

### **Adaptive controller for networked control systems subjected to random communication delays**

Srinivasan, Seshadri; Saravanakumar, G.; Subathra, B.; **Kotta, Ülle** Soft computing applications : proceedings of the 7th International Workshop Soft Computing Applications (SOFA 2016). Vol. 1 2018 / p. 78-94 [https://doi.org/10.1007/978-3-319-62521-8\\_8](https://doi.org/10.1007/978-3-319-62521-8_8)  
[Conference proceedings at Scopus Article at Scopus Article at WOS](#)

### **Adaptive LQR controller for Networked Control Systems subjected to random communication delays**

Srinivasan, Seshadri; Vallabhan, Mishiga; Ramaswamy, Srin; **Kotta, Ülle** American Control Conference (ACC), 2013 : 17 - 19 June 2013, Washington, DC, USA (2013) 2013 / p. 783 - 787 <https://doi.org/10.1109/acc.2013.6579931> [Conference Proceedings at Scopus Article at Scopus](#)

### **Adaptive output feedback linearization for a class of NN-based ANARX models**

Petlenkov, Eduard; Nömm, Sven; **Kotta, Ülle** 5th Junior European Meeting on Control & Information Technology : September 20-22, 2006, Tallinn, Estonia : book of abstracts 2006 / p. 10

### **AG-model for design of testable controllers**

Kasirova, Lilia BEC'96 : the 5th Biennial Baltic Electronics Conference, October 7-11, 1996, Tallinn, Estonia : proceedings 1996 / p. 303-306: ill

### **Akvaator ehk lihtne akvaariumikontroller**

Sinivee, Veljo Praktiline Arvutikasutaja 2007 / 3, lk. 32-35 : ill

### **An indirect adaptive control paradigm for wind generation systems**

Kamal, Tariq; Karabacak, Murat; Hassan, Syed Zulqadar; Fernández Ramírez, Luis M.; **Roasto, Indrek**; Khan, Laiq Advanced control and optimization paradigms for wind energy systems 2019 / p. 235-257 [https://doi.org/10.1007/978-981-13-5995-8\\_10](https://doi.org/10.1007/978-981-13-5995-8_10) [Article collection metrics at Scopus Article at Scopus](#)

### **Analogue controller of rotation speed for AC motor drives**

Bashkys, A.; Gobis, V. BEC'98 : the 6th Biennial Conference on Electronics and Microsystems Technology, October 7-9, 1998, Tallinn, Estonia : proceedings 1998 / p. 371-372: ill

### **Application of MPC to industrial water boiler control system in district heat plant**

Vansovitš, Vitali; Petlenkov, Eduard; Vassiljeva, Kristina; Tepljakov, Aleksei; Belikov, Juri 2014 13th International Conference on Control, Automation, Robotics & Vision (ICARCV 2014) : Marina Bay Sands, Singapore, 10-12th December 2014 2014 / p. 1609-1614 : ill

### **Application of neural-network based variable fractional order PID controllers for load frequency control in isolated microgrids**

Belikov, Juri; Nosrati, Komeil; Škiparev, Vjatšeslav; Tepljakov, Aleksei; Petlenkov, Eduard; Levron, Yoash Power system frequency control : modeling and advances. 1st Ed 2023 / p. 203–216 : ill <https://www.elsevier.com/books/power-system-frequency-control/mishra/978-0-443-18426-0>

### **Application of PLC in industrial automation**

Müür, Margus; Pettai, Elmo; Lepiksoo, Urmo 2011 [http://www.esther.ee/record=b2742452\\*est](http://www.esther.ee/record=b2742452*est)

### **Automatic flow-through control with PI and PID controllers**

Ruban, Olga; Laugis, Juhan 3rd International Symposium "Topical Problems of Education in the Field of Electrical and Power Engineering" : Doctoral School of Energy and Geotechnology : Kuressaare, Estonia, January 16-21, 2006 2006 / p. 106-111 : ill

### **Automatic FSM synthesis for low-power mixed synchronous/asynchronous implementation**

Oelmann, Bengt; Tammemäe, Kalle; Kruus, Margus; O'Nils, Mattias VLSI design 2001 / 2, p. 167-186 : ill  
<https://www.semanticscholar.org/paper/Automatic-FSM-Synthesis-for-Low-Power-Mixed-Oelmann/923183be619b345243d45eac268c190ebb308e3c>

### **Bilateral output feedback control of fractional PDEs with space-dependent coefficients**

Chen, Juan; Tepljakov, Aleksei; Petlenkov, Eduard; Zhuang, Bo IFAC-PapersOnLine 2020 / p. 3743 - 3748  
<https://doi.org/10.1016/j.ifacol.2020.12.2555> [Conference Proceedings at Scopus Article at Scopus Article at WOS](#)

### **Binary logic vs. fuzzy logic techniques for tuning robust controllers**

Vodovozov, Valery 18th International Symposium "Topical Problems in the Field of Electrical and Power Engineering". Doctoral School of Energy and Geotechnology III : Toila, Estonia, January 14-19, 2019 : [proceedings] 2019 / p. 49-50  
[http://www.esther.ee/record=b5183874\\*est](http://www.esther.ee/record=b5183874*est)

### **Boost half-bridge DC-DC converter with reconfigurable rectifier for ultra-wide input voltage range applications**

Vinnikov, Dmitri; Chub, Andrii; Liivik, Elizaveta; Blaabjerg, Frede; Siwakoti, Yam P. 2018 IEEE Applied Power Electronics Conference and Exposition (APEC 2018), San Antonio, Texas, USA, 4-8 March 2018 2018 / p. 1528-1532 : ill  
<https://doi.org/10.1109/APEC.2018.8341219> [Conference proceedings at Scopus Article at Scopus Article at WOS](#)

**Boundary state and output feedbacks for underactuated systems of coupled time-fractional PDEs with different space-dependent diffusivity**

Chen, Juan; Tepljakov, Aleksei; Petlenkov, Eduard; Zhuang, Bo International journal of systems science 2020 / p. 2922-2942

<https://doi.org/10.1080/00207721.2020.1803442> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

**Closed-loop droplet size control in microfluidics = Suletud ahelaga tilkade suuruse juhtimine mikrofluidikas**

Gyimah, Nafisat 2024 <https://digikogu.taltech.ee/et/item/c4a0c9de-83e5-41ff-bdcf-24ba61182d1f> [https://www.esther.ee/record=b5698980\\*est](https://www.esther.ee/record=b5698980*est)

<https://doi.org/10.23658/taltech.47/2024>

**Closed-loop identification of fractional-order models using FOMCON toolbox for MATLAB**

Tepljakov, Aleksei; Petlenkov, Eduard; Belikov, Juri 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. 213-216 : ill

**Comparative evaluation of various generations of Controller Area Network based on timing analysis**

Berisa, Aldin; Panjevic, Adis; Kovac, Imran; Lyngbäck, Hans; Ashjaei, Mohammad; Daneshatalab, Masoud; Sjödin, Mikael; Mubeen, Saad 2023 IEEE 28th International Conference on Emerging Technologies and Factory Automation (ETFA) 2023 / p. 1-8

<https://doi.org/10.1109/ETFA54631.2023.10275549>

**Comparison of single-rate and two-rate neural control approaches for coaxial rotor/ducted-fan TUAV for situational awareness applications**

Pedai, Andrus; Astrov, Igor; Udal, Andres 2018 IEEE 16th International Symposium on Intelligent Systems and Informatics (SISY), 13-15 Sept. 2018 : proceedings 2018 / p. 63–68 : ill <http://dx.doi.org/10.1109/SISY.2018.8524720>

**Computation of open-loop frequency-domain characteristics of fractional FORDT plants with FOPID controllers**

Tepljakov, Aleksei; Petlenkov, Eduard; Belikov, Juri Doctoral School in Information and Communication Technology : proceedings of doctoral session of BEC 2014 : October 6-8 2014, Laulasmaa 2014 / p. 23-26

**Control challenges of 3D printed switched reluctance motor**

Rassõlkin, Anton; Kallaste, Ants; Vaimann, Toomas; Tiismus, Hans 2019 26th International Workshop on Electric Drives : Improvement in Efficiency of Electric Drives (IWED) : Moscow Power Engineering Institute, Moscow, Russia 30th of January - 02nd of February 2019 : proceedings 2019 / 5 p. : ill <https://doi.org/10.1109/IWED.2019.8664282>

**Control intensive digital system synthesis**

Tammemäe, Kalle 1997 [http://www.esther.ee/record=b1060033\\*est](http://www.esther.ee/record=b1060033*est)

**Control of a three-input DC-DC converter suitable for DC motors**

Alizadeh Asl, Amin; Hosseini, Seyed Hossein; Vosoughi Kurdkandi, Naser; Alizadeh Asl, Ramin International transactions on electrical energy systems 2022 / art. 4264649, 20 p. : ill <https://doi.org/10.1155/2022/4264649> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

**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

**Controller synthesis in control and memory centric high level synthesis system**

Ellerjee, Peeter; Hemani, Ahmed; Kumar, Anshul; Svantesson, Bengt; Öberg, Johnny; Tenhunen, Hannu BEC'96 : the 5th Biennial Baltic Electronics Conference, October 7-11, 1996, Tallinn, Estonia : proceedings 1996 / p. 393-396: ill

**Coordinated optimization of parameters of PSS and UPFC-PODCs to improve small-signal stability of a power system with renewable energy generation**

He, Ping; Shen, Runjie; Wen, Fushuan; Pan, Qi Journal of energy engineering 2021 / p. 04020089-1-04020089-11 : ill

[https://doi.org/10.1061/\(ASCE\)EY.1943-7897.0000737](https://doi.org/10.1061/(ASCE)EY.1943-7897.0000737) [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

**Cyber-physical universal safety and crash detection system for autonomous robot**

Pikner, Heiko; Malayjerdi, Mohsen Robotic systems and applications 2021 / p. 46-52 : ill <https://doi.org/10.21595/rsa.2021.22113>

**Cyber-physical universal safety and crash detection system for autonomous robot**

Pikner, Heiko; Sell, Raivo; Malayjerdi, Mohsen The 16th International Conference "Mechatronic Systems and Materials" MSM 2021July 1, 2021 – July 2, 2021 : abstract book 2021 / p. 16-17 [http://msm.vgtu.lt/files/conferences/1/MSM2021Abstract\\_Book\\_.04005.pdf](http://msm.vgtu.lt/files/conferences/1/MSM2021Abstract_Book_.04005.pdf)

**Decompositional synthesis of low power controllers**

Kasirova, Lilia; Keevallik, Andres; Sudnitsõn, Aleksander BEC'96 : the 5th Biennial Baltic Electronics Conference, October 7-11, 1996, Tallinn, Estonia : proceedings 1996 / p. 191-194: ill

**Depth control of an autonomous underwater vehicle in situational awareness a mission [Electronic resource]**  
**Astrov, Igor; Rüstern, Ennu** ICROS-SICE 2009 proceedings : ICROS-SICE International Joint Conference 2009 : Fukuoka, Japan, August 18-21, 2009 2009 / p. 560-564 [DVD-ROM]

**Depth controls of an autonomous underwater vehicle by neurocontrollers for enhanced situational awareness**  
**Astrov, Igor; Pedai, Andrus** Proceedings of the World Academy of Science, Engineering and Technology 2009 / 55, p. 486-489

**Depth controls of an autonomous underwater vehicle by neurocontrollers for enhanced situational awareness [Electronic resource]**  
**Astrov, Igor; Pedai, Andrus** WCSET 2009 CD-ROM proceedings : International Conference on Marine and Naval Engineering ICMNE 2009. 2009 World Congress on Science, Engineering and Technology : WCSET 2009 : Oslo, Norway, July 29-31, 2009 2009 / p. 486-489 [CD-ROM]

**Design and implementation of fractional-order PID controllers for a fluid tank system**  
**Tepljakov, Aleksei; Petlenkov, Eduard; Belikov, Juri; Halas, Miroslav** 2013 American Control Conference (ACC) : Washington, DC, USA, June 17-19, 2013 2013 / p. 1777-1782 : ill <https://doi.org/10.1109/acc.2013.6580093> Conference Proceedings at Scopus Article at Scopus

**Design of a generalized fractional-order PID controller using operational amplifiers**  
Gonzalez, Emmanuel A.; Alimisis, Vassilis; Psychalinos, Costas; **Tepljakov, Aleksei** 2018 25th IEEE International Conference on Electronics Circuits and Systems (ICECS), Bordeaux, France, December 9–12, 2018 2018 / p. 253-256 : ill  
<http://dx.doi.org/10.1109/ICECS.2018.8617954>

**Design of low power controllers**  
**Kasirova, Lilia; Keevallik, Andres; Meškov, Mihhail** 2nd IMACS Multiconference CESA'98, Computational Engineering in System Applications, Tunesia, 1998 1998

**Design of retuning fractional PID controllers for a closed-loop magnetic levitation control system**  
**Tepljakov, Aleksei; Petlenkov, Eduard; Belikov, Juri; Gonzalez, Emmanuel A.** 2014 13th International Conference on Control, Automation, Robotics & Vision (ICARCV 2014) : Marina Bay Sands, Singapore, 10-12th December 2014 2014 / p. 1345-1350 : ill

**Design of three-rate continuous-time subcontrollers for the multidimensional stochastic state-space model of an experimental aircraft**  
**Astrov, Igor; Pedai, Andrus; Rüstern, Ennu** The 7th Biennial Conference on Electronics and Microsystem Technology "Baltic Electronics Conference" : BEC 2000 : October 8 - 11, 2000, Tallinn, Estonia : conference proceedings 2000 / p. 277-280 : ill

**Development of analytical tuning methods for fractional-order controllers**  
**Tepljakov, Aleksei; Petlenkov, Eduard; Belikov, Juri** Info- ja kommunikatsioonitehnoloogia doktorikooli IKTDK kuuenda aastakonverentsi artiklite kogumik : 3.-5. oktoobril 2012, Laulasmaa 2012 / p. 93-96 : ill

**Development of anti-lock braking system (ABS) for vehicles braking**  
**Vu, Trieu Minh; Oamen, Godwin; Vassiljeva, Kristina; Teder, Leo** Open engineering 2016 / p. 554-559 : ill  
<https://doi.org/10.1515/eng-2016-0078> Journal metrics at Scopus Article at scopus

**Digital fractional-order control of a position servo**  
**Tepljakov, Aleksei; Petlenkov, Eduard; Belikov, Juri; Astapov, Sergei** Proceedings of the 20th International Conference Mixed Design of Integrated Circuits and Systems : MIXDES 2013, Gdynia, Poland, June 20-22, 2013 2013 / p. 462-467 : ill

**Digital implementation of retuning fractional controllers for an existing closed-loop magnetic levitation control system**  
**Tepljakov, Aleksei; Petlenkov, Eduard; Belikov, Juri** 2016 39th International Conference on Telecommunications and Signal Processing : TSP : June 27-29, 2016, Vienna, Austria 2016 / p. 630-633 : ill <https://doi.org/10.1109/TSP.2016.7760958>

**Digital realization of retuning fractional-order controllers for an existing closed-loop control system**  
**Tepljakov, Aleksei; Petlenkov, Eduard; Gonzalez, Emmanuel A.; Belikov, Juri** Journal of circuits, systems, and computers 2017 / art. 1750165, p. 1-26 <https://doi.org/10.1142/S0218126617501651> Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

**Digital twin for controlled generation of water-in-oil microdroplets with required size**  
**Gyimah, Nafisat; Scheler, Ott; Rang, Toomas; Pardy, Tamas** 2022 23rd International Conference on Thermal, Mechanical and Multi-Physics Simulation and Experiments in Microelectronics and Microsystems (EuroSimE), 25-27 April 2022, St Julian, Malta : proceedings 2022 / p. 85-91 <https://doi.org/10.1109/EuroSimE54907.2022.9758876>

**Efficient analog implementations of fractional-order controllers**  
**Tepljakov, Aleksei; Petlenkov, Eduard; Belikov, Juri** Proceedings of the 2013 14th International Carpathian Control Conference (ICCC) : Rytro, Hotel Perła Południa, Poland, May 26-29, 2013 2013 / p. 377-382 : ill

**Embedded system implementation of digital fractional filter approximations for control applications**  
**Tepljakov, Aleksei; Petlenkov, Eduard; Belikov, Juri** Proceedings of the 21st International Conference Mixed Design of Integrated Circuits and Systems : MIXDES 2014 : Lublin, Poland, June 19-21, 2014 2014 / p. 441-445 : ill

**Enhancing grid-forming converters control in hybrid AC/DC microgrids using bidirectional virtual inertia support**  
**Bakeer, Abualkasim Ahmed Ali; Chub, Andrii; Abid, Abderrahmane; Zaid, Sherif A.; Alghamdi, T. A. H.; Salama, Hossam S.** Processes 2024 / art. 139 <https://doi.org/10.3390/pr12010139> <https://www.mdpi.com/2227-9717/12/1/139/htm> Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

#### **Estimating time constants for underfloor heating control**

**Kull, Tuule Mall; Thalfeldt, Martin; Kurnitski, Jarek** Journal of physics : conference series 2019 / art. 012121, 6 p. : ill  
<https://doi.org/10.1088/1742-6596/1343/1/012121> Conference proceeding at Scopus Article at Scopus Article at WOS

#### **A fast current harmonic detection and mitigation strategy for shunt active filter**

**Firouzjah, Khalil Gorgani; Ahmadihangar, Roya; Rosin, Argo; Häring, Tobias** 2019 Electric Power Quality and Supply Reliability Conference (PQ) & 2019 Symposium on Electrical Engineering and Mechatronics (SEEM), Kärdla, Estonia, June 12-15, 2019 : proceedings 2019 / 5 p. : ill <https://doi.org/10.1109/PQ.2019.8818253>

#### **Feasibility of a multi-tier cyber physical system as a self-aware entity**

**Tammemäe, Kalle; Hollstein, Thomas** AmiES-2017 : Ambient Intelligence and Embedded Systems : International Symposium, 14-16 September, 2017, Vaasa, Finland 2017 / 3 p. : ill <http://amies-2017.international-symposium.org/abstracts.html#tammema>

#### **Fed-batch fermentation controller design with evolutionary computation**

**Riid, Andri; Rüstern, Ennu** CSTST '08 Proceedings of the 5th international conference on Soft computing as transdisciplinary science and technology 2008 / p. 371-377 : ill

#### **Fixed-order stabilising controller design by a mixed randomised/deterministic method**

**Nurges, Ülo; Avanessov, Sergei** International journal of control 2015 / p. 335-346 <https://doi.org/10.1080/00207179.2014.953208>  
[Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS](#)

#### **A flexible MATLAB tool for optimal fractional-order PID controller design subject to specifications**

**Tepljakov, Aleksei; Petlenkov, Eduard; Belikov, Juri** Proceedings of the 31st Chinese Control Conference : July, 2012, Hefei, China 2012 / p. 4698-4703 : ill [https://www.researchgate.net/publication/259741861\\_A\\_Flexible\\_MATLAB\\_Tool\\_for\\_Optimal\\_Fractional-order\\_PID\\_Controller\\_Design\\_Subject\\_to\\_Specifications](https://www.researchgate.net/publication/259741861_A_Flexible_MATLAB_Tool_for_Optimal_Fractional-order_PID_Controller_Design_Subject_to_Specifications)

#### **Flight control of TUAV with coaxial rotor and ducted fan configuration by NARMA-L2 controllers for enhanced situational awareness**

**Astrov, Igor; Pedai, Andrus; Gordon, Boris** World Academy of Science, Engineering and Technology 2012 / p. 75-81 : ill  
<https://publications.waset.org/13553/flight-control-of-tuav-with-coaxial-rotor-and-ducted-fan-configuration-by-narma-l2-controllers-for-enhanced-situational-awareness>

#### **Flight control of TUAV with coaxial rotor and ducted fan configuration by NARMA-L2 controllers for enhanced situational awareness [Electronic resource]**

**Astrov, Igor; Pedai, Andrus; Gordon, Boris** ICCEA 2012 CD-ROM Proceedings : [International Conference on Computer Engineering and Applications (ICCEA 2012) : Copenhagen, Denmark, June 11-12, 2012] 2012 / p. 75-81 : ill [CD-ROM]  
<https://publications.waset.org/13553/flight-control-of-tuav-with-coaxial-rotor-and-ducted-fan-configuration-by-narma-l2-controllers-for-enhanced-situational-awareness>

#### **FOMCON : a MATLAB toolbox for fractional-order system identification and control**

**Tepljakov, Aleksei; Petlenkov, Eduard; Belikov, Juri** International journal of microelectronics and computer science 2011 / p. 51-62 [https://www.researchgate.net/publication/259741855\\_FOMCON\\_a\\_MATLAB\\_toolbox\\_for\\_fractional-order\\_system\\_identification\\_and\\_control](https://www.researchgate.net/publication/259741855_FOMCON_a_MATLAB_toolbox_for_fractional-order_system_identification_and_control)

#### **FOMCON : fractional-order modeling and control toolbox for MATLAB**

**Tepljakov, Aleksei; Petlenkov, Eduard; Belikov, Juri** Proceedings of the 18th International Conference Mixed Design of Integrated Circuits and Systems : MIXDES 2011 : Gliwice, Poland 16 - 18 June, 2011 2011 / p. 684-689  
[https://www.researchgate.net/publication/259741855\\_FOMCON\\_a\\_MATLAB\\_toolbox\\_for\\_fractional-order\\_system\\_identification\\_and\\_control](https://www.researchgate.net/publication/259741855_FOMCON_a_MATLAB_toolbox_for_fractional-order_system_identification_and_control)

#### **FOMCON toolbox for modeling, design and implementation of fractional-order control systems**

**Tepljakov, Aleksei; Petlenkov, Eduard; Belikov, Juri** Handbook of fractional calculus with applications 2019 / p. 211–236  
<https://doi.org/10.1515/9783110571745>

#### **FOPID controller tuning for fractional FOPDT plants subject to design specifications in the frequency domain**

**Tepljakov, Aleksei; Petlenkov, Eduard; Belikov, Juri** 2015 European Control Conference (ECC) : July 15-17, 2015, Linz, Austria 2015 / p. 3502-3507 : ill <http://dx.doi.org/10.1109/ECC.2015.7331076>

#### **FOPID controllers and their industrial applications: a survey of recent results**

**Tepljakov, Aleksei; Alagoz, Baris Baykant; Petlenkov, Eduard** IFAC-PapersOnLine 2018 / p. 25-30

**Fractional-order controller design and digital implementation using FOMCON toolbox for MATLAB**

**Tepljakov, Aleksei; Petlenkov, Eduard; Belikov, Juri; Finajev, Jevgeni** 2013 IEEE Conference on Computer Aided Control System Design (CACSD) : Part of 2013 IEEE Multi-Conference on Systems and Control : Hyderabad, India, August 28-30, 2013 2013 / p. 340-345 : ill

**Fractional-order controller design for a magnetic levitation system**

**Tepljakov, Aleksei; Petlenkov, Eduard; Belikov, Juri** Proceedings of the 8th Annual Conference of the Estonian National Doctoral School in Information and Communication Technologies : December 5-6, 2014, Rakvere 2014 / p. 137-140 : ill

**From online fault detection to fault management in network-on-chips : a ground-up approach**

**Azad, Siavoosh Payandeh; Niazzmand, Behrad; Janson, Karl; Nevin, George; Oyeniran, Adeboye Stephen; Putkaradze, Tsotne; Apneet Kaur; Raik, Jaan; Jervan, Gert; Ubar, Raimund-Johannes; Hollstein, Thomas** Proceedings 2017 IEEE 20th International Symposium on Design and Diagnostics of Electronic Circuit & Systems(DDECS) : April 19-21, 2017, Dresden, Germany 2017 / p. 48-53 : ill <https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=7934553>

**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>

**Fuzzy logic control for non-linear model of the ball and beam system**

**Moezzi, Reza; Vu, Trieu Minh** Proceedings of the 11th International Conference of DAAAM Baltic Industrial Engineering : 20-22th April 2016, Tallinn, Estonia 2016 / p. 60-65 : ill <http://innomet.ttu.ee/daaam/>

**Grid-connected single-phase 3L-T-type qZS inverter for renewable energy**

Roncero-Clemente, Carlos; **Husev, Oleksandr**; Ruiz-Cortes, Mercedes; Romero-Cadaval, Enrique; Barrero-Gonzalez, Fermin; Gonzalez-Romera, Eva IECON 2019 - 45th Annual Conference of the IEEE Industrial Electronics Society : proceedings 2019 / p. 5003-5007 : ill <https://doi.org/10.1109/IECON.2019.8926888> Conference proceedings at Scopus Article at Scopus Article at WOS

**Holistic web-based Virtual Micro Controller Framework for research and education**

**Seiler, Sven; Sell, Raivo; Ptasik, Dennis; Böltner, Martin** International journal of online engineering 2012 / p. 58-64 <https://online-journals.org/index.php/i-joe/article/view/2169>

**Hybrid DC–DC converters with topology morphing control and post-fault operation capability**

**Vinnikov, Dmitri; Chub, Andrii; Korkh, Oleksandr; Blinov, Andrei; Liivik, Elizaveta** Electrimacs 2019 : Selected Papers, Vol. 1 2020 / p. 433-445 [https://doi.org/10.1007/978-3-030-37161-6\\_33](https://doi.org/10.1007/978-3-030-37161-6_33) Conference proceeding at Scopus Article at Scopus

**Identification of industrial water boiler for model predictive control of district heat plant**

Vansovitš, Vitali; **Petlenkov, Eduard; Vassiljeva, Kristina**; Guljajev, Aleksandr BEC 2012 : 2012 13th Biennial Baltic Electronics Conference : proceedings of the 13th Biennial Baltic Electronics Conference : October 3-5, 2012, Tallinn, Estonia 2012 / p. 315-318 : ill

**Identification, control and tuning of the motor speed in TIA portal**

**Ruban, Olga** 16th International Symposium "Topical Problems in the Field of Electrical and Power Engineering. Doctoral School of Energy and Geotechnology III" : Pärnu, Estonia, January 16-21, 2017 2017 / p. 34-37 : ill [http://www.esther.ee/record=b4650094\\*est](http://www.esther.ee/record=b4650094*est)

**Implementation and real-time simulation of a fractional-order controller using a MATLAB based prototyping platform**

**Tepljakov, Aleksei; Petlenkov, Eduard; Belikov, Juri** BEC 2012 : 2012 13th Biennial Baltic Electronics Conference : proceedings of the 13th Biennial Baltic Electronics Conference : October 3-5, 2012, Tallinn, Estonia 2012 / p. 145-148 : ill

**Implementation of a web-based remote control system for qZS DAB application using low-cost ARM platform**

Korzeniewski, Marek; Kulikowski, Krzysztof; **Zakis, Janis**; Jasiński, Marek Tomasz; Malinowski, Aleksander Bulletin of the Polish Academy of Sciences: Technical Sciences 2016 / p. 887-896 <https://doi.org/10.1515/bpasts-2016-0097> Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

**Improved DC-Link voltage transient response and stability issues in energy router with fuzzy logic control method**

Najafzadeh, Mahdiyeh; Husev, Oleksandr; Roasto, Indrek; Jalakas, Tanel 2020 IEEE 61st International Scientific Conference on Power and Electrical Engineering of Riga Technical University (RTUCON), Riga, Latvia, Nov. 5-7, 2020 : conference proceedings 2020 / 6 p. : ill <https://doi.org/10.1109/RTUCON51174.2020.9316477>

**Incorporation of fractional-order dynamics into an existing PI/PID DC motor control loop**

**Tepljakov, Aleksei; Gonzales, Emmanuel A.; Petlenkov, Eduard; Belikov, Juri; Monje, Concepcion A.; Petraš, Ivo** ISA transactions 2016 / p. 262-273 : ill <https://doi.org/10.1016/j.isatra.2015.11.012> Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

**Indirect model predictive control for inverter connected to distorted grid with significant computation delay**  
Husev, Oleksandr; Pimentel, Sergio Pires; Vinnikov, Dmitri; Kütt, Lauri; Rodriguez, Jose IECON 2019 - 45th Annual Conference of the IEEE Industrial Electronics Society : proceedings 2019 / p. 6483-6488 : ill <https://doi.org/10.1109/IECON.2019.8927279>

**Intelligent control of robots with minimal power consumption in pick-and-place operations**  
Vodovozov, Valery; Raud, Zoya; Petlenkov, Eduard Energies 2023 / art. 7418 <https://doi.org/10.3390/en16217418> Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

**Intelligent frequency control of AC microgrids with communication delay : an online tuning method subject to stabilizing parameters**  
Nosrati, Komeil; Škiparev, Vjatšeslav; Tepljakov, Aleksei; Petlenkov, Eduard; Belikov, Juri Energy and AI 2024 / art. 100421 <https://doi.org/10.1016/j.egyai.2024.100421> Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

**Intense limitation of internal surges using controlled ferromagnetic reactors**  
Evdokunin, G.A.; Neshataev, V.V.; Sepping, Eino; Järvik, Jaan Soviet electrical engineering 1991 / p. 106-110: ill

**Investigating and analyzing CAN-to-TSN gateway forwarding techniques**  
Berisa, Aldin; Ashjaei, Mohammad; Daneshatalab, Masoud; Sjödin, Mikael; Mubeen, Saad 2023 IEEE 26th International Symposium on Real-Time Distributed Computing : ISORC 2023 : Nashville, Tennessee, USA, 23-25 May 2023 : proceedings 2023 / p. 136-145 <https://doi.org/10.1109/ISORC58943.2023.00026>

**32-bitiste protsessorite maailm ja "Motorola"**  
Tammemäe, Kalle Arvutustehnika ja Andmetöötlus 1991 / lk. 5-16; 5, lk. 7-9: joon

**Lift monitoring and process control over PLC integrated HTML server**  
Kruus, Reivo; Rosin, Argo; Steinbrunn, Johannes Actual Problems of Electrical Drives and Industry Automation : the 3rd Research Symposium of Young Scientists : Tallinn, Estonia, May 19-26, 2001 2001 / p. 89-92 : ill

**Low-power Wind Generation grid-connected system with MPPT and PC control**  
Rosa, Carlos; Vinnikov, Dmitri; Romero-Cadaval, Enrique; Pires, Vitor; Martins, Joao Proceedings : IECON 2013 - 39th Annual Conference of the IEEE Industrial Electronics Society : Austria Center Vienna, Vienna, Austria, 10-14 November, 2013 2013 / p. 5991-5996 : ill <https://doi.org/10.1109/IECON.2013.6700118> Conference Proceedings at Scopus Article at Scopus

**Management of braking energy in electric vehicles using reinforcement learning**  
Vodovozov, Valery; Raud, Zoya; Petlenkov, Eduard 2023 International Conference on Clean Electrical Power (ICCEP) 2023 / p. 559-564 <https://doi.org/10.1109/ICCEP57914.2023.10247359>

**Microgrid for the Department of Electrical Drives and Power Electronics**  
Palamar, Andriy; Pettai, Elmo 8th International Symposium "Topical Problems in the Field of Electrical and Power Engineering" : Doctoral School of Energy and Geotechnology. II : [Pärnu, January 11-16, 2010 : proceedings] 2010 / p. 54-61

**Misconfiguration-free compositional SDN for cloud networks**  
Pan, Heng; Li, Zhenyu; Zhang, Penghao; Cui, Penglai; Salamatian, Mohammad Reza Kave; Xie, Gaogang IEEE Transactions on Dependable and Secure Computing 2023 / p. 2484 - 2499 <https://doi.org/10.1109/TDSC.2022.3185096> Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

**MLC: a machine learning based checker for soft error detection in embedded processors**  
Nosrati, Nooshin; Jenihhin, Maksim; Navabi, Zainalabedin Proceedings - 2022 IEEE 28th International Symposium on On-Line Testing and Robust System Design, IOLTS 2022 2022 / Code 183305 <https://doi.org/10.1109/IOLTS56730.2022.9897309> Article at Scopus Article at WOS

**Model predictive control for buck-boost inverter based on unfolding circuit**  
Matiushkin, Oleksandr; Husev, Oleksandr; Vinnikov, Dmitri; Roncero-Clemente, Carlos 2019 IEEE 2nd Ukraine Conference on Electrical and Computer Engineering : UKRCON-2019 : conference proceedings 2019 / p. 431-436 : ill <https://doi.org/10.1109/UKRCON.2019.8879870>

**Model predictive control-based dual input split source inverter for PV applications**  
Abu-Zaher, Mustafa; Aly, Mokhtar; Zhuo, Fang; Ahmed, Mostafa; Rodriguez, Jose; Bakeer, Abualkasim Ahmed Ali; Hassan, Alaaeldien IECON Proceedings (Industrial Electronics Conference) IECON 2024 - 50th Annual Conference of the IEEE Industrial Electronics Society 2024 / 6 p <https://doi.org/10.1109/IECON55916.2024.10905950> Conference proceedings at Scopus Article at Scopus

**A model-based adaptive control of turning maneuver for catamaran autonomous surface vessel**  
Astrov, Igor; Astrova, Irina WSEAS Transactions on Systems and Control 2024 / p. 135-142 <https://doi.org/10.37394/23203.2024.19.14> Journal metrics at Scopus Article at Scopus

**Model-based control design for a district heating plant**

Vansovitš, Vitali; Godoy, Boris I.; **Tepljakov, Aleksei**; **Vassiljeva, Kristina**; **Petlenkov, Eduard** 2017 IEEE 15th International Conference on Industrial Informatics (INDIN 2017) : Emden, Germany, 24-26 July 2017 2017 / p. 615-620 : ill  
<https://doi.org/10.1109/INDIN.2017.8104842>

#### **A model-based PID control of turning maneuver for catamaran autonomous surface vessel**

**Astrov, Igor** 2023 International Conference on Engineering and Emerging Technologies (ICEET), Istanbul, Turkiye, 2023 2023 / 6 p  
<https://doi.org/10.1109/ICEET60227.2023.10526157>

#### **Modeling and robust control algorithms for a linear belt driven system**

**Vu, Trieu Minh**; Tamre, Mart; **Sekhri, Even** Open computer science 2018 / p. 142-153 : ill <https://doi.org/10.1515/comp-2018-0010>  
[Journal metrics at Scopus](#) [Article at Scopus](#)

#### **Modelling of a versatile vehicle braking system with a fuzzy PID torque controller**

**Vodovozov, Valery**; **Raud, Zoya**; **Aksjonov, Andrei**; **Petlenkov, Eduard** 2020 17th Biennial Baltic electronics conference, Tallinn, Estonia, October 6-8, 2020 : proceedings 2020 / 6 p. : ill <https://doi.org/10.1109/BEC49624.2020.9276798>

#### **Motion tracking glove for augmented reality and virtual reality**

**Vu, Trieu Minh**; **Katushin, Nikita**; Pumwa, John Paladyn, journal of behavioral robotics 2019 / p. 160–166 : ill  
<https://doi.org/10.1515/pjbr-2019-0012> [Journal metrics at Scopus](#) [Article at Scopus](#)

#### **Multi-loop model reference adaptive control of fractional-order PID control systems**

Alagoz, Baris Baykant; **Tepljakov, Aleksei**; **Petlenkov, Eduard**; Yeroglu, Celaleddin 2017 40th International Conference on Telecommunications and Signal Processing TSP : July 5-7, 2017, Barcelona, Spain 2017 / p. 702-705 : ill  
<https://doi.org/10.1109/TSP.2017.8076078>

#### **Multi-loop model reference proportional integral derivative controls: design and performance evaluations**

Alagoz, Baris Baykant; **Tepljakov, Aleksei**; **Petlenkov, Eduard**; **Yeroglu, Celaleddin** Algorithms 2020 / 26 p. : ill  
<https://doi.org/10.3390/a13020038> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

#### **Multirate depth control of an AUV by neural network model reference controller for enhanced situational awareness**

**Astrov, Igor**; **Gordon, Boris** Recent researches in applied information science : proceedings of the 5th WSEAS World Congress on Applied Computing Conference (ACC '12) : proceedings of the 1st International Conference on Biologically Inspired Computation (BIC '12) : University of Algarve, Faro, Portugal, May 2-4, 2012 2012 / p. 32-37 : ill <http://www.wseas.us/e-library/conferences/2012/Algarve/BICA/BICA-04.pdf>

#### **Multirate depth control of an AUV by neural network model reference controller for enhanced situational awareness [Electronic resource]**

**Astrov, Igor**; **Gordon, Boris** Proceedings of the International Conferences : Recent Researches in Applied Information Science : [Faro, Portugal, May 2-4, 2012] 2012 / p. 32-37 : ill [CD-ROM] <http://www.wseas.us/e-library/conferences/2012/Algarve/BICA/BICA-04.pdf>

#### **A NARX model reference adaptive control scheme: Improved disturbance rejection fractional-order PID control of an experimental magnetic levitation system**

**Alimohammadi, Hossein**; Alagoz, Baris Baykant; **Tepljakov, Aleksei**; **Vassiljeva, Kristina**; **Petlenkov, Eduard** Algorithms 2020 / p. 1-27 <https://doi.org/10.3390/a13080201> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

#### **Neural network motion control of VTAV by NARMA-L2 controller for enhanced situational awareness**

**Astrov, Igor**; **Berezovski, Natalya** International journal of computer, electrical, automation, control and information engineering 2015 / p. 1784-1788 : ill <http://scholar.waset.org/1999.4/10001781>

#### **Neural predictive tracking control of catamaran model sailboat for situation awareness applications**

**Astrov, Igor**; **Udal, Andres** INES 2020 : IEEE 24th International Conference on Intelligent Engineering Systems, July 8-10, 2020, Reykjavik, Iceland : proceedings 2020 / p. 153-158 : ill <https://doi.org/10.1109/INES49302.2020.9147126>

#### **A new master-slave based centralized control method for an AC microgrid with multiple distributed energy resources**

Habibnia, Saba; Mahdavi, Mohammad Saeed; Gharehpetian, Gevork B.; **Ahmadihangar, Roya**; **Rosin, Argo**; **Vinnikov, Dmitri** IEEE 13th International Symposium on Power Electronics for Distributed Generation Systems (PEDG) 2022 / 6 p.  
<https://doi.org/10.1109/PEDG54999.2022.9923216>

#### **A new resonant fault current limiter for improved wind turbine transient stability**

Demin, Slava; Sitbon, Moshe; Aharon, Ilan; Barbi, Eli; Machlev, Ram; **Belikov, Juri**; Levron, Yoash; Baimel, Dmitry Electric Power Systems Research 2023 / art. 109600, 8 p <https://doi.org/10.1016/j.epsr.2023.109600> [Journal metrics at Scopus](#) [Article at Scopus](#)  
[Journal metrics at WOS](#) [Article at WOS](#)

#### **NN-ANARX model based control of liquid level using visual feedback**

**Vassiljeva, Kristina**; **Tepljakov, Aleksei**; **Petlenkov, Eduard** 2015 IEEE International Conference on Industrial Informatics (INDIN) : proceedings : Robinson College, Cambridge, United Kingdom, 22-24 July, 2015 2015 / p. 133-138 : ill  
<http://dx.doi.org/10.1109/INDIN.2015.7281723>

**NN-SANARX model based control of a water tank system using embedded microcontroller Arduino**  
Škiparev, Vjatšeslav; Belikov, Juri; Petlenkov, Eduard Proceedings of the 2019 10th IEEE International Conference on Intelligent Data Acquisition and Advanced Computing Systems: Technology and Applications : IDAACS'2019, 18-21 Sept. 2019 2019 / p. 372-377 : ill <https://doi.org/10.1109/IDAACS47747.2019>

**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> [Journal metrics at Scopus Article at Scopus](#)

**A numerical study for plant-independent evaluation of fractional-order PID controller performance**  
Alagoz, Baris Baykant; Tepljakov, Aleksei; Yeroglu, Celaleddin; Gonzalez, Emmanuel A.; Hossein Nia, S. Hassan; Petlenkov, Eduard IFAC-PapersOnLine 2018 / p. 539-544 : ill <https://doi.org/10.1016/j.ifacol.2018.06.151> [Conference proceedings at Scopus Article at Scopus Article at WOS](#)

**On chaos control in hierarchical multi-agent systems**  
Källo, Rommi; Eerme, Martin; Reedik, Vello Proceedings of the 9th International Conference of DAAAM Baltic Industrial Engineering, 24-26th April 2014, Tallinn, Estonia 2014 / p. 41-46 : ill

**On robust stability of uncertain control systems with time delay : an approach based on the overlap of value sets**  
Ghorbani, Majid; Tepljakov, Aleksei; Petlenkov, Eduard IEEE Transactions on Automatic Control 2024 / p. 6349 - 6356 <https://doi.org/10.1109/TAC.2024.3381912> [Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS](#)

**On stable cones of polynomials via reduced Routh parameters**  
Nurges, Ülo; Belikov, Juri; Artemtšuk, Igor Kybernetika 2016 / p. 461-477 <https://doi.org/10.14736/kyb-2016-3-0461> [Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS](#)

**On the design problem of low power controllers**  
Kasirova, Lilia; Meškov, Mihail Proceedings [of the] 15th NORCHIP Conference, Tallinn, 10-11 November 1997 1997 / p. 97-104: ill

**On the problem of FSM networks power estimation capability**  
Kasirova, Lilia; Karabanov, Aleksandr PATMOS '98 : 8th international workshop : Lyngby, Denmark, October 7-9, 1998 1998 <https://citeseerx.ist.psu.edu/document?repid=rep1&type=pdf&doi=3779affbc32be31e7560645f02b808148f8c356a>

**On the robust controller design via reflection coefficients**  
Nurges, Ülo; Rüstern, Ennu Proceedings of the 5th Asia-Pacific Conference on Control & Measurement, Dali, China, 2002 2002 / p. 160-165

**On the robust output control via reflection vectors [Electronic resource]**  
Nurges, Ülo; Rüstern, Ennu Preprints of the 16th IFAC World Congress : Prague, Czech Republic, July 3-8, 2005 2005 / [6] p. [CD-ROM] <https://www.sciencedirect.com/science/article/pii/S1474667016370434>

**Optimal PI control parameters for accurate underfloor heating temperature control**  
Kull, Tuule Mall; Thalfeldt, Martin; Kurnitski, Jarek E3S Web of Conferences : CLIMA 2019 Congress, Bucharest, Romania, May 26-29, 2019 2019 / art. 01081, 8 p. : ill <https://doi.org/10.1051/e3sconf/201911101081> [Conference proceedings at Scopus Article at Scopus](#)

**Optimal tuning of resonant and repetitive based controller for single-phase buck-boost inverter with unfolding circuit**  
Husev, Oleksandr; Belikov, Juri; Matiushkin, Oleksandr; Vinnikov, Dmitri; Ahmadiahangar, Roya; Vosoughi Kurdkandi, Naser IEEE journal of emerging and selected topics in industrial electronics 2022 / p. 954-965 <https://doi.org/10.1109/JESTIE.2021.3121190>

**OTA-C realization of PIΔ brake and throttle controllers for autonomous vehicles**  
Dimeas, Ilias; Psychalinos, Costas; Elwakil, Ahmed; Tepljakov, Aleksei 2017 European Conference on Circuit Theory and Design (ECCTD 2017) : Catania, Italy, 4 - 6 September, 2017 2017 / p. 39-40 : ill <http://dx.doi.org/10.1109/ECCTD.2017.8093229>

**Output voltage control system for a three-level neutral-point clamped quasi-Z-source inverter**  
Roncero-Clemente, Carlos; Husev, Oleksandr; Stepenko, Serhii; Romero-Cadaval, Enrique; Vinnikov, Dmitri Przeglad elektrotechniczny = Electrical review 2013 / p. 76-80 : ill <http://pe.org.pl/articles/2013/5/16.pdf> [Journal metrics at Scopus Article at Scopus](#)

**Overview on Energy Management of Electric Vehicles with Intelligent Braking Controllers**  
Vodovozov, Valery; Raud, Zoja 2021 IEEE 62nd International Scientific Conference on Power and Electrical Engineering of Riga Technical University (RTUCON), November 15-17, 2021 : conference proceedings 2022 / 4 p. : ill <https://doi.org/10.1109/RTUCON53541.2021.9711715>

## **Parameter identification of an induction motor using fuzzy logic controller**

**Lehtla, Tõnu** Проблемы автоматизированного электропривода : теория и практика : научно-техническая конференция с международным участием 15-20 сентября 1997 г., Харьков 1997 / 2 с.: ill

## **Passive power decoupling approach for three-level single-phase impedance source inverter based on resonant and PID controllers**

**Makovenko, Elena; Husev, Oleksandr; Zakis, Janis; Roncero-Clemente, Carlos; Romero-Cadaval, Enrique; Vinnikov, Dmitri** 2017 11th International Conference on Compatibility, Power Electronics and Power Engineering (CPE-POWERENG 2017) : Cadiz, Spain, 4-6 April 2017 / p. 516-521 : ill <https://doi.org/10.1109/CPE.2017.7915225>

## **A PD-type iterative learning algorithm for semi-linear distributed parameter systems with sensors/actuators**

Zhang, Jianxiang; Cui, Baotong; Jiang, Zhengxian; **Chen, Juan** IEEE Access 2019 / p. 159037-159047 : ill  
<https://doi.org/10.1109/ACCESS.2019.2950456> Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

## **Performance investigation of active, semi-active and passive suspension using quarter car model**

Samaroo, Kyle; Awan, Abdul Waheed; Marimuthu, Siva; Iqbal, Muhammad Naveed; **Daniel, Kamran; Shabbir, Noman** Algorithms 2025 / art. 100 <https://doi.org/10.3390/a18020100>

## **Performances of PID and different fuzzy methods for controlling a ball on beam**

**Vu, Trieu Minh; Tamre, Mart; Moezzi, Reza; Mets, Oliver; Jürise, Mart; Pölder, Ahti; Teder, Leo; Juurma, Märt** Open engineering 2016 / p. 145-151 : ill <https://doi.org/10.1515/eng-2016-0018> Journal metrics at Scopus Article at Scopus

## **PID controller tuning optimization using genetic algorithm for droplet size control in microfluidics**

**Gyimah, Nafisat; Jõemaa, Rauno; Pärnamets, Kaiser; Scheler, Ott; Rang, Toomas; Pardy, Tamas** 2022 18th Biennial Baltic Electronics Conference (BEC) 2022 / 6 p <https://doi.org/10.1109/BEC56180.2022.9935596>

## **PLC and control systems**

**Ruban, Olga; Laugis, Juhan** Tarptautines konferencijos Elektros ir valdymo technologijos - 2006 : pranešimu medžiaga = Proceedings of International Conference Electrical and Control Technologies - 2006 2006 / p. 504-509 : ill

## **Port-Hamiltonian framework in power systems domain : a survey**

**Tönso, Maris; Kaparin, Vadim; Belikov, Juri** Energy Reports 2023 / p. 2918 - 2930 <https://doi.org/10.1016/j.egyr.2023.09.077> Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

## **Practical example of the development stages of a mechatronic product**

Coatanea, Eric; **Sell, Raivo**; Christophe, Francois Integrated systems and design : interstudy, May 9, 2008 2008 / p. 99-115 : ill

## **Predictive smart thermostat controller for heating, ventilation, and air-conditioning systems**

Soudari, Mallikarjun; **Kaparin, Vadim**; Srinivasan, Seshadri; Seshadri, 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](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

## **Programmable logic controllers teaching and using in Estonian industry**

**Rosin, Argo** Actual Problems of Electrical Drives and Industry Automation : the research symposium of young scientists, Lohusalu, Estonia, June 1-8, 1997 1997 / p. 42-43

## **Programmeeritavad kontrollerid**

**Rosin, Argo** Elektriku kalender 1999 1998 / lk. 156-162: ill

## **Programmeeritavad kontrollerid**

**Lehtla, Tõnu** Tehnika ja Tootmine 1987 / lk. 15-17 [https://www.esther.ee/record=b1073047\\*est](https://www.esther.ee/record=b1073047*est)

## **Programmeeritavad kontrollerid SIMATIC S7**

**Rosin, Argo** 2000 [https://www.esther.ee/record=b1354419\\*est](https://www.esther.ee/record=b1354419*est)

## **Programmeeritavad kontrollerid tööstusautomaatikas**

**Müür, Margus; Pettai, Elmo**; Lepiksoo, Urmo 2011 [http://www.esther.ee/record=b2727832\\*est](http://www.esther.ee/record=b2727832*est)

## **Programmeeritavad kontrollerid Unitronics**

**Doroš, Andrei** Elektrala 2004 / 2, lk. 20, 22

## **Proportional resonant controller tuning in three-phase four-leg VSI based on particle swarm optimization**

Akhtar, Zeeshan; Zhu, Jiebei; **Husev, Oleksandr; Vinnikov, Dmitri**; Yu, Lujie 2021 IEEE 19th International Power Electronics and Motion Control Conference, The Silesian University of Technology Gliwice, Poland, 25 - 29 April, 2021 (PEMC) : proceedings 2021 / p. 851-856 : ill <https://doi.org/10.1109/PEMC48073.2021.9432607>

## **Reflection segments based robust PID controller solution for benchmark problem**

**Avanessov, Sergei; Nurges, Ülo** 2014 22nd Mediterranean Conference on Control and Automation (MED) : University of Palermo, June 16-19, 2014, Palermo, Italy 2014 / p. 1406-1411 : ill

## **Restricted connectivity neural networks based identification for control = Piiratud ühenduvusega tehisnärvivõrkudel põhinev identifitseerimine juhtimiseks**

**Vassiljeva, Kristina** 2012

## **Review on Braking Energy Management in Electric Vehicles**

**Vodovozov, Valery; Raud, Zoya; Petlenkov, Eduard** Energies 2021 / art. 4477 <https://doi.org/10.3390/en14154477> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

## **Robust D-stability analysis of fractional-order controllers**

**Ghorbani, Majid; Tepljakov, Aleksei; Petlenkov, Eduard** 2023 American Control Conference, ACC 2023, San Diego, 31 May- 2 June 2023 : proceedings 2023 / p. 3871-3876 : ill <https://doi.org/10.23919/ACC55779.2023.10156257> [Conference proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

## **Robust FOPI and FOPID controller design for FFOPDT plants in embedded control applications using frequency-domain analysis**

**Tepljakov, Aleksei; Petlenkov, Eduard; Belikov, Juri** 2015 American Control Conference : Hilton Palmer House, Chicago, IL, July 1-3, 2015 2015 / p. 3868-3873 : ill <https://doi.org/10.1109/ACC.2015.7171933> [Conference Proceedings at Scopus](#) [Article at Scopus](#)

## **Robust FOPID stabilization for Smith Predictor structures**

**Ghorbani, Majid; Tepljakov, Aleksei; Petlenkov, Eduard** 61st IEEE Conference on Decision and Control, CDC 2022, Cancun, 6 December - 9 December 2022, proceedings 2022 / p. 1696-1701 <https://doi.org/10.1109/CDC51059.2022.9993283> [Conference Proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

## **Robust PID controller design for continuous-time systems via reduced routh parameters = Pidevaja süsteemide robustse PID kontrolleri süntees taandatud Routh parametrite kaudu**

**Artemtšuk, Igor** 2019 <https://digi.lib.ttu.ee/ii/?13259>

## **Robust pole assignment via Routh rays of polynomials**

**Artemtšuk, Igor; Nurges, Ülo; Belikov, Juri** 2016 American Control Conference (ACC) : July 6-8, Boston, MA, USA 2016 / p. 7031-7036 : ill <https://doi.org/10.1109/ACC.2016.7526781> [Conference Proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

## **Robust reflection coefficients placement by quadratic programming**

**Nurges, Ülo; Rüstern, Ennu** Proc. IEEE Conference on Decision and Control 2000 / p. 16

[https://www.researchgate.net/publication/251794857\\_Robust\\_reflection\\_coefficients\\_placement\\_by\\_quadratic\\_programming](https://www.researchgate.net/publication/251794857_Robust_reflection_coefficients_placement_by_quadratic_programming)

## **Robust stabilization criteria of a general form of fractional-order controllers for interval fractional-order plants with complex uncertain parameters**

**Ghorbani, Majid** ISA transactions 2022 / p. 140-151 : ill <https://doi.org/10.1016/j.isatra.2022.02.014> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

## **Robust stability analysis of interval fractional-order plants with interval time delay and general form of fractional-order controllers**

**Ghorbani, Majid; Tavakoli-Kakhki, Mahsan; Tepljakov, Aleksei; Petlenkov, Eduard; Farnam, Arash; Crevecoeur, Guillaume** IEEE Control Systems Letters 2022 / p. 1268-1273 <https://doi.org/10.1109/LCSYS.2021.3091525> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

## **Robust stability region of PI controllers for an interval time delayed load frequency control**

**Ghorbani, Majid; Nosrati, Komeil; Tepljakov, Aleksei; Belikov, Juri; Petlenkov, Eduard** IEEE PES Innovative Smart Grid Technologies Conference Europe (ISGT Europe 2024) : proceedings 2024 / 5 p

<https://doi.org/10.1109/ISGTEUROPE2024.2024.10863205>

## **Rolling tyre counting system**

**Sinani, Ujan; Sajedi Sabegh, Nima; Hiiemaa, Maito; Tamre, Mart** Proceedings of the 11th International Conference of DAAAM Baltic Industrial Engineering : 20-22th April 2016, Tallinn, Estonia 2016 / p. 209-213 : ill <http://innomet.ttu.ee/daaam/>

## **Saateks**

**Rosin, Argo** Programmeeritavad kontrollerid SIMATIC S7 2000 / lk. 3 [https://www.esther.ee/record=b1354419\\*est](https://www.esther.ee/record=b1354419*est)

## **Siemens. Simatic S5, Programmeeritavad kontrollerid : tööpõhimõte**

1995 [https://www.esther.ee/record=b1054893\\*est](https://www.esther.ee/record=b1054893*est)

**Simulating a cyber-attack on an autonomous sea surface vessel's rudder controller**

**Astrović, Igor; Bauk, Sanja** 2024 13th Mediterranean Conference on Embedded Computing (MECO), 11-14 June 2024, Budva, Montenegro 2024 / 7 p. : ill <https://doi.org/10.1109/MECO62516.2024.10577872> Article at Scopus Article at WOS

**Simulating a cyber-attack on an autonomous sea surface vessel's rudder controller**

**Astrović, Igor; Bauk, Sanja** 2024 13th Mediterranean Conference on Embedded Computing, MECO 2024 2024 / 1 p. <https://journals.scholarsportal.info/browse/26379511>

**Simulation study of nonlinear PI-controller with quasi-Z-source derived push-pull converter**

**Chub, Andrii; Husev, Oleksandr; Vinnikov, Dmitri** Scientific Journal of Riga Technical University. Electrical, control and communication engineering 2013 / p. 26-31 : ill

**Single-Rate versus Three-Rate Neural Assisted Control Approaches for Coaxial Rotor Ducted Fan TUAV for Situation Awareness Applications**

**Pedai, Andrus; Astrović, Igor; Udal, Andres; Sell, Raivo** 2019 IEEE International Systems Conference (SysCon 2019), Orlando, FL, USA, April 8-11, 2019 2019 / p. 457-463 : ill <https://doi.org/10.1109/SYSCON.2019.8836871>

**Small signal model of the buck-boost bidirectional DC-AC converter based on unfolding circuit**

**Matiushkin, Oleksandr; Husev, Oleksandr; Vinnikov, Dmitri** 2019 IEEE 60th International Scientific Conference on Power and Electrical Engineering of Riga Technical University (RTUCON), 7-9 October 2019 : conference proceedings 2019 / 6 p <https://doi.org/10.1109/RTUCON48111.2019.8982329>

**Smart-bike as one of the ways to ensure sustainable mobility in smart cities**

**Makarova, Irina; Shubenkova, Ksenia; Pashkevich, Anton; Boyko, Aleksey** Sensor Systems and Software : 7th International Conference, S-Cube 2016, Sophia Antipolis, Nice, France, December 1-2, 2016 : revised selected papers 2017 / p. 187-198 [https://doi.org/10.1007/978-3-319-61563-9\\_16](https://doi.org/10.1007/978-3-319-61563-9_16) Conference proceedings at Scopus Article at Scopus Article at WOS

**Special issue on recent advances in the design and applications of fractional-order circuits and systems : [brief introduction]**

**Psychalinos, Costas; Elwakil, Ahmed S.; Allagui, Anis; Tepljakov, Aleksei** International journal of electronics and communications 2017 / p. 132-135 <https://doi.org/10.1016/j.aeue.2017.07.016> Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

**Stabilization and uncertainty analysis of a time-fractional reaction diffusion equation cascaded with a time-fractional hyperbolic partial differential equation**

**Chen, Juan; Zhuang, Bo; Tepljakov, Aleksei; Petlenkov, Eduard** The Asian Journal of Control 2022 / p. 2294-2310 <https://doi.org/10.1002/asjc.2637> Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

**Stabilizing region of fractional-order proportional integral derivative controllers for interval delayed fractional-order plants**

**Ghorbani, Majid; Tepljakov, Aleksei; Petlenkov, Eduard** Asian Journal of Control 2023 / p. 1145 - 1155

<https://doi.org/10.1002/asjc.2894> Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

**Stabilizing region of fractional-order proportional integral derivative controllers for interval fractional-order plants**

**Ghorbani, Majid; Tepljakov, Aleksei; Petlenkov, Eduard** Transactions of the Institute of Measurement and Control 2023 / p. 546-556 : ill <https://doi.org/10.1177/0142331221117866> Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

**Stable cones of polynomials via Routh rays**

**Artemčuk, Igor; Nurges, Ülo; Belikov, Juri; Kaparin, Vadim** Proceedings of the 2015 20th International Conference on Process Control (PC) : Hotel Sorea Trigan Banik, Štrbske Pleso, Slovakia, June 9-12, 2015 2015 / p. 255-260 : ill <http://dx.doi.org/10.1109/PC.2015.7169972>

**Stable cones of polynomials via Routh rays**

**Artemčuk, Igor; Nurges, Ülo; Belikov, Juri; Kaparin, Vadim** 20th International Conference on Process Control 2015 : June 9-12, 2015, Štrbske Pleso, Slovak Republic : summaries volume 2015 / p. 33

**Synthesis of digital filters for embedded fractional-order control applications**

**Tepljakov, Aleksei; Petlenkov, Eduard; Belikov, Juri** Info- ja kommunikatsioonitehnoloogia doktorikooli IKTDK seitsmenda aastakonverentsi artiklite kogumik : 15.-16. novembril 2013, Haapsalu 2013 / p. 103-106 : ill

**Thickener control on the basis of ultrasonic measurements and fuzzy inference**

**Morkun, Volodymyr; Morkun, Natalia; Serdiuk, Oleksandra; Haponenko, Alona; Boyarchuk, Artem** IntelITSIS 2022 : Proceedings of the 3rd International Workshop on Intelligent Information Technologies and Systems of Information Security 2022 / p. 238-248 <https://ceur-ws.org/Vol-3156/paper17.pdf> <https://ceur-ws.org/Vol-3156/> Conference proceedings at Scopus Article at Scopus

**Three-level single-phase quasi-Z source inverter with active power decoupling circuit**

**Makovenko, Elena; Husev, Oleksandr; Roncero-Clemente, Carlos; Romero-Cadaval, Enrique; Vinnikov, Dmitri** 18th International

Conference of Young Specialists on Micro/Nanotechnologies and Electron Devices : proceedings : Erlagol, Altai - 29 June - 3 July, 2017 / p. 497-502 : ill <https://doi.org/10.1109/EDM.2017.7981804>

**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>

**Tuning and digital implementation of a fractional-order PD controller for a position servo**

**Tepljakov, Aleksei; Petlenkov, Eduard; Belikov, Juri; Astapov, Sergei** International journal of microelectronics and computer science 2013 / p. 116-123 : ill

**Two-rate neural predictive control of coaxial rotor/ducted-fan TUAV for enhanced situational awareness**

**Astrov, Igor; Berezovski, Natalya; Pikkov, Mihail; Kimlaychuk, Vadim** International Conference on Information Society (i-Society 2015) : London, UK, November 9-11, 2015 2015 / p. 127-132 : ill <http://dx.doi.org/10.1109/i-Society.2015.7366873>

**Tööstuskontrollerite kasutamise koolitus**

**Rosin, Argo** Pingering 1998 / 17. apr., lk. 4

**Vaba konfiguratsiooniga kontrollervõrgust**

**Annus, Paul** Telekommunikatsioon 2002 : IX rahvusvahelise telekommunikatsionipäeva materjalid 2002 / lk. 33-35

**Virtual inertia control of microgrids using deep reinforcement learning methods = Mikrovõrkude virtuaalse inertsijuhtimine sügava stiimulõkke meetoditega**

**Škiparev, Vjatšeslav** 2023 <https://doi.org/10.23658/taltech.37/2023> <https://digikogu.taltech.ee/et/item/6d924a63-2390-4324-bf1c-00b24111605e> [https://www.esther.ee/record=b5571224\\*est](https://www.esther.ee/record=b5571224*est)

**Моделирование походки человека в среде MATLAB/SIMULINK**

Ovchinnikov, Ivan; Kovalenko, Pavel; Vu, Trieu Minh Известия высших учебных заведений. Приборостроение = Journal of instrument engineering 2016 / c. 690-694 : ил <http://dx.doi.org/10.17586/0021-3454-2016-59-8-690-694>

**Приложение на программируемите логически контролери в индустриалната автоматизация**

**Müür, Margus; Pettai, Elmo**; Lepiksoo, Urmo 2011

**Программируемый контроллер ГРАНИТ 02-03 : описание конструкций и принципа работы**

1989 [https://www.esther.ee/record=b1231120\\*est](https://www.esther.ee/record=b1231120*est)

**Разработка контроллера двухдвигательного МГД-привода**

Margus, T.; Pettai, Elmo Тезисы докладов семинара "Новые разновидности электропривода и возможности их применения" 1990 / c. 108-113: ил

**Ways to increase population mobility through the transition to sustainable transport**

Makarova, Irina; Pashkevich, Anton; Shubenkova, Ksenia; Mukhametdinov, Eduard Procedia engineering 2017 / p. 756-762 : ill <https://doi.org/10.1016/j.proeng.2017.04.434> Conference proceedings at Scopus Article at Scopus Article at WOS