for discrete time nonlinear multiinput multioutput systems
Kotta, Ülle; **Tõnso, Maris** 5th Junior European Meeting on Control & Information Technology : September 20-22, 2006, Tallinn, Estonia : book of abstracts 2006 / p. 25

Adaptive output feedback linearization for a class of NN-based ANARX models
Petlenkov, Eduard; **Nõmm, Sven**; **Kotta, Ülle** Proceedings of the 6th IEEE International Conference on Control and Automation : Guangzhou, China, May 30 - June 1, 2007 2007 / p. 3173-3178 https://ieeexplore.ieee.org/document/4376947

Adjoint polynomial formulas for nonlinear state-space realization
Belikov, Juri; **Kotta, Ülle**; **Tõnso, Maris** IEEE transactions on automatic control 2014 / p. 256-261

Advanced design of nonlinear discrete-time and delayed systems = Diskreetsete ja hilistumistega mittelineaarsete juhtimissüsteemide süntees
Kaldmäe, Arvo 2016 https://digi.lib.ttu.ee/i/?5215 https://www.ester.ee/record=b4569894*est

Algebraic approach for analysis and control of a water tank system
Belikov, Juri; **Kotta, Ülle**; **Tepljakov, Aleksei** Information technology and control 2016 / p. 175-183 : ill http://dx.doi.org/10.5755/j01.itc.45.2.13212

Algebraic formalism of differential one-forms for nonlinear control systems on time scales
Bartosiewicz, Zbigniew; **Kotta, Ülle**; Pawluszewicz, Ewa; Wyrwas, Małgorzata Proceedings of the Estonian Academy of Sciences. Physics. Mathematics 2007 / 3, p. 264-282

Algebraic formalism of differential p-forms and vector fields for nonlinear control systems on homogeneous time scales
Bartosiewicz, Zbigniew; **Kotta, Ülle**; Pawluszewicz, Ewa; **Tõnso, Maris**; Wyrwas, Małgorzata Proceedings of the Estonian Academy of Sciences 2013 / p. 215-226

Algebraic necessary and sufficient condition for difference flatness
Kaldmäe, Arvo International Journal of Control 2021 / 8 p https://doi.org/10.1080/00207179.2021.1908598 Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

Any dynamical system is fully accessible through one singleactuator and related problems

Kawano, Yu; **Kotta, Ülle**; Moog, Claude International journal of robust and nonlinear control 2016 / p. 1748-1754
http://dx.doi.org/10.1002/rnc.3379

Application of neural networks based SANARX model for identification and control liquid level tank system
Belikov, Juri; **Nõmm, Sven**; **Petlenkov, Eduard**; **Vassiljeva, Kristina** 2013 12th International Conference on Machine Learning and Applications : ICMLA 2013 : 4-7 December 2013, Miami, Florida, USA : proceedings. Vol. 1 2013 / p. 246-251 : ill

A brief tutorial overview of disturbance observers for nonlinear systems : application to flatness-based control
Kaldmäe, Arvo; **Kotta, Ülle** Proceedings of the Estonian Academy of Sciences 2020 / p. 57-73 : ill
https://doi.org/10.3176/proc.2020.1.07 http://www.kirj.ee/33035/?tpl=1061&c_tpl=1064 Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

Comments on 'A new kind of nonlinear disturbance observer for nonlinear systemswith applications to cruise control of air-breathing hypersonic vehicles'
Kaldmäe, Arvo; **Kotta, Ülle** International journal of control 2020 / p. 1725 https://doi.org/10.1080/00207179.2018.1529436 Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

Comments on "PBH tests for nonlinear systems"
Sarafrazi, Mohammad Amin; Bartosiewicz, Zbigniew; **Kotta, Ülle** Automatica 2020 / art. 108617
https://doi.org/10.1016/j.automatica.2019.108617 Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

Comparison of LPV and nonlinear system theory : a realization problem
Belikov, Juri; **Kotta, Ülle**; **Tõnso, Maris** Systems & control letters 2014 / p. 72-78

Computational intelligence methods based design of closed-loop system
Belikov, Juri; **Petlenkov, Eduard**; **Vassiljeva, Kristina**; **Nõmm, Sven** Neural information processing : 20th International Conference, ICONIP 2013, Daegu, Korea, November 3-7, 2013 : proceedings. Part I 2013 / p. 215-224 : ill

Computer algebra tools for modelling, analysis and synthesis for nonlinear control systems = Arvutialgebra vahendid mittelineaarsete juhtimissüsteemide modelleerimiseks, analüüsiks ja sünteesiks
Tõnso, Maris 2010 https://www.ester.ee/record=b2552427*est

Construction of flat outputs of nonlinear discrete-time systems in a geometric and an algebraic framework
Kolar, Bernd; **Kaldmäe, Arvo**; Schöberl, Markus; **Kotta, Ülle**; Schlacher, Kurt IFAC-PapersOnLine 2016 / p. 796-801
https://doi.org/10.1016/j.ifacol.2016.10.263

Controller and controllability canonical forms for discrete-time nonlinear systems
Kotta, Ülle Proceedings of the Estonian Academy of Sciences. Physics. Mathematics 2005 / 1, p. 55-62

Decomposition of discrete-time nonlinear control systems
Kotta, Ülle Proceedings of the Estonian Academy of Sciences. Physics. Mathematics 2005 / 3, p. 154-161

Degree of Dieudonne determinant defines the order of nonlinear system
Kotta, Ülle; **Belikov, Juri**; Halas, Miroslav; **Leibak, Alar** International journal of control 2019 / p. 518-527
https://doi.org/10.1080/00207179.2017.1361042 Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

Discrete approximation of nonlinear control
Lepp, Riho Selected papers of the Symposium on Operations Research (SOR96) , Braunschweig 1997 / p. 468-473

Disturbance decoupling by measurement feedback : sensor location
Kaldmäe, Arvo; **Kotta, Ülle**; Shumsky, Alexey; Zhirabok, Alexey Proceedings of the Estonian Academy of Sciences 2016 / p. 317-329 : ill http://dx.doi.org/10.3176/proc.2016.4.05 https://artiklid.elnet.ee/record=b2808632*est

Disturbance decoupling in nonlinear hybrid systems
Kaldmäe, Arvo; **Kotta, Ülle**; Shumsky, Alexey; Zhirabok, Alexey Nonlinear analysis : hybrid systems 2018 / p. 42-53
https://doi.org/10.1016/j.nahs.2017.11.001 Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

Disturbance decoupling in nonlinear hybrid systems [Electronic resource]
Kaldmäe, Arvo; **Kotta, Ülle**; Shumsky, Alexey; Zhirabok, Alexey 12th IEEE International Conference on Control and Automation : ICCA 2016 : Kathmandu, Nepal, 1-3 June 2016 2016 / p. 86-91 : ill. [USB] https://doi.org/10.1109/ICCA.2016.7505257

Disturbance decoupling of multi-input multi-output discrete-time nonlinear systems by static measurement feedback
Kaldmäe, Arvo; **Kotta, Ülle** Proceedings of the Estonian Academy of Sciences 2012 / p. 77-88
https://artiklid.elnet.ee/record=b2497319*est

Disturbance decoupling of time delay systems
Kaldmäe, Arvo; Moog, Claude Asian journal of control 2016 / p. 1130-1134 http://dx.doi.org/10.1002/asjc.1169

Disturbance decoupling problem in finite automata : sensor location problem
Kaldmäe, Arvo; **Kotta, Ülle**; Shumsky, Alexey; Zhirabok, Alexey 2016 IEEE Conference on Control Applications (CCA) : part of 2016 IEEE Multi-Conference on Systems and Control, September 19-22, 2016, Buenos Aires, Argentina 2016 / p. 481-486 : ill https://doi.org/10.1109/CCA.2016.7587876

Dynamic pole placement based control of nonlinear discrete time systems with input delay
Belikov, Juri; **Petlenkov, Eduard** Control Applications (CCA) & Intelligent Control (ISIC) : 2009 IEEE : 8-10 July 2009, St.Petersburg 2009 / p. 394-399

Equivalence of realizability conditions for nonlinear control systems
Kotta, Ülle; **Mullari, Tanel** Proceedings of the Estonian Academy of Sciences. Physics. Mathematics 2006 / 1, p. 24-42

Erratum : Linearization of discrete-time control system by state transformation
Mullari, Tanel; **Kotta, Ülle** Proceedings of the Estonian Academy of Sciences 2021 / p. 307 https://doi.org/10.3176/proc.2021.1.09 https://kirj.ee/wp-content/plugins/kirj/pub/Erratum-proc-3-2021-307_20210822154030.pdf

Event-triggered resilient distributed extended Kalman filter with consensus on estimation
Rezaei, Hossein; **Ghorbani, Majid** International Journal of Robust and Nonlinear Control 2022 / p. 1303 - 1315 https://doi.org/10.1002/rnc.5881 Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

Experimental validation of the Newton observer for a nonlinear flux-controlled AMB system operated with zero-bias flux
Mystkowski, Arkadiusz; Kierdelewicz, A.; **Kotta, Ülle**; **Kaparin, Vadim** International journal of control 2020 / p. 2257-2266 : ill https://doi.org/10.1080/00207179.2018.1552025 Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

Experimentally adjusted modelling and simulation technique for a catamaran autonomous surface vessel
Astrov, Igor; **Udal, Andres**; **Mõlder, Heigo**; **Jalakas, Tanel**; **Möller, Taavi** International Conference on Electrical, Computer, and Energy Technologies, ICECET 2022, Prague, Czech Republic, July 20-22, 2022 2022 / 7 p. : ill https://doi.org/10.1109/ICECET55527.2022.9873069

Experiments in neural network inverse modelling based control for a class of nonlinear systems
Petlenkov, Eduard; **Rüstern, Ennu** BEC 2004 : proceedings of the 9th Biennial Baltic Electronics Conference : October 3-6, 2004, Tallinn, Estonia 2004 / p. 145-148 : ill

Extended observer form : simple existence conditions
Kaparin, Vadim; **Kotta, Ülle**; **Mullari, Tanel** International journal of control 2013 / p. 794-803 : ill

Faulty plant reconfiguration based on disturbance decoupling methods
Kaldmäe, Arvo; **Kotta, Ülle**; Jiang, Bin; Shumsky, Alexey Ye.; Zhirabok, Alexey N. Asian journal of control 2016 / p. 858-867 : ill http://dx.doi.org/10.1002/asjc.1185

Feedback linearization and lattice theory
Kotta, Ülle; **Tõnso, Maris**; Shumsky, Alexey Ye.; Zhirabok, Alexey N. Systems & control letters 2013 / p. 248-255

Feedback linearization of an active magnetic bearing system operated with a zero-bias flux
Mystkowski, Arkadiusz; **Kaparin, Vadim**; **Kotta, Ülle**; Pawluszewicz, Ewa; **Tõnso, Maris** International journal of applied mathematics and computer science 2017 / p. 539-548 : ill https://doi.org/10.1515/amcs-2017-0038

Feedback linearization of possibly non-smooth systems
Kaldmäe, Arvo; **Kotta, Ülle**; Shumsky, Alexey; Zhirabok, Alexey Proceedings of the Estonian Academy of Sciences 2017 / p. 109-123 https://doi.org/10.3176/proc.2017.2.01 http://www.ester.ee/record=b2355998*est

Fiducial marker-based monocular localization for autonomous docking
Pivonka, Tomas; **Sell, Raivo**; **Pikner, Heiko**; **Preucil, Libor** IFAC-PapersOnLine 2023 / p. 2957-2962 https://doi.org/10.1016/j.ifacol.2023.10.1419

Finite determination of accessibility and singular points of nonlinear systems: an algebraic approach
Sarafrazi, Mohammad Amin; **Kotta, Ülle**; Bartosiewicz, Zbigniew Systems & control letters 2020 / art. 104600, p. 1–7 https://doi.org/10.1016/j.sysconle.2019.104600 Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

Flatness based control of a HVAC system
Kaldmäe, Arvo; **Kotta, Ülle** Information technology and control 2017 / p. 499-507 : ill http://dx.doi.org/10.5755/j01.itc.46.4.17697

Forward and backward shifts of vector fields : towards the dual algebraic framework

Mullari, Tanel; **Kotta, Ülle**; Bartosiewicz, Zbigniew; Pawluszewicz, Ewa; Moog, Claude IEEE transactions on automatic control 2017 / p. 3029-3033 https://doi.org/10.1109/TAC.2016.2608718

Functions' algebra in nonlinear control : computational aspects and software
Belikov, Juri; **Kaldmäe, Arvo**; **Kaparin, Vadim**; **Kotta, Ülle**; Shumsky, Alexey Ye.; **Tõnso, Maris**; Zhirabok, Alexey Proceedings of the Estonian Academy of Sciences 2017 / p. 89-107 https://doi.org/10.3176/proc.2017.1.06 http://www.ester.ee/record=b2355998*est

Further results on identifiability of discrete-time nonlinear systems
Nõmm, Sven; Moog, Claude Automatica 2016 / p. 69-74 : ill https://doi.org/10.1016/j.automatica.2016.01.054

Fuzzy logic control for a ball and beam system
Moezzi, Reza; **Vu, Trieu Minh**; **Tamre, Mart** International Journal of Innovative Technology and Interdisciplinary Sciences : IJITIS 2018 / p. 39-48 : ill https://doi.org/10.15157/IJITIS.2018.1.1.39-48

Global linearization approach to nonlinear control systems : a brief tutorial overview
Belikov, Juri; **Kaldmäe, Arvo**; **Kotta, Ülle** Proceedings of the Estonian Academy of Sciences 2017 / p. 243-263 https://doi.org/10.3176/proc.2017.3.01 http://www.ester.ee/record=b2355998*est

Input-output decoupling of discrete-time nonlinear systems by dynamic measurement feedback
Kaldmäe, Arvo; **Kotta, Ülle** European journal of control 2017 / p. 31-38 : ill https://doi.org/10.1016/j.ejcon.2016.12.004

Input–output linearization of discrete-time systems by dynamic output feedback
Kaldmäe, Arvo; **Kotta, Ülle** European journal of control 2014 / p. 73-78

Integrability for nonlinear time-delay systems
Kaldmäe, Arvo; Califano, Claudia; Moog, Claude IEEE transactions on automatic control 2016 / p. 1912-1917 https://doi.org/10.1109/TAC.2015.2482003

Kaoseraamat : [õpik]
Lepik, Ülo; **Engelbrecht, Jüri** 1999 https://www.ester.ee/record=b1268229*est

Kuidas segaduses korda luua
Võhandu, Leo Kindlus ja kindlusetus muutuvas maailmas : interdistsiplinaarne teoreetiline konverents : 27.-28. märtsil 2002 Tallinnas 2002 / lk. 58-65 https://artiklid.elnet.ee/record=b2112656*est

A linear filtering framework for nonlinear systems based on extended output injection
Simha, Ashutosh; **Kotta, Ülle** IFAC-PapersOnLine 2019 / p. 274-279 https://doi.org/10.1016/j.ifacol.2019.11.791 Conference proceedings at Scopus Article at Scopus Article at WOS

Linearization by generalized input-output injections on homogeneous time scales
Ciulkin, Monika; Pawluszewicz, Ewa; **Kaparin, Vadim**; **Kotta, Ülle** 2016 21st International Conference on Methods and Models in Automation and Robotics (MMAR 2016) : Miedzyzdroje, Poland, 29 August - 1 September 2016 2016 / p. 48-53 https://doi.org/10.1109/MMAR.2016.7575086

Linearization by input-output injections on homogeneous time scales
Ciulkin, Monika; **Kaparin, Vadim**; **Kotta, Ülle**; Pawluszewicz, Ewa Proceedings of the Estonian Academy of Sciences 2014 / p. 387-397 https://artiklid.elnet.ee/record=b2707375*est

Linearization of discrete-time control system by state transformation
Mullari, Tanel; **Kotta, Ülle** Proceedings of the Estonian Academy of Sciences 2021 / p. 62–79 https://doi.org/10.3176/proc.2021.1.09 https://kirj.ee/wp-content/plugins/kirj/pub/proc-1-2021-62-79_20210630094644.pdf?v=a57b8491d1d8 Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

Linearization of discrete-time nonlinear control systems
Kaldmäe, Arvo Info- ja kommunikatsioonitehnoloogia doktorikooli IKTDK seitsmenda aastakonverentsi artiklite kogumik : 15.-16. novembril 2013, Haapsalu 2013 / p. 29-32

Long-term stability of resting state EEG-based linear and nonlinear measures
Põld, Toomas; **Peäske, Laura**; **Hinrikus, Hiie**; **Lass, Jaanus**; **Bachmann, Maie** International journal of psychophysiology 2021 / p. 83-87 https://doi.org/10.1016/j.ijpsycho.2020.11.013 Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

Measurement feedback disturbance decoupling in discrete-event systems
Kaldmäe, Arvo; **Kotta, Ülle**; Shumsky, Alexey; Zhirabok, Alexey International journal of robust and nonlinear control 2015 / p. 3330-3348 http://dx.doi.org/10.1002/rnc.3265

Measurement feedback disturbance decoupling in discrete-time nonlinear systems
Kaldmäe, Arvo; **Kotta, Ülle**; Shumsky, Alexey Ye.; Zhirabok, Alexey N. Automatica 2013 / p. 2887-2891 : ill

Minimal realizations of nonlinear systems
Kotta, Ülle; Moog, Claude; **Tõnso, Maris** Automatica 2018 / p. 207-212 https://doi.org/10.1016/j.automatica.2018.05.007 Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

Minimal realizations of nonlinear time-delay systems
Kaldmäe, Arvo; Zbigniew, Bartosiewicz; **Kotta, Ülle**; Wyrwas, Malgorzata IEEE transactions on automatic control 2023 / 7 p https://doi.org/10.1109/TAC.2023.3240124

Model based control of a water tank system
Belikov, Juri; **Petlenkov, Eduard** Proceedings of the 19th IFAC World Congress, 2014 : Cape Town, South Africa, 24-29 August 2014 2014 / p. 10838-10843 : ill

Model matching problem for discrete-time nonlinear systems
Belikov, Juri; Halas, Miroslav; **Kotta, Ülle**; Moog, Claude Proceedings of the Estonian Academy of Sciences 2015 / p. 457-472 : ill https://artiklid.elnet.ee/record=b2750720*est

Model reference control of nonlinear MIMO systems by dynamic output feedback linearization of ANARX models
Belikov, Juri; **Petlenkov, Eduard** IEEE International Conference on Control and Automation : ICCA 2009 : Christchurch, New Zealand, December 9-11, 2009 2009 / p. 536-541 https://ieeexplore.ieee.org/document/5410177?tp=&arnumber=5410177

Model reference control of nonlinear TITO systems by dynamic output feedback linearization of neural network based ANARX models
Belikov, Juri; **Petlenkov, Eduard** Control Applications (CCA) & Intelligent Control (ISIC) : 2009 IEEE : 8-10 July 2009, St.Petersburg 2009 / p. 1820-1825 https://ieeexplore.ieee.org/document/5410177?tp=&arnumber=5410177

Modelling non-linear systems by extended Fourier series
Kukk, Vello Proceedings of the Estonian Academy of Sciences. Engineering 2001 / 4, p. 289-308 : ill

Nabla derivatives associated with nonlinear control systems on homogeneous time scales
Bartosiewicz, Zbigniew; **Kotta, Ülle**; **Mullari, Tanel**; **Tõnso, Maris**; Pawluszewicz, Ewa; Wyrwas, Małgorzata Nonlinear analysis : modelling and control 2016 / p. 547-563 http://dx.doi.org/10.15388/NA.2016.4.8

Neural network based dynamic pole placement control of nonlinear systems
Petlenkov, Eduard; **Belikov, Juri** IEEE International Conference on Control and Automation : ICCA 2009 : Christchurch, New Zealand, December 9-11, 2009 2009 / p. 410-415 https://ieeexplore.ieee.org/document/5410160

Neural networks based ANARX structure for identification and model based control
Petlenkov, Eduard; **Nõmm, Sven**; **Kotta, Ülle** 9th International Conference on Control, Automation, Robotics and Vision : 5-8 December, 2006, Singapore : [proceedings] 2006 / p. 2284-2288 https://ieeexplore.ieee.org/document/4150221

Neural networks based identification and control of nonlinear systems : ANARX model based approach
Petlenkov, Eduard 2007 https://www.ester.ee/record=b2315845*est

Neural networks based simplified ANARX structure for control on nonlinear MIMO systems
Petlenkov, Eduard Info- ja kommunikatsioonitehnoloogia doktorikooli IKTDK teise aastakonverentsi artiklite kogumik : 11.-12. mai 2007, Viinistu kunstimuuseum 2007 / lk. 39-42 : ill

Newton observer for a nonlinear flux-controlled AMB system
Mystkowski, Arkadiusz; **Kotta, Ülle**; **Kaparin, Vadim** Proceedings of the Estonian Academy of Sciences 2018 / p. 61-72 : ill https://doi.org/10.3176/proc.2018.1.03 http://www.ester.ee/record=b2355998*est Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

NLControl - a mathematica package for nonlinear control systems
Kotta, Ülle; **Tõnso, Maris** IFAC-PapersOnLine 2017 / p. 681-686 https://doi.org/10.1016/j.ifacol.2017.08.122

NN-ANARX model based control of nonlinear discrete-time systems with input delay
Belikov, Juri; **Petlenkov, Eduard** Control Applications (CCA) & Intelligent Control (ISIC) : 2009 IEEE : 8-10 July 2009, St.Petersburg 2009 / p. 1039-1044 https://ieeexplore.ieee.org/document/5281182

NN-ANARX structure based dynamic output feedback linearization for control of nonlinear MIMO systems
Petlenkov, Eduard Proceedings of the 15th Mediterranean Conference on Control and Automation : MED'07 : Athena (Greece), June 27-29, 2007 2007 / [6] p https://www.researchgate.net/publication/224303099_NN-ANARX_structure_based_dynamic_output_feedback_linearization_for_control_of_nonlinear_MIMO_systems

NN-ANARX structure for control of nonlinear SISO and MIMO systems : neural networks based approach
Petlenkov, Eduard; **Belikov, Juri** Proceedings of th 26th Chinese Control Conference : July 26-31, 2007, Zhangjiajie, Hunan, China. 4 2007 / p. 138-145 https://ieeexplore.ieee.org/document/4347185/keywords#keywords

NN-SANARX model based control of a multi tank liquid-level system
Belikov, Juri; **Petlenkov, Eduard** International journal of computational intelligence systems 2015 / p. 265-277 http://dx.doi.org/10.1080/18756891.2015.1001950

Nonlinear model predictive controller and feasible path planning for autonomous robots
Vu, Trieu Minh Open computer science 2016 / p. 178-186 : ill https://doi.org/10.1515/comp-2016-0015

Nonlinear wave interaction for material characterization
Ravasoo, Arvi 4th EUROMECH : Solid Mechanics Conference, Metz, France, June 26-30, 2000 : book of abstracts II, general sessions 2000 / p. 706

Numerical simulation of ultrasonic time reversal on defects in carbon fibre reinforced polymer
Lints, Martin; **Salupere, Andrus**; Dos Santos, Serge Wave motion 2020 / art. 102526, 10 p. : ill https://doi.org/10.1016/j.wavemoti.2020.102526 Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

Observable space of the nonlinear control system on a homogeneous time scale
Kaparin, Vadim; **Kotta, Ülle**; Wyrwas, Małgorzata Proceedings of the Estonian Academy of Sciences 2014 / p. 11-25 https://artiklid.elnet.ee/record=b2665198*est

Observation and stabilisation of coupled time‐fractional reaction–advection–diffusion systems with spatially‐varying coefficients
Chen, Juan; **Tepljakov, Aleksei**; **Petlenkov, Eduard** IET control theory and applications 2020 / p. 3128−3138 https://doi.org/10.1049/iet-cta.2020.0520 Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

Observer-based residual generation for nonlinear discrete-time systems
Kaldmäe, Arvo; **Kotta, Ülle** Proceedings of the Estonian Academy of Sciences 2018 / p. 325-336 http://www.kirj.ee/public/proceedings_pdf/2018/issue_4/proc-2018-4-325-336.pdf https://doi.org/10.3176/proc.2018.4.01 Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

On accessibility conditions for state space nonlinear control systems on homogeneous time scales
Bartosiewicz, Zbigniew; **Kotta, Ülle**; **Mullari, Tanel**; **Tõnso, Maris**; Wyrwas, Małgorzata Systems & control letters 2016 / p. 8-13 http://dx.doi.org/10.1016/j.sysconle.2016.09.018

On integrability of observable space for discrete-time polynomial control systems
Kawano, Yu; **Kotta, Ülle** IEEE transactions on automatic control 2015 / p. 1987-1991 http://dx.doi.org/10.1109/TAC.2014.2365685

On submersivity assumption for nonlinear control systems on homogeneous time scales
Kotta, Ülle; Rehák, Branislav; Wyrwas, Małgorzata Proceedings of the Estonian Academy of Sciences 2011 / 1, 25-37

On the finiteness of accessibility test for nonlinear discrete-time systems
Sarafrazi, Mohammad Amin; Pawluszewicz, Ewa; Bartosiewicz, Zbigniew; **Kotta, Ülle** International journal of control 2021 / p. 2330-2336 https://doi.org/10.1080/00207179.2019.1706102 Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

On the long-time behavior of soliton ensembles
Salupere, Andrus; **Engelbrecht, Jüri**; **Peterson, Pearu** Abstract book : Second IMACS Conference on Nonlinear Evolution Equations and Wave Phenomena : Computation and Theory : April 9-12, 2001, Athens, USA 2001 / ? p https://www.sciencedirect.com/science/article/abs/pii/S0378475402001787

On the stopping criteria in nonlinear unknown input observability condition
Sarafrazi, Mohammad Amin; **Kotta, Ülle**; Bartosiewicz, Zbigniew IEEE transactions on automatic control 2022 / p. 4733-4737 https://doi.org/10.1109/TAC.2022.3160133 Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

On the transformation of a nonlinear discrete-time input-output system into the strong row-reduced form
Bartosiewicz, Zbigniew; **Belikov, Juri**; **Kotta, Ülle**; **Tõnso, Maris**; **Wyrwas, Małgorzata** Proceedings of the Estonian Academy of Sciences 2016 / p. 220-236 http://dx.doi.org/10.3176/proc.2016.3.02 https://artiklid.elnet.ee/record=b2798394*est

On-line identification and adaptive control of nonlinear systems using neural networks
Vassiljeva, Kristina; **Rüstern, Ennu** BEC 2004 : proceedings of the 9th Biennial Baltic Electronics Conference : October 3-6, 2004, Tallinn, Estonia 2004 / p. 149-152 : ill

Performances of PID and different fuzzy methods for controlling a ball on beam
Vu, Trieu Minh; **Tamre, Mart**; **Moezzi, Reza**; **Mets, Oliver**; **Jürise, Mart**; **Põlder, Ahti**; **Teder, Leo**; **Juurma, Märt** Open engineering 2016 / p. 145-151 : ill https://doi.org/10.1515/eng-2016-0018

Polynomial accessibility condition for the multi-input multi-output nonlinear control system
Kotta, Ülle; **Tõnso, Maris**; Kawano, Yu Proceedings of the Estonian Academy of Sciences 2014 / p. 136-150 https://artiklid.elnet.ee/record=b2673962*est

Polynomial methods for nonlinear control systems = Polünoommeetodid mittelineaarsetes juhtimissüsteemides
Belikov, Juri 2012 http://www.ester.ee/record=b2854462*est

Popov form and the explicit equations of inverse systems
Bartosiewicz, Zbigniew; **Kotta, Ülle**; Pawluszewicz, Ewa; Tõnso, Maris; Wyrwas, Małgorzata Proceedings of the Estonian Academy of Sciences 2018 / p. 432-355 : ill http://www.kirj.ee/public/proceedings_pdf/2018/issue_4/proc-2018-4-342-355.pdf https://doi.org/10.3176/proc.2018.4.04 Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

Predictive smart thermostat controller for heating, ventilation, and air-conditioning systems
Soudari, Mallikarjun; **Kaparin, Vadim**; Srinivasan, Seshadhri; Seshadhri, Subathra; **Kotta, Ülle** Proceedings of the Estonian Academy of Sciences 2018 / p. 291-299 : ill http://www.kirj.ee/public/proceedings_pdf/2018/issue_3/proc-2018-3-291-299.pdf https://doi.org/10.3176/proc.2018.3.11 Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

Realizability of bilinear input-output differential equations in the classigal [i.e. classical] state-space form
Kotta, Ülle; **Mullari, Tanel**; **Kotta, Palle**; Zinober, Alan 5th Junior European Meeting on Control & Information Technology : September 20-22, 2006, Tallinn, Estonia : book of abstracts 2006 / p. 18

Realization and identification of discrete-time nonlinear systems
Nõmm, Sven 2004 https://www.ester.ee/record=b1910554*est

Realization of discrete-time nonlinear input-output equations : polynomial approach
Kotta, Ülle; **Tõnso, Maris** Automatica 2012 / p. 255-262 https://www.sciencedirect.com/science/article/pii/S0005109811005413

Realization of nonlinear input-output equations in controller canonical form
Kaldmäe, Arvo; **Kotta, Ülle** Kybernetika 2018 / p. 736-747 https://doi.org/10.14736/kyb-2018-4-0736 Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

Realization of nonlinear MIMO system on homogeneous time scales
Belikov, Juri; **Kotta, Ülle**; **Tõnso, Maris** European journal of control 2015 / p. 48-54 http://dx.doi.org/10.1016/j.ejcon.2015.01.006

Realization of time-delay systems
Kaldmäe, Arvo; **Kotta, Ülle** Automatica 2018 / p. 317-320 https://doi.org/10.1016/j.automatica.2018.01.001 Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

Realizations in feedforward forms of nonlinear input-output equations with time-delays
Kaldmäe, Arvo; Kawano, Yu; **Kotta, Ülle** International journal of robust and nonlinear control 2020 / p. 7560-7573 https://doi.org/10.1002/rnc.5194 Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

Relaxing realizability conditions for discrete-time nonlinear systems
Kotta, Ülle; Schlahter, Kurt; **Tõnso, Maris** Automatica 2015 / p. 67-71 http://dx.doi.org/10.1016/j.automatica.2015.05.007

Remarks on the realization of time-varying systems
Kotta, Ülle; Moog, Claude; **Tõnso, Maris** Proceedings of the Estonian Academy of Sciences 2018 / p. 208-216 http://www.kirj.ee/public/proceedings_pdf/2018/issue_3/proc-2018-3-207-216.pdf https://doi.org/10.3176/proc.2018.3.02 Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

Reordering derivatives of trace closures of regular languages [Online resource]
Maarand, Hendrik; **Uustalu, Tarmo** 30th International Conference on Concurrency Theory : (CONCUR 2019) 2019 / art. 40 ; 40:1–40:16 https://doi.org/10.4230/LIPIcs.CONCUR.2019.40 Conference proceeding at Scopus Article at Scopus

Restricted connectivity neural networks based identification for control = Piiratud ühenduvusega tehisnärvivõrkudel põhinev identifitseerimine juhtimiseks
Vassiljeva, Kristina 2012

A Riemannian geometric approach to output tracking for nonholonomic systems
Simha, Ashutosh; Raha, Soumyendu IFAC-PapersOnLine 2019 / p. 144-149 https://doi.org/10.1016/j.ifacol.2019.11.769 Conference proceedings at Scopus Article at Scopus Article at WOS

Single-experiment observability decomposition of discrete-time analytic systems
Kawano, Yu; **Kotta, Ülle** Systems & control letters 2016 / p. 193-199 http://dx.doi.org/10.1016/j.sysconle.2016.09.016

Soliton ensembles and solitonic structures
Engelbrecht, Jüri; **Salupere, Andrus** Applicable analysis 2012 / p. 237-250 : ill
https://www.tandfonline.com/doi/full/10.1080/00036811.2011.608253

State feedback linearization of nonlinear control systems on homogeneous time scales
Bartosiewicz, Zbigniew; **Belikov, Juri**; **Kotta, Ülle**; Wyrwas, Małgorzata Nonlinear analysis: hybrid systems 2019 / p. 69-85 https://doi.org/10.1016/j.nahs.2018.08.002 Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

State-space realization of nonlinear control systems : unification and extension via pseudo-linear algebra
Belikov, Juri; **Kotta, Ülle**; **Tõnso, Maris** Kybernetika 2012 / p. 1100-1113 https://www.researchgate.net/publication/269024076_State-space_realization_of_nonlinear_control_systems_Unification_and_extension_via_pseudo-linear_algebra

Static state feedback linearization of nonlinear control systems on homogeneous time scales
Bartosiewicz, Zbigniew; **Kotta, Ülle**; **Tõnso, Maris**; Wyrwas, Małgorzata Mathematics of control, signals, and systems 2015 / p. 523-550 http://dx.doi.org/10.1007/s00498-015-0150-5

A stochastic nonlinear excitation controller for transient stabilization in a power system
Xu, Yan; Wen, Fushuan; **Palu, Ivo**; **Yang, Zeng**; Chen, Minghui; Zhao, Hongwei; Shang, Huiyu 2019 IEEE 60th International Scientific Conference on Power and Electrical Engineering of Riga Technical University (RTUCON), 7-9 October 2019 : conference proceedings 2019 / 4 p. : ill https://doi.org/10.1109/RTUCON48111.2019.8982375

A test for the generic strong-accessibility of meromorphic nonlinear systems
Carravetta, Francesco; Sarafrazi, Mohammad Amin; Bartosiewicz, Zbigniew; **Kotta, Ülle** IEEE transactions on automatic control 2020 / p. 867-873 https://doi.org/10.1109/TAC.2019.2921645 Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

Testing generic strong accessibility of nonlinear control systems via polynomial (quadratic) immersion
Carravetta, Francesco; Sarafrazi, Mohammad Amin; Bartosiewicz, Zbigniew; **Kotta, Ülle** 61st IEEE Conference on Decision and Control, CDC 2022, Cancun, 6 December - 9 December 2022, proceedings 2022 / p. 1841-1846
https://doi.org/10.1109/CDC51059.2022.9992952 Conference Proceedings at Scopus Article at Scopus Article at WOS

The connection between different static state feedback linearizability conditions of discrete time nonlinear control systems
Mullari, Tanel; **Kotta, Ülle**; **Tõnso, Maris** Proceedings of the European Control Conference 2007, Kos, Greece, July 2-5, 2007 2007 / p. 4268−4275 http://ieeexplore.ieee.org/document/7068444/

The discrete control of two-rate nonlinear multivariable continuous-time systems
Astrov, Igor; **Rüstern, Ennu** Proceedings of the Estonian Academy of Sciences. Physics. Mathematics 1997 / 3, p. 197-208

Towards genetic algorithm based structure identification for minimal state-space representation and feedback control of nonlinear MIMO systems
Vassiljeva, Kristina; **Petlenkov, Eduard**; **Belikov, Juri** Info- ja kommunikatsioonitehnoloogia doktorikooli IKTDK neljanda aastakonverentsi artiklite kogumik : 26.-27. novembril 2010, Essu mõis 2010 / lk. 11-14 : ill

Transfer functions of discrete-time nonlinear control systems
Halas, Miroslav; **Kotta, Ülle** Proceedings of the Estonian Academy of Sciences. Physics. Mathematics 2007 / 4, p. 322-335

Transfer matrix and its Jacobson form for nonlinear systems on time scales : mathematica implementation
Belikov, Juri; **Kotta, Ülle**; **Leibak, Alar** Full Papers : 18th International Conference on Process Control '11 : June 14-17, 2011, Tatransk Lomnica, Slovakia 2011 / p. 141-146

Transformation of nonlinear discrete-time state equations into the observer form : extension to non-reversible case
Mullari, Tanel; **Kotta, Ülle** Proceedings of the Estonian Academy of Sciences 2021 / p. 235-247 https://doi.org/10.3176/proc.2021.3.03 Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

Transformation of nonlinear discrete-time state equations into the observer form : revision
Mullari, Tanel; **Kotta, Ülle** Proceedings of the Estonian Academy of Sciences 2023 / p. 1-5 https://doi.org/10.3176/proc.2023.1.01

Transformation of nonlinear discrete-time system into the extended observer form
Kaparin, Vadim; **Kotta, Ülle** International journal of control 2018 / p. 848-858 https://doi.org/10.1080/00207179.2017.1294264 Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

Transformation of nonlinear state equations into observer form = Mittelineaarsete olekuvõrrandite olekutaastaja kujule teisendamine
Kaparin, Vadim 2013 https://www.ester.ee/record=b2998616*est

Transformation of nonlinear state equations into the observer form : necessary and sufficient conditions in terms of one-forms
Kaparin, Vadim; **Kotta, Ülle** Kybernetika 2015 / p. 36-58 http://dx.doi.org/10.14736/kyb-2015-1-0036

Universal tool for solving different control problems
Kotta, Ülle 5th Junior European Meeting on Control & Information Technology : September 20-22, 2006, Tallinn, Estonia : book of abstracts 2006 / p. 1

Weak reachability and controllability of discrete-time nonlinear systems: generic approach and singular points
Mullari, Tanel; **Kotta, Ülle**; Bartosiewicz, Zbigniew; Sarafrazi, Mohammad Amin; Moog, Claude; Pawluszewicz, Ewa International journal of control 2020 / p. 483-489 https://doi.org/10.1080/00207179.2018.1479076 Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

Исследование устойчивости нелинейной САУ второго порядка
Tõnismägi, Svetlana; **Täht, Toomas** Теоретические и прикладные вопросы математики : тезисы докладов конференции, 26-27 сентября 1985 г. II 1985 / с. 32 https://www.ester.ee/record=b1305194*est

Метод решения систем нелинейных уравнений
Viiroja, Andres Процессы и аппараты химической технологии. 1 1987 / с. 12-17

Модификация метода моментов определения вероятностных характеристик нелинейной функции от случайных аргументов
Saks, Eva Разработка средств измерения, автоматизации и систем управления технологическими процессами в силовом полупроводниковом приборостроении : тезисы докладов отраслевого научно-технического семинара (Таллин, май) 1982 / с. 57-61 : таб https://www.ester.ee/record=b1274563*est

Некоторые алгоритмы статического расчета нелинейных систем типа висячих конструкций
Kulbach, Valdek Тезисы докладов Всесоюзной конференции "Современные методы и алгоритмы расчета и проектирования строительных конструкций с использованием ЭВМ", Таллин, с 18 по 20 октября 1979 года. Часть первая.[Секция] 1, Методы статического расчета. [Секция] 2, Методы динамического расчета 1979 / с. 35-36 https://www.ester.ee/record=b1271164*est

Оптимизация нелинейных систем компенсационного управления для дискретных многостадийных технологических процессов с групповой обработкой полуфабрикатов : автореферат ... кандидата технических наук (05.13.01)
Saks, Eva 1986 https://www.ester.ee/record=b3537864*est

Приближенная оптимизация монотонных нелинейных систем компенсационного управления для многостадийных технологических процессов
Kiitam, Andres; **Saks, Eva** Анализ и синтез сложных систем и цепей с помощью ЭВМ 1985 / с. 187-194

Точное решение нелинейной системы уравнений энергии и нестационарного переноса излучения
Dumkina, Galina; Kozmanov, M. Журнал вычислительной математики и математической физики 1979 / с. 1061-1063 https://www.ester.ee/record=b2141983*est

Управление дискретными обратимыми справа нелинейными системами : автореферат ... доктора физико-математических наук
Kotta, Ülle 1992 https://www.ester.ee/record=b1164884*est